Modification and Repair Approval Application Report

Submission format

The application report must be structured to cover the required information under at least the suggested subject headings listed in the "Application Report Paragraphs" listed below. If any particular item is not applicable to the application then a brief statement to indicate why this is so must be recorded. This listing as a whole should not be considered to be exhaustive, it is conceivable that some additional information may be requested in order to substantiate, investigate and review any unusual design features of the modification or repair.

The application report and all documents referenced in the application report shall have proper document control, such as by means of the document holder, document reference number, revision status/date and etc

Application Report Paragraphs

COVER PAGE

Application Report Number:
Company Name:

Aircraft Type/Model:
Aircraft Registration:
Aircraft Serial Number:

Name of applicant:
Position of applicant:

Date:

Signature:

PARAGRAPHS & CONTENTS

1. Description of Modification/Repair.

This paragraph describes how the modification/repair will be performed.

It should give details of any systems, or components removed, and any installed, and give details of any new components and their location.

2. Reason/Purpose for Modification/Repair.

This paragraph explains why the modification/repair is required.

3. Existing Modification/Repair Approval

This paragraph shall contain any previously approved proprietary items such as STC, DOA approval reference, Airbus RAS, FAA Form 337, etc.

4. Classification of Modification/Repair

This paragraph shall contain a written assessment of the classification. Assessment of the modification classification shall be documented using the guidelines given in EASA Part 21, GM 21A.9

Assessment of the repair classification shall be documented using the guidelines given in EASA Part 21, GM 21.A.435(a)

5. Certification Basis

Original Product Type Certificate (TC)

This paragraph contains the State of Design and its TC and TCDS number.

Original Certification Basis

This paragraph shall state the original certification basis when the aircraft was type accepted in The Kingdom of Thailand. It shall include at least the top level certification basis with applicable amendment level.

Example for Airbus A320-231 (referenced in EASA TCDS EASA.A.064 paragraph 1.3.1.2):

- *JAR 25 Change 11 (except paragraph 25.207 which remains at Change 10) as elected by the Manufacturer*
- *A320 Special Conditions, Experience Related Conditions and Harmonization Conditions.*

Proposed Certification Basis

This paragraph shall state the proposed certification basis for the modification/repair design. The proposed certification basis shall include all applicable paragraphs of the following requirements:

- *Basic design (FAR 23-29, CS 23-29, CS-E, CS-P, etc)*
- *ANRM Article and Schedule*
- *Environmental Requirements:*

  ICAO Annex 16 Volume I Aircraft Noise and ICAO Annex 16 Volume II Aircraft Engine Emissions
- *Design Requirements Associated with Operational Approvals ETOPS, RNP/MNPS, RVSM, AWO, etc.*

6. Compliance with the Certification Basis

Compliance with each proposed certification basis must be clearly demonstrated in this paragraph.

Examples of acceptable means of compliance are:

- *TC holder's support along with approval issued by the State of Design, e.g. EASA STC, EASA Minor change, Airbus RAS or RDAS, Boeing FAA Form 8110-9, etc.*
- *Stress analysis report*
- *Electrical load analysis*
- *Mass and Balance*
- *Safety Analysis*
- *Substantiation report*
- *Test report (inc EMC, and good functioning)*
- *Compliance statement*

7. Modification/Repair Procedures and Accomplishment Instructions

This paragraph shall list out the document reference for the procedures and accomplishment instructions such as Service Bulletin, Engineering Order, Technical Disposition, Master Drawing List, etc.

8. Equipment Approval/Component listing

Equipment and components to be installed must be approved. This paragraph shall contain a list of the equipments and components with their associated approval reference (such as EASA Form ONE, FAA Form 8130-3, FAATSO/ EASATSO & Class, Flammability compliance, etc).

9. Environmental Issues

Consideration of environmental issues such as noise, engine emissions, cooling, vibration, contamination risks, etc. must be addressed in this paragraph.

10. Aircraft Flight Manual Supplement (AFMS)

As a result of the modification/repair embodiment, if any AFMS is introduced, it must be stated in this paragraph.

11. Electrical Load Analysis (ELA)

This paragraph shall contain the assessment of the ELA for each aircraft. An updated ELA or supplement draft shall be provided.

12. Weight (Mass) and Balance Schedule (W&B) Amendment

Assessment on W&B schedule amendment must be addressed in this paragraph.

13. MMEL/MEL Amendment

This paragraph shall list out the proposed MMEL/MEL amendment.

14. Instruction to Continued Airworthiness (ICA) and Operational Requirements

This paragraph shall detail the ICA and operational requirements with its associated supporting document/drawings amendment as follows:

- *Aircraft Maintenance Manual (AMM)*
- *Illustrated Parts Catalogue (IPC)*

- *Aircraft Wiring Manual (AWM)*
- *Component Maintenance Manual (CMM)*
- *Layout of Passenger Accommodation (LOPA)*
- *Emergency Equipment Layout*
- *Maintenance Programme (MP)*
- *Airworthiness Limitations*
- *Special Inspection Technique*
- *Protective Treatment after inspection*
- *Provisioned parts, toolings and equipments*
- *Reliability Assessment*
- *Operations manuals*
- *Etc*

15. Crew Notices, Labels, Placards, Ground Service Instructions and Passenger Information

This paragraph shall contain a list of information to fulfill operational requirements. This information includes but not limited to notice to flight crew and cabin crew, additional labels and placards, instructions for ground service, information for passenger, etc.

16. Interface Considerations

Effects on other systems, previous modifications/repairs, operating procedures, must be stated in this paragraph.

17. Limitations

This paragraph shall detail out any limitations affecting the approval, such as limited cycles, flight hours, calendar time, operating limitation (airspeed, flight rule and etc.), Airworthiness Limitations (mandatory inspections), required equipment, number of crew/passenger, etc.

18. Post Installation Ground Checks

For design verification, any conformity inspection, operational and functional ground checks must be stated in this paragraph.

19. Flight Test Requirements

If applicable, this paragraph shall consist of an approved flight test schedule in order to verify the design with regard to performance and system functions.

20. Attachments

All referenced documents shall be listed and attached to the report in order of reference in the report. Below is an example of the listing reference documents:

#	Document Description	Issuer	Doc #	Issue Date	Rev
1	Modification approval	ABC Design	DOA-1234	01-Feb-2012	B
2	Modification classification assessment	ABC Design	DOA-1234	01-Feb-2012	B
3	Modification Instruction Sheet	ABC Design	MIS-456	15-Jan -2012	A
4	Engineering Order	YYY Airline	EO 25-05	15-Mar-2012	1
5	Engineering Order	XXX Airline	EO 23-08	15-Apr-2012	2
6	EASA Form ONE	AAA Ltd	D.1234-56	01-Aug-2011	--
7	Flammability Report	AB Fabric Ltd	FR-9876	10-July-2011	A
8	ELA report	XYZ Airline	ELA-0001	01-Apr-2012	00
9	IPC Supplement	ABC Design	IPCS-8888	20-Jan-2012	C
10	MP amendment	XYZ Airline	MP TR-15	15-Apr-2012	1
11	Notice to cabin crew	XYZ Airline	CC-3456	20-Apr-2012	00