CIVIL AVIATION PUBLICATION

CAP 23

MAINTENANCE MANAGEMENT EXPOSITIONS

INDEX

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INDEX

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1. GENERAL

1.1 Intent

This Civil Aviation Publication (CAP) provides information and CAA policy regarding the contents of a Maintenance Management Exposition (MME).

1.2 References

This CAP should be read in conjunction with the following documents used as reference material.

(a) CAR OPS 1 or 3 Subpart M;

(b) Appendix 2 to AMC OPS 1/3.905(a)

(c) CAP 11 Air Operation Certification

1.3 Applicability

CAR OPS 1 and 3 requires an operator to submit to the CAA for approval a Maintenance Management Exposition (MME). The MME describes the means, methods and practices used in the operator's maintenance management system to comply with CAR OPS 1/3 Subpart M.

This CAP contains an "Anybody's Maintenance Management Exposition" (Appendix 1) and is a specimen exposition to provide guidance on what should be included in an MME applicable to a small AOC holder who does not have their own CAR 145 approval and therefore contracts out aircraft maintenance. Typically this would be an operator with less than five corporate jets or helicopters. If the operator is larger than this, either in the number of aircraft being operated or the size and complexity of the aircraft then the index headings would probably remain the same but more details would have to be included.

The Index Headings of the Anybody's MME are those contained in Appendix 2 to AMC OPS 1/3.905(a).

1.4 Acronyms

AD	Airworthiness Directive
ADD	Acceptable Deferred Defect
AMO	Approved Maintenance Organisation
AOC	Air Operator's Certificate
AOG	Aircraft on Ground
CAA	San Marino Civil Aviation Authority
C of A	Certificate of Airworthiness
CAP	Civil Aviation Publication
CDL	Configuration Deviation List
CRS	Certificate of Release to Service
EDTO	Extended Diversion Time Operations
MEL	Minimum Equipment List
MME	Maintenance Management Exposition

MNPS	Minimum Navigation Performance Service
MO	Maintenance Organisation
MOE	Maintenance Organisation Exposition
MPD	Maintenance Planning Document
MP	Maintenance Programme
PIC	Pilot in Command
SB	Service Bulletin
SIL	Service Instruction Leaflet
SMI	Scheduled Maintenance Inspection
SRP	Sector Record Page
STC	Supplemental Type Certificate
TCH	Type Certificate Holder

1.5 Maintenance Management Exposition Approval

The MME should be produced by the applicant early on in the AOC approval investigation process. A draft should be presented at the formal application meeting as it will be required for the document evaluation phase of the CAA investigation.

The applicant is expected to have submitted the MME along with a Form SM 79, CAR OPS 1/3 Subpart M Compliance Checklist, at the start of the document evaluation phase. The CAA will not start the demonstration and inspection phase until they have reviewed and commented on the applicant's draft MME and Form SM 79. When it is determined that the MME contents meets the CAR OPS 1/3 Subpart M requirements the CAA will schedule an audit to determine completeness of the MME and the organisation's compliance with its contents.

After the audit further amendments to the draft MME may be required by the CAA.

When all CAA open Findings against the CAR OPS 1/3 Subpart M requirements have been closed to the satisfaction of the CAA they will issue a CAR OPS 1 or 3, Operator's Maintenance System Approval certificate. The approval of the Maintenance Management Exposition is signified by being reference on the certificate.

The CAA approval of amendments to the MME, after the initial approval by the CAA, is in writing from the CAA for each approved amendment.

APPENDIX 1

ANYBODY'S MAINTENANCE MANAGEMENT EXPOSITION

NOTES: (Not for inclusion in the MME)

(1) This "Anybody's MME" is applicable to the smaller CAR OPS 1 or 3 operator with contracted CAR 145 maintenance support.

(2) The document references CAR OPS 1/3 as it is applicable to those organisations operating under either CAR OPS 1 or CAR OPS 3. Wherever CAR OPS 1/3 is used this should be amended to show which is the applicable CAR OPS operating approval.

(3) All material contained within this document is for guidance purposes only. It is descriptive not prescriptive in content. Operators may choose which parts of the text they wish to adopt/adapt expanding the content where necessary to fully reflect their operation. All references in red italics are for editorial guidance or where suitable text is to be entered if the document is to be adopted as a basis for an operator's MME.

ANYBODY'S MAINTENANCE MANAGEMENT EXPOSITION

AOC Number: *XXX*

Address: *This should be the operator's registered office in San Marino. The details below should be the contact details for the CAR OPS Subpart M organisation that may not be located in San Marino.*
Telephone Number: *XXXX*
Facsimile Number: *XXXXX*
e-mail: *XXXXX@XXXXX*

Document Ref Number: / / / (*Reference number of the MME to assist in correspondence and allow the organisation to control the document). This is also the reference number that will appear on the Operator's Maintenance System Approval Certificate.*

CONTENTS

PART 1 MAINTENANCE PROCEDURES Page No.

PART 2	QUALITY SYSTEM	Page No.

PART 3	CONTRACTED MAINTENANCE	Page No.

PART 4	APPENDICES	Page No.

LIST OF EFFECTIVE PAGES

Page Number Date	Page Number Date

AMENDMENT RECORD

AMEND. No.	DATE	AMENDMENT DETAILS	AMENDED BY	DATE OF INCLUSION

DISTRIBUTION LIST

COPY NUMBER	HOLDER

Note: List all copies and holders of the MME. If the MME is electronically accessed then this list should say who has electronic access but the Copy Number is not applicable.

ABBREVIATIONS USED

List all of the abbreviations used in the MME

AD	Airworthiness Directive
ADD	Acceptable Deferred Defect
AMO	Approved Maintenance Organisation
AOC	Air Operator's Certificate
AOG	Aircraft on Ground
CAA	San Marino Civil Aviation Authority
C of A	Certificate of Airworthiness
CDL	Configuration Deviation List
CRS	Certificate of Release to Service
EDTO	Extended Diversion Time Operations
MEL	Minimum Equipment List
MME	Maintenance Management Exposition
MNPS	Minimum Navigation Performance Service
MO	Maintenance Organisation
MOE	Maintenance Organisation Exposition
MPD	Maintenance Planning Document
MP	Maintenance Programme
PIC	Pilot in Command
SB	Service Bulletin
SIL	Service Instruction Leaflet
SMI	Scheduled Maintenance Inspection
SRP	Sector Record Page
STC	Supplemental Type Certificate
TCH	Type Certificate Holder

Note: Add or subtract from this list as appropriate

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PART 0 GENERAL ORGANISATION

0.1 Corporate Commitment by the Operator

OPERATOR'S NAME

MAINTENANCE MANAGEMENT EXPOSITION

This Exposition defines the organisation and procedures upon which the San Marino Civil Aviation Authority approval of *enter operator's name Maintenance System* under CAR OPS *1/3* Subpart M is based.

These procedures are approved by the undersigned and must be complied with, as applicable, in order to ensure that all maintenance due on the aircraft of *enter operator's name* fleet is carried out on time and to an approved standard.

It is accepted that these procedures do not override the necessity of complying with any new or amended regulation published by the CAA from time to time where these new or amended regulations are in conflict with these procedures.

It is understood that the CAA will approve this organisation whilst the CAA is satisfied that the procedures are being followed. It is understood that the CAA reserves the right to suspend, vary or revoke the CAR OPS 1 or 3 Subpart M maintenance system approval of the organisation, as applicable, if the CAA has evidence that procedures are not followed and the standards not upheld.

It is further understood that suspension or revocation of the approval of the maintenance system would invalidate the AOC

Signed: Date:

Name: Title: Accountable Manager, *enter operator's name*

0.2 General Information

0.2.1 Description of the Organisation

Operator's name was set up in *year* to provide *ad-hoc/air taxi/scheduled/A to A/A to B (describe the services to be provided)* air transport.

Operator's name uses a suitably approved CAR 145 maintenance contractor to satisfy the requirements of CAR-OPS 1/3 Subpart M.

Details of the current maintenance contractor(s) is contained in Part Three of this MME.

The type of aircraft operated is *enter aircraft type(s) operated.* The details of the current fleet are given in Part Three of this MME.

The main operating base is *enter operating base*.

Line Support is provided by *enter name of CAR 145 line support maintenance organisation* at *enter name of airport(s)/facility(ies).*

0.2.2 Relationship with Other Organisations

Operator's name currently operates independently of any other organisations with the exception of maintenance which is provided by the CAR 145 maintenance organisation(s) given in Part Three of this MME. amend this section to accurately reflect relationships with other organisations

0.2.3 Facilities

A description of the facilities where the continuing airworthiness activities are performed including office accommodation, records storage etc should be described in this part.

0.3 Maintenance Management Personnel

NOTE Amend to reflect the current management staff and contracted relationships as appropriate.

0.3.1 Accountable Manager

The duties and responsibilities associated with this post are held by *enter name and title of holder.*

0.3.2 Nominated Post Holder for Maintenance

The duties and responsibilities associated with the Post Holder for Maintenance are currently assumed by *enter name of other post holder/individual and his management title*.

0.3.3 Quality Manager

The duties and responsibilities associated with this post are currently assumed by *enter name of other post holder/individual*.

NOTE: The post of Quality Manager and associated responsibility for the management of the operator's quality system for both the operational aspects and the maintenance aspects may held by one person, subject to the person having the necessary knowledge for operations and maintenance and acceptance by the CAA. For other operators two persons, one for maintenance and one for operations may be employed provided the operator has designated one Quality Management Unit to ensure uniform application of the Quality System throughout the entire operation. State clearly in this paragraph 0.3.3 whether the Quality manager is responsible for maintenance only or for both maintenance and operations.

0.3.4 Quality Auditor

Note: This position is only applicable if the Quality monitoring (audits) are not performed by the Quality Manager, but by an appropriately qualified auditor contracted to perform the maintenance management audits.

The post of Quality Auditor is currently held by *enter name of individual*. This person is contracted to carry out a minimum of two quality audits per annum as defined in Part Two of this MME, Para. 2.1.

Note: This position is only applicable if the Quality monitoring (audits) are not performed by the Quality Manager, but by an appropriately qualified auditor contracted to perform the maintenance management audits. This person is required to be acceptable to the CAA. If this Part 0.3.4 is not applicable retain the part number and title as "Reserved"

0.3.5 Duties and Responsibilities

0.3.5.1Accountable Manager

The Accountable Manager has the overall responsibility for meeting the requirements of CAR OPS 1/3 Subpart M. *He/she* is responsible for ensuring that all maintenance activities can be financed and are carried out to the standard required by the CAA. In particular, *he/she* is responsible for ensuring that adequate contractual arrangements exist. This includes, amongst others, provision of: maintenance facilities, material and tools, sufficient competent and qualified personnel in relation to the work to be undertaken. All of this with a view to ensuring that all due maintenance is performed on time and in accordance with the applicable requirements, regulations and approved standards and that the aircraft has a valid Certificate of Airworthiness for all flights undertaken.

The Accountable Manager, has the financial responsibility for all of the maintenance and continuing airworthiness management arrangements.

0.3.5.2 Post Holder For Maintenance (or title given to the post holder for maintenance)

This person is the CAR OPS 1/3 *delete which CAR OPS is not applicable* nominated post holder for maintenance. *He/She* will ensure that all maintenance is carried out on time and to an approved standard. *He/She* will act in liaison with the contracted CAR 145 organisations to ensure that *enter operator's name* responsibilities in the following areas can be met:

a) Establishment and development of maintenance policy, including the CAR OPS 1/3 Maintenance Programme(s) required by CAR OPS Subpart M 1/3.910;

b) Analysis of the effectiveness of the Maintenance Programme as required by CAR OPS Subpart M 1/3.890 (a) (4);

c) The relationship with the maintenance contractor(s) and establishment of the Maintenance Contract required by CAR-OPS Subpart M 1/3. 895;

d) Ensuring that the Quality System required by CAR OPS Subpart M 1/3.900 is effective in its application and any follow up actions required to address findings;

e) The approval, by the Authority of the CAR OPS's Technical Log, required by CAR OPS Subpart M 1/3.915, including any subsequent amendment thereto;

f) Ensuring that continuing airworthiness records are maintained as required by CAR OPS Subpart M 1/3.920 and paragraph 1.3 of the MME.

g) Work planning and follow up;

h) Technical follow up;

i) Modifications and repairs (design changes) are carried out and approved in accordance with CAR 21, Subpart C and Subpart M as applicable, and any continued airworthiness requirements arising from them are incorporated in the aircraft maintenance programme;

j) Applicable mandatory continued airworthiness requirements are reviewed and complied with within the prescribed period;

k) Non mandatory modification embodiment policy;

l) Rectification of all defects including identification and control of repetitive defects;

m) Line and base maintenance;

n) That *enter operator's name* pilots are duly trained and authorised to issue Certificates of Release to Service, where necessary and appropriate, by the contracted CAR 145 maintenance organisation;

o) That the Certificate of Airworthiness for each aeroplane operated by the company remains valid in respect of;

(i) the aircraft, including its airframe, engine(s), propellers, appliances, emergency equipment and operational equipment is maintained in an airworthy condition,

(ii) the expiry date specified on the Certificate, and

(iii) any other condition specified in the Certificate;

p) Reporting any occurrences of a maintenance or engineering nature to the Authority and the aircraft manufacturers. This includes both Mandatory Occurrences and

occurrences related to maintenance findings which fall outside the Mandatory scheme.

q) The amendment and control of this Maintenance Management Exposition.

r) Coordination with any organisation undertaking continuing airworthiness tasks under a subcontract agreement.

s) Control of Field Loadable software and Database Loadable Data to ensure the aircraft systems remain up to date in accordance with CAR OPS 1.870.

t) Any applicable continued airworthiness data is made available to those in the maintenance of aircraft.

u) There are suitable arrangements in place for the receipt of all relevant continued airworthiness information published by the Type Design Organisation's responsible for the aircraft, equipment and any applicable major design change.

v) Applicable continued airworthiness data is kept up to date and reviewed for the determination of any required actions to be taken and records of such reviews are maintained.

Note: Add any others that may be applicable to the operation/maintenance management.

0.3.5.3 Quality Manager

The duties and responsibilities associated are discharged as per 0.3.3

The Quality Manager will:

a) be responsible for the function to monitor compliance with, and the adequacy of, procedures required to ensure airworthy aircraft, as required by OPS 1/3.035(a),

b) verify, by monitoring activity in the fields of flight operations, maintenance, crew training and ground operations, that the standards required by the Authority, and any additional requirements defined by the operator, are being carried out under the supervision of the relevant Nominated Postholder.

Note: When the quality manager is responsible for both maintenance and operations the duties and responsibilities can be cross referred to the applicable Operations Manual Section, or replicated here in Part 0.3.5.3

0.3.5.4 Quality Auditor/Monitor

Note: This Part 0.3.5.4 assumes that the audit plan and audits will be done by a person other than the Operator's Quality Manager, as is often the case when the Operator's Quality Manager does not have the necessary engineering and continuing airworthiness expertise to conduct the audits. If the Quality Manager is competent to do the Subpart M audits then this Part 0.3.5.4 can be deleted. Where the Quality Manager carries out these functions, the duties in Para a) and b) below should be included in the duties of the Quality Manager in Part 0.3.5.3

The Quality Auditor is responsible for the following functions:

a) Establishing a Quality Audit Programme which addresses all of the areas of *enter operator's name* CAR OPS 1/3 Subpart M approval and the procedures in the MME that are used in complying with the regulations, company policies and standards. This includes the monitoring of all of the items listed in Paragraph 0 3.5.2 a) thru v) above.

b) Further details are provided in Part Two of this MME.

0.3.6.6 Organisation Chart - Maintenance Management

An organisation Diagram should be entered here and reflect the operator's management and reporting structure for Subpart M. It should include the relationship with any contracted maintenance organisations and sub-contracted continuing airworthiness organisations.

0.3.7 Manpower Resources and Training Policy

0.3.7.1Manpower Resources

Enter operator's name employs *enter number of employees* currently involved in maintenance management. These include;

Enter details of the staff employed by the operator and list those that are contracted to perform continuing airworthiness management task.

0.3.7.2 Training

Training will be provided by *enter operator's name* to ensure that each member of staff is adequately trained to carry out the functions of, and satisfy the responsibilities associated with, the CAR-OPS Subpart M maintenance management functions. Training will include a general understanding of the San Marino Regulations and requirements applicable to the management of continuing airworthiness.

Where changes occur to the organisation, its procedures, types operated etc. Then suitable continuation training will be provided.

Training needs will be reviewed at intervals not exceeding two years by the Post Holder for Maintenance or at more frequent intervals if, and when, significant changes occur to the organisation, procedures and aircraft types operated.

0.4 Notification Procedure to the Civil Aviation Authority Regarding Changes to the Operator's Maintenance System / Arrangements / Locations / Personnel / Activities / Approval.

The Accountable Manager will undertake to advise the CAA of any changes with respect to:

a) The operator's name and location(s).

b) The persons specified in Para. 0.3 of this MME

c) The operation, procedures or maintenance system support arrangements insofar as they affect the CAR OPS 1/3 Subpart M approval. This includes the contracted maintenance organisations, sub-contracted continuing airworthiness organisations, the Maintenance Programmes(s), the Technical Log, contracted person(s) in support of the Maintenance Management/Quality system functions.

0.4.1 Changes

Any changes will be notified to the CAA as soon as practicable, by the Accountable Manager to enable the Authority to determine continued compliance with CAR OPS *1/3 delete which CAR OPS is not applicable*.

0.5 Maintenance Management Exposition Amendment Procedures

The Post Holder for Maintenance is responsible for reviewing the MME and for preparing any amendments. All amendments will be submitted to the CAA for approval prior to their incorporation in the MME.

0.5.1 MME Review

The MME will be reviewed at intervals not exceeding 12 months or more frequently when significant changes occur which affect the content of the MME. A record of the review and the results of the review are retained on record.

PART ONE MAINTENANCE PROCEDURES

1.0 CAR OPS Maintenance Procedures

This Part One defines the maintenance procedures which *enter name of operator* uses to ensure compliance with the maintenance aspects of CAR-OPS 1/3 *delete which CAR OPS is not applicable* Where some aspects of these function are sub-contracted then this will be clearly defined in the text.

1.1.1 Aircraft Technical Log Utilisation and Minimum Equipment List Application

1.1.1 The Technical Log

The Technical Log in use with *enter operator's name* is designed to allow recording of defects, malfunctions, and maintenance performed on the aircraft to which it applies whilst the aircraft is operating between scheduled maintenance inspections. In addition it includes maintenance information required by the operating crew and is used for recording operating information relevant to flight safety. The maintenance information includes:

a) the operating crews observations and remarks as a result of aircraft operation in service including the aircraft, engine(s), propellers, components and systems technical status;

b) defects or incidents having effect on airworthiness;

c) results of technical inspections requested by the maintenance organisation;

d) maintenance performed by the contracted maintenance organisation which details:

i) defect rectification action taken and associated responses to crews requests and/or remarks;

ii) scheduled maintenance inspections performed;

iii) next due scheduled maintenance inspections.

iv) where applicable, any MEL technical limitations proposed by the Maintenance Organisation

1.1.2 The Technical Log Contents

The *enter name of operator* Technical Log contains Five sections:

Section 1 This section details the operator's name and address, the aircraft type and the registration.

Section 2 A copy of the current Certificate of Release to Service following Scheduled Maintenance as issued by the CAR 145 maintenance organisation. This part also contains Out-of-Phase maintenance items, repetitive line inspection details etc. saying when next due, as appropriate.

Section 3 This section contains the Sector Record Pages (SRP), an example of which is provided at Appendix 1.

Section 4 This section contains the Acceptable Deferred Defects pages, an example of which is provided at Appendix 2.

Section 5 This section details the maintenance support information. This includes details of the contracted maintenance organisations names, addresses, telephone numbers, contact name in the organisations etc.

Note Section numbers can be altered to suit operator's individual requirements.

Detailed instructions for the use of the Technical Log are contained within *enter where the instructions may be found i.e. Operations Manual Part A or enter the information into this section.*

Any changes to the Technical Log will be submitted to CAA for approval prior to being put into use.

Enter the operator's name will ensure that copies of all Technical Log Sector Record Pages, and any other pertinent maintenance-related information, are forwarded promptly to the Post Holder for Maintenance to enable records to be updated and to allow the planning and maintenance co-ordination functions to take place effectively.

1.1.3 MEL Application

The Operations Manual provides further guidance in *enter reference of where information*

may be found. (Normally in the Operations Manual Part A).

1.1.4. MEL Procedure

Enter operator's name Minimum Equipment List (MEL) represents a listing of items of equipment, which may, under certain circumstances be unserviceable. The MEL and instructions for its use is contained within the Operations Manual *enter the OM reference*. When a defect has been raised in 'Defects' column of the Technical Log Sector Record Page and is deemed to be within the allowance quoted in the MEL then it may be subject to carry forward action. Consideration should also be given by the person carrying forward the defect to the possible affect that multiple and related defects may have even where these are covered as individual items in the MEL. The entry in the 'Action Taken' column of the SRP should be annotated 'Defect carried forward in accordance with the MEL reference..... ADD No. ..... raised' this entry may be made by the operating crew or maintenance personnel. The ADD record pages must be suitably annotated with details of the defect and a time limit must be specified (date and time or remaining flight hours and/or cycles). No Certificate of Release to Service is to be issued for the carried forward item until the defect has been cleared on a subsequent SRP.

NOTE: Any item in the MEL requiring an operational or maintenance procedure to ensure an acceptable level of safety should be so identified in the 'remarks' or 'exceptions' column/part/section of the MEL. This will normally be '(O)' for an operational procedure, or '(M)' for a maintenance procedure. '(O)(M)' means both operational and maintenance procedures are required.

Normally, maintenance procedures '(M)' are accomplished by maintenance personnel and a CRS is issued; however, other personnel may be qualified and authorised to perform certain functions in accordance with a procedure approved by the CAA.

A Certificate of Release to Service must be issued, by an appropriately approved/accepted CAR 145 maintenance organisation, for the deferred item in all other cases. The ADD sheets must be suitably annotated with details of the defect and a time limit must be specified (date and time or remaining flight hours and/or cycles) as stipulated in the MEL.

1.1.5 Acceptance by the pilot

Where defect rectification has been deferred by maintenance personnel, the decision to accept the deferred item allowed by the MEL/CDL remains the responsibility of the pilot in command. This acceptance of any outstanding deferred items is indicated by his/her signature on the SRP in the 'PIC Pre-Flight' box. The pilot in command is responsible for reviewing all outstanding ADDs to ensure that the appropriate performance penalties and or limitations identified through the MEL and AFM are applied.

1.1.6 Management of the MEL Rectification Intervals (RI's)

The time limit for the defect rectification or "rectification interval" is specified in the MEL in Flight Hours/Cycles/Calendar Time (A,B,C or D) so that the defect rectification may be performed before the specified MMEL limit. The Post Holder for Maintenance is responsible for ensuring ADDs are closed by appropriate means within the Rectification Interval.

Prior to each flight or series of flights, the pilot in command is responsible for ensuring that such flights may be completed before the expiration of any such Rectification Interval.

1.1.7 MEL Rectification Interval Expiry

Dispatch of the aircraft is not allowed after expiry of the Rectification Interval specified in the MEL, unless:

a) The Rectification Interval is extended in accordance with the Repair Interval Extension procedure in the MEL/Operations Manual Part A.

b) The defect has been rectified.

1.2 Aircraft Maintenance Programme

The Approved Maintenance Programme(s) for *enter operator's name* aircraft is as follows:-

CAA Maintenance Programme Reference: *enter the CAA maintenance Programme Reference number*

The enter operator's name reference number is: Enter the operator's reference number

1.2.1 The Maintenance Programme

The Programme is based upon the *enter the basis for the maintenance programme e.g. Cessna MPD, MRBR etc.* which has been amended to reflect in full the recommendations of the airframe, engine, propeller and equipment manufacturers maintenance recommendations and any CAA additional requirements

1.2.2 Structural Inspections, Corrosion Control,

All structural inspection and corrosion inspection requirements are included within the Maintenance Manuals and hence are included within the approved Maintenance Programme.

The maintenance programme includes *or does not include, delete which is not applicable* a Limit of Validity (LOV) and the aircraft cannot operate beyond this time without specific CAA approval.

1.2.3 Mandatory Life Limitations

Mandatory Life Limitations are those imposed by the Type Certificate Holder, the State of Design and/or the CAA. A listing of these are provided in the Maintenance Programme in *enter location in the Maintenance Programme*

1.2.4 Inspection Standards

The maintenance and inspection standards applicable to the maintenance tasks meet the requirements of the Type Certificate Holders recommended standards and practices.

1.2.5 Maintenance Certification

All maintenance above a pre-flight level will be certified by duly authorised persons through the issuance of a Certificate of Release to Service (CRS) in accordance with CAR GEN.105.

The CRS statement and certification shall be:

> "certifies that the work specified except as otherwise specified was carried out in accordance with the Republic of San Marino CAR GEN Subpart C and in respect to that work the aircraft/aircraft component is considered ready for release to service."
>
> and enter beside the statement of release to service:
>
> (a) their signature; and
>
> (b) their AME licence or validation or pilot's licence number, or where applicable, the approval number or appropriate authorisation reference; and,
>
> (c) the date of entry.

1.2.6 Fuel Contamination

Fuel contamination checks are addressed in 1.10. Also, the Daily Check/Check 'A' includes a fuel water drain sample to be carried out prior to the first flight of the day. *Amend this section as necessary to describe how fuel contamination is controlled*

1.2.7 The Maintenance Programme Owner

The Maintenance Programme is the property of *enter operator's name and is responsible for its development and approval by the CAA*

1.2.8 Holders of the Maintenance Programme

A copy of the Maintenance Programme will be held by;

a) The Post Holder for Maintenance.

b) The CAA.

c) *List the contracted maintenance organisations that hold a copy*.

enter other persons, as appropriate

1.2.9 Maintenance Programme Review, Development and Amendment.

1.2.10 Development and Amendment

Development and amendment of the Maintenance Programme is the product of *enter name of the operator* actions in monitoring of the effectiveness of the Programme, this together with the

recommendations received from the contracted CAR 145 maintenance organisations(s), and the operator's review to continued airworthiness information published by the manufacturers of aircraft, engines, propellers *delete if n/a* and equipment in the form of Service Bulletins (SB), Service Information Letters (SIL), and All-Operator-Experience letters (AOL) amend these *to reflect the data and names used by the operator in relation to the type of aircraft operated.*

As policy, *enter operator's name*, will follow the recommendations of the Type Certificate Holder.

The aircraft maintenance programme and any subsequent amendments shall be approved by the CAA.

1.2.11 Maintenance Programme Meetings

Liaison Meetings between the Post Holder for Maintenance and the contracted CAR 145 maintenance organisation will be held at intervals not exceeding six months to discuss and review the effectiveness of the Maintenance Programme. Minutes of these meeting are retained on file.

1.2.12 Maintenance Programme Amendments

Where amendments to the Maintenance Programme are identified as being required, these will be submitted by the Post Holder for Maintenance to the CAA on Form SM 73A.

1.2.13 Maintenance Programme Variations

All variations to the Maintenance Programme will be within the guidelines defined on the CAA CAP 02 paragraph 9.7 which forms part of the approved Maintenance Programme. These variations will only be considered when circumstances arise which could not reasonably have been anticipated by *enter operator's name.* It is understood that the ability to vary a maintenance programme can be removed by the CAA if they determine that it is being used excessively due to reasons that could have been foreseen.

Variations to Maintenance Programme periods must be authorised by the Post Holder for Maintenance and must be within the limits defined in the Maintenance Programme.

The Post Holder for Maintenance will record all Variations issued in both the appropriate Log Book and centrally, and review them periodically in conjunction with the Airworthiness Review Meetings referred to in paragraph 1.5.1.

1.2.14 Variations in Excess of that Allowed by CAP 02 Paragraph 9.7

Any requests for variations to the Maintenance Programme outside the limitations given in CAP 02 will be submitted by the Post Holder for Maintenance to the CAA using SM Form 73B and are only requested in exceptional circumstances..

1.2.15 Effects of Modifications and Repairs on Maintenance Programme

The Post Holder for Maintenance continually reviews any proposed modifications and repairs for their impact on the Maintenance Programme. Where necessary and before with the

embodiment of the specific modification or and repair, *enter operator name* will amend the Maintenance Programme in accordance with paragraph 1.2.1.3, above, and applies these to affected aircraft after embodiment.

1.3 Continued Airworthiness Records: Responsibilities, Retention and Access

1.3.1 Maintenance Records

Maintenance records shall be of sufficient detail to establish the full content of the maintenance activity and shall include all relevant supporting information such as component replacement service life records.

Records will be in the English language and of sufficient detail to demonstrate the airworthiness status of the aircraft at all times and shall include:

a) a description of maintenance tasks including references to the applicable approved technical data; and

b) the date of completion of all scheduled maintenance tasks and reference to the approved maintenance programme; and

c) the signature, and authorisation reference of the person certifying the aircraft for return to service; and

d) the total time in service by the specified time control basis of the airframe, each engine, each propeller, each rotor and installed equipment; and

e) the current status of lifed parts/components of each airframe, engine, propeller, rotor and appliance with referenced to the specified time interval basis and

f) the time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis; and

g) the current maintenance status of the aircraft, including the time since the last inspection required by the maintenance programme under which the aircraft is maintained; and

h) the current status of each applicable airworthiness directive including:

(i) the airworthiness directive number; and

(ii) the revision date; and

(iii) the means of compliance; and

(iv) if the airworthiness directive involves recurring action, the time and date when the next action is required; and

i) a list of all design changes (modifications) and repairs to each airframe, engine, propeller, rotor and appliance including substantiation data required by CAR 21.73(c); and

j) a record of all airframe damage that shows each damage site with a reference to a certified assessment to approved data supporting continued aircraft operation; and

k) a record of any defects or maintenance activities requiring rectification action to restore the aircraft to an airworthy condition.

l) Mass and balance records that reflect aircraft's modification and repair status.

m) Evidence of the proof of origin for parts used (e.g. FAA Form 8130-3, EASA Form 1 etc.)

n) Technical Log Sector Record Pages (SRP)

The records shall be kept in hard copy form or in electronic coded form provided that this form allows for the preservation and retrieval of information in a manner acceptable to the CAA.

Any additional worksheets, documents, technical logs or other documentation associated with the maintenance of the aircraft shall be referenced in the relevant log books/aircraft records and will become part of the maintenance records for retention of records purposes.

Enter other records/data controlled/held.

1.3.1.1 Maintenance Record Control and Management

This section should include a detailed description of the methods of record keeping in use by an operator. Where CAMP/CMP or other computer systems are used for tracking maintenance then this should be described including the update of the computerised records following maintenance activity. The procedure should also cover the revision process to CAMP/CMP or other computer system following changes to the MPD or other Information for Continuing Airworthiness.

1.3.2 Monitoring of Maintenance Between Scheduled Maintenance

The Post Holder for Maintenance will maintain adequate oversight of all maintenance requirements and will aim to ensure that all scheduled maintenance is performed during planned maintenance visits, by the issue of a work order to the contracted CAR 145 Maintenance Organisation.

Any maintenance requirements falling due before the next planned visit, e.g. Out of Phase, component changes and short term AD compliance measures, will be arranged on an ad hoc basis, and performed, recorded and certified by an appropriately approved and contracted car145 Maintenance Organisation.

The flight crew have visibility of any OOP tasks using the maintenance statement, located within section 2 of the Technical Log system;

1.3.3 Sector Record Page Retention

Top copies of the Technical Log Sector Record Pages are retained by *enter operator's name* for a period of 24 months from the date of the last entry. All other maintenance records are retained by

enter operator's name, for the periods prescribed in CAR OPS 1/3.920(b).

1.3.4 Access to Maintenance Records and their Preservation

Full access to the records by duly authorised members of the CAA will be provided.

Records are kept in accordance with the following table:

All detailed maintenance records in respect of the airplane and any airplane component fitted thereto	24 months after the airplane or airplane component was released to service
The total time and flight cycles as appropriate, of the airplane and all life limited airplane components	12 months after the airplane has been permanently withdrawn from service
Time and flight cycles as appropriate, since last overhaul of the airplane or airplane component subjected to an overhaul life	Until the airplane or airplane component overhaul has been superseded by another overhaul of equivalent work scope and detail
The current airplane inspection status such that compliance with the approved operator's airplane maintenance program can be established	Until the airplane or airplane component inspection has been superseded by another inspection, of equivalent work scope and detail
The current status of airworthiness directives applicable to the airplane and airplane components	12 months after the airplane has been permanently withdrawn from service
Details of current modifications and repairs to the airplane, engine(s), propeller(s) and any other airplane component vital to flight safety	12 months after the airplane has been permanently withdrawn from service
The current status of the airplane's compliance with the maintenance program	a minimum period of one year after the signing of the maintenance release
The detailed maintenance records to show that all requirements for the signing of a maintenance release have been met.	a minimum period of one year after the signing of the maintenance release

1.3.5 Transfer of Maintenance Records in the Event of a Sale or other Disposal of the Aircraft

In the event of sale or other disposal of an aircraft, *enter operator's name* is required to transfer all relevant maintenance records and records of continuing airworthiness to the new owner or operator of the aircraft. All records will be made available for transfer to the new owner/operator.

1.3.6 Access to Maintenance Records in the Event of an Accident/Incident

In the event of an accident or serious incident the Post Holder for Maintenance will arrange for the records to be held secure until requested by the CAA or the official Air Accident Inspectors.

Note: If a computerised record system is used it is necessary to describe how these are made secure.

1.4 Accomplishment and Control of Airworthiness Directives

1.4.1 Airworthiness Directives – Access and Review

The following Airworthiness Directive are applicable to *enter operator's name* aircraft:

a) prescribed for that aircraft or product by the State of type certification to which the San Marino Type Acceptance Certification refers; and

b) any prescribed by the state of certification of an applicable approved design change.

T7-XXX	
Aircraft	*Enter which ADs are applicable, e.g. FAA, EASA etc. in these boxes*
Engine	*Enter which ADs are applicable, e.g. FAA, EASA etc. in these boxes*
Appliances and Equipment	*Enter which ADs are applicable, e.g. FAA, EASA etc. in these boxes*

Insert another table as above for each aircraft

The Post Holder for Maintenance ensures timely identification of specifically applicable ADs by:

a) Accessing the relevant agency's website and/or subscribing to appropriate sources for the above documents;

b) Identifying and reviewing all mandatory items generally applicable to enter name of the operator aircraft, engines and equipment,

c) Reviewing same for specific applicability.

1.4.2 AD Implementation

The Post Holder for Maintenance reviews those ADS identified in paragraph 1.4.1, above, for specific applicability to aircraft operated by *enter name of operator*. Specific applicability is decided by reference to the AD itself, and the aircraft's continuing airworthiness records, as applicable.

The Post Holder for Maintenance liaises with the contracted CAR 145 maintenance organisation and raises the necessary work order(s) to ensure the timely implementation of specifically applicable ADs.

Where there is a choice of methods for implementation, these are discussed and agreed with the contracted CAR145 Maintenance Organisation, before release of the work order.

Where necessary, and required by the AD, repetitive Inspections will be introduced until full compliance is achieved. The maintenance organisation will be notified of any emergency airworthiness directives upon receipt by *enter name of operator*.

1.4.3 AD Compliance Monitoring

The Post Holder for Maintenance is responsible for AD compliance monitoring and reviews this activity at the Airworthiness Review Meetings detailed in Para 1.5.1.

He ensures specifically applicable ADs are entered in the records upon receipt and monitors compliance through regular checks on the due items, comparing these with work orders issued, planned maintenance visits, and PC-based AD status records.
Compliance with ADs and other mandatory requirements are verified on a sample basis by the Quality Manager, as part of the Quality Assurance Programme.

An Alternate Means of Compliance (AMOC) may be proposed to the CAA provided that the Regulatory Authority of the State that issued the original requirement has accepted the alternative compliance proposal. The Form SM 98 is used to apply for an AMOC.

1.4.4 Recording of AD Compliance

The method of compliance and when such compliance was achieved is recorded in the continuing airworthiness records (Log Books) by the Post Holder for Maintenance. For ADs with a repetitive inspection element, then each and every inspection will be recorded on completion in the continuing airworthiness records. A CRS will be issued every time compliance with an AD is established.

The Post Holder for Maintenance ensures that the system used is such that AD compliance status can be monitored on an on-going basis. The records show all generally applicable ADs together with the date and means of compliance, and, in the case of those not specifically applicable, the reasons for this,

1.5 Analysis of the Effectiveness of the Maintenance Programme

The Post Holder for Maintenance analyses the effectiveness of the Maintenance Programme in the following manner:

a) Reviews defects recorded by pilots and maintenance personnel on the Technical Log Sector Record pages,

b) Reviews findings of CAR145 maintenance organisations during scheduled and unscheduled maintenance,

c) Identifies significant or recurrent defects, and

d) Reviews unscheduled component removals

e) Reviews and investigates flight crew and maintenance-originated occurrence reports with continuing airworthiness implications

The Post Holder for Maintenance shall present the same for discussion with the CAR145 Maintenance Organisation at the Airworthiness Review Meetings.

1.5.1 Airworthiness Review Meetings

Airworthiness Review Meetings are held every six months to discuss and review the effectiveness of the Maintenance Programme, attended by the following:

a) Accountable Manager (Chairman)

b) Post Holder for Maintenance.

c) Chief Pilot or delegated representative.

These meetings will address the following areas:

a) The Maintenance Programme content.

b) The effect on the Maintenance Programme of any ADs, modifications or repairs.

c) Changes to the operation which may affect the Maintenance Programme.

d) Maintenance findings.

e) Other defect reports, repetitive defects and pilot reports.

f) Quality monitoring product samples (aircraft surveys).

g) Changes to the manufacturer's maintenance guidance material, Service Bulletins Service letters etc. and how these affect the Maintenance Programme.

h) Other Quality System findings as they impinge upon the contracted CAR 145 maintenance organisation.

1.5.2 Frequency of Meetings

Airworthiness Review meetings will be held at a minimum of six monthly intervals and the results of any meeting recorded with any actions required allocated to the responsible person.

1.6 Non-Mandatory Modification Embodiment Policy

1.6.1 Modifications General

Non-mandatory changes (modifications) will normally take the form of manufacturer's Service Bulletins, or will be derived from them. Any other changes (i.e. those not covered by a manufacturer's Bulletin) will be initiated by the continuing airworthiness manager in consultation with the Part 145 Maintenance organisation.

The Post Holder for Maintenance makes recommendations for embodiment to the Accountable Manager based upon engineering judgement. Factors considered are:

a) Safety implications (both positive and negative)

b) Type Certificate holder's recommendations and justification

c) Cost and warranty issues

d) Previous operational and maintenance experience

e) Related modifications

f) Parts usage

Additionally, the Post Holder for Maintenance ensures the impact on the Maintenance Programme of any modifications embodied in accordance with this policy, is reviewed in accordance with paragraph 1.2.10.

1.6.2 Service Bulletins

The Post Holder for Maintenance continually reviews all generally applicable SBs, identifying those that are specifically applicable to *enter name of the operator* aircraft and reviews these as above.

Where adoption of a specific Service Bulletin is agreed, the necessary work orders are raised and issued to the contracted CAR 145 organisation.

The Post Holder for Maintenance maintains a record and updates all SBs reviewed, recommendations made and implementation decisions, as well as ensuring agreed SBs are entered in the records for compliance monitoring and recording purposes.

All generally applicable SBs will be notified to the Airworthiness Review Meeting members.

1.6.3 Other Modifications

For all modifications other than those introduced by manufacturer's SBs' i.e. those proposed by *enter operator's name* or the contracted maintenance organisation for operational advantage or other reasons then these will be subject to approval in accordance with CAR 21 Subpart C. In the first instance the CAA will be consulted for advice with an outline of the proposed modification with a view to ascertaining whether or not a modification is deemed to be classified as 'Major' or 'Minor'.

1.6.4 Recording of Modifications

Embodiment of all modifications and repairs, whether introduced through ADs, Service Bulletins or by CAA Minor/Major modifications, are recorded in the aircraft's continuing airworthiness records in the relevant log book .and subject to the issue of a Certificate of Release to Service by a contracted CAR 145 Maintenance Organisation. The repair and any further inspection requirements are entered into the Maintenance Programme.

1.7 Defect Reports

All defects occurring on *enter operator's name* aircraft will be subject to review and analysis for their effect upon airworthiness and the safe operation of the aircraft.

1.7.1 Analysis

Technical Log Sector Record pages are examined within 7 days by the Post Holder for Maintenance to provide information concerning defects occurring, flight crew reports, maintenance actions and defects of a repetitive nature.

Maintenance input records (work packs) are reviewed for significant findings, which may have airworthiness or operational implications, by the Post Holder for Maintenance. The Post Holder for Maintenance assesses the information as necessary and, based upon advice from the Maintenance Organisation, the Type Certificate holder or elsewhere as applicable, decides upon the corrective and/or preventive actions that may be required.

This may take the form of a Maintenance Programme amendment, a one-time additional inspection (special check), or modification action, as examples.

1.7.2 Liaison with Manufacturers and Regulatory Authorities

The contracted CAR 145 maintenance organisations are encouraged to liaise with the manufacturer(s) and the CAA on all matters concerning the airworthiness of *enter name of operator* aircraft and report significant defects to them as required by CAR 145, CAR OPS 1/3 Subpart M and other regulations. The Post Holder for Maintenance is advised immediately by the CAR 145 maintenance organisation when such action is necessary and, where applicable, advises the CAA. In liaison with all parties, he defines and takes the action required to ensure the continuing airworthiness of the aircraft.

Such actions may include, but not limited to:

a) Grounding of the aircraft until the defect is completely rectified

b) Arranging for modifications and/or repairs to be raised, approved, and embodied.

c) Requesting additional inspections/checks through the issue of work orders

d) Amendments to the Maintenance Programme

e) Arranging with the Type Certificate holder for amendments to approved maintenance data and instructions for continued airworthiness.

1.7.3 Deferred Defect Policy

The Post Holder for Maintenance is made aware of Acceptable Deferred Defects (ADDs) as they are raised, through his review of SRPs, He seeks to ensure that the number of open ADDs is kept to the absolute minimum. All open ADDs are monitored by the Post Holder for Maintenance in consultation with the CAR 145 maintenance organisation to ensure earliest

rectification and subsequent closure. All defects that are subject to deferral action will be as per the Minimum Equipment List and associated procedures, Aircraft Maintenance Manual, or Structural Repair Manual (SRM).

The person raising the ADD and the pilot in command ensures that the cumulative effect of open ADDs does not constitute a risk to flight safety. The Post Holder for Maintenance also considers this effect as part of his review activities.

The pilot in command is responsible for reviewing all outstanding ADDs to ensure that the appropriate performance penalties and or limitations identified through the MEL and AFM are applied. Wherever possible, flight crew will be advised of current known ADDs by the Post Holder for Maintenance using e-mail or telephone, dependent upon where and when the ADD is raised, and when the aircraft is next required for service.

Defects such as cracks and structural defects that are not addressed in the MEL, CDL, or SRM, may only be deferred after agreement with the Type Certificate holder and approval of the CAA.

When an ADD is raised, the Post Holder for Maintenance consults with the CAR145 maintenance organisation with a view to arranging the earliest possible rectification action to be taken. This will involve the pre- allocation of down time, personnel, tooling etc. and the acquisition of spares, as appropriate.

A Certificate of Release to Service (CRS) will be issued in the Technical Log upon clearance of any ADD.

1.7.4 Non Deferrable Defects Away from Base

Where defects occur that are not listed in the MEL then the following actions must be taken:

a) The Post Holder for Maintenance should be consulted with a view to establishing the extent of the defect and the rectification action required.

b) The Post Holder for Maintenance will ascertain if there is a suitably approved CAR 145 organisation, with the appropriate ratings on their Schedule of Approval in proximity to the AOG aircraft. Suitable contractual action will be taken to have the defect rectified, and duly certified by that organisation.

Where no suitably approved CAR 145 maintenance organisation is available then action will be taken to position a member of the contracted CAR 145 maintenance organisation's certifying staff, together with the necessary spares, tooling, technical publications to rectify and certify the defect.

1.7.5 Repetitive Defects

Repetitive Defects are those defects re-occurring on 3 occasions between 100 Hour Checks

The Technical Log SRPs are monitored by the Post Holder for Maintenance to identify Repetitive Defects as and when they arise. Work Orders for remedial action are issued to the CAR145 maintenance organisation by the Post Holder for Maintenance.

1.7.6 Mandatory Occurrence Reporting

All incidents and occurrences that fall within the reporting criteria defined in CAP 21 will be reported to the CAA within 72 hours as required. Form SM 20 will be used to report the occurrence to the CAA.

All occurrences which have maintenance implications will be analysed by the Post Holder for Maintenance in consultation with the contracted CAR 145 maintenance organisation. Any MORs raised by the contracted CAR 145 maintenance organisation on *enter operator's name* aircraft will also be advised to the Post Holder for Maintenance. Both organisations will hold copies of any MORs that have been raised that affect maintenance.

1.7.7 Airworthiness Review Meetings

Defects, repetitive defects, and reported occurrences are addressed to the Airworthiness Review Meetings referred to in paragraph 1.5.1.

1.7.8 Reliability Data Sharing

Reliability data sharing is carried out by *enter operator's name b*y the means of monthly reporting aircraft usage to the OEM. This will include the reporting of defects/ turn-backs/ AOG and scheduled maintenance inputs. The main goals of such reporting are for the OEM to implement a continuous monitoring routine, guarantee the quality and integrity of the data and information reported, identify main technical issues and main delays/cancellations factors on fleet and support Stock Planning with component fail rate.

Note: This procedure is only applicable to a corporate jet where the operator has a very small fleet of the same type of aircraft. Reference should be made to CAP 13 for other situations.

1.8 Engineering Activity

Engineering activity is determined to be those associated with modifications and repairs.

1.8.1 Modifications and Repairs - General

Modifications and repairs can only be carried using data approved by the OEM in the form of SBs, the AMM, SRM or approved by the CAA. The development and approval of modifications and repairs will be coordinated by the Maintenance Post Holder, as the person responsible for design changes. The Post Holder for Maintenance is required to assess the impact of such modifications and repairs on the existing aircraft design and other previously embodied modifications and repairs.

1.8.2 Approval of Modifications and Repair Data

Modifications and repairs that are not approved by the OEM are required to be approved by the CAA in accordance with CAR 21 Subpart C. A “No Technical Objection” (NTO) from an OEM is not acceptable.

1.9 Aircraft Reliability Programmes and Engine Health Monitoring

The objective of the reliability programme is to ensure the operational reliability of the aircraft, its engines and its equipment. This is achieved by monitoring, analysis of any defects and other pertinent information as detailed in this MME Part 1 paragraph 1.5 describes the effectiveness of the maintenance programme identifying any adverse trends.

Part 1 paragraph 1.8.8 describes the reliability data sharing programme with OEMs.

Note: This procedure is only applicable to a corporate jet where the operator has a very small fleet of the same type of aircraft. Reference should be made to CAP 13 for other situations.

1.10 Pre-flight Inspections

The preparation of the aircraft for flight is the responsibility of *enter operator's name* Pilot.

A Pre-flight inspection is carried out by the Flight Crew where they are appropriately trained to do so. Alternatively this inspection may be certified by the contracted maintenance organisation's staff where they are available and they are authorised to do so.

This paragraph should describe how the following activities are controlled and performed. If they are performed by Flight Crew then the Operations Manual reference should be included

a) Preparation of aircraft for flight

b) Sub-contracted ground handling function

c) Security of Cargo and Baggage loading

d) Control of refuelling, Quantity/Quality

e) Control of snow, ice dust and sand contamination to an approved standard

Note: This paragraph may have to be amended to reflect the actual pre-flight inspections and who can certify them

1.10.1 The Pre-Flight Inspection

Enter operator's name Pre-Flight consists of:

*Operator's to enter the content of their pre-flight inspection **or** cross refer to the Operations Manual section where the content may be found*

NOTE: The pre-flight inspection does not require a Certificate of Release to Service and may be carried out by the Pilot without further CAR 145 authorisation. The Pilot should however have been trained on the conduct of the inspection.

1.10.2 The Daily Check/Check 'A' *delete as appropriate*

(Enter operator's name) Daily Check/Check 'A' consists of:

*Operator's to enter the content of their Daily/Check 'A' inspection **or** cross refer to the Operations Manual or Maintenance programme reference where the content may be found*

1.10.3 Pilot Authorisation

Pilot's certifying the Daily/Check 'A' and/or other short term maintenance requirements must be duly authorised by the contacted CAR 145 maintenance organisations' Quality Manager. Authorisation will be subject to the provision of suitable initial and continuation training 'on the job' with the CAR 145 Quality Manager.

The Pilots, if duly authorised, will be given an Authorisation Document by the CAR 145 organisation. The authorisation will require the Pilots to quote their individual Authorisation Number and the CAR 145 approval number when issuing a CRS.

Guidance to Flight Crews on preparing the aircraft for flight is also contained in the Operations Manual *enter reference*.

1.10.4 Sub-Contracted Ground Handling Functions

Due to the size and nature of the *enter operator's name* operation there are currently no contracted ground handling functions. The handling of the aircraft on the ground is the responsibility of the PIC, with passenger and baggage handling sub-contracted to appropriate agencies at each airport. (*Or change the text to suit operator's circumstances).*

1.10.5 Security of Cargo and Baggage loading

The security of cargo and baggage loading is the responsibility of the PIC. Cargo and baggage will only be carried on board the aircraft in those areas specifically designed to do so and in accordance with the limitations quoted in the Flight Manual and Weight and Centre of Gravity Schedule.
Further information to the crews on this subject is contained in the Operations Manual *enter reference.*

If cargo operations are undertaken then details of the modification to introduce this work together with the re-configuration information should be given as a separate, stand alone, paragraph. This paragraph should only give a cross reference to where the detail may be found.

1.10.6 Control of Aircraft Refuelling Quantity/Quality

The responsibility for aircraft refuelling lies with the operating PIC. This includes responsibility for the right quantity of fuel being carried on board for the intended flight and the specification and quality of the fuel taken on board. Further guidance to the *enter operator's name* crews on this subject is provided in the Operations Manual *enter reference or detail the procedures here.* Fuel tank water drains are checked as required by the Maintenance Programme.

1.10.7 Control of snow, ice, dust and sand contamination to an approved standard

The control of snow, ice, dust and sand contamination before flight is the responsibility of the PIC. He/she will take whatever steps they consider necessary to ensure the aircraft is free from such contamination before flight. Further guidance on this subject is contained in the Operations Manual, *enter reference*

1.10.8 Certificate of Airworthiness Validity

The continued validity of the Certificate of Airworthiness will be monitored by the Maintenance Post Holder. Arrangements will be made with the CAA and the contracted maintenance organisation in order that the Certificate can be renewed at the prescribed periods. The Post Holder for Maintenance will monitor the continued validity of the C of A, including compliance with the Maintenance Programme, Airworthiness Directives; life limited components and all other maintenance requirements. The PIC is also responsible for checking the Certificate of Airworthiness before flight to ensure an aircraft is not flown beyond that date of expiry.

1.11 Mass and Balance

Aircraft weighing is performed by a suitably approved maintenance organisation. The reports produced by that organisation will be reviewed by the Maintenance Post Holder. The Post Holder for Maintenance will maintain a record for each aircraft operated. Re-weighing will be carried out at intervals not exceeding 5 years.

The Post Holder for Maintenance maintains an on-going record of aircraft weight and centre of gravity position, based upon the weighing reports and supplemented by modification and repair data between scheduled weighings. If the cumulative change to the Dry Operating Weight or the cumulative change to the CG position between scheduled weighing's becomes significant, he revises the Schedule, promulgating the changes as above.

The basic record of aircraft empty mass is that defined by the Type Certificate Holder and any approved configuration.

Any item installed on the aircraft not forming part of the Type Design of the aircraft shall be entered in an equipment list with its associated weight and moment and constitutes part of the aircraft's mass and balance report.

Following any changes made to the empty mass of the aircraft or its centre of gravity, an entry is made in the aircraft records before the next flight and includes details of:

a) The change; and

b) The effective date of the change; and

c) The weight and moment arm of each item installed or removed.

1.12 Alternative Configurations

Where an aircraft is operated in more than one configuration, e.g. cargo role or aeromedical evacuation etc. a separate mass and balance report is provided for each configuration and contains:

a) Details of the differences from the basic aircraft configuration; and

b) The empty mass and centre of gravity for the configuration; and

c) The approved modification details supporting the configuration.

1.13 Check Flight Procedures

The Post Holder for Maintenance reviews the need for maintenance check flights in liaison with the Chief Pilot, and Type Certificate holder/Supplement Type Certificate holder, as he considers appropriate, for example, after a particularly extensive major modification or repair, that may affect the aircraft performance in such a way that cannot be checked on the ground. The scope of any such check flight is agreed between the Post Holder for Maintenance and the Chief Pilot, taking account of the outcome of the above review, and documented.

Normally, maintenance check flights will only be conducted after the aircraft is released from maintenance and a valid Certificate of Release to Service issued. However, if the Certificate of Airworthiness becomes invalid due to modification, repair, or other maintenance action, the Post Holder for Maintenance arranges for an authorised person to issue a Flight Release Certificate and a Permit to Fly in accordance with CAR GEN SUBPART D, before the check flight is allowed to take place.

The results of the check flight are recorded by the flight crew and retained in the aircraft continuing airworthiness records. In the event of the failure of any aspect of the check flight, the Post Holder for Maintenance liaises with the CAR 145 Maintenance Organisation and Type Certificate holder/Supplement Type Certificate holder, as he considers appropriate, and agrees what further maintenance may be required to correct reported anomalies, as well as the need and scope of further check flights.

1.14 Leasing of Aircraft

enter name of operator may require to lease-in aircraft, from time to time to operate committed services at times when an aircraft is not available. These leases will be discussed and agreed with the CAA on an individual basis if the need arises.

1.15 Tools and Equipment for Pre-Flight Inspections

When an aircraft carries a tool kit and items of equipment such as fuel tank water sampling tool and tyre pressure gauge to enable the crew to carry out the Pre-flight inspection. The crew are responsible for the custody of these items and reporting their loss or damage to the Maintenance Post Holder.

A tyre pressure gauge will be calibrated on an annual basis normally during a maintenance input. This will be controlled and arranged by the Maintenance Post Holder.

1.16 Flight Recorder Inspections

Flight Recorder systems are checked and the results analysed in accordance with CAP 02 and the Maintenance Programme. The results are analysed by the Post Holder for Maintenance to determine if action is required to restore serviceability. A record is retained of the reports and the analysis performed by the Maintenance Post Holder.

1.17 Control of Field Loadable software and Database Loadable Data

This section must include the detailed procedures for the operator's control and update of field loadable software and databases on the aircraft types that are operated. The procedures must ensure compliance with the following:

For any aircraft having systems utilising Field Loadable Software and Database Field Loadable Data, controlling procedures are in place to ensure that:

a) Field Loadable Software uploads are accomplished in accordance with the approval requirements of CAR 21 Subpart C; and

b) Database Field Loadable Data is controlled and transferred in accordance with the equipment manufacturer's instructions.

1.18 Sample of Documents, Tags and Forms Used

Examples of documents and forms used by *enter operator's name* are given as Appendices to Part One of this MME.

1.19 *Enter any other information in subsequent paragraphs that are relevant to the maintenance management function of your operation. For example Cargo operations, Aerial Photography, Power Line Flying, aeromedical services etc. Content should address role change conversion etc. who, what, where, why, when and how.*

PART 2 QUALITY SYSTEM

2.1 Maintenance Quality Policy, Plan and Audit Procedures

This Part Two of *enter operator's name* MME defines the maintenance quality policy, planning and procedures to meet the requirements of CAR-OPS 1/3 Subpart M. It forms part of *enter operator's name* CAR-OPS 1/3 Quality System required by CAR-OPS 1/3.035

2.1.1 Maintenance Quality Policy

The Quality System and associated Quality Assurance Programme enables monitoring of *enter operator's name* compliance with CAR OPS 1/3, the Operations Manual, Maintenance Management Exposition and any other standards specified by the CAA to ensure safe operations and airworthy aircraft.

The *enter operator's name* Quality Policy is:

The operator's Quality Policy should be placed here and should be the same as that appears in the Operations Manual to ensure a consistent policy in the organisation

2.1.2 Management Responsibility Towards Quality

The Accountable Manager has responsibility for ensuring the existence and viability of the company Quality System and for developing and monitoring it.

The Quality Manager has responsibility for developing and managing the Quality Assurance Programme and ensuring that it meets the requirements of the Quality Policy and the CAA. Managers are responsible for:

- establishing and maintaining the standards in their own departments
- placing contracts for the provision of services and products
- ensuring that adequate procedures and training are available to their staff and contracted/sub-contracted organisations.
- is aware of and accepts any Audit and Inspection Findings that affect it,
- identifies appropriate Corrective and Preventive Actions, and
- implements these in a timely manner.

Managers are also responsible for ensuring that with regards to any sub-contracted or contracted organisation

- Staff are responsible for performing their duties in accordance with the documents and training provided by their managers.

- Contracted and sub-contracted organisations are responsible for providing services and products in accordance with the contracts, procedures and training provided by *enter name of operator*.

2.1.3 Independence

The Quality Manager and Quality Auditors are independent of the line management structure. The Quality Manager reports to the Accountable Manager and is accessible to managers at all levels for advice and guidance concerning any issue.

2.1.4 Document Control Policy

The purpose of document control is to ensure that all documents, which impact on Quality, are:

- correct and updated – to accurately reflected current practice
- available at all work locations
- removed promptly when obsolete

Document content, publication, distribution and amendment are the responsibility of Nominated Post holders and their managers. New documents and amendments are to be prepared, checked, reviewed and approved by personnel having adequate knowledge and authority. Managers are responsible for ensuring that:

- All policies and procedures, which impact on Quality within, and interfacing with, their area of responsibility are adequately documented;
- All staff and contracted/sub-contracted organisations have access to applicable documents;

2.1.5 Quality Programme

The Quality Programme is a planned and systematic method of providing confidence that all maintenance management and continuing airworthiness processes are being conducted in accordance with all applicable requirements, standards and procedures to ensure airworthy aircraft and continued compliance with CAR OPS 1/3 Subpart M.

The Quality Programme will be developed by the Quality Manager in liaison with the Maintenance Post Holder. The Quality Manager will implement an audit programme which during a twelve month period will address the whole continuing airworthiness/maintenance management activity and all of the aspects of CAR OPS 1/3 which have a bearing on the airworthiness and maintenance support arrangements of *enter operator's name*. under normal circumstances this will be done as two specific audits.

The independent audit ensures that all aspects of CAR OPS 1/3 Subpart M compliance are checked at least annually, including any contracted or sub-contracted activities in accordance with a scheduled plan.

The Quality Programme will also incorporate Sample Inspections of the aircraft operated by *enter operator's name.*

The Quality Manager will ensure that Quality Audits are performed in the scheduled period. Should circumstances require the postponement of an audit, then the agreement of the Accountable Manager must first be obtained and a second date agreed. The reasons for postponement should be recorded in the Audit records.

In addition to scheduled audits, unscheduled audits may be performed; these may be unannounced and could be based on, but not limited to, any of the following:

- CAA audit and inspection findings
- When negative trends are identified either by internal indicators or industry identified trends
- Significant changes in aircraft or equipment
- Changes in the operational environment
- New procedures or significant changes in existing procedures are implemented
- Independent investigation into an MOR incident
- As follow-up action to a previous audit to verify that effective Corrective Actions were implemented

The Quality Audit Programme is in Appendix 6 to this MME and shows when and how often the activities as required by CAR OPS 1/3 Subpart M will be audited.

2.1.6 Quality Audit Procedure

The primary purpose of the audit(s) is to observe, in an objective fashion, a particular event/action/document etc. in order to verify whether established operational and maintenance procedures and requirements are followed during the accomplishment of that event. This with a view to ensuring that the required standard is being achieved.

Every audit is undertaken by the Quality Manager or an authorised Quality Auditor as part of the overall audit Programme and will be the subject of an audit report. Before distribution, the preliminary conclusions will be advised the person(s) in charge of the areas subject to audit. The Quality auditor and the persons responsible for the areas/subjects audited will determine and agree together the corrective actions to be taken. This will also define the time allowed for corrective actions to be implemented. The corrective action should be determined taking into account the root cause of the finding, such that the corrective action may be carried out in a fashion that will prevent possible re-occurrence of the finding.

The audit reports are distributed to the following persons;

a) The person responsible for the audited areas/department

b) The Accountable Manager of *(enter operator's name)*

c) The Maintenance Post Holder.

d) The Quality Manager

e) Applicable Findings for any sub-contracted organisation undertaking continuing airworthiness tasks

Note: As a minimum, it would be recommended that at least two audits per annum are performed. These should preferably occur just before any scheduled Liaison Meeting so that the necessary actions can be agreed with all parties present.

The Post Holder for Maintenance is responsible for passing on any findings/concerns that affect the contracted CAR 145 maintenance organisation and any sub-contracted organisations undertaking continuing airworthiness tasks ensuring that appropriate corrective action measures are implemented.

2.1.7 Quality Audit Remedial Action Procedure

The Quality Manager, will conduct an annual review of the corrective actions recommendations issued as a result of audits carried out during the preceding twelve months to ensure they have been appropriately implemented. Where it is decided that appropriate action has not been taken then the person responsible will be reminded and a copy of the reminder sent to the Accountable Manager. If the fault lies within *enter operator's name* then immediate clearance action will be undertaken with the Accountable Manager being informed, as appropriate.

2.2 Monitoring of Maintenance Management Activities

The Audit Plan includes an assessment of the maintenance management and continuing airworthiness activities against the procedures defined in the MME and in particular the ability of the Maintenance Post Holder's ability to discharge their responsibilities effectively with respect to CAR OPS 1/3 Subpart M.

2.3 Monitoring of the Effectiveness of the Maintenance Programme

The Audit Plan includes a review of the effectiveness of the Maintenance Programme.

2.4 Monitoring that all Maintenance is Carried Out by an Appropriately Approved CAR 145 Organisation

The Annual Audit Plan includes verification that the contracted CAR 145 maintenance organisation's approval granted by the Authority is relevant to the maintenance being performed on the aircraft operated by *enter operator's name*.

2.5 Monitoring that all Contracted Maintenance is Carried Out in Accordance with the Contract, including Sub-contractors used by the Maintenance Contractor

The Audit Programme includes a review of all maintenance provided to *enter operator's name* by the contracted CAR 145 maintenance organisation, including sub-contractors. This review will assess all of the contracted maintenance is carried out in accordance with the Maintenance Contract.

2.6 Quality Audit Personnel

Where audits are conducted by a competent independent auditor not in employment by the operator the nominated Quality Auditor will be subject to acceptance by the CAA. This person will be suitably qualified and experienced to meet the requirements of the audit tasks.

PART 3 CONTRACTED MAINTENANCE AND SUBCONTRACTED CONTINUING AIRWORTHINESS SUPPORT

3.0 Aircraft Operated

Enter name of operator currently operates the following aircraft:

Enter details of the aircraft currently operated

3.1 Contracted Maintenance

This Part Three of the MME describes the contracted maintenance and sub-contracted continuing airworthiness support arrangements of *enter operator's name*. It includes details of these arrangements, together with the division of responsibility for these arrangements, between *enter operator's name* together with copies of the Maintenance Contracts in force for Base, Line and Engine Off-Wing support, as appropriate.

Note the Line and Engine Off Wing support may not be applicable to the operator's operation, if this is the case then simply state that this is N/A at this time and that appropriate contracts will be raised as and when required.

3.2 Maintenance Contractor Selection Procedure

Before any contract is signed with a maintenance organisation the Post Holder for Maintenance will verify that:

a) The maintenance organisation is appropriately approved in accordance with CAR 145, and has the necessary qualified manpower, facilities, tooling, technical documentation etc. This verification to take into account any engine, propeller, or component maintenance capability that may be required

b) It will be confirmed that the maintenance organisation has adequate capacity to undertake the proposed maintenance support. Where this includes aspects of the maintenance management then experience will also be a criteria to be considered.

c) The draft Maintenance Contract will be reviewed and agreed by both parties with a view to ensuring that each has the ability to discharge their responsibilities with respect to CAR OPS 1/3 Subpart M.

3.3 Advising the CAA of Changes to the Maintenance Support

The CAA will be advised of any proposed maintenance support arrangements in writing.

Changes to the nominated Maintenance Contractor will be advised to the CAA giving 28 days' notice.

Part 0.4 of this MME also refers.

3.4 Detailed List of Maintenance Contractors

The current CAR 145 Maintenance Contractors are as follows:

Enter details of the Maintenance Contractors, CAR 145 Approval references, contacts, Telephone numbers etc.

3.5 Relevant Technical Procedures Identified in the Maintenance Contract(s)

The relevant maintenance procedures are included in the Maintenance Contracts copies of which, less the financial, details are provided as appendices to this Part Three of this MME. *Enter operator's name* Technical Procedures are identified in Parts One and Two of this MME.

Note: The paragraphs below are only applicable if any continuing airworthiness tasks are sub-contracted to another organisation. If no tasks are sub-contracted then these paragraphs are stated as "Not applicable"

3.6 Contracted Continuing Airworthiness Tasks

When continuing airworthiness tasks are sub-contracted *enter name of the operator* remains fully responsible for the proper and satisfactory accomplishment of the tasks.

3.7 Continuing Airworthiness Sub-Contractor Selection Procedure

Before any contract is signed with an organisation intended to be sub-contracted to undertake continuing airworthiness tasks the Post Holder for Maintenance will verify that:

a) The organisation has the necessary qualified manpower, facilities, technical documentation etc.

b) It will be confirmed that the organisation has adequate capacity to undertake the proposed continuing airworthiness tasks.

c) The organisation accepts that their activities will be subject to audits by *enter name of operator* and the CAA and they agree to this. This is included in the contract.

d) The organisation has procedures describing how the continuing airworthiness tasks will be managed and communicated to *enter name of Operator* Post Holder for Maintenance such that he can fulfil his responsibilities under CAR OPS 1/3 Subpart M.

e) The draft Contract will be reviewed and agreed by both parties with a view to ensuring that each has the ability to discharge their responsibilities with respect to CAR OPS 1/3 Subpart M.

3.8 Advising the CAA of Changes to the Continuing Airworthiness Sub-Contractor

The CAA will be advised of any proposed changes to the continuing airworthiness support arrangements in writing.

Changes to the continuing airworthiness sub-contractor will be advised to the CAA giving 28 days' notice.

Part 0.4 of this MME also refers.

3.9 Detailed List of Organisations Sub-Contracted for Continuing Airworthiness Tasks

The following organisations are sub-contracted to provide services for continuing airworthiness:

The following tasks are subcontracted:

Include here a detailed list of what tasks are subcontracted to which organisations

3.10 Relevant Technical Procedures Identified in the Contract(s)

The relevant procedures for the management of the continuing airworthiness tasks are included in the Contracts, copies of which, less the financial, details are provided as appendices to this Part Four of this MME. *Enter operator's name* Technical Procedures are identified in *state where the procedures are found*

The procedures on how the sub-contracted organisation perform the tasks and interface with the Post Holder for Maintenance must be defined somewhere. For very simple tasks these can be included in the contract. For larger, more complex tasks these may be in the sub-contractor's own procedures manual which is accepted by the CAR OPS 1/3 Subpart M organisation, or alternatively the CAR OPS 1/3 Subpart M may write the procedures the sub-contracted organisation has to follow. This paragraph 4.3 must define the procedures that are used.

PART 4 APPENDICES

APPENDIX 1

EXAMPLE SECTOR RECORD PAGE

Enter an example of the Sector Record Page (SRP) that is used in the Technical Log

APPENDIX 2

EXAMPLE ACCEPTABLE DEFERRED DEFECT PAGE

Enter an example of the Acceptable Deferred Defect (ADD) Page that is used in the Technical Log.

APPENDIX 3

MAINTENANCE CONTRACTS

Enter copies of the Maintenance Contracts less the financial details.

APPENDIX 4

CONTINUING AIRWORTHINESS SUB-CONTRACTOR CONTRACTS

Enter copies of the Continuing Airworthiness Sub-Contractor Contracts less the financial details (if applicable).

APPENDIX 5

SAMPLE FORMS AND TAGS

Enter here sample copies of the forms and tags used in the maintenance management system.

APPENDIX 6

THE QUALITY AUDIT PROGRAMME

Enter here a copy of the Quality Audit Programme (plan).