Change A=added D=deleted M=modified	Domains	Regulatory activity	Content of the Regulation	Regulatory organisation	Target date for regulatory material publication	EASA UAS categories	Status	Standardisation activity	Short description of the deliverable	SDO	Target date for publication	Type of document (standard, supporting material etc.)	itus	Comments	Version: 3.0 06	6/03/2019		
1		1				I <u> </u>		Genera	I			I.`I.		1			ASTM	Test method - a definitive procedure that produces a test result.
	Definition and classification							AS6969	This data dictionary provides a mathematically coherent set of definition for quaritity types used in data models for unmanned systems. In this data dictionary, a quaritity is defined as a property of a phenomenon, substance, or body whose value has magnitude.	Systems (UxS) Control Segment Architecture	Jun-18	standard	ongoing					Guide - information or series of options that does not recommend a specific course of action.
	Definition and classification							ARP6128 Unmanned Systems Terminology Based on the ALFUS Framework	This SAE: Aenospace Recommended Practice (ARP) disactibes terminology specific to unranned systems (JMBs) and diffitions for development, being and other activities regarding (JMBs) revelopment, being and other activities regarding (JMBs) diminisoria are not include in the document. Further efforts to expand th scope of the terminology are being planned.	SAE AS-4JAUS Joint Architecture for Uhmanned Systems Committee		recommended practice	published					Practice - a definitive set of instructions for performing one or more specific operations that does not produce a test result.
	Definition and classification							AS#### UAS Propulsion System Terminology	This barriedness courses definitions of terms and concepts soluted to	SAE E-39 Unmanned Aircraft Propulsion Committee	May-19	standard	planned					Classification - a systematic amangement or division of materials, products, systems, or services into groups based on similar characteristics such as origin, composition, properties, or use.
м	Definition and classification							ASTM WK62416 New Standard Terminology for Unmanned Aircraft Systems	This terminology covers definitions of terms and concepts related to ummanical almost systems (UMB) is a intended to encourage the structures. Address Committer FIA, RATIN International, the UAB including, and the global community, 12 This terminology costains a later including and the global community, 12 This terminology costains a later overset by Committer FIA structures. Considered and terms (for example, see or compans) and for information only and provide support contractation.	ASTM F38 Unmanned Aircraft Systems	Mar-18	standard	ongoing	Under development. A new description of the deliverable. Sub-committee commernits and negatives being adjudicated.				Terminology - a document comprising definitions of lemis; explanations of symbols, abbreviations, or accomms.
	Definition and classification							190 21995	Requirements for the categorization and classification of civil UAS. The standard applies to their industrial regulation, development and productio delivery and usage.		Dec-18	standard	ongoing					
	Definition and classification							ISO 21384-1 - General requirements for UAS for civil and commercial applications, UAS terminology and classification	Provides the foundation and common terms, definitions and references relevant to the whole Standard, the purpose of which is to provide a satety quality standard for the safe operation of all LVS through the provision of synergistic standards for manufacturing and operations.	ISO TC20/9C16/WG1	Dec-18	standard	ongoing			I	EUROCAE	Minimum Aviation Systems Performance Standards (MASPS) - describes and specifies the operational and/or functional requirements of a complete enclosured system, which may include aithome, on ground and space segments. It should provide a high-heat antichter describing the individual components, and thould allocate between those components the performance, safety and interoperability requirements.
	Definition and classification							Systems (UHS	This standard adfress the regularments for General Operations Manual H to standard adfress the regularment adjust back parameters and standard adfress the regularment adjust back parameters (a, b, the constraints) and operations (a) adjust back parameters (a), the professional adjust constraints) and the standard constraints professional adjust constraints (a) adjust back parameters (a) and professional adjust constraints) and adjust adjust back standard for operations and standard parameters (a) adjust standard for operations and standard parameters (a) adjust standard for operations and standard para failed and (c) parameters and the standard (c) parameters (c) adjust adjust adjust standard for operations and standard para failed and (c) parameters and adjust adjust (c) adjust adjust (c) adjust (c) adjust adjust (c) adjust (c) adjust (c) adjust (c) adjust (c) adjust adjust (c)	d ASTM 538 Unmanned Aircraft Systems	Mar-19	standard	onging		-			Operational Services and Environment Definition (DBED) - a document dedicated to the operational concept description it provides the definition of the considered services and of the environment, in which they have to be provided. It is usually published as an amera to the SPR.
м	Manualis							ASTM WK62743 Developm ent of Maintenance Manual for Small UAS	This specification provides the minimum negativenests for a General Maintenance Manual (GMM) for an unmanned alricult system (UKS) designed, manufactured, and operated in the annal UKS category as defined by a Civil Aviation Authority (CAA).	ASTM F38 Unmanned Aircraft Systems	Jan-19	standard	onging	Subcommittee comments being adjudicated.				Safety and Performance Requirements Standard (SPR) - a standard document dedicated to operational safety and performance issues: I provides an allocation of the requirements between the segments for the different approval types.
	Manuals	Opinion No.1 2018	Appendix 2, 3, 4, (MB in load C, C, 2 and CB shall be placed on the method with a scale in neural providing the special control term the scale in neural providing the scale of the U.M. In classifier (L.M. Scale (L.M. Scale)) description (L.M. Scale) (L.M. Scale) (L.M. Scale) (L.M. Scale) description (L.M. Scale) (L.M. Scal	EASA	Mar-19	open	Opinion published											Interoperability requirements standard (INTEROP) - a standatione document dedicated to interoperability issues between the different segments: for each of them, it identifies the lochrical interface and related functional requirements
	Manualis	Opinion No. 1 2018	Appendix 1 to delegated act UAS in class C0.abal be placed on the manife with clear operational instructions and warnings highlighting the risks related to UAS operations, which shall be adapted to the age of the user;	EASA	Mar-19	open	Opinion published											Process Standard - specifies generic methods, which are not specific to individual componente, e.g. software or hardware development, environmental lesting
	Manuals	Opinion No. 1 2018	Appendix to delegated act USB in data C Anali Internet and the second second second second providing the characteristics of the URA second second second second second of the UA and Its MTORI, including the payload, and a description of the bindration of the UAR naised a loss of data inst, clear operational intractions and operational intractions inst, clear operational intractions and operational intractions (horizon of the UAR second second second second second data mentics related to UAS operations;	EASA	Mar-19	open	Opinion published											Minimum Operational Proformance Standard (MOPG) - specifies the performance of a component (piece of equipment, protocol, exchange formatic,), which is the minimum necessary performance is addry a regulatory requirement. In particular, it specifies the tests to be made to ensure that the specified performance is achieved.
	Manuals	Opinion No.1 2018	Appendix 1, 2, 3, 4, to delegated act UAS in class C0, c1, C2, and C3 shall be safely controllable by a remote pilot following the manufacturer's instructions;	EASA	Mar-19	open	Opinion published											Technical Standard - specifies performance of a component, which reflects the best industrial practice.
	Definition and classification	Opinion No.1 2018	Appendix 2, 3, 4, 6to delegated act UAS in class C1, C2, C3 and E-ID add on shall have a usique serial number that must be affixed in a legible manner on the UA and the packaging or the user's manual;	EASA	Mar-19	open	Opinion published											Guidance Document - supplements the information contained in the types of documents described above. Usually illustrative information to another EUROCAE document.
	Definition and classification							ANSI/CTA - 2063 Smail Uhmanned Aarial Systems Serial Numbers	This standard outlines the elements and characteristics of a serial numb to be used by small unmanned aerial systems.	CTA R6 Portable Handled and In- er Vehicle Electronics Committee WG 25 Unmanned Aerial Systems	3	standard	published					Internal Report - represents the opinion of a WG on a certain technical topic. It is identified with a WG reference number and date only.
	Definition and classification	EASA Decision	030#23 Environmental conditions for safe operations defined, measurable and adhered to ( <u>Criterion #1 Definition</u> )	EASA	May-19	Specific	ongoing											
	Operator organisations	EASA Decision	OSD#1 Ensure the operator is competent and/or proven	EASA	May-19	Specific	ongoing									I	EUROCONTROL	Specifications - Define technical and/or operational procedures that advance ATM
	manufacturer organisation	EASA Decision	050#2 UAS manufactured by compotent and/or proven entity	EASA	May-19	Specific	ongoing											Guidelines - Provide more general implementation support to stateholders.
	Maintenance organisation	EASA Decision	050#3 UAS maintained by competent and/or proven entity (e.g. industry standards). ( <u>Criterina #1 Procedure</u> )	EASA	May-19	Specific	ongoing											NOTE: Standards are developed and maintained as both harmonising standards and as means of compliance. Standards are used as reference material by ICAO and DASA, and continue to provide the tasis of Community Specifications for the estant EU SES regulations in accordance with regulation EC 552/2004 (Interoperability Regulation).
	Maintenance organisation	EASA Decision	050#3 UAS maintained by competent and/or proven entity (e.g. industry standards). ( <u>Criterion #2 Training</u> )	EASA	May-19	Specific	ongoing											
	service provider	EASA Decision	OSD #13 - External services supporting UAS operations are adequate to the operation	EASA	May-19	Specific	ongoing									I	ISO	International Standard - provides rules, guidelines or characteristics for activities or for their results, aimed at achieving the optimum degree of order in a given context. It can take many forms. Apart from product standards, other examples include : test methods, codes of practice, guideline standards and management systems standards.
	Operator organisations	EASA Decision	OSO #07 - Inspection of the UAS (product inspection) to ensure consistency to the ConDps	EASA	May-19	Specific	ongoing											Technical Specification - addresses work still under technical development, or where it is believed that there will be a future, but not immediate, possibility of agreement on an international Standard A Technical Specification is published for immediate use, but I ador provides a means to obtain feedback. The aim is that it will eventually be transformed and republished as an international Standard.
	Operator organisations	EASA Decision	OSO #08 - Operational procedures are defined, validated and adhered to (to address technical issues with the UAS): Criteria 1, 2,3	EASA	May-19	Specific	ongoing											Technical Report - contains information of a different kind from that of the previous two publications. It may include data obtained from a survey, for example, or from an informative report, or information of the precisive' state of the art'.
	Operator organisations	EASA Decision	OSO #11 - Procedures are in-place to handle the datarioration of external systems supporting UAS operation: Criteria 1, 2,3	EASA	May-19	Specific	ongoing											Publicly Available Specification - is politised to respond to an ugent market next, representing either the consensus of the experts within a variety group, or a consensus in an organization evential ISO.A. variet informals Specifications. Publicly Available Specifications are publicationed for immediate use and also serve as a means to obtain feedback for an eventual transformation in the international Statemach. Publicly available Specifications have a maximum life of six years, after which they can be transformed into an international Statemach withdrawn.
	Operator organisations	EASA Decision	OSO #14 - Operational procedures are defined, validated and adhered to (to address Human Errors): Criteria 1, 2,3	EASA	May-19	Specific	ongoing											International Workshop Agreement - is a document developed outside the normal BO committles option to exobite manket players to angulate its an 'open workshop' environment. Meternation Workshop Agreement are spically administratively supported by a member body. The published agreement includes an indication of the participating organizations included in its development. An International Workshop Agreement has a maximum lifespan of six years, after which it can be either transformed into another ISO deliverable or is automatically withdrawn.
	Operator organisations	EASA Decision	OSO #21 - Operational procedures are defined, validated and adhered to (to address Adverse Operating Conditions): Criteria 1, 2,3	EASA	May-19	Specific	ongoing											Guides - help readers understand more about the main areas where standards add value. Some Guides talk about how, and why, ISO standards can make it work better, safer, and more efficiently.

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	Operator organisations	EASA Decision	OSO#19 Safe recovery from Human Error ( <u>Criterion #1</u> Procedures and checklists)	EASA	May-19	Specific	ongoing							
	Operator organisations	EASA Decision	OSO#16 Multi crew coordination. ( <u>Criterion #1 Procedures</u> )	EASA	May-19	Specific	ongoing							
	Operator organisations	EASA Decision	OSD#23 Environmental conditions for safe operations defined, measurable and adhered to (Criterion #1 Procedures)	EASA	May-19	Specific	ongoing							
	Operator organisations	EASA Decision	M#1 An Emergency Response Plan (ERP) is in place, operator validated and effective (Criterion #1 Operational)	EASA	May-19	Specific	ongoing							
2		Γ	1		T	T	UAS	Traffic Ma	nagement		T	T	Γ	T
	U-space	TBD	Network E-identification. It is linked to the U-Space	EASA	TBD	Open category and Specific			Marian m Justifico Soutions: Berlormany's Standard by 1185 a.					
D	Electronic Identification							MASPS for UAS e- identification	"Minimun Aviation Systems Performance Standard for UAS e- identification" defining minimum system level end-to-and requirements for the implementation of the electronic identification function for UAS.	EUROCAE WG-105	Nov-18	standard		
м	Electronic Identification							MOPS for UAS e- identification	"Minimum Operational Performance Standard for UAS e-identification" defining minimum requirements for the e-identification function at the level of individual components.	EUROCAE WG-105	Dec-19	standard	planned	
м	U-space							ASTM WK63418 Protocol for Service Provided under UAS Traffic Management (UTM)	Develop minimum negutements executing deconfiction of nodes in the same operating region and evelop industity agreed protocols that would promote the interchange and use of data between USSk (UMS Service applies) is unable contrast asparation in the same region. These subjects is a same service and the same region. These subjects is a same service as a same region, the same service as a same service as a same region. These subjects is a same service as a same region, the same service as a same service as a same region. These services are as a same service as a same region of same services are as a same service as a same service and same services are as a same service and same services are as a same service as a s	ASTM F38 Unmanned Aircraft Systems	TBD	standard	ongoing	Draftiong of standard has begun.
м	U-space							ASTM WK65041 New Practice for UAS Remote ID and Tracking	Jannity has regularementa and dala hazantiakian protocola for media pae- doculty and padia addity parks of the lase enforciment. Command deterios, and national security communities for the inmoth identification deterios and national security communities for the inmoth identification data taking of UAE. Sublate the mesode to provide information that could assist in thread discrimination and determination of hostile intert. Will aliae inform requiments for cult and commercial parators to ensure appropriate compliance with regulation.	ASTM F38 Urmanned Aircraft Systems	TBD	standard	ongoing	Initial draft to near completion with a target d of early February.
	U-space							AIR6388 Remote Identification and Interrogation of Ummanned Aerial Systems	The information presenter in the AR is interacted to provide information about carrent remains distinguishing and approxide considerations about carrent remains distinguishing and approxide consideration induced and approximation of the approximation of the approximation trajectore (ARP disconter many task developed for example, ARPs may instruction system) and approximation of the approximation of the technologies typically available to next consumers. ARPs may instruction of the approximation of the approximation of the technologies typically available to next consumers. Are may also applied the information of the approximation of the approximation may hopping the version structure of the approximation of the considering disk, and measure continuers.	SAE AS-4UCS Unmanned Systems (UkS) Control Segment Architecture	Dec-18	information report	ongoing	
	U-space							ASTERIX Category 129 UAS Identification Reports	Defines a message structure allowing transmiting the identification of a LAS as well as its the aircraft's current position. This dota is required in doing to estabilish the basic principles of UTM (LAS Traffic Management) which shall enable the safe integration of UAS into non-segregated airspace.	EUROCONTROL	Apr-18	standard	published	
	Local E-identification	Opinion No.1/2018	Appendix 2.3.4.5 to Delegated Act A UAC Dates C7, C2 and C3 and a add on module shaft. A uAC Dates C7, C2 and C3 and a add on module shaft. 1. allowing and the total the th-ddg UAS operator registration to the UAC period in an all multiple shaft add action of the typt the following formation through electric data: (c) the operative total the total operation and the constraint of the UAC period total the total operation (c) the operative total operation of the UAC and the constraints of the UAC and the UAC the total operation (c) the operative total operation of the UA taken operation constraints of the UAC and the UAC the total operation 3. In the information that be protected against multiple and another total the total operative total operative total 3. The information that be protected against multiple total another total operative total operative total operative total operative another total operative total operative total operative total operative another total operative total operative total operative total operative another total operative total o	EASA	Mar-19	open category and specific	Opinion published							
	Marking and Registration	Opinion No.1/2018	UAS.CPEN.960 3. UKS operator shall display the registration information on the MAC: The registration number should be stated on a fre-resistant placard; a RC ed. Quick Response Code) may be an acceptable means.	EASA	Mar-19	Open category and Specific	Opinion published							
	Marking and Registration							ASTM F2851-18 Standard Practice for UAS Registration and Marking (Excluding Small Unmanned Aircraft Systems)	This practice follows ICAO Annex 7 SARPIS except in areas where the unique appects of UAS may not allow compliance. In these cases, this document will address the issue and recommend the need for an alternate compliance method.	ASTM F38 Urmanned Aircraft Systems		standard	published	Renewed 2018
	Marking and Registra	Opinion No.1/2018	NUT. Both rightenet UKS operator shall defail a registration nuture accounting to the format affect by UKS. NECL NACE 7 Segmentation number and the segmentation of the segmentation of the an te behaviory. I - Sight registration for the segmentation and the registration of the segmentation multiple registration of the segmentation multiple registration of the segmentation ILMS.OPER.MS and ULKS.Spec.604 (1) Registration means the registration of the segmentation of the segmentation of the segmentation of the ILMS.OPER.MS(1) and ULKS.Spec.604(1) Registration form 1. The ULK OPER.MS(1) and ULKS.Spec.604(1) Registration form (1) I - I - I - Segmentation of the behaviors. I - (1) of the segmentation of the segmentation of the (1) of the segmentation of the behaviors. I - (1) of the segmentation of the behaviors. I - (2) of the segmentation of the behaviors. I - (2) of the segmentation of the behaviors. I - (3) of the segmentation of the behaviors. I - (4) of the segmentation of the behaviors. I - (4) of the segmentation of t	EASA	Mar-19	Open category and Specific	Opinion published							
D	Marking and Registration							ASTM F2851-10 Standard Practice for UAS Registration and Marking (Excluding Small Unmanned Arcraft Systems)	This practice follows ICAO Arrex 7 SARPS except in areas where the unique aspects of UAS may not along compliance. In these cases, this document will address the issue and recommend the need for an alternate compliance method.	ASTM F38 Unmanned Aircraft Systems		standard	published	Delete this is duplicated
	Geo-awareness	Opinion No.1 2018	Appendix 3.3.4 to delagated act — Generativeness system AUX Class C1: C2 and C3 shall appendix C2 and C3 shall appendix C3 and C3 shall appendix C3 and C3 shall appendix C3 and C3 and appendix C3 and C3 shall appendix C3 and C3 and pendix C3 and C3 and C3 and C3 and C3 and C3 and pendix C3 and C3 and C3 and C3 and C3 and C3 and pendix C3 and C3 and C3 and C3 and C3 and C3 and pendix C3 and C3 and C3 and C3 and C3 and C3 and appendix C3 and C3 and C3 and C3 and C3 and pendix C3 and C3 and C3 and C3 and C3 and C3 and pendix C3 and C3 and C3 and C3 and C3 and C3 and pendix C3 and C3 and C3 and C3 and C3 and C3 and pendix C3 and C3 and C3 and C3 and C3 and C3 and pendix C3 and C3 and C3 and C3 and C3 and C3 and pendix C3 and C3 and C3 and C3 and C3 and C3 and and C3 and C3 and C3 and C3 and C3 and C3 and and C3 and C3 and C3 and C3 and C3 and C3 and and C3 and C3 and C3 and C3 and C3 and C3 and and C3 and C3 and C3 and C3 and C3 and C3 and and C3 and C3 and C3 and C3 and C3 and C3 and C3 and and C3 and C3 and C3 and C3 and C3 and C3 and C3 and and C3 and C3 and and C3 and C3 and and C3 and C	EASA	Mar-19	Open category and Specific	Opinion published							
	Definition of zones	Opinion No.1 2018	Article 11 conditions for IAS operations. 1. Monthe Tables may establish anyone restrictions or purses which not or more than blowing conditions applies in the tables of the blowing conditions applies and/ortaking of the blowing conditions and the blowing of the blowing conditions and the blowing index and the blowing of the blowing conditions and the blowing the blowing blowing blowing blowing and the blowing of the blowing conditions and the blowing conditions and the blowing and the blowing blowing blowing blowing applies and the blowing and the blowing blowing blowing blowing blowing blowing blowing the blowing blowing blowing blowing blowing blowing blowing and the blowing blowing blowing blowing blowing blowing the blowing blowing blowing blowing blowing blowing blowing the blowing blowing blowing blowing blowing blowing blowing blowing blowing the blowing blowing blowing blowing blowing blowing the blowing blowing blo	EASA	Jan-18	Open category and Specific	Opinion published							
D	U-space							MASPS for UAS Geo- Fencing	Minimum Aviation Systems Performance Standard for UAS geo-fencing* defining minimum system level and 40-end requirements for the	EUROCAE WG-105	Nov-18	standard	ongoing	
м	U-space							Fending MOPS for UAS Geo- Fending	Marinum Operational Performance Standard for UAS geo-fencing* defining minimum requirements for the geo-fencing function at the level of individual components.	WG-105 EUROCAE WG-105	Dec-19	standard	ongoing	
A	U-space							MOPS for UAS geo- caging	"Minimum Operational Performance Standard for UAS geo-caging" defining minimum requirements for the geo-caging function at the level of individual components.	EUROCAE WG-105	Dec-19	standard	planned	
3		•			•	Cor	nmand, (	Control and	Communication		•			
	C3 datalink and communication							MOPS (Terrestrial LOS)	Minimum Operational Performance Standard for the terrestrial Line of Sight Command and Cortrol Data Link	EUROCAE WG-105	Jun-20	standard	ongoing	
	C3 datalink and communication							MOPS (SATCOM)	Minimum Operational Performance Standard for the satellite Command and Control Data Link	EUROCAE WG-105	Nov-18	standard	ongoing	Under WG-105 review
	C3 datalink and communication							MASPS	Minimum Aviation System Performance Standard for the Command and Control Link	EUROCAE WG-105	Sep-19	standard	ongoing	

Standards - these Technical Reports are a documentation of troadly accepted engineering practices or specifications for a material, product, process, procedure or test method. SAE

Recommended Practices - these Technical Reports are documentations of practice, procedures and technology that are intended as guides to standard engineering practice. Their content may be of a more general nature, or they may propound data that have not yet gained broad acceptance.

mation Reports - these Technical Reports are compilations of engineering reference data or educational material useful to the technical community.

Aerospace Material Specifications - these Technical Reports identify material and process specifications conforming to sound, established engineering and metallurgical practices in aerospace sciences and practices.

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M	C3 datalink and communication					ASTM F3002-14a Standard Specification for Design of the Command and Control System for Small Unmanned Aircraft Systems (sUAS)	This specification is provided as a consensus standard in support of an application to a nation's governing availation authority (GAA) for a permit to approximate the second standard out of the second standard are purposes. This standard outlines the general, spectrum and link requirements for C2.	ASTM F38 Unmanned Aircraft Systems		standard	published	Under revision
4	C3 datalink and communication					AIR6514 UxS Control Segment (UCS) Architecture: Interface Control Document (ICD)	This interface control document (ICD) specifies al software services in the Umanned Systems (UKS) Control Segment Architecture, including interfaces, messages, and data model.	SAE AS-4UCS Ummanned Systems (UxS) Control Segment Architecture		information report	published	
4	C3 datalink and communication					AIR6514A UxS Control Segment (UCS) Architecture: Interface Control Document (ICD)	This interface control document (ICD) specifies al software services in the Ummanned Systems (UKS) Control Segment Architecture, including interfaces, messages, and data model.	Architecture SAE AS-4UCS Unmanned Systems (UxS) Control Segment Architecture	Nov-18	information report	orgoing	
4	C3 datalink and communication					AS6522A Unmanned Systems (UKS) Control Segment (UCS) Architecture: Architecture Technical Governance	The UCE Identical government comprises as of provides government of standard directions to establish conserving and quality in the development of architecture antifects and documents. It provides gatomati- tion has used adapted instanty stratestina and modeling convertinies in the use of LMRef Modeling Language (LML) and Service Control Architecture Service Language (LML) and Service Control Architecture Service Language (LML) and Service Control Architecture Service Language (LML) and Service The LORD Horizontal Modeling policies, guidelines, and stantastis of technical	Architecture SAE AS-4UCS Ummanned Systems (UxS) Control Segment Architecture	Nov-18		orgoing	
	C3 datalink and					AIR6515 Unmanned Systems (UxS) Control Segment (UCS) Architecture: EA Version of UCS ICD Model	The laber local macroline rise control of the Elempton Arthung (Fg). The Local macroline are control of the Co	a SAE AS-4UCS Ummanned Systems (UkS) Control Segment Architecture		information report	published	
	C3 datalink and communication					AIR6516 Unmanned Systems (UKS) Control Segment (UCS) Architecture: RSA Version of UCS ICD Model	The Labe class is socied as the control of the Rained Rohman Anthrophysics of the Control of the Rained Rohman Anthrophysics and the Control of the Rained Rohman Anthrophysics and the Control of the Rained Rohman Anthrophysics and the Rained Roh	SAE AS-4UCS Unnanned Systems (Ux6) Control Segment s Architecture		Information Report	published	
6	C3 datalink and communication					AIR6517 Unmanned Systems (UKS) Control Segment (UCS) Architecture: Rhapsody Version of UCS ICD Model	The Law Caulds all works in a control from Research y events of the methods of the second se	a 7 SAE AS-4UCS Unmanned Systems (UkS) Control Segment Architecture		information report	published	
	C3 datalink and communication					AIR6519 LkS Control Segment (UCS) Architecture: UCTRACE	The Law Case Taxes (LCTMACE) is SAE patienties ARRIES of the Department of Same II Bargerer (UCE) Approximate (UCE) App			information report	published	
	C3 datalink and communication					AIR6520 Lismanned Systems (UcS) Control Segment (UCS) Architecture: Version Description Document	Governance of the Universities Alexandro Alexand Stystem (UAS) Control Segment (UCS) Antifaction was have been of them to Linux (Data) Control (UCS) Antifaction was have been of the UCS and the UCS Consequency, a subset of the UCS Architecture Linuxy Relaxes 3.4PP (Data) and the UCS Architecture Linuxy Relaxes 3.4PP (Data) (UCS) Antifaction, Addition, and Alexandro Exception Concerning and the UCS Architecture and Alexandro Exception Concerning and Alexandro Exception Concerning and Alexandro Exception Concerning and Alexandro Exception Concerning and Alexandro Exception Concerning and Alexandro Exc	SAE AS-4UCS Umranned Systems (UxS) the Control Segment Architecture		Information Report	published	
0	C3 datalink and communication					AIR6521 Ummanned Systems (UxS) Control Segment (UCS) Architecture: Data Distribution Service (DDS)	The platform specific interface Control Document (CD) provides an example monophy is the Open Lineargument Ciney 1 (ORIS) Data based on the Universe Systems (SA) Control Systems (SA) Control Architecture Model, AGDE1 A series of non-normalive implementation discloses have been multi air as specific bias (SC) Control and the Model AGDE1 A series of non-normalive implementation discloses have been multi air as specific bias (SC). These and an experimentation control and are specific bias (SC). These and universitations. The machine models (CD) and read of the mapping and implementation characture as another simulated (CD) and read of the mapping and explorating of the document assume a working immediate of the CD. Architecture, the model includuase and a control simulation and the control and the specific of the document assume as anothing immediated in control and another and the control assume as anothing immediated on the specific of the UC.	SAE AS-4UCS Unmanned Systems (UxS) Control Segment Architecture		information report	published	
0	C3 datalink and communication					AS8512 Unmanned Systems (UxS) Control Segment (UCS) Architecture Architecture Description	This document is the Architecture Description (AD) for the SAE Unwarene Systems (LKS) Control Segment (LKS) Architecture. This AD serves as Architecture is expressed by a Earcy of SAE patientized and the Architecture is expressed by a Earcy of SAE patientized and the Hearts. The other patientization is the UCS Architecture LEarny are ABSIST. ARREST, ARRESTS, ARRESTS, ARRESTS, ARRESTS, ARREST, ARREST, and ARRESTS,			standard	published	
6	C3 datalink and communication					AS6513 Unmenned Systems (UKS) Control Segment (UCS) Architecture: Conformance Specification	This document is the sufficiential expectituation within the SAE Universe Systems (LGS) Control Segment (SLS) Antihistones for statisticing conformance neglements for LGS) Antihistones for statisticing addressed (r) this specification are also to device components, and LGE systems that employ on ones USS anticines. The schemators of the LCS includes that analysis addresses of the exchemators of the LCS includes that analysis addresses of the exchemators of the LCS includes that analysis.	SAE AS-4UCS Unmanned Systems (LkS) Control Segment Architecture		standard	published	
	C3 datalisk and communication					ASISSIB Urmanned Syntamy (USS) Control Segnent (UCS) Architecture UCS Architecture Model	This field have Gasles measure the content of the ABS118 LCS Antihestant Description. The proper of the LCS Antihestant Model is to provide the automative source is often models are produced within the LCS measurements of the LCS Antihestant Model is to provide the automative source is often models are produced within the LCS measurements and the Employee Antihestant Model is and produced and antihestant and antihestant and antiple of contract measurements and the Employee Antihestant Model is and measurement and the Employee Antihestant Model is and measurement and the Employee Antihestant Model is and measurement and the Employee Antihestant Model is an anti- tering and the Antihestant Antihestant Antihestant Antihestant Antihestant and the produced LCM 2004 and all is for Specific Exception Antihestant and the produced based	a AS-4LCS Unrearned Systems (UKS) Control Septems Architecture		standard	published	
	C3 datalisk and communication					AS8522 Unserved Social Subj (UGS) Architecture Architecture Conservance	The ACC Bestroad generators comprises a set of phones, generating development of extended and the set of the	e AS-4UCS Sumarracid Sumarracid Control Segment Architecture		standard	published	
	Navigation					WK58931 Evaluating AeriaResponse RobotManeuvering Maintain Position and Orientation	A suite of standard test methods has been developed to measure	ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	Publication Delayed -Full Committee Meting Feb 28- Mar 2 2018 for adudication of comments
	Navigation					WK58932 Evaluating AerialResponse RobotManeuvering Orbit a Point	A suite of standard test methods has been developed to measure manuseverability, andurance,communications, durability, logistrice autonomy, and safety to galde purchasing decisions,support operator training and measure proficiency.	ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	Publication Delayed -Full Committee Meting Feb 28- Mar 2 2018 for adudication of comments
	Navigation					WK58933 Evaluating AerialResponse RobotManeuvering Avoid Static Obstacles	A suite of standard test methods has been developed to measure manusereability, endurance.communications, durability, logistics: autonomy, and safety to glide purchasing decisions, support operator training and measure proficiency.	ASTM E54 Horreland Security Applications	Jun-18	standard	orgoing	
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	Navigation							WK58934 Evaluating AerialResponse RobotManeuvering Pass Through	A suite of standard test methods has been developed to measure manaverability, endurance, communications, durability, logistics, autonomy, and safety to guide purchasing decisions, support operator training and measure proficiency.	ASTM E54 Homeland Security Applications	Apr-18	standard	ongoing	Publication Delayed -Full Committee Meting Feb 28- Mar 2 2018 for adudication of comments
	Navigation							Openings WK58535 Evaluating AerialResponse RobotManeuvering: Land Accurately (Vertical)	operator training and measure protoency. A suite of standards test methods has been developed to measure manaversability, endurance_communications, durability, legisitics_autonomy, and safety to guide purchasing decisions,support operator training and measure protoinency.	Applications ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	Publication Delayed -Full Committee Meting Feb 28- Mar 2 2018 for aductation of comments
	C3 datalink and communication							WK58942 Evaluating AerialResponse RobotRadio Communication	A suite of standards test methods has been developed to measure manaverability, endurance,communications, durability, logistics, autonomy, and safety to guide purchasing decisions,support operator training and measure porcherery.	ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	Publication Delayed -Full Committee Meting Feb 28- Mar 2 2018 for aductication of comments
	C3 datalink and communication							Range : Line of Sight WK58941 Evaluating AerialResponse RobotRadio Communications Range: Non Line of Sight	A suite of standards test methods has been developed to measure manaverability, endurance,communications, durability, legistrics, autonomy, and safety to guide parchasing decisions,support operable training and measure professionersy.	ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	Publication Delayed -Full Committee Meting Feb 28- Mar 2 2018 for adudication of comments
	C3 datalink and communication							STANAG 4660 - Interoperable Command and Control Datalink for Unmanned Systems	Common standard Line-CK-Sight command and control data link for the safe and reliable operation of urmanned systems within a joint, coalition and controlled airspace operating environment.	NATO NNAGUCGUAS		standard	published	
	Navigation							SAE6856 Improving Navigation Solutions Using Raw Measurements from Global Navigation Satellite System (GNSS) Receivers	This recommended practice provides users with the technical negulements and methods for accessing, viewing, and processing raw CASO callerer measurements for improved ummaned vehicle navigation address.	SMCPNT Position, Navigation, and Timing Committee	Mar-19	standard	orgoing	
	Navigation							SAE6857 Requirements for a Terrestrial Based Position, Navigation, and Timing (PNT) System to Improve Navigation Solutions and Ensure Critical	This recommended practice defines the technical regularments for a terrestatid-based PRT system to improve verticel (e.g. streaments, defaul and the streament streament and the streament and the streament and infrastructure security, complementing ONS technologies.	SMCPNT Position, Navigation, and Timing Committee	Mar-19	standard	orgoing	
	C3 datalink and communication							Infrastructure Security MASPS on C3 Spectrum Management for the 5030/5091 MHz band	Minimun Aviation Systems Performance Standard defining requirements for the management of the 5030/5091 MHz band fir use by C2 Link Services	EUROCAE WG-105	Dec-18	standard	orgoing	
	C3 datalink and							Guidance on Spectrum Access, Use and Management	Guidance material describing considerations for the use of spectrum for	EUROCAE WG-105	Mar-19	guidance	orgoing	
	communication	Onining No. 4 STOC	Appendix 3, 4 to Delegated Act A UAS Class C2 and C3 shalt	EASA	Mar-19		Opinion	Use and Managemen	UAS purposes					
	Cyber security	Opinion No.1 /2018	Appendix 3, 4 to Delegated Act A UAS Class C2 and C3 shalt: be equipped with a remote pilot data Ink protected against unauthorised access to the command and control functions;	EASA	nnar-19	open	Opinion published	MASPS on RPAS C3	Minimun Aviation Systems Performance Standard defining system level	EUROCAE	Jun-19	ginada-4	ononin-	
	Cyber security C3 datalink and communication							Guidance on RPAS C3 security	Requirements for the application of Security measures to the UAS C3 Link Guidance material for the application of the MASPS listed above	EUROCAE WG-105	Jun-19 Dec-19	guidance	ongoing	
	C3 datalink and communication	EASA Decision	050#6 C3 link performance is appropriate for the operation	EASA	May-19	Specific	orgoing	Casediny		WG-105				
	C3 datalink and communication	EASA Decision	050#16 Multi crew coordination. ( <u>Criterion #3 Communication</u> devices)	EASA	May-19	Specific	ongoing							
4		I						Detect and	Avoid			L	I	
	Detect and avoid							MASPS	Minimum Aviation System Performance Standard (End-to-end Requirements at system level) for DAA of IFR Flights in class A-C	EUROCAE WG-105	Dec-18	standard	ongoing	
	Detect and avoid							MOPS	airspace. Minimum Operational Performance Standard (Requirements at equipment level) for DAA of IFR Flights in class A-C airspace.	WG-105 EUROCAE WG-105	Dec-19	standard	orgoing	
м	Detect and avoid							OSED	Operational Services and Environment Description for DAA for DAA in Class D-G airspaces under VFR/IFR	EUROCAE WG-105	Jan-19	standard	published	
	Detect and avoid							MASPS	Minimum Aviation System Performance Standard (End-to-end Requirements at system level) for DAA against conflicting traffic for RPAS operating under IFR and VFR in all airspace classes	EUROCAE WG-105	Dec-19	standard	orgoing	
	Detect and avoid							MOPS	Minimum Operational Performance Standard (Requirements at equipment level) for DAA against conflicting traffic for RPAS operating under IFR and VFR in all airspace classes	EUROCAE WG-105	Jun-20	standard	planned	
	Detect and avoid							OSED	OperationalServices and Environmental Description for DAA in very Low Level Operations	EUROCAE WG-105	Jun-19	standard	ongoing	under WG-105 peer review
	Detect and avoid							MOPS	Minimum Operational Performance Standard (Requirements at equipment level) for DAA at Very Low Level (VLL)	EUROCAE WG-105	Jun-20	standard	planned	
	Detect and avoid							STANREC 4811 Ed. 1/ AEP-, 101 Ed. A Ver.1 "LIAS sense and avoid"	To detail comprehensive guidance and recommended practice for the development of Series and Avoid systems, referencing and providing guidance regarding application of existing standards and best practice.	NATO FINAS	Feb-18	guide	published	
D	Detect and avoid							WHOODOX	Defines minimum performance standards					The work it is now being covered under WK 62668/62669
	Detect and avoid							WK62668 Specification for DAA Performance Requirements	Comprehensive DAA Blandard under annex to define test methods ARD minimum performance standards for DAA systems and sensors applicable to smaller UAS BL/OS operations for the protection of manned aircraft in lower atititude airspace	ASTM F38 Unmanned Aircraft Systems	Jun-19	standard	orgoing	Working Group formed under terms of reference
	Detect and avoid							WK62669 Test Method for DAA WK60936 Specification for	Counting proteins and sensors Comprehensive DAA Standard annex to define test methods AND Comprehensive DAA standard sensors applicable to simular LVBS operations for the protection of maneed alreadt in lower altitude airspace.	ASTM F38 Unmanned Aircraft Systems	Jun-19	standard	angoing	Working Group formed under terms of reference. Nurrber changed to WK62669 instead of WK62668
D	Detect and avoid							Specification for Acoustic-based Detect and Avoid for sUAS						Performance requirements to be covered unde WK62668
5							F	RPAS Autor	nation					
	Development assurance (Software)							ASTM F3259 Standard Practice for Methods to Safely Bound Flight Bohavio of Urmanned Aircraft Systems Containing Complex Functions	This standard practice defines design and test best practices that if hillwood, would provide guidance to an applicant for providing evidence to another hypothermitiation of the standard standard and another hypothermitiation organize tracticity is constrained strongs in another assumed (RTA) architecture to maintain an acceptable level of their astro-	ASTM F38 Unmanned Aircraft Systems		standard	published	FAA Notice Of Availability (NOA) Pending approval of ASTM WKS7659 as foundational document
м	Automatic modes, takeoff, Landing, taxing							ASTM WK85056 revision to ASTM F3260 Standard Practice for Methods to Safely Bound Flight Behavio of Limmaned Aircraft Systems Containing Complex Functions	Coal is to develop the standard to a level of capability that defines run- meters and the standard sta	ASTM F38 Unmanned Auccraft Bystems	Spetember 2019	standard	angaing	Draft Under Develment
	Automatic modes, takeoff, Landing, taxing							ED-252 OSED	Operational Services and Enironment Description for Automatic Take-Off and Landing.	EUROCAE WG-105		standard	published	
м	Automatic modes, takeoff, Landing, taxing Automatic modes,							MASPS	Minimum Aviation System Performance Standard (End-to-end Requirements at system level) for Automatic Take-Off and Landing	EUROCAE WG-105	Jun-20	standard	ongoing	
м	Automatic modes, takeoff, Landing, taxino Automatic modes, takeoff, Landing, taxing Emergency recovery/terminations	Opinion No.1 2018	Appendix 3 and 4 to delegated act A UAS Class C2 and C3 shalt	EASA	Mar-19	open category and	Opinion	ED-251 OSED	Operational Services and Enforment Description for Automatic Taxing Minimum Aviation System Performance Standard (End-to-and Requirements at system level) for Automatic Taxing	EUROCAE WG-105 EUROCAE WG-105	Jun-20	standard	published	
м	systems Emergency recovery/terminations systems Emergency	primer (N2. 1 2018	A UAS Obas C2 and C3 shall: in case of loss of data link, have a reliable and predictable	2404		open category and specific	Opinion published	OSED	Operational Services and Environment Description for Automation and Emergency Recovery Minimum Aviation System Performance Standard (End-to-and	EUROCAE WG-105	Dec-18	standard	orgoing	Currently nder Council approval
	recovery/terminations systems	l						MASPS	Requirements at system level) for automation and Emergency Recovery	WG-105	Jun-20	standard	planned	l
6							Des	ign & Airw	orthiness				I	
	UA Design and Airworthiness	Opinion No.1 2018	Appendix I, 2, 3, 4, 5 to delegated act A UAS Class CD, C1, C2, C3 and C4 shall be designed and manufactured to fly safely;	EASA	Mar-19	open	Opinion published							
L	1	1	1				1	I	1	1	<u> </u>	1	I	1

Development assurance (Software)			ASTM F3151 Standard Specification for Verification of Avionics Systems1	This specification provides a process by which the intended function and compliance with safety objectives of autoncs systems may be verified by system-level tasting. Software and handware development assurance are uncertainting of the in the accept of this specification and the specification should not be used if a development assurance process in equind.	ASTM F39 Aircraft Systems		standard	published	This will be reference in .AC for Special Class §21.17(b) To be uses where appropriate in lieu of DO 178. NEW DELIVERABLE
UA Design and Airworthiness			AS6009A JALIS Mobility Service Set	rat be used if a development assummer process is required. The accurate difference as and of accurate projection to per interfaces calls JAUS Modelly Services. JAUS Bervices provide the means for software larger and accurate provide a period as provide the represent fits which is platform-hadpender capabilities commonly built accurate and the period commonly software (platform) and expresses at downlaw a chype of animative systems (platform) do as LMUS waves capability in the evuluants to support Dimensional Existencial (LMUS).	d AS-4JAUS Joint Architecture for Unmanned Systems Committee		standard	published	
UA Design and Alrworthiness			AS5684B JAUS Service Interface Definition Language	The SEE Annopace Information Report AHS315 - Genetic Open Architecture (ICA) dollows is the memory to isolarity initiative classes for pages 1, 1994 - 1994	SAE AS-4 JAUS Joint Architecture for Umnamned Systems Committee		standard	published	
UA Design and Airworthiness			A56062 JAUS Mission Spooling Service Set	The document defines a set of hierarchical application layer involves sub- tained and the set of the authors are relates as an uncovered typelane or upstice of animeter dypelane authors are relates as an uncovered typelane or upstice of animeter dypelane authors and the set of the set of the set of the set of the authors and the set of the companies. The radio is also complete the set of the set of the set of the set of the set of the set of the set of the companies. The radio is also complete the set of the set of the set of the set of the se	sAE AS-4JAUS Joint Architecture for Unmanned Unmanned Unmanned Committee		standard	published	
UA Design and Airworthiness			ASE060 JAUS Environment Sensing Service Sat	The document offense is and of hostines is dependent in uper interfaces used to account offense is and of hostines. If application togets interfaces used for adhere and the set of adhere is a set of the set of the the methyle is to construct and a coloradia for ad adhere. The Thermonent offense is to construct and a coloradia is for adhered in the methyle and account al domains and the particular is an adhered in the adhered account al domains and the particular is an adhered in particular sectorement. You all Sense, They adhered account colorador particular adhered account and particular is an advected in the particular adhered account and particular is an advected in the particular adhered account and particular is adhered in the particular adhered account and particular is adhered in the particular adhered account and particular is adhered and particular adhered in the methyle adhered and particular is adhered and particular adhered adhered as a particular is adhered and particular adhered and particular methyle and particular is adhered adhered adhered adhered adhered adhered adhered adhered as adhered ad	SAE AS-4.JAUS Joint Architecture for Ummanned Systems Committee		standard	published	
HMI			ASEC40 JAUS HMI Service Set	The document offend as the final-bit exploration large process The document offend as ether in the document of the document of the document of the document of the document of the document of the document of the document of the document of the document acrosses and activation the activation. The HM Berness segment to acrosses and activation the document of the document of the acrosses and activation and the document of the document of the document of the document of the document of the document acrosses are address of the document of the document of the acrosses and address of the document of the document of the acrosses and address of the document of the document of the acrosses and address of the document of the document of the acrosses and address of the document of the document of the acrosses and the company. Each JDA has compared with the address of the document of the acrosses of the document of the acrosses and the acrosses of the acrosses of the document of the acrosses of the acrosses and the document of the acrosses of the acrosses of the acrosses of the acrosses of the acrosses of the acrosses of the acrosses of the acrosses of the acrosses of the acrosses of the acrosses of the acros	SAE AS-4,JAUS Joint Architecture for Unmanned Systems Committee		standard	published	
UA Design and Airworthiness			ASS710A JAUS Core Service Set	The document defines a set of standard application layer instructions scheduler application is particular to application is particular to application is particular to application is particular. The communication and consoling with a schedulers. The communication and consoling with the communication and consoling with the communication and consoling with the communication application. The particular schedulers are the communication application is application to application application application. The particular schedulers are the communication application mechanism for a dark scheduler and the communication application and the schedulers are the compared - these application density and and the system these for the compared - these applications density and and the system these for the compared - theorem application. Application application application application application application application application application. The scheduler application appl	d AS-AAAD Joint Architocham for Unvarined Systems Committee		standard	published	
UA Design and Ainworthiness			ARP6012A JAUS Compliance and Interoperability Policy	This document, the JAUS Compliance and Interoperability Policy (ARPRO12), ecomments an approach to documenting the complete application of the standard set. While non-SRE ALA JAUS documents are elerenced in this ARP they are not within the scope of this document and should be viewed as examples only.	SAE AS-4JAUS Joint Architecture for Unmanned Systems Committee		recommended practice	published	
UA Design and Airworthiness			AIR5645A JAUS Transport Considerations	This SAE Aerospace Information Report (AIR) discusses characteristics of data communications for the Joint Architecture for Umranned Systems (JULIS). This document provides guidance on the aspects of transport moda, urmanned systems and the characteristics of JAUS listelf that are relevant to the definition of a JAUS transport specification.	SAE AS-4.1AUS Joint Architecture for Unmanned Systems Committee		information report	published	
UA Design and Airworthiness			ASS668A JAUS/SDP Transport Specification	The DEF processor Theorem (AE) grant the grant control-tables of the transport of the tran	SAE AS-4JAUS Joint Architecture for Ummanned Ummanned Systems Committee		standard	published	
UA Design and Ainworthiness			AS6091 JAUS Unmanned Ground Vehicle Service Set	This document defines a set of standard application layer interfaces calls JUUS thermand Ground Vahiolis Services. AUX5 Services provide the mann for indinare and tradition in an unmanned upstrem of system of systems of counce Vahiolis Services represent the patient and Varianees Ground Vahiolis Services represent the patient systems of separatistics commonly conduct IUUX, and agreent the Makiy Service set (JaSGOD) which is pations-approxis. A present ten (19) services are dimined in this document.	d SAE AS-4.JAUS Joint Architecture for Urmanned Systems Committee		standard	published	
UA Design and Ainworthiness			AS6057A JAUS Manipulator Service Set	This document defines a set of standard application layer interfaces calle JAUS Manipulator Dervices. JAUS Benoles provide the means for software entities in a unmarned system of unmarned system to communicate and coordinate their activities. The Manipulator Bervices represent platform-dispendent capabilities commonly found across domains and types of unmand systems. At present, beethy-five (25) services are defined in this document.	d SAE AS-4JAUS Joint Architecture for Ukmanned Systems Committee		standard	published	
UA Design and Airworthiness			ARP6227 JAUS Messaging over the OMS Data Distribution Service (DDS)	This document defines a standard representation of JAUS ASS684A message data in DOS IDL defined by the Object Management Group (OMG) CORBA 3.2 specification. This document does NOT address how JAUS transport considerations or JAUS service protocols are implemented on OMS DDS platforms.	SAE AS-4JAUS Joint Architecture for Unmanned Systems Committee		recommended practice	published	
UA Design and Airworthiness			AIR5665B Architecture Framework for Unmanned Systems	This SAE: Averagence Information Report (ARI) describes the Archhecture Conceptual View a Capabilities View and an Interconstantiation Conceptual View provides definitions and exclosional for the years and concepts used in the unnerview dystems glowani. The Capabilities View application of the Capabilities View and the State of the United exceptions of the United State of the United States on the unnerview application of the Interconstantiation of the United States on the United systems domain. The Interconstantiation works applications in the unnerview of the United States and of Capabilities View and the United States on the Unit	SAE AS-4JAUS Joint Architecture for Unmanned Systems Committee		information report	published	
UA Design and Airworthiness			AIR5664A JAUS History and Domain Model	The purpose of this SAE Aerospace Information Report (AIR) is two-fold: to inform the reader of the actent of effort that ware into the development of the Joint Activitation for Ummand Systems (JARS) and to capture for posterity the domain analysis that provides the underprintings for the work by the AS-4 Committee (Utmanned Systems (JARS)).	SAE AS-4JAUS Joint Architecture for Unmanned Systems Committee		information report	published	
UA Design and Airworthiness			A56062A JALIS Mission Spooling Service Set	The document derives a set of shochest approaches layer instructions sub- tantiants of the set of the advances of the set of the advances of the set of the annexes of the set of the annexes of the set of the annexes of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of t	sAE AS-4JAUS Joint Architecture for Ummanned Systems Committee		standard	published	
UA Design and Ainvorthiness			AS6111 JAUS Unmanned Maritime Vehicle Service Set	This document defines a message-passing interface for services representing the platform-specific capabilities common across unmanned manifime vehicles.	SAE AS-4.1AUS Joint Architecture for Ukmanned Systems Committee	Jun-19	standard	orgoing	
UA Design and Alworthiness			A96971 Test Proboci for UAS Reciprocating (intermitering legines as Primary Thrust Mechanism	The standard is intensic to provide a method (or method) to data in provide and exclusion in the standard of the standard of the method is non-contract in provide a method of the method is non-contract in provide a standard of the method is non-contract in provide a standard of the method is non-contract in provide a standard of the method is non-contract in the standard of the standard is non-contract in the standard of the standard of the method is non-contract in the standard of the	SAE E-39 Uhmanned Aircraft Propulsion Committee	May-19	standard	ongoing	
UA Design and Alworthiness			ASIMIT Ground support equipment preheaters, statters, fuel pumps, fuel couplings, fuel mixing, fuel fitters, prefight weightbalance, bore- sighting of payload. Storage containers, alignment hardware heres, electronications fitters, electronication software links.		SAE E-30 Unmarned Aircraft Propulsion Committee	Jun-19	standard	planned	

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Norme       Norme <th< td=""><td></td><td>UA Design and Airworthiness</td><td></td><td></td><td>AS#### Propeller hubs</td><td></td><td>Aircraft Propulsion</td><td>Jul-19</td><td>standard</td><td>planned</td><td></td></th<>		UA Design and Airworthiness			AS#### Propeller hubs		Aircraft Propulsion	Jul-19	standard	planned	
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Image: Section of the section of th		UA Design and Aisworthiness			Protection for	A review of loing materials that would be educational to a designer of a UAV los protection system is provided. Additionally, the differences however, unmaned and manner id se rothering vestmers are envirored	SAF AC-9C	Dec-18	information report	orgoing	
Image: box       Image: box <td></td> <td></td> <td></td> <td></td> <td>Vehicles</td> <td>along with a discussion on how these differences can be addressed.</td> <td>Committee</td> <td></td> <td></td> <td></td> <td></td>					Vehicles	along with a discussion on how these differences can be addressed.	Committee				
Image: box       Image: box <td></td> <td>UA Design and Airworthiness</td> <td></td> <td></td> <td>Aerospace - Vehicle Management Systems - Flight Control Design, Installation and Test</td> <td>general performance, design, test, development, and quality assurance requirements for the flight control related functions of the Vehicle Management Systems (MNS) of milary Ummanned Aircraft (UA), the airborne element of Ummanned Aircraft Systems (UAS), as defined by ASTM 5 2306 77. The development is written to militeru personal objects</td> <td>SAE A-6 Aerospace Actuation, Control</td> <td></td> <td>recommended practice</td> <td>published</td> <td></td>		UA Design and Airworthiness			Aerospace - Vehicle Management Systems - Flight Control Design, Installation and Test	general performance, design, test, development, and quality assurance requirements for the flight control related functions of the Vehicle Management Systems (MNS) of milary Ummanned Aircraft (UA), the airborne element of Ummanned Aircraft Systems (UAS), as defined by ASTM 5 2306 77. The development is written to militeru personal objects	SAE A-6 Aerospace Actuation, Control		recommended practice	published	
Image: section of the section of th					of, Military Unmanned Aircraft, Specification Guide For	intended for use primarily initiary operational areas. The document acts provides a foundation for considerations applicable to safe flight in all classes of airspace.	Systems				
Image: section of the section of th						This document provides an overview of the tests, and issues related to testing that are unique to Electromechanical Achiators (EMAs). The tests and issues documented one and researched is lichibias.					
Image: section of the section of th						discusses both the tests applicable to EMAs and the test methodologies to accomplish the test objectives. EMAs may be used in a wide variety of applications such as utility, secondary tight controls and primary flight controls, in a wide variety of markets including manned and unmarned					
Image: section of the section of th		UA Design and Airworthiness			ARP5724 Aerospace - Testing of Electromechanical	over and metary accent, small missie in and thruse vector control applications up to high powered utility and flight controls. EMMs may also have either a rotary or a linear output, be serve controlled or use simple open loop point-to-point or other control topologies. As such this documen covers a wide range of potential applications, the application of any given	A-6 Aerospace Actuation, Control and Fluid Power		recommended practice	published	
Image: section of the section of th					Guidelines For	test requirement is determined by the application and the user. This document attempts to provide basic guidance on which tests should be considered for various applications. This document also lists tests that are not unique to EMAs, but are still applicable to EMAs. In these instances a discussion of such tests is not contained in this document,	Systems				
Image: section of the section of th						and as applicable, the reader may reference the appropriate documents as indicated in the text. While many EMA configurations include digital power drive electronics (POE), the specific tests required for the electronic hardware, software, or firmware are outside the scope of this document.					
Image       Image <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>											
Image <td></td> <td>UA Design and</td> <td></td> <td></td> <td>AIR744<sup>™</sup> Aerospace Auxiliary Power</td> <td>auxiliary, or emergency power for use in aircraft, space vehicles, missiles remotely piloted vehicles, and cushion vehicles, surface effect ships, or other vehicles in which aerospace technology is used. The information contained herein is intended for use in the selection of the power source most appropriate to the needs of a particular vehicle or system. The</td> <td>A-6 Aerospace Actuation, Control</td> <td></td> <td>information report</td> <td>published</td> <td></td>		UA Design and			AIR744 <sup>™</sup> Aerospace Auxiliary Power	auxiliary, or emergency power for use in aircraft, space vehicles, missiles remotely piloted vehicles, and cushion vehicles, surface effect ships, or other vehicles in which aerospace technology is used. The information contained herein is intended for use in the selection of the power source most appropriate to the needs of a particular vehicle or system. The	A-6 Aerospace Actuation, Control		information report	published	
Image       Image <td< td=""><td></td><td>Arwardings</td><td></td><td></td><td>Sources</td><td>information may also be used in the preparation of a power source specification. Considerations for use in making a trade study and an evaluation of the several power sources are included. More detailed information relating to specific power sources is available in other SAE Aversance Information Benotic or in Aversance. Benotmended</td><td>Systems</td><td></td><td></td><td></td><td></td></td<>		Arwardings			Sources	information may also be used in the preparation of a power source specification. Considerations for use in making a trade study and an evaluation of the several power sources are included. More detailed information relating to specific power sources is available in other SAE Aversance Information Benotic or in Aversance. Benotmended	Systems				
Normal						Parcipice internation reports or in Parcipice recommended Practices. This specification covers all aspects in electrical wire interconnection systems (EWIS) from the selection through installation of wiring and wirin	SAE AE-8A Elec Wiring				
INorm					Aerospace Vehicle				standard	published	
Normal		UA Design and Airworthiness				This specification covers all aspects in electrical wire interconnection systems (EWIS) from the selection through installation of wiring and wiring devices and optical cabling and termination devices used in aerospace whickes. Aerospace vehicles include manned and urmanned airplanes, helicrotren; Etherchana; wohrings missions and enternal nods	AE-8A Elec Wiring and Fiber Optic	Dec-18	standard	ongoing	
Normalization       Normalinstantinatintendentententeresting attendenterestintenteresting at		UA Design and Airworthiness			simulant standards for drone or FOD		SAE G-28 Simulants for	Dec-19	standard	planned	
Image: Note: Source: So	0	Emergency			ASTM WK59171	Develop a draft standard that defines the requirements for a parachute	ASTM	Mar-18	continuitor	omening	
Image: Section of the se		systems			SUAS parachutes		Aircraft Systems		aptontation	cirgoing	
Instant       Image: Section of the sectin of the section of the section of the sectin		recovery/terminations			F3322-18 Standard Specification for Small Unmanned Aircraft System	This spectroarear of covers are dougened transmission of the operation of the deployable parachuses of annual urmanned alreading (AL). This specification defines the design, fabrication, and test requirements of installable, deployable parachube recovery systems (RRS) that are designed to be integrated into a sUA to lessen the impact energy of the	ASTM F38 Unmanned Aircraft Systems	Sept-18	specification	Published	
Image: Constraint of the constraint						sparm and/out the solve has to subserve in informations subserve high: Comparing with this space in obtaining permission from a civil aviation authority (CAA) to fly a sUA over people.					
Image: Constraint of the constraint		UA Design and Airworthiness			E2490-05(2013) Standard Guide for Aircraft Electrical Load and Power Source Capacity	This guide covers how to prepare an electrical load analysis (ELA) to meet Federal Aviation Administration (FAA) requirements.	ASTM F39 Aircraft Systems		standard	published	
Instrume       Image: Section of the sect		maintenance			F2799-14 Standard	Damaged wiring or equipment in an aircraft, regardless of how minor it may appear to be, cannot be tolerated. It is, therefore, important that	ASTM F39 Aircraft		standard	outlished	
Image: Section of the stand of the stan					Aircraft Electrical Wiring Systems		Systems				
Image: Section of the stand of the stan					New Specification for	twee-wing Urmanned Aenia Systems (UAS), Usesign and Constitut Standards are currently in existence for Part 23 General Marned Aircraft as well as for Fixed Wing and VTCU. Small LIAS (sLIAS). There currently exists a gap for Part 23 General Aircraft of the Large Fixed Wing Urmanned Variety. This ASTM standard will serve to fill that gap by	ASTM F38 Unmanned Aircraft Systems	Jun-19	standard	under development	
Image: Constraint of the constr					ASTM F2910-14 Standard						
Image: section of the section of t		UA Design and Airworthiness			Specification for Design and Construction of a Small Unmanned Aircraft System	To all sURS that are permitted to operate over a defined area and in airspace authorized by a nation's governing aviation authority (GAA). Unless otherwises specified by a nation's GAA, this specification applies only to UA that have a maximum takeoff gross weight of 55 tb/25 kg or	ASTM F38 Unmanned Aircraft Systems		standard	published	This will be reference in AC for Special Class §21.17(b)
Interview					(SUAS)	This specification covers the airworthiness requirements for the design of					
In Subgrad       Link		UA Design and Airworthiness			and Verification of Fixed-Wing Unmanned Aircraft Systems (UAS)	fixed-wing unmanned alrcraft systems. This specification defines the baseline design, construction, and verification requirements for an unmanned alrcraft system (UAS)	F38 Unmanned Aircraft Systems		standard	published	VTOL aircraft under ASTM WK64619/ WK64619
Image:					ASTM WK63678/	The initial standard role addressed Fired. Wino LMS. Response from the					
Image:		UA Design and Airworthiness			Standard Specification for Design, Construction, and Verification of Design Miles	FAA required both vertical lift and fixed-wing in order to be accepted as a method of compliance for UAS ainvertiness certification in the forthcoming advisory circular for 21-17(b). This required a rapid-action reorganization of the standard, inclusion of VTOL-specific items and a title descent		19-Nov	standard	In progress	Ballot pending Sub- Committee approval
Indexterior       Model carrier       Model carrier <td></td> <td></td> <td></td> <td></td> <td>Unmanned Aircraft Systems (UAS)</td> <td>onange.</td> <td></td> <td></td> <td></td> <td></td> <td></td>					Unmanned Aircraft Systems (UAS)	onange.					
Image: Construction       Image: Construction<		Manufacturer organisation			Standard Practice for Production Acceptance of Small	This standard defines the production acceptance requirements for a small urmanned aircraft system (sUAS). This standard is applicable to sUAS that comply with design, construction, and test requirements identified in Specification F2910. No sUAS may enter production until such compliance in demonstruction.	ASTM F38 Unmanned Aircraft Systems		standard	published	
Andream         Andream <t< td=""><td></td><td></td><td></td><td></td><td>ASTM F3003-14</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>					ASTM F3003-14						
Latistication and spectrum       Latistication and spectrum <th< td=""><td></td><td>Manufacturer organisation</td><td></td><td></td><td>(SUAS)</td><td>This standard defines the quality assurance requirements for the design, manufacture, and production of a small urmanned aircraft system (sUAS).</td><td>F38 Unmanned Aircraft Systems</td><td></td><td>standard</td><td>published</td><td></td></th<>		Manufacturer organisation			(SUAS)	This standard defines the quality assurance requirements for the design, manufacture, and production of a small urmanned aircraft system (sUAS).	F38 Unmanned Aircraft Systems		standard	published	
Operation         Operation         Operation         ATM W1321         Atmath and product information and product informatinformatine and product information and product information and					Standard Specification for	This standard will outline specification for the use of fuel cell power generating systems for application in UAS.	ASTM F38 Unmanned Aircraft Systeme	твр	standard	ongoing	
Like Design and Associtivess       Like Design and second data		-			(UAS)						
Like Design and Associtivess       Like Design and second data		Development assurance (Software)			Ensuring Dependability of Software Used in	the software. This practice will focus on the following anear: (a) Organizational controls (for example, management, training) in place during software development. (b) Use of the software in the system, including its architecture and contribution to overall system safety and sourchy. (c) Motions and development.)	ASTM F38 Unmanned Aircraft Systems		standard	published	
LADesign and Answertiness       LADesi					ASTM WK16285 New	answer, to retrieve the setting analysis readed to assessing the code. (o) Techniques and tools related to code review. (e) Quality assurance. (f Testing of the software.					
Image: Construction     Image: Construct		UA Design and Airworthiness			Specification for Design and Performance of an Unmanned Aircraft System/Class 1320	The specification covers airworthiness requirements for an acceptable powered fixed wing aircraft UAS.	ASTM F38 Unmanned Aircraft Systems	TBD	standard	ongoing	continued using guidelines from ASTM F37 Light Sport
D       Machingthing       Aug-18       Aug-18       standard       Opposing       F28 Unsummed       Aug-18       Standard       Aug-18       St					(550# Gross Weight to 1320# Gross Weight)	This specification establishes the design, construction, and test					
D         LkD-brough and Anvorthinssa         LkD-brough and and show to k table stig guarantee for a flast stig guarantee flast stig guarantee flast stig guarantee flast stig guarantee flast stig guarantee flast stig guarantee flast flast stig guarantee flast stig guarantee flast stig guarantee flast stig stig guarantee flast stig guarantee flast stig guarantee flast stig stig stig stig stig stig stig stig	D	UA Design and Airworthiness			ASTM WK60352 Design, Construct, and Test of VTOL	for all UAS that are permitted to operate over a defined area and in airspace authorized by a nation's governing aviation authority (GAA). Unless otherwise specified by a nation's GAA.	ASTM F38 Unmanned Aircraft Systems	Aug-18	standard	ongoing	Will be incorporated in F3298 - Draft complete
Manuala Westador Regarda This specification cores the Unmanned Aircraft Fight Action Manual Charles Manual Carlos Manual Charles M	D	UA Design and Airworthiness			Design, Construction and Verification of	Ins specification establishes the design, construction, and test requirements for a fixed wing unmanned alicinaft system (sUAS). It is intended for all UAS that are permitted to operate over a defined area and in airspace authorized by a nation's governing aviation authority (GAA). Wriess otherwise specified by a nation's GAA.	ASTM F38 Unmanned Aircraft Systems		standard	approved	
M     matteriance     Altran     Altran <td></td> <td>Manuals</td> <td></td> <td></td> <td>WK63407 Required Product Information to be Provided with a Small Unmanned</td> <td>This specification covers the Unmanned Aircraft Flight Manual (UFM), Maintenance Manual, Aircraft Kit Assembly Instructions (KAI), Component Original Equipment</td> <td>ASTM F38 Unmanned Aircraft Systems</td> <td>TBD</td> <td>standard</td> <td>ongoing</td> <td></td>		Manuals			WK63407 Required Product Information to be Provided with a Small Unmanned	This specification covers the Unmanned Aircraft Flight Manual (UFM), Maintenance Manual, Aircraft Kit Assembly Instructions (KAI), Component Original Equipment	ASTM F38 Unmanned Aircraft Systems	TBD	standard	ongoing	
M methodance M meth						Compliance, and Airframe Records information required for	,				
Avoid Typema         weight of 25 big (65 big m kex. The all 45 big (65 big m kex.)           (LLARS)         control and mentioned for explainties required by the reform 5 GA.	м	maintenance			otanoald Practice for Maintenance and Continued Airworthiness of Small Unmanned	summing (sample, in a sasumid that a visual observers) will provide for the sense and avoid requirement to avoid colsions with other alcraft and that the maximum range and altitude at which the sUAS can be fown will be specified by the nation's GAA, uses otherwise specified by a nation's GAA this standard applies only. O Lik that have a maximum take off gross.	ASTM F38 Unmanned Aircraft Systems		standard	published	Updated revision underway under WK WK63991
					Ailcraft Systems (sUAS)	wegno 125 kg (55 b) or VeSs. The SUAS shall be maintained for continued airworthiness to meet sUAS limitations and performance capabilities required by the nator's GAA.					

м	UA Design and Anworthiness							Aerospace series - Urmanned Aircraft Systeme (UKS) - Product requirements	The European standard will provide means of compliance to cover Pert 1 to 5 of the designate at the complex standard standard standard standard standard to special in the loging category (standard standard standard to special in the loging category (standard standard standard to standard standard standard standard standard standard technical approximation and covers, tab. I not limited by physical and medicines any proteins standard standard standard standard additional travels that occurs from the characteristics of third pany Additional travels that occurs from the characteristics of third pany physical see actualized.	ASD-STAN D5WG8	Jun-19	preEN / European standard	orgoing	
A								Aerospace series - Urmanned Aircraft Systema (UAS) - Product requirements	The Exception statistical will private means of completence to cover generatives related or provide regularements in the CPL 20 the debugated act. More specification, the standard will provide regularements instation to the equivalence of the completence of t	ASD-STAN D6WG8	Jun-19	preEN / European standard	orgoing	
A								Aerospace series - Unmarmed Aircnaft Systems (UKS) - Product requirements	So 13 The European standard will provide means of compliance to cover lighting the proteen is to be able to verify that or ULL is explayed with lights which concentration of the ALC and the standard standard standard which concentration of the ALC and the standard standard standard waves compositivity of the ALC and the standard standard standard standard standard standard standard standard standard standard control of project, tochtocial insplantaria standard standard control of proper, tochtocial insplantaria standard compliance data is the version Linkaria.	ASD-STAN DSWG8	Jun-19	preEN / European standard	orgoing	
A								Guidelines	Applicability of safe design standards for UAS in Specific Operations category	EUROCAE WG-105	Sep 2019	Guidance	ongoing	
	Ground control station							MASPS	Minimum Aviation System Performance Standard (End-to-end Requirements at system level) for the Remote Pilot Station interface to Air Traffic Control (ATC).	EUROCAE WG-105	Jun-19	standard	ongoing	
A								Guidelines	Guidelines on the use of multi-GNSS for LIAS	EUROCAE WG-105	Dec-19	standard	ongoing	
A								Guidelines	Guidelines on the Automatic protection of the flight envelope from human errors for UAS of multi-GNSS for UAS	EUROCAE WG-105	Dec-19	standard	ongoing	
	UA Design and Airworthiness	Opinion No.1 2018	Appendix 1, 2, 3, 4 to delegated act A LME Class CD, C1, C2 and C3 shall have a maximum atimatike height above the take-off point limited to 20 m or the equipped with a system that limits the height above the subcode of above the take-off point a value attraction at the state of the system take the state attraction above the height of the LM above the sufficience or take-off point during first shall be provided to the remote prior take-off point during first shall be provided to the remote prior	EASA	Mar-19	open	Opinion published							
	UA Design and Airworthiness	Opinion No.1 2018	Appendix 1, 2 to delegated act A UAS Class C0 and C1 shall (3) F equipped with a follow-rem mode, when this function is on, keep a distance not exceeding 50 m from the remote pilot, and allow the remote pilot to regain control of the UA or to activate an emergency procedure that terminates the flight.	EASA	Mar-19	open	Opinion published							
	Manufacturer organisation							ISO 21384-2 - Requirements for ensuring the safety and quality of the design and manufacture of UAS	Requirements for ensuring the quality and safety of the design and manufacture UAS. It includes information regarding the UA any associated remote control datalon(s), the C2 links, any other required data links and any other system elements as may be required.	ISO TC20/SC16/WG2	Dec-17	standard	ongoing	
	UA Design and Airworthiness							STANAG 4671 "UAV System Airworthiness Requirements (USAR)". (Fix wing UAV, MTOW>1 50Kg).	Set of technical airworthiness requirements intended primarily for the airworthiness certification of beck-wing military UAS with a maximum take- of weight between 150 and 20,000 kg that intend to regularly operate in non-segregated airspace	NATO FINAS			published	
	UA Design and Airworthiness							STANAG 4702 "Rotary Wing Unmanned Aerial Systems Airworthiness Requirements" (Rotocraft LiAV, 150Kg-MTOW- 3125Kg	set of technical almorthiness requirements intended for the almorthiness certification of networking intitiary UAV Systems with a maximum take-off sector of the sector of all 178 kg that Intend to regularly operate in non- segregated allispace	NATO FINAS			published	
	UA Design and Airworthiness							STANAG 4703 "Light Unmanned Aircraft Systems Airworthiness Requirements". (Fix wing UAV, 150Kg <mtow).< td=""><td>Minimum set of technical airworthiness requirements intended for the airworthiness certification of fleed-wing Light UAS with a maximum take. off weight not greater than 150 kg and an impact energy? greater than 66 (J 49 –4) that intend to regularly operate in non-segregated airspace</td><td>NATO FINAS</td><td></td><td></td><td>published</td><td></td></mtow).<>	Minimum set of technical airworthiness requirements intended for the airworthiness certification of fleed-wing Light UAS with a maximum take. off weight not greater than 150 kg and an impact energy? greater than 66 (J 49 –4) that intend to regularly operate in non-segregated airspace	NATO FINAS			published	
	UA Design and Airworthiness							STANAG 4746 "Unmanned Aerial Vehicle System Airworthiness Requirements for Light Vertical Take Off and Landing Aircraft"	Set of technical airworthiness requirements intended for the airworthiness certification	NATO FINAS	2018		ongoing	
	UA Design and Airworthiness	Opinion No. 1 2018	Appendix 1 and 2 to delegated act A UAS Class C1 and C2 shalt be designed and constructed in such a way as to minimise injury to persons during operation, sharp edges shall be avoided, if equipped with propelers, the UAS shall be designed in such a way as to limit any injury that may be inflicted by the propeller blacks.	EASA	Mar-19	open	Opinion published							
	UA Design and Airworthiness	Opinion No.1 2018	Appendix 2, 3, 4 to delegated act A UAS Class C1, C2 and C3 shall: provide the remote pilot with clear warring when the battery of the UA or its control station reaches a low level such that the remote pilot has sufficient time to safely land the UA;	EASA	Mar-19	open	Opinion published							
	UA Design and Airworthiness	Opinion No.1 2018	Appendix 2, 3 to delegated act A UAS Class G2 and C3 shalt () have the requisite mechanical strength and, where appropriate, stability to withstand any stress to which it is subjected during use without beasage or deformation, which may interfere with its safe tight:	EASA	Mar-19	open	Opinion published							
	UA Design and Airworthiness	Opinion No.1 2018	Appendix 2 to delegated act A UAC Chars C1 and: to equipped with rights that cannot be confused with the navigation lights of a manned aircraft as required for controllatily: (b) during night, if designed for night operation;	EASA	Mar-19	open	Opinion published							
	UA Design and Airworthiness	Opinion No.1 2018	Appendix 3, 4 to delegated act A UAS Class C2, C3 shalt be equipped with lights for the purpose of controllability or visibility of the UK; the design of the lights shall not be confused with the navigation lights of manned aircraft;	EASA	Mar-19	open	Opinion published							
	UA Design and Airworthiness							ARP6336 Lighting Applications for Unmanned Aircraft Systems (UAS)	This SAE Aerospace Recommended Practice (ARP) provides technical recommendations for the application, design and development of lighting for Ummand Actrat (IJA). The recommendations set to thin in this document are to aid in the design of UA lighting for the type or size of aircraft and the operation in the National Aerospace System for which the aircraft is intended.	SAE A-20 Aircraft Lighting Committee	Dec-18	Recommended Practice	ongoing	angoing
	UA Design and Airworthiness	Opinion No.1 2018	Appendix 2 to delegated act A LVB Class C1 shall: be made of materials and have performance and physical distanciestistics such as to ensure that in the event of an impact at terminal velocity with a human haad, the eventy transmitted to human had a levan and 20, or an untermitter, bulkas balance an MFCM, licitarity paryload, of less than 300 §	EASA	Mar-19	open	Opinion published							
	UA Design and Airworthiness	Opinion No. 1 2018	Appendix 12 to delegated act A UKE Cliss C1 shall: to make of materials and have performance and physical divasciteristics such as to ensure that in the event of an impact divasciteristics such as to ensure that in the event of an impact divasciteristics such as to ensure that in the event of an impact divasciteristics and have an MTCM, including payload, of less than 900 g	EASA	Mar-19	open	Opinion published							
	UA Design and Airworthiness	Opinion No.1 2018	Appendix 1: 2 to delegated act A U4E Class Ob and C1 shalt To powere by electricity, he nominal voltage shall not exceed b4 VDC or the equivator AC voltage; its accessible parts shall reteraced 34 VDC or the equivator AC voltage; integras that not exceed 24 VDC or the equivator AC voltage; pervented class on the last bary nits or harmful electric shock even when the UAE is damaged.	EASA	Mar-19	open	Opinion published							
	UA Design and Airworthiness							WK58939 Evaluating AeriaResponse RobotEnergy/Power: Endurance Range and Duration	A suite of standards test methods has been developed to measure manuseverability, endurance,communications, durability, logistrics,autonomy, and safety to guide purchasing decisions,support operator training and measure proficiency.	ASTM E54 Homeland Security Applications	TBD	standard	ongoing	E54 Full Committee adjudication February 26 to March 2, 2018
	UA Design and Airworthiness	Opinion No.1 2018	Appendix 3, 4 A UAG Dass C2 and C3 shall: Exponent by periodicity, its nominal includes shall not exceed a power of by periodicity, its nonsistance and the not exceed 49 VDC or the exploration for the exploration parts tradeparts shall not exceed 49 VDC of the exploration for the periodicity of the exploration of the exploration of the periodicity of the exploration of the exploration of the exploration of the exploration of the exploration of the even when the UAG is damaged.	EASA	Mar-19	open	Opinion published							

								WK58940 Evaluating	A suite of standards test methods has been developed to measure	ASTM				E54 Full Committee
	UA Design and Airworthiness							AerialResponse RobotEnergy/Power: Endurance Dwell Time	manueverability, endurance.communications, durability, logisitics.autonomy, and safety to guide purchasing decisions.support operator training and measure proficiency.	E54 Homeland Security Applications	TBD	standard	ongoing	adjudication February 26 to March 2, 2018 ongoing. Delayed til Apr -18
	UA Design and Airworthiness							WK58943 Evaluating AeriaResponse RobotSafety: Lights and Sounds	A suite of standards test methods has been developed to measure manuseverability, endurance.communications, durability, logitatics.autoomy, and safety to gaide parchasing decisions.support operator training and measure proficiency.	ASTM E54 Homeland Security Applications	TBD	standard	orgoing	E54 Full Committee adjudication February 26 to March 2, 2018 ongoing. Delayed till Apr -18
	UA Design and Airworthiness							Practice for Design, Alteration, and Certification of Aircraft Electrical Wiring Systems	This practice covers design configuration procedures for aircraft electrical writeg systems.	ASTM F39 Aircraft Systems		standard	published	
	UA Design and Airworthiness							F2696-14 Standard Practice for Inspection of Aircraft Electrical Wiring Systems	This practice covers basic inspection procedures for electrical wiring interconnect systems for aircraft electrical wiring systems.	ASTM F39 Aircraft Systems		standard	published	
м	Batteries/fuel cell power generating system							ASTM F3005-14a Standard Specification for Batteries for Use in Small Unmanned Aircraft Systems (sUAS)	This standard defines the requirements for batteries used in small Ummanned Aircraft Systems (sLIAS Small Ummanned Aircraft System	ASTM F38 Unmanned Aircraft Systems		standard	published	Currently being reviewed for updates FAA Notice Of Availability (NOA) Pending approval of ASTM WKS7659 as foundational document
	UA Design and Airworthiness							F2490-05(2013) Standard Guide for Aircraft Electrical Load and Power Source Capacity Analysis	This guide covers how to prepare an electrical load analysis (ELA) to meet Federal Aviation Administration (FAA) requirements.	ASTM F39 Aircraft Systems		standard	published	
	UA Design and Airworthiness	Opinion No.1 2018	Appendix 5 to Delegated Act A UAS Class C4 shall: not be capable of automatic control modes;	EASA	Mar-19	open	Opinion published							
	UA Design and Airworthiness	Opinion No.1 2018	Appendix 3 to Delegated Act A UAS Class C2 shall: unless it is a fixed-wing UA, be equipped with a low-speed mode selectable by the remote pilot and limiting the maximum cruising speed to no more than 3 m/s.	EASA	Mar-19	open	Opinion published							
	UA Design and Anworthiness	Opinion No.1 2018	Appendix 3, 4 to Delegated Act A LUBC Dass C2 and C3 shall be cased a between ULX to tensils length of the tether shall be lises than 50 m and 1s mechanical strength shall be no lass three. The test of the test of the test of the test of the servolyne at machine already. If times the velocit of the contribution of the maximum shallor than the draw analyses the or of the maximum already and these on high.	EASA	Mar-19	open	Opinion published							
	UA Design and Airworthiness	Opinion No.1 2018	Appendix 2, 3, 4 to Delegated Act ALVEC Diss C1, C2 and C3 shite Hie UA has a function that limits lias access to certain arrapsoc areas or volumes, this function shall operate in such a moment that it Breaches anothigh with the slife control system of the UA without adversely affording tight sately, in addition, due information table provided to be intered just being UA fight control system is automatically engaged to keep the UA of of these areas the	EASA	Mar-19	open	Opinion published							
	UA Design and Airworthiness	Opinion No.1 2018	Appendix 1, 2 to Delegated Act A UAS Class CO and C1 shall: have a maximum speed in level flight of 19 mis;	EASA	Mar-19	open	Opinion published							
	UA Design and Airworthiness	EASA Decision	050#4 UAS developed to authority recognized design standards (e.g. industry standards)	EASA	May-19	Specific	ongoing							
	UA Design and Airworthiness	EASA Decision	OSO#5 UAS is designed considering system safety and reliability	EASA	May-19	Specific	orgoing							
	UA Design and Airworthiness	EASA Decision	050#10 Safe recovery from technical issue /	EASA	May-19	Specific	orgoing							
	UA Design and Airworthiness	EASA Decision	OSO#12 The UAS is designed to manage the deterioration of external systems supporting UAS operation	EASA	May-19	Specific	ongoing							
	UA Design and Airworthiness	EASA Decision	OSO#18 Automatic protection of the flight envelope from human errors	EASA	May-19	Specific	orgoing							
	UA Design and Airworthiness	EASA Decision	050#19 Safe recovery from Human Error ( <u>Criterion #3 UAS</u> design)	EASA	May-19	Specific	orgoing							
	нм	EASA Decision	OSO #20 - A Human Factors evaluation has been performed and the HMI found appropriate for the mission	EASA	May-19	Specific	orgoing							
	UA Design and Airworthiness	EASA Decision	050 #24 - UAS designed and qualified for adverse environmental conditions (e.g. adrepate sensors, DO-160 qualification)	EASA	May-19	Specific	ongoing							
	UA Design and Airworthiness	EASA Decision	OSD#24 UAS designed and qualified for adverse environmental conditions (e.g. adrepaste sensors, DO-166 qualification) M#2 Effects of ground impact are reduced. A category. <u>Measurer</u>	EASA	May-19	Specific	ongoing							
	UA Design and Airworthiness UA Design and	EASA Decision	reducing the effect of the UAS impact dynamics (e.g. emergency parachute).	EASA	May-19	Specific	orgoing							
	Airworthiness	EASA Decision	M#3 Technical containment in place and effective (e.g. tether)	EASA	May-19	Specific	orgoing							
7								Operatio						
	Operations							ASE062 - Mission Spooling Service Set	This second offers a last of characteristic particular layer framework for the last of the last second second layers and the last second layers and layers of the last second layers and layers of the last second layers and layers a	SAE AS-4_IAUS Joint Architecture for Unmanned Systems Committee		standard	published	published
	Qualified entitites							ASTM WK62730 UAS Operator Audit Programs	Minimum requirements, responsibilities, qualifications for entities conducting internal audits against ASTM standards on Unmanned Aircraft Systems	ASTM F38 Unmanned Aircraft Systems	TBD	standard	orgoing	Under subcommitte ballot
	Qualified entitites							ASTM WK62731 UAS Operator Compliance Audits		ASTM F38 Unmanned Aircraft Systems	TBD	standard	orgoing	Under subcommitte ballot
	Qualified entitites							ASTM WK62744 General Operations Manual for Professional Operator of Light Ummanned Aircraft Systems (UAS)	Best practices to support professional entities receiving operator certification by a CAA, and provide practice for self-or third-party audi of operators of UAS.	ASTM F38 Unmanned Aircraft Systems	TBD	Best practice	orgoing	Draft
	Manuals							ASTM F2908-16 Standard Specification for Aircraft Flight Manual (AFM) for a Small Unmanned Aircraft System (sLIAS)	This specification provides the minimum requirements for an Antral Flight Manual (PAM) for an unmanned aircraft system (UAS) designed. manufactured, and operated in the same UAS (UAS) calositypes as differed by a CVM Aviation Authority (CAA). Depending on the size and complexity of the sLMS_and NM may also a cotain the instruction for mantemance and continuing alrworthiness for owner / operator authorized mantemance.	ASTM F38 Unmanned Aircraft Systems		standard	published	published
	Automatic modes, takeoff, Landing, taxling							WK58931 Evaluating AntiaResponse RobotManeuvering Maintain Position and Orientation	The properties of this bare methods in the special phase specialization, specialization of the special phase specialization, invaluate the system coupliship's accounting market position and specialization phase in special phase specialization and the specialization of the specialization of the specialization distance appropriate for the intracted methods as a specialization of the specialization of the specialization distance approximation and the propriate and specialization or event approximation of the propriate and specialization and controls. The based methods are professional any system in the specialization of the specialization of the specialization of specialization of the specialization of the specialization and controls. The based based accounted any strength methods are and controls. The based based accounted any strength methods are and controls. The based based accounted any strength methods are any advanced and based accounted any strength methods are advanced as an endored accounted any strength methods any strength methods.	ASTM E54 Horneland Security Applications	TBD	standard	ongoing	E54 Full Committee adjudication February 28 to March 2, 2018. Delayed till Apr-18
	Automatic modes, takeoff, Landing, taxing							WK58932 Evaluating AcriaResponse RobotManeuvering Orbit a Point	The properties of this text method is to specify the approximates, proceedings, and produces methods in consist to substantiative evaluate the system capability to accurately only an object of trenders. The system capability is accurately only an object of trenders in an effect of transmission of the system capability is a system of transmission. The support of the system capability is a similar system or produce directly that and a standard database appropriate for the functional section. The system of the system capability is an end of the system of the function of the overall system. This is demonstrated in the function of the overall system. This is demonstrated and the produces of the system is and environmental conditions can be repleneted as described.	ASTM E54 Horneland Security Applications	TED	standard	angaing	

	Detect and avoid				WK58933 Evaluating AerialResponse RobotManeuvering Avoid Static Obstacles	The purpose of this test method is to specify the apparatuses, procedures, and performance metrics necessary to quantitatively evaluate the system capability to avoid static obstacles.	ASTM E54 Homeland Security Applications	TBD	standard	orgoing	E54 Full Committee adjudication February 26 to March 2, 2018. Delayed till Apr-18
	Detect and avoid				WK58934 Evaluating AerialResponse RobotManeuvering Pass Through Openings	The purpose of this test method is to specify the apparatuses, procedures, and performance metrics necessary to quantitatively evaluate the system capability to pass through openings of various sizes and orientations.	ASTM E54 Homeland Security Applications	TBD	standard	orgoing	E54 Full Committee adjudication February 26 to March 2, 2018. Delayed till Apr-18
	Automatic modes, takeoff, Landing, taxing				WK58935 Evaluating AerialResponse RobotManeuvering: Land Accurately (Vertical)	The purpose of this test method is to specify the apparatuses, procedures, and performance metrics necessary to quantitatively evaluate the system capability to accurately land vertically within a defined area.	ASTM E54 Homeland Security Applications	TBD	standard	orgoing	E54 Full Committee adjudication February 26 to March 2, 2018. Delayed till Apr-18
	UAS-ATM				Specifications for the Use of Military Ummanned Aerial Vehicles (UAV) as Operational Air Traffic (OAT) outside segregated airspace specification, v 1.0, 2007	The specification addresses appends of mittary UW ATM. dealing briefly with extrait regulations that angular spon the UW specifications and then explaining the nature of UW aspace regulareness. It also summaries a number of national UAM Incipations, addition were suitable for adaptation into EUROCONTROL specifications	EUROCONTROL		specification	published	
	UAS-ATM				Air Traffic Management Guidelines for Global Hawk in European Airspace, v 1.0, 2010	These Guidalines establish a set of minimum ATM requirements for Global Heak (CHP) Earo Heak (ER) Right in European ainspace, with the primary approach of inshalling of DER spectra for a set them at the basis for any spectra of the set of enrises per the isolation of CHFET from other ainspace users by requiring the other-out and record in set of the set of the set of the set of could on in-set segment and set of the set of the set of could be induced under a set of the se	EUROCONTROL		guidance material	published	
м	Local E-identification	n			Aerospace series - Urmanned Aircraft Systems (UKS) - Product requirements	The European is include: all provide many of compliance is non-the field of the subject all syntax informations (in the subject all syntax) and the subject all syntax informations (in the subject all syntax). CREACT READ TRACENCE And all compares and the subject all syntax informations and the subject all syntax informations and the subject and th	ASD-STAN D5WG8	Jun-19	preEN / European standard	angcing	Koto of Banker revised
	Standard scenarios				ASTM F3196-18 Standard Practice for Seeking Approval for Extended Vasual Line of Sight (EVLOS) or Beyond Visual Line of Sight (EVLOS) Small Lineanred Akircraft System (aUAS) Operations	Compliance with the particle is incommonted as one means of availing association in the second seco	ASTM F38 Unmanned Aircraft Bystems		standard	published	booy or standard revised and publicitied monoparity is pending. To be revised and ammended to include use case scenarios: package delvery, infraetructure inspection, timar inspection delvery, infraetructure inspection, timar inspection semigranty reponde, terminal operations, agriculture. Film available but delvergist and the time pendings (package delverg) to these agendings (package delverg) to be completed Jun 2018. Final evaluable but
D	Standard scenarios				Beyond Visual Line of Sight (BVLOS) Small	The new papers of this synchris to gatta # Apendia A that provide wavarb. Indiang, then the FAAEVLCB batchody program then can b and in developing inspected na metapation analoga for MMEEVLCD programmers. The synchronic provides a thread batch to be provided for metapation and the state of the synchronic program proposed na metapation in energies for their EACB and EACS or provided in metapation in energies for their EACB and EACS provided in the synchronic program for their EACB and EACS and EACS and EACS and EACS and EACS and EACS and EACS and EACS and EACS and EACS and EACS and EACS and EACS and EACS and EACS and EACS and	ASTM F38 Unmanned Alicraft Systems	Jun-18	standard	published	Completed
м	Standard scenarios				ASTM WK 62344 BVLOS Package Delivery as an Appendix to F3196- 17	Appendix to to ARTM F1158-17. The main purpose of this revision to the add an Appendix that can be used in developing proposed rate mitigation strategies for package delivery sLMS BYLOS operationary.	ASTM F38 Unmanned Aircraft Systems	Jun-19	standard	angaing	Working group formed and continues
	Operations				ASTM F2849-10 Standard Practice for Handing of Unmanned Aircraft Systems at Divert Airtields		ASTM F38 Unmanned Aircraft Systems		practice	published	
	Operations				ISO 21384-3 - Requirements for safe civil RPAS/UAS operations and applies to all types, categories, classes, sizes and modes of operation of UAS	Requirements for safe commercial UAS operations and applies to all types, categories, classes, sizes and modes of operation of UAS.	ISO	Dec-18	standard	orgoing	
	UAS-ATM				ARP#### Access to controlled airspace		SAE G-30 UAS Operator Qualifications Committee	May-19	recommended practice	planned	
	Standard scenarios				ARP#### Flight beyond visual line of sight		SAE G-30 UAS Operator Qualifications Committee	May-19	recommended practice	planned	
	Standard scenarios				ARP#### Night operations		SAE G-30 UAS Operator Qualifications Committee	May-19	recommended practice	planned	
	Standard scenarios				ARP#### Aerial photography		SAE G-30 UAS Operator Qualifications Committee	Jun-19	recommended practice	planned	
	Standard scenarios				ARP#### Power line inspection		SAE G-30 UAS Operator Qualifications Committee	Jul-19	recommended practice	planned	
	Standard scenarios				ARP#### Precision agriculture		SAE G-30 UAS Operator Qualifications Committee	Aug-19	recommended practice	planned	
	Standard scenarios				ARP#### Bridge Inspection		SAE G-30 UAS Operator Qualifications Committee	Sep-19	recommended practice	planned	
	Standard scenarios				ARP#### Train right- of-way's		SAE G-30 UAS Operator Qualifications Committee SAE	Oct-19	recommended practice	planned	
	Standard scenarios				ARP#### Flare stack inspections		SAE G-30 UAS Operator Qualifications Committee	Nov-19	recommended practice	planned	
	Standard scenarios				WK58243 New Guide for Visual Inspection of Building Facade using Drone	This standard consists of guidelines for utilizing drones with cameras to document facate consistions with vision and stall propose of this standard is to establish procedures and methodologies for conducting visional impactions of building facades via drone, and documenting such inspections.	ASTM E06 Performance of Buildings	Jan-18	guide	orgoing	
	Navigation				WK58677 Evaluating AerialResponse RobotSensing: Visual Image Acuity	The proposed at This last method is to see (b) the opportants, oppositely, and produces motion encodes an exploring on the proposed evaluation the visual pletcher-optical planage analy of the systems a viewed opposited encody the matched failures appropriate for the intendent encodes. The system includes a remote opposite in control of all encodes and the system includes a set of the specification of the intendent method may be performed anywhere the specification gaptamines and the intendent. The specification of the specification of the method may be performed anywhere the specification gaptamines and the data bis consistent of the specification of the specification data bis consistent of the specification of the constant of the data bis consistent of the specification of the constant of the data bis constant of the specification of the constant of the simulation is an data bis constant of the specification of the constant of the specification of the data bis constant of the specification of the constant of the specification of the data bis constant of the specification of the constant of the simulation of the specification application of the specification of the constant of the specification of the specification of the constant of the specification of the specifi	ASTM E54 Homeland Security Applications	Apr-18	standard	angaing	E54 Full Committee adjudication February 26 to March 2, 2018. Delayed till Apr-18
	Ground control station				WK58925 Evaluating AerialResponse RobotSensing: Visual Color Acuity	The purpose of this test method is to specify the apparatuses, procedures, and performance metrics necessary to quantitatively evaluate the visual (electro-optical) cobr acuity of the system as viewed through a control station.	ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	E54 Full Committee adjudication February 26 to March 2, 2018. Delayed till Apr-18
	Ground control station				WK58926 Evaluating AerialResponse RobotSensing: Visual Dynamic Range	The purpose of this test method is to specify the apparatuses, procedures, and performance metrics necessary to quantitatively evaluate the visual (electro-prical) dynamic range of the system as viewed through a control station.	ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	E54 Full Committee adjudication February 26 to March 2, 2018. Delayed till Apr-18
	C3 datalink and communication				WK58927 Evaluating AerialResponse RobotSensing: Audio Speech Acuity	The purpose of this test method is to specify the apparatures, procedures, and performance metrics necessary to quantitatively evaluate the audio speech acuty of the system as head bi-directionally between a control station and aerial robot in flight.	ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	E54 Full Committee adjudication February 26 to March 2, 2018. Delayed till Apr-18
	Ground control station				WK58928 Evaluating AerialResponse RobotSensing: Thermal Image Acuity	The purpose of this test method is to specify the apparatuses, procedures, and performance metrics necessary to quantitatively evaluate the thermal image acuity of the system as viewed through a control station. This sets method applies to availarly spectro spectrated remotely from a standoff distance appropriate for the intended mission	ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	E54 Full Committee adjudication February 26 to March 2, 2018. Delayed till Apr-18
	Ground control station				WK58929 Evaluating AerialResponse RobotSensing: Thermal Dynamic Range	The purpose of this test method is to specify the apparatuses, procedures, and performance metrics necessary to quantitatively evaluate the thermal dynamic range of the system as viewed through a control station.	ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	E54 Full Committee adjudication February 26 to March 2, 2018. Delayed till Apr-18
	Ground control station				WK58930 Evaluating AerialResponse RobotSensing: Latency of Video, Audio, and Control	The purpose of this test method is to specify the apparatuses, procedures, and performance metrics necessary to quantitatively evaluate the latency of video, audio, and control sub-system as viewed through a control station.	ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	E54 Full Committee adjudication February 26 to March 2, 2018. Delayed till Apr-18

	Detect and avoid							WK58936 Evaluating AerialResponse RobotSituational Awareness: Identify Objects (Point and Zoom Cameras)	The purpose of this test method is to specify the apparatuses, procedures, and performance metrics necessary to quantitatively evaluate the system capability to identify objects of threares in the environment using camerais (electri-optical and thermai) from defined athubes in open space.	ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	E54 Full Committee adjudication February 26 to March 2, 2018. Delayed till Apr-18
	Standard scenarios							WK58937 Evaluating AerialResponse RobotSituational Awareness: Inspect Static Objects	The purpose of this test method is to specify the apparatuses, procedures, and performance metrics necessary to quantitatively evaluate the system capability to inspect objects of interest in close proximity.	ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	E54 Full Committee adjudication February 26 to March 2, 2018. Delayed till Apr-18
	Standard scenarios							WK58938 Evaluating AerialResponse RobotSituational Awareness: Map Wide Areas (Stitched Images)	The purpose of this test method is to specify the apparatuses, procedures, and performance metrics necessary to quantitatively evaluate the system capability to accurately map wide areas with objects of interest in the environment .	ASTM E54 Homeland Security Applications	Apr-18	standard	orgoing	E54 Full Committee adjudication February 26 to March 2, 2018. Delayed till Apr-18
	Standard scenarios							ASTM WK52858 Small Unmanned Aircraft Systems (sLIASs) for Land Search and Rescue	This classification defines small unmanned aircraft system (sLN8) land search and rescue resources in terms of their capabilities. It provides a means by which resource managers and sLN8 pilotologenators can convey to emergency management the tasks for which their systems are capable of performing.	ASTM F32 Search and Rescue	TBD	standard	orgoing	
	Standard scenarios							ASTM WK54226 sUAS Operations in Search and Rescue Operations	This guide establishes a framework within which sUAS search and rescue (SAR) operations shall be conducted as part of the National incident Management System (NMBS)/incident Command System (ICS). 1: 2 The requirements of this guide shall apply to individuals, agencies, and organizations that respond to SAR operations, including those not regulated by government mandates.	ASTM F32 Search and Rescue	TBD	standard	orgoing	
м	Standard scenarios							ASTM WK65042 New Specification for Operation over People	Recent research conducted on risk, safety, design, operations and impact to inform development of standard with supporting documentation from HartInder studies. Using results of the HartInder Program impact testing and mitigations such as deployable sUKB parachules to be incorporated into standard.	ASTM F38 Unmanned Aircraft Systems	Mar-19	specification	orgoing	Final draft for ballot in October 2018, adjudicating comments
	UA Design and Airworthiness							ASTM WK56338 Safety of Unmanned Aircraft Systems for Flying Over People	Develop a draft standard for product marking of USI weighing 550 grams on isse. Develop data standard for Catagony 2, 3, and 4 USI Start (1) Establishes at lost method(3) for measure hypical or Hally impact energy of probable fables modely (3) is determine attraction to mess the FAA specified impact energy (1) is determine attraction to mess the FAA specified impact energy (1) is determine attraction to mess the FAA specified impact energy (1) is determine attraction to mess the FAA specified impact energy (1) is determine attraction to mess the faat of the account of the small unmerned arcraft and likely impact scenarios.	ASTM F38 Unmanned Aircraft Systems	TBD	standard	ongoing	Adjudicating ballot comments
	Risk Assessment							ASTM F3178-16 Standard Practice for Operational Risk Assessment of Small Unmanned Aircraft Systems (sUAS)	Preparation of an CRA in accordance with this practice is intended to reduce, the risk of an operation in which system complexity is minmal, the operation is constructed in a lower risk environment, and the likelihood for harm to people or properly, through present, is reduced to an acceptable level. A mission compressive increases, the operational environment may become less risk tolerant A.	ASTM F38 Unmanned Aircraft Systems		standard	published	This will be reference in AC for Special Class §21.17(b)
	Manuals							ASTM WK60938 New Practice for General Operations Manual for Professional Operator of Light Unmanned Aircraft Systems (UAS)	This standard defines the requirements for General Optimizions Measual for Productional Optimization of Light Limitation decidal Systems (LKB). The standard addresses the requirements and/of best practices documentation and organization of a professional operator (i.e., for compensation and Nire).	ASTM F38 Unmanned Aircraft Systems	Sep-18	specification	orgoing	Draft Complete - will be balloted Jun 2018
	Take off/ Landing zones							ASTM WK59317 Vertiport Design STANAG 7234	The suggest the design of civil verticents and vertifications for the landing part biased of VTCS started bardeling and technology parasetespines or cargo. The professional starteding and technology parasetespines of the in the development of this document. The standard must be exatable to address aircraft ranging in size and kinetic energy, including unmanned and optionally ploted aircraft.	ASTM F38 Unmanned Aircraft Systems	TBD	specification	orgoing	New draft in work
	UAS-ATM							Remotely Piloted Aircraft Systems (RPAS) Airspace Integration (AI) - AATMP-51 STANAG 7232		NATO FINAS	2018	standard	orgoing	Under development
	C3 datalink and communication							Unmanned Aerial Systems Tactics Techniques and Procedures - ATP- 3.3.8.2 Edition A	Provide standardized tactics, techniques, and procedures 217 for the planning, command and control (C2), and employment of unmanned aircraft systems 218 (UAS) in NATO operations	NATO MCASB/JCGUAS OS	2018	standard	orgoing	Under development
8		1		1				FCL		1		1		1
	Remore pilot competence	Opinion No. 1 2018	UAS.OFEN.30 and UAS.OFEN.50 by a remote pilot who holds a certificate of remote pilot competency that a necessary to ensure a safe flight, respecting privacy, data protection, exactly and environmental aspecting privacy, data providenci, exactly and environmental termat established by EASA at an entity recognised by the competent authority; and	EASA	Mar-19	open and specific	Opinion published		This document provides an approach to the development of training logicized					
	Remore plot competence							ARPS707 - Pliot Training Recommendations for Unmanned Aircraft Systems (UAS) Civil Operations	The document provides an approach in the document of the outputput meta-charmed provides an approach in the document of the outputput meta-charmed, and the patients. The interface of the outputputput putput meta-charmed provides and the outputputput putputputputputputputputputputputputputp	SAE G-30 UAS Operator Qualifications Committee & G- 10U Ukmanned Aerospace Vehicle Committee		recommended practice	published	
	Remore pilot competence							ARP#### Common operator qualifications		SAE G-30 UAS Operator Qualifications Committee	May-19	recommended practice	planned	
	Remore pilot competence	Opinion No.1 2018	UAS OPEN.040 by a remote pict who has demonstrated the competencies necessary to ensure a safe flipht, respecting privacy, data protection, security and environmental requirements, by having completed an online training ocurse and passed an online tack, according to a manner and format established by EASA, and provided by an entity recognised by the competent authority;	EASA	Mar-19	open and specific	Opinion published							
	maintenance							ASTM WK60659 UAS Maintenance Technician Qualification	with dotate quancations required to solve UAS maintainance technicality with broad understanding of supporting the continued airworthiness of UAS platforms and their subsystems.	ASTM F38 Unmanned Aircraft Systems	Jun-18	standard	orgoing	Undergoing revisions prior to ballot
	Remore pilot competence							WK61764 Training for Public Safety Remote Pilot of UAS Endorsement	To develop a standard that defines the requirements for Training for Public Safety Renote Pitol of Ultwarmard Arizonti Bystems (USS) Endorsement. The guide describes the involvedge, skills, and abilities required to operate unmanned aircraft for public addely publices. A CAM any, at their discretion, use this guide to aid the development of regulations. An approved ASTM guide that describes required ducation, training, and continuing professional development for those performing as professional	ASTM F38 Unmanned Aircraft Systems	TBD	standard	orgoing	
	Remore pilot competence							ASTM F3266 Standard Guide for Training for Remote Pilot in Command of Ummanned Aircraft Systems (UAS) Endorsement	Extended for Thering and Contribution of SUMS Pleas, Instruction, and Summaria for Thering and Contribution of SUMS Pleas, Instruction, attribute SUMS priors requests for the conduct fairing and Fight operations attribute SUMS priors requests for the conduct fairing and Fight operations to form at Dimmension (Summaria) for the MSS. The Tearring and the course plot authorithment (Summaria) for the MSS. The Tearring and the summariant state of the summariant state of the transmission of the summariant state of the summariant tears and the summariant state of the summariant state of the summariant state state of the summariant state of the summariant and contraction programmers. In these summariant states and and contraction programmers and states and states and shows.	ASTM F38 Unmanned Aircraft Systems	Apr-18	standard	published	
*								ASTM WK61763 Training for Remote Pilot Instructor (RPI) of Urmanned Aiscraft Systems (UAS) Endorsement	To develop an ASTM standard that defines the requirements for Training for Rennot Pilo Isstancer (RPI) of Ummaned Arcsaft Systeme (UAS) Reducement: The goal describes the howeddays, kills, and abilities required to adulty instituci tremets pilots to operate unmanned aircosft for commercial paperses. A COA may, at their disortion, use this guide to ad the development of regulations.	ASTM F38 Unmanned Aircraft Systems	Jul-19	standard	orgoing	
A								ASTM WK62733 Training and the Development of Training Manuals for the Lumranned Aircraft Systems (UAS) Operator	11 This generations allow the management for barring and the subspaced for them yound and upsets. (AB) generation 12 This generational and the subsets (AB) generation 12 This generation and them are the managements of barring the subsets of the subset of the subset of the subsets of the support information and them that and management and the subsets of the subset of the subset of the subset of the subsets of the subset of the subset of the subset of the subsets of the subset of the subset of the subset of the subsets of the subset of the subset of the subset of the subsets of the subset of the subset of the subset of the subsets of the subset of th	ASTM F38 Unmanned Aircraft Systems	Sep-19	standard	orgoing	
A	Remore pilot competence							ASTM F3330-18 Standard Specification for Training and the Development of Training Manuals for the UAS Operator	This specification defines the requirements for training and the development of training manuals for the unmanned alroadt systeme (UAS) operator.	ASTM F38 Unmanned Aircraft Systems	Nov-19	standard	publihed	
D	Remore pilot competence							Standard Specification for Training and the Development of Training Manuals for the UAS Unnanned Aircraft System						It has been published as F3266 in line 235
	Remore pilot competence							ARP5707 Pilot Training Recommendations for Unmanned Aircraft Systems (UAS) Civil Operations	1.2 The specification addresses the requirements or bed practices or both, for focumentation and organization of a professional operator (part Is, for compensation and hire) for the purposes of internal training programs and for programs offered to the general public.	G-30 UAS Operator Qualifications Committee & G- 10U Ummanned Aerospace Vehicle Committee		recommended practice	published	
	Remore pilot competence							STANAG 7192 Ed: 1 Principles Underpinning Medical Standards for Operators of Unmanned Aerial Systems (UAS) - AVMedP-1.25, Edition A	Highlight the modical factors involved in the modical aspects of FigH Cree Licenting to enable individual nations to further their own modical Manufacts for safe UAB operation.	NATO		standard	published	

	Remore pilot competence	EASA Decision	OSO #09 - Remote crew trained and current and able to costrol the doorenal and energoncy situations (i.e. Technical issue with the UAS)	EASA	May-19	Specific	ongoing							
	Remore pilot competence	EASA Decision	050 #15 - Remote crew trained and current and able to control the abnormal and emergency situations (i.e. Human Error)	EASA	May-19	Specific	ongoing							
	Remore pilot competence	EASA Decision	050 #22 - The remote crew is trained to identify critical environmental conditions and to avoid them	EASA	May-19	Specific	ongoing							
	Remore plot competence	EASA Decision	050#16 Multi crew coordination. ( <u>Friterion #2 Training</u> )	EASA	May-19	Specific	ongoing							
	Remore pilot competence	EASA Decision	050#17 Benote over is fit for the operation	EASA	May-19	Specific	ongoing							
	Remore pilot competence	EASA Decision	050#19 Safe recovery from Human Error ( <u>Criterion #2 Training</u> )	EASA	May-19	Specific	ongoing							
	Remore pilot competence	EASA Decision	050#23 Environmental conditions for safe operations defined, measurable and adhered to (Criterios #1 Procedures)	EASA	May-19	Specific	ongoing							
	Remore pilot competence	EASA Decision	M41 An Emergency Response Plan (EEP) is in place, operator validated and effective ( <u>Criterion #2 Remote Competences</u> )	EASA	May-19	Specific	ongoing							
9								Environm	ent				1	
	Noise&Environment	Opinion No.1 2018	Appendix 2, 3 to Delegated Act UAS in class C2 and C3 shall have a sound pressure level not exceeding 60 dB(A) (measured at a 3-m distance from the UA);	EASA	Mar-19	open	Opinion published							
10							Auto	nomous o	perations					
	Autonomous operations							AS6386 JAUS Autonomous Behaviors Service Set	This document, the JAUS Automated Behaviors and Diagnostics Service Set, defines a message-passing interface for services commonly found in mobile unmanned systems. These services represent the platform- independent capabilities accument across all domains. Additional capabilities are specified in the JAUS Core Service Set (ASS710) and are frequently referenced herein.	SAE AS-4JAUS Joint Architecture for Unmanned Systems Committee	May-19	standard	orgoing	
	Autonomous operations							ASTM Aviation Autonomy Roadmap	Task group to matix autonomy technologies and standards between manned and unammined aircraft.	ASTM	TBD	standards and practices	ongoing	Task Group Formed
	Development assurance (Software)							ASTM F3269 Standard Practice for Methods to Safely Bound Flight Behavior of Unmanned Aircraft Systems Containing Complex Functions	This standard practice defines design and last back practices that if bitrowing another pushes to an applicant for providing reviewed the ciril wainted approximation (CAA) back the text behavior of an unwenned alroad system (LAS) containing complex function(r) is constrained through a number assume (RTA) architecture to maintain an acceptable level of fligit safety.	ASTM F38 Uhmanned Aircraft Systems		standard	published	
	Autonomous operations							AS8024 JAUS Autonomous Behaviors Service Set	This document, the JAUS Automated Behaviors and Diagnostics Service Set, defines a message-passing interface for services commonly found in mobile unmained systems. These services represent the pattorm- independent capabilities are common across all domains. Additional capabilities are specified in the JAUS Core Service Set (ASS710) and are frequently referenced herein.	SAE AS-4JAUS Joint Architecture for Unmanned Systems Committee	May-19	standard	orgoing	The title will change to "JAUS Autonomous Capabilities Service Set"