Certification Specifications
and
Guidance Material
for Maintenance Certifying Staff Data

(CS-MCSD)

Issue 1

20 November 2020[1]

[1] For the date of entry into force of this issue, kindly refer to Decision 2020/019/R at the Official Publication of EASA.

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SUBPART A — GENERAL

CS MCSD.050 Scope

The certification specifications for maintenance certifying staff data address the following:

(a) the determination of a maintenance certifying staff type rating:

(1) to assign a maintenance licence type-rating endorsement for a candidate aircraft;

(2) to establish whether a candidate aircraft is recognised as variant or requires a type rating different from an existing aircraft;

(b) the minimum syllabus of the maintenance certifying staff type-rating training.

GM1 MCSD.050 Scope

Any reference to maintenance certifying staff type-rating training in this document should include all type training courses trainees (i.e. those attending a B1 or B2 or C approved type-rating training course as applicable to Part-66 maintenance licence holders) notwithstanding their status as certifying staff or support staff or just maintenance licence holder and the associated privileges in their aircraft maintenance organisation.

GM2 MCSD.050 Scope

(a) The determined type-rating endorsement is referenced in the type certified data sheet (TCDS).

(b) The aircraft type ratings for the maintenance licence endorsement are listed in Appendix I 'Aircraft Type Ratings for Part-66 Aircraft Maintenance Licences' of the AMC to Part-66.

(c) This list is periodically updated by EASA.

CS MCSD.100 Applicability

CS-MCSD is applicable to Group 1 aircraft as defined in point 66.A.5 of Part-66, in respect of which EASA establishes and notifies to the applicant the operational suitability data (OSD) certification basis in accordance with Part 21.

CS MCSD.105 Definitions

For the purposes of CS-MCSD, the following definitions apply:

applicant means an applicant for, or a holder of, a type certificate (TC), change approval or supplemental type certificate (STC) that applies for the approval by EASA of the related operational suitability data for maintenance certifying staff (OSD-MCS);

base aircraft (or baseline aircraft) means an aircraft model, as identified in the type certificate data sheet, taken as a reference to compare differences with a candidate aircraft;

candidate aircraft means an aircraft model subject to comparison with the base (or baseline) aircraft during the evaluation process of the operational suitability data for maintenance certifying staff (OSD-MCS);

Part 21 means Annex I to Commission Regulation (EU) No 748/2012 of 3 August 2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations;

Part-66 means Annex III to Commission Regulation (EU) No 1321/2014 of 26 November 2014 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks;

Part-147 means Annex IV to Commission Regulation (EU) No 1321/2014 of 26 November 2014 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks;

type rating (TR) means an aircraft type for which a maintenance type-rating training is requested before endorsing the type rating on the aircraft maintenance licence; an engine type is always associated to the type rating, and the type rating may cover several variants;

variant means an aircraft model or a certified configuration of a particular aircraft model that, although it differs from the base (or baseline) aircraft, requires the same maintenance type rating.

CS MCSD.106 Abbreviations

AFCS	auto flight control system
ALS	airworthiness limitation section
AMC	acceptable means of compliance
AML	aircraft maintenance licence
AMM	aircraft maintenance manual
ASM	aircraft schematic manual
ATA	Air Transport Association
BITE	built-in test equipment
CDCCL	critical design configuration control limitation
CDL	configuration deviation list
CMR	certification maintenance requirement
CPCP	corrosion prevention and control program
CS	certification specification
DVI	detailed visual inspection
ETOPS	extended-range twin-engine operational performance standard
EWIS	electrical wiring interconnection system
EZAP	enhanced zonal analysis procedure
FIM	fault isolation manual
FRM	fuel tank flammability reduction means
FRM	fault reporting manual
GM	guidance material
GVI	general visual inspection
HMI	human–machine interface
HUMS	health usage monitoring systems
ICA	instructions for continued airworthiness
IMA	integrated modular avionics
IPC	illustrated parts catalogue
MASE	maintenance areas of special emphasis
MCS	maintenance certifying staff
MMEL	master minimum equipment list
MRBR	maintenance review board report
MSTD	maintenance simulation training device
NDT	non-destructive testing

OSD	operational suitability data
OSD-MCS	operational suitability data for maintenance certifying staff
RVSM	reduced vertical separation minima
SDI	special detailed inspection
SPM	standard practice manual
SRM	structural repair manual
SSEPMS	solid-state electrical power management system
STC	supplemental type certificate as defined in Part 21
TC	type certificate as defined in Part 21
TCDS	type certificate data sheet
TCH	type certificate holder
TEM	tools and equipment manual
TNA	training needs analysis
TRT	type-rating training
TSM	troubleshooting manual
VHM	vibration health monitoring
WDM	wiring diagram manual

CS MCSD.110 Status of provided data

CS-MCSD specifies the data that is required from the applicant and the data that is provided to the applicant upon their request. Approved OSD-MCS are presented as mandatory or non-mandatory for the end user:

(a) data that is required from the applicant and that is mandatory for the end user (Box 1 as per GM1 MCSD.110): CS MCSD.400;

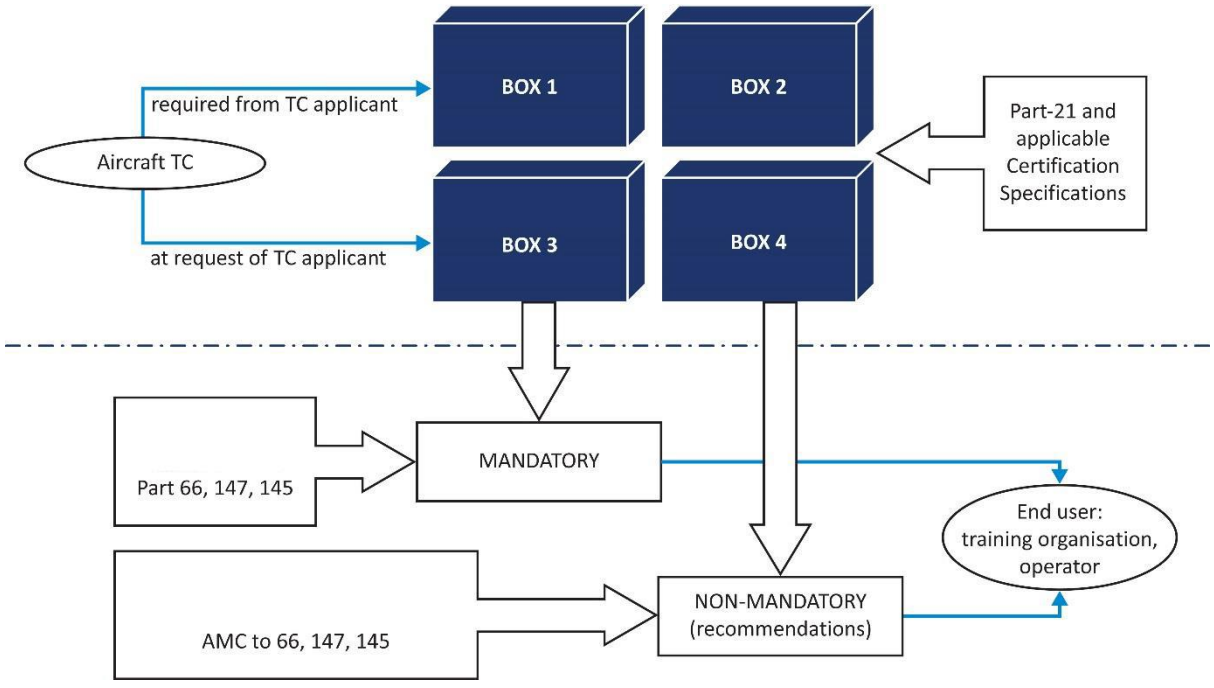
(b) data that is required from the applicant and that is non-mandatory for the end user (Box 2 as per GM1 MCSD.110): CS MCSD.500;

(c) data that is provided to the applicant upon their request and that is mandatory for the end user (Box 3 as per GM1 MCSD.110): CS MCSD.600;

(d) data that is provided to the applicant upon their request and that is non-mandatory for the end user (Box 4 as per GM1 MCSD.110): CS MCSD.700.

GM1 MCSD.110 Status of provided data — OSD box concept

DIAGRAM OF THE OSD BOX CONCEPT



Box 1: required from the applicant; mandatory for the end user

Box 2: required from the applicant; non-mandatory (recommendations) for the end user

Box 3: at the request of the applicant; mandatory for the end user

Box 4: at the request of the applicant; non-mandatory for the end user

SUBPART B — DETERMINATION OF THE MAINTENANCE TYPE RATING

CS MCSD.200 Type-rating determination process

The type rating proposed by the applicant and evaluated by EASA is the type rating for the purpose of endorsing the EASA Part-66 aircraft maintenance licence (AML).

The type rating should address all the variants included and identify the airframe–engine combinations.

GM1 MCSD.200 Type-rating determination process

The type-rating endorsement should be representative of the variants and the approved airframe–engine combinations covered by the type rating.

The type-rating endorsement comprises two components:

(a) the Airframe Identifier, and

(b) the Engine Identifier.

The resultant binomial nomenclature is: **Airframe Identifier (Engine Identifier)**.

Type-rating endorsement			
Airframe Identifier		**(Engine Identifier)**	
Manufacturer name (*)	Model, or series, or commercial designation (*)	Manufacturer name (*)	Model, or series (*)

The type-rating name may be simplified to avoid lengthy designations.

A component (or components) of the Airframe/Engine Identifier may be omitted, for the sake of simplicity, if it does (they do) not lead to ambiguities.

(*) In some circumstances, EASA may decide to replace the official name with the popular name.

CS MCSD.210 Determination of a different type rating

The following criteria should be used to determine when the candidate aircraft has a different type rating compared to an already certified aircraft and its existing type rating:

(a) the candidate aircraft has a different type certificate; or

(b) the candidate aircraft has a different airframe–engine combination; or

(c) the analysis of the candidate aircraft systems results in a substantial difference; or

(d) such a recommendation is made by the applicant and accepted by EASA.

GM1 MCSD.210 Determination of a different type rating

A comparison between base (or baseline) and candidate aircraft systems should be carried out. A new type-rating endorsement may be considered for the candidate aircraft if the analysis identifies differences in more than 30 % of the aircraft systems that are significant for the maintenance training in terms of:

— MASE,
— architecture,
— functionality,
— purpose,
— interrelation between the systems,
— installed components/equipment/units (function, location),
— materials used (with different physical characteristics, e.g. composites in the place of metallic),
— maintenance practices/procedures,
— technologies.

'30 %' is a reference value and the analysis should be supported by a qualitative assessment.

In general, the aircraft systems that are significant for the maintenance training are ATA 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 42 through 46, 47, 51 through 57, 61 through 67, and 71 through 85.

However, the applicant should identify what system they consider significant and relevant for the purpose of the specific type training.

The applicant should generate a 'differences table' (similar to the table in Appendix I to CS-MCSD 'Minimum Syllabus template') in order to identify and justify the systems' differences between the base (or baseline) and the candidate aircraft.

GM2 MCSD.210 Determination of a different type rating

A new variant should be considered whenever the comparison between base (or baseline) and candidate aircraft systems does not justify a new type rating because the competence required for the technicians can be acquired through a differences training between variants (for example, the candidate aircraft is the stretched fuselage version of the base (or baseline) aircraft).

SUBPART C — MINIMUM SYLLABUS CONTENT

CS MCSD.300 General

The content of the minimum syllabus applies to the type-rating training for base (or baseline) aircraft and their variants. It forms the basis for the development and approval of Part-66 type training courses.

CS MCSD.400 Box 1 content

The content of Box 1 comprises the following:

(a) the aircraft maintenance configuration;

(b) the minimum list of practical tasks;

(c) the maintenance areas of special emphasis (MASE).

CS MCSD.410 Aircraft maintenance configuration

For the purposes of CS-MCSD, aircraft maintenance configuration is the description of the aircraft and its systems for which maintenance actions are identified by the TCH in the design process documents (primarily but not limited to the ICAs).

The aircraft maintenance configuration shall be detailed at aircraft subsystem level and at component/unit level for cases where the novelty or other characteristics of the component justify/require such a level of detail.

The configuration shall be in accordance with the aircraft type design and shall be covered by the type-rating training.

GM1 MCSD.410 Aircraft maintenance configuration

The aircraft maintenance configuration should be detailed according to the method used by the TCH when providing the ICAs. ATA 100 is a standard accepted by EASA as it contains the reference to the ATA numbering system which is a common referencing standard for all commercial aircraft documentation. ATA 100 or most recent evolutions are preferred also for an optimal integration with Part-66 Appendix III.

The list of subjects should be detailed at ATA component level for cases where the novelty or other characteristics of the component justify/require such a level of detail.

As regards certified aircraft, the detailed maintenance configuration should cover the complete base (or baseline) aircraft configuration relevant to the maintenance type-rating training.

The list of subjects and topics may come from the aircraft maintenance manual (AMM) and other design process documents, as applicable:

— SRM: Structural Repair Manual,

— TSM/FIM/FRM: Troubleshooting Manual / Fault Isolation Manual / Fault Reporting manual,

— NDT: Non-Destructive Testing,

— MRBR: Maintenance Review Board Report,

— TEM: Tools and Equipment Manual,

— WDM: Wiring Diagram Manual,

— IPC: Illustrated Parts Catalogue,

— ASM: Aircraft Schematic Manual,

— SPM: Standard Practice Manual,

— MMEL associated maintenance procedures,

— CDL associated maintenance procedures,

— additional specific dispatch documentation (if any).

CS MCSD.420 Minimum list of practical tasks

The minimum list of practical tasks is a list of maintenance tasks that are relevant to the aircraft type and important for practical training purposes. These tasks should address training information that cannot adequately be explained by theoretical training alone.

The list should be created by analysing each of the ATA chapters with reference to the particular aircraft type and address the different parts of the aircraft that are representative of the structure, the systems and the components installed, and distributed in order to cover the applicable ATA chapters.

The list shall include the use of technical manuals and maintenance procedures and all pertinent subtasks, associated with the safe completion of each main task, such as isolating mechanical/electrical systems, opening/closing, locking flight controls, etc.

The practical tasks shall also be representative of the MASE.

The purpose of the minimum list is not to include all the maintenance tasks associated with a particular aircraft type, but to provide guidance for the end user to consider the appropriate task categories for the Part-66 type training requirements to be met.

GM1 MCSD.420 Minimum list of practical tasks

The objective of the minimum practical tasks is for maintenance staff to gain the required competence in performing safe maintenance, inspections and routine work according to the maintenance manual and other relevant instructions and tasks, for example: troubleshooting, structural damage assessment, allowable damage limits and deferrable defect rectification, repairs, adjustments, replacements, rigging and functional checks. The list includes training in the use of all technical literature and documentation for aircraft, the use of specialist/special tooling and test equipment for performing inspections, damage assessment, removal and replacement of components, and modules unique to the aircraft type.

The list may encompass the standard Part-66 Appendix III task categories and may include others that are deemed appropriate to the aircraft type:

— location of systems, subsystems, units and components;

— operation, control and indicating: normal/abnormal/emergency conditions;

— removal and installation procedure (open/close of accesses, deactivation/reactivation, use of test/support equipment, use of safety devices, cleaning, flushing);

— routine inspection/checks (GVI, DVI, SDI-NDT);

— non-routine inspection/checks;

— damage assessment, e.g. applicability of allowable damage limits and deferrable defect rectification for composite structure in accordance with AMC 20-29 and SAE AIR 6825;

— aircraft ground-handling procedures for storage, parking, mooring, lifting, jacking, shoring, towing, etc.;

— servicing, e.g. lubrication, hydraulic/oil/gas replenishing, gas charging/discharging, preserving/depreserving, data loading, fuelling/defuelling, de-icing/anti-icing, fluid draining, etc.;

— testing (operational, functional, BITE, etc.);

— fault isolation/troubleshooting;

— job set-up/close-up;

— MMEL maintenance dispatch conditions.

The selection of the practical tasks shall be complemented with clear instructions for their appropriate integration with the requirements of Appendix III of Part-66.

CS MCSD.430 Maintenance areas of special emphasis (MASE)

Maintenance areas of special emphasis (MASE) are elements considered by the applicant as having a degree of novelty, specificity or uniqueness relevant to the maintenance of the applicant's product. These could be technical or operational features that maintenance staff need to be aware of and to take into consideration.

MASE are also type- and safety-related knowledge, training and assessment areas that the applicant considers necessary to highlight to maintenance staff.

GM1 MCSD.430 Maintenance areas of special emphasis (MASE)

In order to identify the MASE, the applicant should consider the following:

☐ Novelty — related to special features derived from a new or unusual design of a system or a subsystem (e.g. not covered by Appendices I and III of Part-66):

- new materials or combination of materials;
- new manufacturing processes;
- new or unusual aircraft configuration and/or system architecture;
- novel reconfiguration of systems;
- new interface or interaction with other parts or systems;

- unusual location of a part of a system or unusual construction;
- new functions;
- new types of operations;
- the potential for new failure modes;
- introduction of a new threat (for example, new threats regarding fire, fuel, hydrogen, energy storage devices) or a new prevention/detection/mitigation method;
- new maintenance techniques;
- novel operating conditions or limitations;
- new human–machine interface (HMI);

☐ Specificity or uniqueness relevant to the aircraft maintenance.

☐ Criticality — related to the safety impact of the maintenance procedure on the aircraft and persons.

☐ Difficulty — depending on how difficult or complex it is to perform the maintenance task or procedure. It could include issues associated to human factors, performance and limitations, e.g.:

- accessibility;
- the effect of weight and volume on human physical limitations;
- environmental conditions (temperature, task lighting, noise levels, vibrations, etc.);
- HMI;
- the use of complex tools/equipment;
- specific interpretation skills and complexity of the work instructions;
- coordination among persons (teamwork).

☐ In-service experience.

The above-mentioned criteria are not exhaustive and do not exclude each other. The applicant may decide to include other applicable elements they consider valid for a particular aircraft type.

The applicant shall identify and put in place adequate methods and processes to capture the MASE.

Appendix II of Part-66 provides an example of a checklist that can help to identify the MASE correlated to the CS-25 and CS-29 requirements.

CS MCSD.500 Box 2 content

References (literature) to new technologies. In case of designs that include new technologies, materials and systems that are not covered by the basic training, the applicant should provide the relevant information necessary to develop the training and fill the gap.

CS MCSD.600 Box 3 content

Any element that, in addition to those grouped in Box 1, the applicant considers it should be part of the mandatory syllabus of the type-rating training (refer to Appendix III of Part-66).

GM1 MCSD.600 Box 3 content

Examples:

(a) Training levels and learning objectives for the Part-66 AML subcategories (B1, B2 and C), if the TCH considers it necessary to comply with.

(b) Type-rating training course instructional duration (i.e. consolidated per the whole course and/or segregated per elements of the minimum syllabus), if the TCH considers it necessary to comply with.

(c) Logical training sequence when the TCH considers that there are no alternative means to comply with.

The logical training sequence is the timewise order of imparting training elements of the minimum syllabus. The logical training sequence (i.e. the logical presentation of the aircraft systems and specific design to trainees) shall not follow the ATA chapters order and may vary according to the aircraft systems and their logical interface (e.g. ATA 29 training on hydraulic systems configuration should precede ATA 27 training on flight controls actuation).

(d) Trainee prerequisites (knowledge, experience, qualifications) for the particular aircraft type training, such as:

(1) previous exposure to and type of aircraft maintenance experience;

(2) aircraft type maintenance related elements for composite damage detection, assessment, repair and bonding, and appropriate knowledge, experience and awareness in accordance with AMC 20-29, SAE AIR 5719 and SAE AIR 6825;

(3) an introductory course on generic or specific information technology.

(e) Minimum syllabus for customer options/configurations corresponding to the type rating.

(f) Any element considered necessary by the applicant to cover the minimum syllabus differences between the base (or baseline) aircraft and another aircraft of the same manufacturer. A gap analysis shall be carried out and the result presented in a tabular format (like the one presented in Appendix I to CS-MCSD 'Minimum Syllabus template') in order to assess the minimum syllabus commonalities and differences. This constitutes the syllabus for the differences training as defined in Part-66 Appendix III point 1(c).

CS MCSD.700 Box 4 content

Any other additional elements (i.e. in addition to and beyond the contents of Box 1, Box 2 and Box 3) which the applicant recommends to the OSD-MCS end user.

GM1 MCSD.700 Box 4 content

Examples:

(a) Training levels and learning objectives for the Part-66 AML subcategories (B1, B2 and C), when the TCH considers that there are alternative means to comply with.

(b) Type-rating training course instructional duration (i.e. consolidated per the whole course and/or segregated per elements of the minimum syllabus), when the TCH considers that there are alternative means to comply with.

(c) Logical training sequence, when the TCH considers that there are alternative means to comply with.
The logical training sequence is the timewise order of imparting training elements of the minimum syllabus. The logical training sequence (i.e. the logical presentation of the aircraft systems and specific design to trainees) shall not follow the ATA chapters order and may vary according to the aircraft systems and their logical interface (e.g. ATA 29 training on hydraulic systems configuration should precede ATA 27 training on flight controls actuation).

(d) Training modes and methods to reach the training objectives, including potential practice on specific maintenance simulation training devices (MSTDs) to be used for imparting some of the type training syllabus elements.

(e) Outlines of any other supplemental courses, e.g. specialised training on:

(1) structure inspections and repairs, structural repair manual (SRM) practices, damage assessment, composite repairs, etc.;

(2) advanced troubleshooting;

(3) system test procedures, component adjustments and rigging;

(4) in-depth use of wiring diagrams, schematics and engineering data;

(5) fuel leak detection and repair;

(6) fuel tank inerting system;

(7) critical design configuration control list (CDCCL);

(8) electrical wiring interconnection systems (EWIS);

(9) cabin interior and emergency equipment;

(10) engine run-up;

(11) ground handling;

(12) taxiing;

(13) ramp and transit;

(14) cargo loading;

(15) base maintenance specific training;

(16) recurrent training;

(17) tasks for on-the-job training (OJT).

(f) Maintenance training syllabus for specialised operations (ETOPS, RVSM, CATII/III, etc.).

APPENDICES to CS-MCSD

Appendix I to CS-MCSD — Minimum Syllabus template

For the proper implementation of the training needs analysis (TNA) by the end users, it is recommended to present the minimum syllabus in a tabular format. A model template is represented below:

ATA (1)	SUBJECT	PRACTICAL TASK (2)	MASE? (3)	VARIANT APPLICABILITY
04-00	**AIR VEHICLE AIRWORTHINESS LIMITATIONS**			
05-00	**TIME LIMITS / MAINTENANCE CHECKS**			
05-10	Time Limits			
05-20	Scheduled Maintenance Checks			
05-50	Unscheduled Maintenance checks			
06-00	**DIMENSIONS AND AREAS**			
07-00	**LIFTING & SHORING**			
07-10	Jacking			
07-20	Shoring			
08-00	**LEVELING & WEIGHING**			
08-10	Weighing and Balancing			
08-20	Levelling			
09-00	**TOWING & TAXIING**			
09-10	Towing			
09-20	Taxiing			
10-00	**PARKING, MOORING, STORAGE & RETURN TO SERVICE**			
10-10	Parking/storage			
10-20	Mooring			
10-30	Return to Service			
11-00	**PLACARDS AND MARKINGS**			
11-10	Exterior Colour Schemes and Markings			
11-20	Exterior Placards and Markings			
11-30	Interior Placards			
12-00	**SERVICING**			
12-10	Replenishing			
12-20	Scheduled Servicing			
12-30	Unscheduled Servicing			
18-00	**VIBRATION AND NOISE ANALYSIS (HELICOPTERS ONLY)**			
18-10	VIBRATION ANALYSIS (Helicopters only)			
18-20	NOISE ANALYSIS (Helicopters only)			
20-00	**STANDARD PRACTICES — AIRFRAME (only type particular)**			

ATA ([1])	SUBJECT	PRACTICAL TASK ([2])	MASE? ([3])	VARIANT APPLICABILITY
21-00	**AIR CONDITIONING**			
21-10	Compression			
21-20	Distribution			
21-30	Pressurisation Control			
21-40	Heating			
21-50	Cooling			
21-60	Temperature Control			
21-70	Moisture / Air Contaminant Control			
22-00	**AUTOFLIGHT**			
22-10	Autopilot			
22-20	Speed Attitude Correction			
22-30	Autothrottle			
22-40	System Monitor			
22-50	Aerodynamic Load Alleviating			
23-00	**COMMUNICATIONS**			
23-10	Speech Communications			
23-15	SATCOM			
23-20	Data Transmission and Automatic Calling			
23-30	Passenger Address, Entertainment and Comfort			
23-40	Interphone			
23-50	Audio Integrating			
23-60	Static Discharging			
23-70	Audio & Video Monitoring			
23-80	Integrated Automatic Tuning			
24-00	**ELECTRICAL POWER**			
24-10	Generator Drive			
24-20	AC Generation			
24-30	DC Generation			
24-40	External Power			
24-50	AC Electrical Load Distribution			
24-60	DC Electrical Load Distribution			
25-00	**EQUIPMENT/FURNISHINGS**			
25-10	Flight Compartment			
25-20	Passenger Compartment			
25-30	Galleys			
25-40	Lavatories			
25-50	Additional Compartments			
25-60	Emergency			
25-70	Available			
25-80	Insulation			
25-90	Aerial Delivery (Rescue Hoist, Cargo Hook, Bambi Bucket)			
26-00	**FIRE PROTECTION**			
26-10	Detection			
26-20	Extinguishing			

ATA ([1])	SUBJECT	PRACTICAL TASK ([2])	MASE? ([3])	VARIANT APPLICABILITY
26-30	Explosion Suppression			
27-00	**FLIGHT CONTROLS**			
27-10	Aileron & Tab			
27-20	Rudder & Tab			
27-30	Elevator & Tab			
27-40	Horizontal Stabiliser			
27-50	Flaps			
27-60	Spoiler, Drag Devices and Variable Aerodynamic Fairings			
27-70	Gust Lock & Dampener			
27-80	Lift Augmenting			
28-00	**FUEL**			
28-10	Storage			
28-20	Distribution			
28-30	Dump			
28-40	Indicating			
29-00	**HYDRAULIC POWER**			
29-10	Main			
29-20	Auxiliary			
29-30	Indicating			
30-00	**ICE AND RAIN PROTECTION**			
30-10	Aerofoil			
30-20	Air Intakes			
30-30	Pitot and Static			
30-40	Windows, Windshields and Doors			
30-50	Antennas and Radomes			
30-60	Propellers/Rotors			
30-70	Water Lines			
30-80	Detection			
31-00	**INDICATING/RECORDING SYSTEMS**			
31-10	Instrument & Control Panels			
31-20	Independent Instruments			
31-30	Recorders			
31-40	Central Computers			
31-50	Central Warning Systems			
31-60	Central Display Systems			
31-70	Automatic Data Reporting Systems			
32-00	**LANDING GEAR**			
32-10	Main Landing Gear and Doors			
32-20	Nose Landing Gear and Doors			
32-30	Extension and Retraction			
32-40	Wheels and Brakes			
32-50	Steering			
32-60	Position Indication and Warning			
32-70	Supplementary Gear			
33-00	**LIGHTS**			
33-10	Flight Compartment			

ATA ([1])	SUBJECT	PRACTICAL TASK ([2])	MASE? ([3])	VARIANT APPLICABILITY
33-20	Passenger Compartment			
33-30	Cargo and Service Compartments			
33-40	Exterior			
33-50	Emergency Lighting			
34-00	**NAVIGATION**			
34-10	Flight Environment Data			
34-20	Attitude & Direction			
34-30	Landing and Taxiing Aids			
34-40	Independent Position Determining			
34-50	Dependent Position Determining			
34-60	Flight Management Computing			
35-00	**OXYGEN**			
35-10	Crew			
35-20	Passenger			
35-30	Portable			
36-00	**PNEUMATIC**			
36-10	Distribution			
36-20	Indicating			
37-00	**VACUUM**			
37-10	Distribution			
37-20	Indicating			
38-00	**WATER/WASTE**			
38-10	Potable			
38-20	Wash			
38-30	Waste Disposal			
38-40	Air Supply			
41-00	**WATER BALLAST**			
41-10	Storage			
41-20	Dump			
41-30	Indication			
42-00	**INTEGRATED MODULAR AVIONICS (IMA)**			
44-00	**CABIN SYSTEMS**			
44-10	Cabin Core System			
44-20	In-flight Entertainment System			
44-30	External Communication System			
44-40	Cabin Mass Memory System			
44-50	Cabin Monitoring System			
44-60	Miscellaneous Cabin Systems			
45-00	**CENTRAL MAINTENANCE SYSTEM (CMS)**			
46-00	**INFORMATION SYSTEMS**			
46-10	Aeroplane General Information Systems			
46-20	Flight Deck Information Systems			
46-30	Maintenance Information Systems			
46-40	Passenger Cabin Information Systems			

ATA ([1])	SUBJECT	PRACTICAL TASK ([2])	MASE? ([3])	VARIANT APPLICABILITY
46-50	Miscellaneous Information Systems			
47-00	**NITROGEN GENERATION SYSTEM**			
49-00	**AIRBORNE AUXILIARY POWER**			
49-10	Power Plant			
49-20	Engine			
49-30	Engine Fuel and Control			
49-40	Ignition/Starting			
49-50	Air			
49-60	Engine Controls			
49-70	Indicating			
49-80	Exhaust			
49-90	Oil			
50-00	**CARGO AND ACCESSORY COMPARTMENTS**			
50-10	Cargo Compartments			
50-20	Cargo-Loading Systems			
50-30	Cargo-Related Systems			
50-40	Available			
50-50	Accessory			
50-60	Insulation			
51-00	**STANDARD PRACTICES — GENERAL**			
51-10	Investigation, Clean-up and Aerodynamic Smoothness			
51-20	Processes			
51-30	Materials			
51-40	Fasteners			
51-50	Support of Aeroplane for Repair and Alignment Check Procedures			
51-60	Control Surface Balancing			
51-70	Repairs			
51-80	Electrical Bonding			
52-00	**DOORS**			
52-10	Passenger/Crew			
52-20	Emergency Exits			
52-30	Cargo			
52-40	Service and Miscellaneous			
52-50	Fixed Interior			
52-60	Entrance Stairs			
52-70	Monitoring and Operation			
52-80	Landing Gear			
53-00	**FUSELAGE**			
53-10 thru -90	(As Required) Fuselage Sections			
54-00	**NACELLES/PYLONS**			
54-10	thru (As Required) Nacelle Section			
54-50	thru (As Required) Pylon			
55-00	**STABILISERS**			

ATA ([1])	SUBJECT	PRACTICAL TASK ([2])	MASE? ([3])	VARIANT APPLICABILITY
55-10	Horizontal Stabiliser or Canard			
55-20	Elevator			
55-30	Vertical Stabiliser			
55-40	Rudder			
56-00	**WINDOWS**			
56-10	Flight Compartment			
56-20	Passenger Compartment			
56-30	Doors			
56-40	Inspection and Observation			
57-00	**WINGS**			
57-10	Central Wing			
57-20	Outer Wing			
57-30	Wing Tip			
57-40	Leading Edge and Leading-Edge Devices			
57-50	Trailing Edge and Trailing-Edge Devices			
57-60	Ailerons, Elevons and Flaperons			
57-70	Spoilers			
57-80	Wing Folding System			
60-00	**STANDARD PRACTICES PROPELLER/ROTOR**			
61-00	**PROPELLERS/PROPULSION**			
61-10	Propeller Assembly			
61-20	Controlling			
61-30	Braking			
61-40	Indicating			
61-50	Propulsor Duct			
62-00	**ROTOR(S)**			
62-10	Rotor Blades			
62-20	Rotor Head(s)			
62-30	Rotor Shaft(s) / Swashplate Assy(ies)			
62-40	Indicating			
63-00	**ROTOR DRIVE(S)**			
63-10	Engine/Gearbox Couplings			
63-20	Gearbox(es)			
63-30	Mounts, Attachments			
63-40	Indicating			
63-50	Rotor Brake			
63-60	Drain Lines			
64-00	**TAIL ROTOR**			
64-10	Rotor Blades			
64-20	Rotor Head			
64-30	Available			
64-40	Indicating			
65-00	**TAIL-ROTOR DRIVE**			
65-10	Shafts			

ATA ([1])	SUBJECT	PRACTICAL TASK ([2])	MASE? ([3])	VARIANT APPLICABILITY
65-20	Gearboxes			
65-30	Available			
65-40	Indicating			
66-00	**FOLDING BLADES / PYLON**			
66-10	Rotor Blades			
66-20	Tail Pylon			
66-30	Controls and Indicating			
67-00	**ROTORS FLIGHT CONTROL**			
67-10	Rotor			
67-20	Antitorque Rotor Control (Yaw Control)			
67-30	Servocontrol System			
70-00	**STANDARD PRACTICES — ENGINES**			
71-00	**POWER PLANT**			
71-10	Cowling			
71-20	Mounts			
71-30	Fireseals			
71-40	Attach Fittings			
71-50	Electrical Harness			
71-60	Air Intakes			
71-70	Engine Drains			
72-00	**ENGINE TURBINE / TURBOPROP DUCTED FAN / UNDUCTED FAN**			
72-10	Reduction Gear, Shaft Section (Turboprop and/or Front-Mounted Gear-Driven Propulsor)			
72-20	Air-Inlet Section			
72-30	Compressor Section			
72-40	Combustion Section			
72-50	Turbine Section			
72-60	Accessory Drives			
72-70	Bypass Section			
72-80	Propulsor Section (Rear Mounted)			
73-00	**ENGINE FUEL AND CONTROL**			
73-10	Distribution			
73-20	Controlling			
73-30	Indicating			
74-00	**IGNITION**			
74-10	Electrical Power			
74-20	Distribution			
74-30	Switching			
75-00	**AIR**			
75-10	Engine Anti-icing			
75-20	Cooling			
75-30	Compressor Control			
75-40	Indicating			
76-00	**ENGINE CONTROLS**			

ATA ([1])	SUBJECT	PRACTICAL TASK ([2])	MASE? ([3])	VARIANT APPLICABILITY
76-10	Power Control			
76-20	Emergency Shutdown			
77-00	**ENGINE INDICATING**			
77-10	Power			
77-20	Temperature			
77-30	Analysers			
77-40	Integrated Engine Instrument Systems			
78-00	**EXHAUST**			
78-10	Collector/Nozzle			
78-20	Noise Suppressor			
78-30	Thrust Reverser			
78-40	Supplementary Air			
79-00	**OIL**			
79-10	Storage			
79-20	Distribution			
79-30	Indicating			
80-00	**STARTING**			
80-10	Cranking			
81-00	**TURBINES**			
81-10	Power Recovery			
81-20	Turbo Supercharger			
82-00	**WATER INJECTION**			
82-10	Storage			
82-20	Distribution			
82-30	Dumping and Purging			
82-40	Indicating			
83-00	**ACCESSORY GEARBOXES**			
83-10	Drive-Shaft Section			
83-20	Gearbox Section			
84-00	**PROPULSION AUGMENTATION**			
84-10	Jet Assist Take-off			
85-00	**RECIPROCATING ENGINE**			
85-10	Fuel Cell Stack			
95-00	**CREW ESCAPE AND SAFETY**			
95-50	Global survival kits			
95-60	Impact Protection and Flotation			
97-00	**IMAGE RECORDING**			
97-50	Video cameras			

([1]) At component/unit level, if necessary.

([2]) For the appropriate integration with the requirements of Part-66 Appendix III point 3.2, the selection of the practical tasks shall include:

- ☐ LOC: Location;
- ☐ FOT: Functional/Operational Test, BITE;
- ☐ SGH: Servicing (lubrication, hydraulic replenishing, etc.);
- ☐ R/I: Removal/Installation;
- ☐ (M)MEL: Minimum Equipment List maintenance dispatch tasks (M);

- ☐ TS: Troubleshooting, fault isolation.

([3]) This section should be used to insert any relevant information that maintenance staff need to be aware of and take into consideration. The rationale for the MASE could be explained in terms of (non-exhaustive list):

- ❑ Novelty
- ❑ Specificity/Uniqueness
- ❑ Criticality
- ❑ Difficulty
- ❑ In-Service Experience
- ❑ Others

The relevant information should help the instructor acquire an adequate understanding of the MASE in order to transfer the correct information to the student.

Appendix II to CS-MCSD — MASE identification checklist

Subject	Description	ATA (*)	Reasons for MASE	Reference
ICA Format	Any significant information to be emphasised regarding: (a) the content, the **form**, the **format**, the **organisation** and **access** to the Instructions for Continued Airworthiness (ICAs).	ALL	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS-25 / CS-29 Appendix H25.2 / A29.2
Maintenance — General (Rem/Inst)	Any significant information to be emphasised regarding: (a) information that describes the order and **method of removing and replacing** products and parts with any necessary precautions to be taken.	ALL	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— AMM — CS-25 / CS-29 Appendix H25.3 / A29.3
Maintenance — General (ETOPS)	Any significant information to be emphasised regarding: (a) **ETOPS maintenance significant systems** and operational procedures.	21 26 36 49 7x …	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS 25.1535 — ETOPS Design Approval — AMC 20-6 — ETOPS Certification and Operation
Maintenance — General (Accessibility)	Any significant information to be emphasised regarding: (a) the means **to allow inspection** (including the inspection of principal structural elements and control systems); (b) the **replacement of parts** normally requiring replacement, adjustment and lubrication, as necessary, for their continued airworthiness; (c) **the practicability for the inspection;** (d) **the use of non-destructive inspection aids;** (e) the diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided; (f) the means that must be provided to allow for the **inspection of the EWIS** and the replacement of its components, as necessary, for its continued airworthiness.	ALL	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS 25.611 — Accessibility provisions — CS-25 / CS-29 Appendix H25.3 / A29.3 — CS 25.1719 and related AMC — EWIS Accessibility Provisions — CS 29.901
Time Limits (ALS)	Any significant information to be emphasised regarding: (a) the **Airworthiness Limitations**, the mandatory replacement times, the structural inspection intervals, and the related structural inspection procedures; (b) the mandatory replacement times for the EWIS components.	05	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS-25 / CS-29 Appendix H25.4 / A29.3 and related AMC

Subject	Description	ATA (*)	Reasons for MASE	Reference
Time Limits (CMRs)	Any significant information to be emphasised regarding: (a) the **certification maintenance requirements (CMRs)**	ALL	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS 25.1309 Equipment, systems and installations and related AMC — AMC 25-19 Certification Maintenance Requirements
Time Limits (EWIS)	Any significant information to be emphasised regarding: (a) the maintenance and **inspection requirements** for the **EWIS** developed with the use of an enhanced zonal analysis procedure (EZAP).	ALL	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— AMC to Appendix H, H25.5 — AMC 20-23 Development of Electrical Standard Wiring Practices documentation — AMC 20-21 Programme to enhance aeroplane (EWIS) maintenance — AMC 20-21 Programme to enhance aeroplane (EWIS) maintenance — MRBR
Scheduled Maintenance	Any significant information to be emphasised regarding: (a) the scheduling of the information for each part of the aeroplane and its engines, auxiliary power units, propellers, accessories, instruments, and equipment, which provides the recommended periods at which they should be: — **cleaned,** — **inspected,** — **adjusted,** — **tested,** — **lubricated,** (b) the **degree of inspection** (GVI, DVI, DET, SDI, etc.) and the applicable **wear tolerances**, etc.	ALL	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS-25 / CS-29 Appendix H25.3 / A29.3 — MRBR

Subject	Description	ATA (*)	Reasons for MASE	Reference
Scheduled Maintenance (Structures — General)	Any significant information to be emphasised regarding: (a) the material's specific characteristics and typical related structural design constructions for metallic, composite and other non-metallic structures; (b) the methods and procedures for the inspection of the critical structures for fatigue damage, accidental damage, and environmental degradation (including but not limited to corrosion, erosion, moisture ingress, exposition to radiation and extreme temperatures); (c) the cleaning of inspection areas prior to inspection and (re)application of protective treatments to the structure after the inspection; (d) a corrosion prevention and control programme (CPCP) for metallic structures, including basic corrosion inspection task, task areas, and defined corrosion levels; (e) the reporting of findings.	ALL	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS 25.571 — AMC 25.571(a), (b) & (e) Damage Tolerance and Fatigue Evaluation of the Structure — Inspection Programme — AMC 20-20 Continuing Structural Integrity Programme — CS 25.603 Materials — CS 29.573
Unscheduled Maintenance (Structures — General)	Any significant maintenance information to be emphasised in case of conditional inspections, e.g. impact on the ground by foreign vehicles or objects, ground service equipment or in-flight by parts departing from the aircraft: (a) typical damage scenarios; (b) damage detection, identification and assessment, including usage of specific inspection tools (see also Standard Practices Airframe); (c) removal, rework or repair of the structural damage; (d) usage of allowable damage limits and deferrable defect rectification; (e) documentation, recording and reporting.	ALL	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— Manufacturer SRM
Unscheduled Maintenance (Troubleshooting)	Any significant information to be emphasised regarding: (a) troubleshooting information describing probable malfunctions, **how to recognise those malfunctions, and the remedial action** for those malfunctions.	ALL	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS-25 / CS-29 Appendix H25.3 / A29.3
Unscheduled Maintenance (Volcanic clouds and volcanic ash)	Any significant information to be emphasised regarding: (a) the **recommended inspections** associated with operations in volcanic-cloud-contaminated airspace and to/from volcanic-ash-contaminated aerodromes; (b) the **susceptibility of the aeroplane features to the effects of volcanic cloud hazards.**	7x …	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS 25/29.1593 Exposure to volcanic cloud hazards — AMC 25/29.1593 Exposure to volcanic cloud hazards

Subject	Description	ATA (*)	Reasons for MASE	Reference
Unscheduled Maintenance (General)	Any significant maintenance information to be emphasised in case of conditional inspections. Here are some examples: (a) hard landing (b) overweight taxiing (c) bird/hail strike (d) aborted take-off (e) high-energy stop (f) wheel bearing failure (g) exceeding max NLG steering angle (h) MLG shimmy/vibrations (i) lightning strike/HIRF (j) tail strike (k) winglet strike (l) severe turbulence/extreme high winds (m) airframe vibrations (n) ice/snow conditions (o) flight control down overspeed (p) hot-air duct rupture (q) relief pressure panels open (r) mercury spillage (s) galley spill (t) hydraulic fluid reaction with titanium (u) cabin overpressure (v) fuel imbalance exceedance (w) smoke/fumes in cabin (x) abnormal doors operations (y) ferry flight maintenance (z) others	05	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— No specific reference
Aircraft jacking, shoring, levelling, weighing, balancing	Any significant information to be emphasised regarding: (a) the general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the centre of gravity, lifting and shoring, and storage limitations.	06 07 08	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS-25 / CS-29 Appendix H25.3 / A29.3
Towing	Any significant information to be emphasised regarding: (a) the nose-wheel steering system, **towing attachment(s)**, and associated elements; (b) the **protections** during ground manoeuvring operations; (c) the preclusion of damages affecting the safe operation of the nose-wheel steering system; (d) any specific **combination(s) of towbarless towing vehicle(s);** (e) **the limitations** to be specified; (f) aircraft braking while the aircraft is being towed during normal towbarless towing; (g) the appropriate information to inspect the affected structure should aircraft braking occur, for example, in an emergency situation.	09	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS 25.745 Nose-wheel steering and related AMC — CS 25.509 Towing Loads Towbarless Towing and related AMC

Subject	Description	ATA (*)	Reasons for MASE	Reference
Placards and Markings	Any significant information to be emphasised regarding: (a) the labelling, identification, function or operating limitations; (b) the EWIS component identification.	11	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS 25.1301 Function and installation — AMC 25.1301(a)(2) — CS 25.1711 EWIS Component Identification and related AMC — CS 29.1541, 29.1557
Servicing	Any significant information to be emphasised regarding: (a) servicing information on the following: — **servicing points** — **capacities of tanks, reservoirs** — **types of fluids to be used** — **pressures applicable to the various systems** — **location of access panels for inspection and servicing** — **locations of lubrication points** — **lubricants to be used** — **equipment required for servicing**	ALL	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS-25 / CS-29 Appendix H25.3 / A29.3
Autoflight	Any significant information to be emphasised regarding: (a) the critical design configuration with respect to the integration of the AFCS and stabilisation system with reference to the control of all flight conditions; (b) the visible means of identifying critical design features (e.g. wire colour-coding to identify separation limitation); (c) the protective features incorporated to prevent faulty operation.	22	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— No specific reference
Electrical	Any significant information to be emphasised regarding: (a) the critical design configuration with respect to the integration of the SSEPMS; (b) the visible means of identifying critical design features (e.g. wire colour-coding to identify separation limitation); (c) the protective features incorporated to prevent faulty operation.	24	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— No specific reference
Flight Controls — General (Cable Inspection)	Any significant information to be emphasised regarding: (a) the provisions for the visual inspection of **fairleads, pulleys, terminals and turnbuckles.**	27	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS 25.689(f) Cable systems — CS 29.685
Fuel Tank Ignition Prevention (CDCCL)	Any significant information to be emphasised regarding: (a) critical design configuration control limitations (CDCCL), and inspections; (b) the visible means of identifying critical design features (e.g. wire colour-coding to identify separation limitation); (c) the protective features incorporated to prevent a catastrophic fuel tank ignition.	28	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS 25.981(d) Fuel Tank Ignition Prevention and related AMC

Subject	Description	ATA (*)	Reasons for MASE	Reference
Fuel Tank Ignition Prevention (FRM)	Any significant information to be emphasised regarding: (a) the hazards to be considered during maintenance of the fuel system and of the **fuel tank flammability reduction means (FRM)**; these procedures are included in the ICAs.	28	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS-25 APPENDIX M M25.4 Fuel Tank Flammability Reduction Means — FRM Airworthiness limitations and procedures
Indicating / Recording System	Any significant information to be emphasised regarding: (a) electronic flight deck displays; (b) software uploading/downloading procedures.	31	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— AMC 25-11§9 Electronic Flight Deck Displays
Standard Practices Airframe	Any significant information to be emphasised regarding: (a) the details for the application of **special inspection techniques** including radiographic and ultrasonic testing where such processes are specified; (b) the information needed to apply protective treatments to the structure after the inspection; (c) all the data relative to **structural fasteners** such as identification, discard recommendations, and torque values; (d) **special tools** needed.	51 …	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS-25 / CS-29 Appendix H25.3 / A29.3

Power Plant	Any significant information to be emphasised regarding: (a) the **installation** and operation of the Engine; (b) the definition of the physical and **functional interfaces** with the aircraft and the aircraft equipment; (c) the **limitations** and **specifications** for the Engine Control System; (d) the Engine **airworthiness limitations**, and the procedures required for the **Engine Critical Parts;** (e) the **mandatory action or limitation for in-service maintenance** and repair; (f) the mandatory **post-flight inspections** and maintenance actions; (g) the description/**control of the Engine** and its components, systems and installations; (h) the **handling instructions**, including proper procedures for un-crating, de-inhibiting, acceptance checking, lifting and attaching accessories, with any necessary checks; (i) the information describing the **methods of starting, running, testing and stopping** the Engine or its components and systems, including any special procedures and limitations that apply; (j) the **servicing information** that covers details regarding servicing points, capacities of tanks, reservoirs, **types of fluids** to be used, pressures applicable to the various systems, locations of lubrication points, lubricants to be used and equipment required for servicing; (k) **troubleshooting** information describing probable malfunctions**, how to recognise those malfunctions and the remedial action** for those malfunctions; (l) the information describing the order and method of **removing the Engine** and its parts and replacing parts, the order and method of disassembly and assembly, with any necessary precautions to be taken; instructions for proper ground-handling, crating and shipping must also be included; (m) **cleaning** and inspection instructions that cover the material and apparatuses to be used and methods and precautions to be taken; (n) the details of **repair methods** for worn or otherwise non-serviceable parts and components along with the information necessary to determine when replacement is necessary; details of all relevant fits and clearances; (o) the instructions for **testing,** including test equipment and instrumentation; (p) the instructions for **storage** preparation, including any storage limits; (q) the list of the **tools** and equipment necessary for maintenance and directions as to their method of use.	7x	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— CS 25/29.901(b)(1) Power plant installation

Subject	Description	ATA (*)	Reasons for MASE	Reference
Thrust Reverser	Any significant information to be emphasised regarding: (a) the identification of all **maintenance tasks that are critical** for continued safe flight; (b) the **complexity of lock-out procedures** and appropriate verification.	78 …	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— AMC to 25.933(a)(1) Unwanted in-flight thrust reversal of turbojet thrust reverser
Thrust Reverser (Propellers)	Any significant information to be emphasised regarding: (a) the **criticality of the control system;** (b) the need to emphasise the maintenance and maintainability.	78 …	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— AMC to 25.1155§7 Reverse Thrust and Propeller Pitch Settings
Helicopter Vibration Health Monitoring (VHM)	Any significant information to be emphasised regarding rotorcraft health usage monitoring systems (HUMS), such as: (a) installation of the VHM system; (b) line maintenance of the VHM system (including VHM system fault-finding, and any calibration necessary); (c) use of the VHM system during line maintenance to monitor the rotorcraft, including data transfer, interface with data analysis, response to alerts and alarm processing, rotorcraft fault-finding and other line maintenance diagnostic actions; (d) the necessary system administration functions, covering operational procedures relating to data transfer and storage, recovery from failed downloads and the introduction of hardware and software modifications; (e) any data analysis and reporting functions that are expected to be performed by the operator.	18	☐ Novelty ☐ Specificity/Uniqueness ☐ Criticality ☐ Difficulty ☐ In-Service Experience ☐ Others	— AMC 29.1465 Vibration health monitoring

(*) ATA chapters usually involved.