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The Civil Aviation Authority of Thailand

AC AW-01-GMM

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Approved By

Chula Sukmanop
Director General
The Civil Aviation Authority of Thailand

ISSUE APPROVAL

This Advisory Circular provides information and guidance to air operator and maintenance organization about standards, practices and recommendations for the general Maintenance Manual to be acceptable to the Authority

This is published to assist air operators in the maintenance section and the Civil Aviation Authority of Thailand (CAAT) personnel delegated with the responsibility of certifying Air Operators to comply with all provisions in this Advisory Circular during the certification process.

In addition, this Advisory Circular information in respect of certification which is eligible to conduct by Air Operators to reach the CAAT requirement.

Amendments to this Information and Guidance book will be notified through http://www.caat.or.th/

(Chula Sukmanop)
Director General
The Civil Aviation Authority of Thailand

Record of Revision

Revision No.	Revision Date	Edited By
ORIGINAL	1 September 2016	Chatchai P.
1	15 September 2017	Chatchai P.

List of Effective Page

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AC AW-01-GMM

15 September 2017

Advisory Circular

General Maintenance Manual (GMM)

1. **GENERAL** Advisory Circular (AC) is issued by the Civil Aviation Authority of Thailand (CAAT) and contains information about standards, practices and recommendations acceptable to the Authority. The revision number of the AC is indicated at the bottom (footer) of each.
2. **PURPOSE** AOCR CHAPTER 8 requires that an Air Operator Certificate (AOC) holder must prepare and maintain a General Maintenance Manual for the use and guidance of the maintenance personnel of the operator. The manual prepared by the operator must be kept current and should be acceptable to CAAT.

   These guidelines are intended for use as a guide for the development of a CAAT acceptable General Maintenance Manual in a standardized format.
3. **APPLICABILITY** This AC applies to all Thai Air Operator Certificate (AOC) Holders and Approved Maintenance Organizations that maintenance aircrafts of AOC holders.
4. **STATUS OF THIS ADVISORY CIRCULAR** This document replaces AC AW-01-GMM previously issued by CAAT on 1 September 2016..
5. **REFERENCES**
   a. Civil Aviation (Air Operator Certification) Regulations as applicable
   b. Regulation Part V of the Civil Aviation (Airworthiness)
6. **GUIDANCE AND PROCEDURES**
   a. The GMM is an air operator's manual for use and guidance by maintenance and operational personnel on maintenance issues. It states the organization management team and the organization commitment to comply with the regulatory requirement and to maintain the standards established during the approval certification process.
   b. It explains in detail the operator's maintenance responsibilities, functions and obligations. It further explains the regulatory processes, methods, procedures and capabilities the operator employs to satisfy these regulatory requirements.

c. The GMM defines the operator's aircraft maintenance structure, quality system management, maintenance activity coordination, duties, responsibilities, qualification and training requirements of technical personnel.

Notes:

i. The GMM is normally presented with all other required manuals during the Formal Application phase of the Air Operator Certification.

ii. The GMM provides the reference datum by which the Authority conducts the operator's approval inspection, the compliance surveillance and audit functions.

7. GMM DEVELOPMENT AND PREPARATION

a. An AOC holder's General Maintenance Manual shall include the following inform which may be issued in one volume or separate parts depending on the size and capacity of the operators' maintenance activities

i. A description of the administrative agreements between the AOC holder and an AMO

ii. A description of the maintenance procedures and the procedures for completing and signing the certificate of release to service

iii. A description of the procedures to ensure each aircraft an AOC holder operates is in an airworthy condition

iv. A description of the procedures to ensure the operational emergency equipment for each flight is serviceable

v. the names and duties of the person or persons required to ensure that all maintenance is carried out in accordance with the General Maintenance Manual

vi. A reference to the maintenance program required by the Thai Civil Aviation Regulations

vii. A description of the methods for completion and retention of the operator's maintenance records required by the Thai Civil Aviation Regulations

viii. A description of the procedures for monitoring, assessing and reporting maintenance and operational experience

ix. A description of the procedures for obtaining and assessing continued airworthiness information and implementing any resulting actions from the organization responsible for the type design, and shall implement any other actions considered necessary by the State of Registry

x. A system of ensuring that any fault, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continuing airworthiness of aircraft shall be transmitted to the organization responsible for the type design of that aircraft and in accordance with the Thai Civil Aviation Regulations

xi. A description of the procedures for implementing mandatory continuing airworthiness information as required by Thai Civil Aviation Regulations (Part V of Airworthiness)

xii. A description of establishing and maintaining a system of analysis and continued monitoring of the performance and efficiency of the maintenance program in order to correct any deficiency in that program as required by the Thai Civil Aviation Regulations

xiii. A description of aircraft types and models to which the manual applies

xiv. A description of procedures for ensuring that un-serviceability affecting airworthiness are recorded and rectified

xv. A description of the procedures for reporting to the State of Registry and the state of the operator of significant in- service occurrences; and

xvi. A description of the operator's safety management system as required by the Thai Civil Aviation Regulations.

Note:

An AOC holder shall not provide for use of its personnel in commercial air transport, a General Maintenance Manual or its part that has not been reviewed and approved by the Authority.

8. GMM CONTENT FORMAT

a. An AOC holder or applicant for an AOC shall submit and maintain General Maintenance Manual containing at least the information set out in Appendix 1 of this document Thai Civil Aviation Regulations.

b. The manual may be put together in one volume or separate subject user volumes provided all applicable subjects are covered as indicated in the regulations.

9. GMM APPROVAL

a. The GMM should be submitted to the Authority for approval (this is normally during the Formal Application phase of the AOC certification). It should be submitted with the Statement of Compliance document which identifies in what section of the GMM the applicable requirements of the regulations have been complied with.

b. If discrepancies are found the Authority will notify the air operator or applicant in writing about the observed discrepancies and recommendations, outlining what will be required to correct the discrepancies. If it becomes apparent that the amendment of the manuals is likely to delay commencement of the inspection as indicated in the Schedule of Events, the applicant is notified.

Note:

Normally the certification process cannot proceed until the Authority is satisfied and has accepted the GMM.

c. When the Authority is satisfied that the GMM meets the requirements, the List of Effective Pages will be stamped approved by the Authority and returned to the operator a copy of the approved GMM will be retained by the Authority.

10. AMENDMENTS TO THE APPROVED GMM

a. The operator shall submit all proposed amendments to the GMM to the Authority for approval before implementation.

b. The Authority will review all amendments to the manuals. The Authority shall not limit this review to the amendments alone but also the impact of the changes on the overall manual system.

c. Continuous review of the manuals by the operator is necessary because both the aviation environment and the operations are constantly changing.

Date :_____ Stamp:_____

Approved by: _____Signature:_____

Appendix 1

The GMM Content Format

1. **Introduction**: A General Maintenance Manual (GMM) is a document that describes the operator's procedures to necessary ensures that all scheduled and unscheduled maintenance is performed on the operator's aircraft on time and in a controlled and satisfactory manner.

   This document is intended to help Air operators write a General Maintenance Manual by identifying which regulations must be addressed, explaining the intent, and providing practical example to further clarify the regulation.

2. **GMM purpose**: The intent of the GMM is to an operator the flexibility to be innovative in their approach to conducting business. The GMM describes how the operator is going to comply with the regulations. The GMM is the means of setting company policy, and informing an operator's staff about company procedures.

   Example - An example of what each section of a GMM might contain. **The "examples" should not be used in a real GMM, as they are hypothetical and may not apply to an organization's actual methods.**

3. **GMM format**: The format of each air operator's manual may be different. The format does not really matter; but it should be in a logical order with the user in mind. Below it specifies what minimum information must be contained in the manual.

   When documents are incorporated by reference in the GMM, the Maintenance Manager certify in writing that the incorporated documents and very amendment thereto meet the requirements of the control established in the GMM.

   a. **Table of contents** The table of contents is used in the manual to enhance data access and information retrieval by allowing a quick scan on the entire Manual when looking for a key item. A good table of content will get the reader to the first page of the topic in question. The table of content should be created after the Manual has being completed. The table of content contains a list of the Manual topics identified by the number and Manual page number. The order of the topics in the manual shown in the example is not consistent with the order of sections within the standard, but maybe more practical for some operators.

Example:

Sample Table of Content

b. **Legal name of air operator** The Manual shall contain at least the legal name of the air operator and, where that name is not the name under which the air operator does business, its trade name.

An air operator's legal name is the title it is registered under so that it may do business in Thailand. This information should include street address and/or mailing address, phone and fax numbers, and an email address

EBa Airlines.

Doing business as (d.b.a.): Air 1234 Ltd.

SSKA, Hanger Number 00 Phone: +267 368 0000

Fax: +267 368 001

EmaiL Eba@air1234.co.bw

c. **Description of the air operator** The description of the organization must include the size, location of facilities, aircraft operated and what type of service is offered to the public. This is helpful to determine if the policies contained in the manual are appropriate with the size and complexity of the operation.

Information :

i. the approximate size of the organization;
ii. the geographic location of the office facilities and/or their operation's base when not co- located
iii. the type and number of aircraft operated; and
iv. the nature of the operation.

d. Amendment control The GMM of an air operator shall contain at least a description of the GMM amendment control procedure. This amendment will be inserted in each copy of the manual with 30 days after receiving approval. This section details the process that an organization uses to control revisions to its GMM. CAAT must approve the amendment prior to its distribution and use by the organization. After CAAT approval, the organization must update all GMM copies within 30 days and incorporate the amendment into their work routines.

Example of amendment procedure:

The Maintenance Manager is responsible for amending and distributing the GMM.

All amendments will be shown by providing a vertical line in the right margin to indicate where changes in paragraphs or wording have been made. Each amended page will show the amendment number and date in the lower right hand corner. If an amendment requires additional pages, these pages will bear the page number of the preceding page and be suffixed alphabetically.

When the amendment is approved by the Authority, the Maintenance Manager will distribute the amendments to the manual holders. The amendments will be inserted within 30 days of the amendment date. The control page will then be returned to the Maintenance Manager for filing and to confirm receipt.

Sample Amendment Control Page:

i. Remove manual pages as indicated
ii. Insert new pages as indicated
iii. Sign and return this control page to Maintenance Manager

Amendment No:_____ Date:_____

Prepared by:_____ Date:_____

Maintenance Manager

Icorporated by:_____ Date:_____

e. List of effective pages The GMM of an air operator shall contain a means of identifying each page of the GMM. This shall be in the form of a List of effective pages (LEP). With each page numbered and either dated and marked with a revision number.

A list of effective pages (LEP) is used to ensure that every manual contains current information. The LEP shows the revision status of each page.

Example :

LIST OF EFFECIVE PAGES

Page	Revision	Date	Page	Revision	Date
1	0	1 May 20XX	14	0	1 May 20XX
2	0	1 May 20XX	15	0	1 May 20XX
3	0	1 May 20XX	16	0	1 May 20XX
4	0	1 May 20XX	17	0	1 May 20XX
5	0	1 May 20XX	18	0	1 May 20XX
6	0	1 May 20XX	19	0	1 May 20XX
7	0	1 May 20XX	20	0	1 May 20XX
8	0	1 May 20XX	21	0	1 May 20XX
9	0	1 May 20XX			
10	0	1 May 20XX			
11	0	1 May 20XX			
12	0	1 May 20XX			
13	0	1 May 20XX			

Amendment#_____

Maintenance Manager:_____ Date:_____

CAAT:_____ Date:_____

f. Distribution Control The GMM of the air operator shall contain a description of the system used to distribute the manual, including the name or title of each person who holds a copy of the manual.

A copy of the GMM should be made available to each person who performs or certifies a function that is dealt with in the GMM or in any manual that is incorporated in the GMM. The Maintenance manager and the Authority are the minimum number of the GMM holders. Manual can be serialized for identification.

Example:

Manual Distribution

A copy of this manual will be available for each person who performs or manages maintenance activities. The maintenance manager is responsible for distribution of this manual, and will insure that all holders have an updated copy. Copies are identified by serial number.

Manual Holder	Serial
President (Certificate)	1
Maintenance Manager	2
Flight Dispatch	3
Contracted AMO	4
CAAT	5

g. **Maintenance Management Personnel/Assignment of function** In a small organization, the Maintenance Manager may be the Accountable manager and take overall responsibility for the entire operation. In larger organizations, the air operator may appoint another individual to be responsible for the maintenance control system. The person appointed as Maintenance Manager may be called by any title. The Maintenance Manager retains responsibility when functions have been assigned.

   i. Maintenance Manager This paragraph should provide details of and address the duties and responsibilities of the approved maintenance manager for aircrafts operated by the operator. This paragraph should also describe procedures, acceptable to CAAT, for officiating arrangements when the approved maintenance manager is not readily available to perform his or her duties.

ii. Maintenance control structure/Nominated Post holder This paragraph should identify employees or occupants of positions who have been delegated or appointed as authorized persons for the purpose of exercising certain powers of the Civil Aviation Regulations, and the procedures for using those powers.

This paragraph should also list the duties, responsibilities and authorities of all persons involved in the control and performance of all activities related to the maintenance of the aircraft and, if necessary, by means of an organizational chart indicating the interrelationship of the responsibilities.

There are three information requirements;

1. the name and title of the person to whom the functions have been assigned;
2. a description of the functions that have been assigned to each person; and
3. to ensure comprehension, a chart depicting the distribution of the functions.

Example:

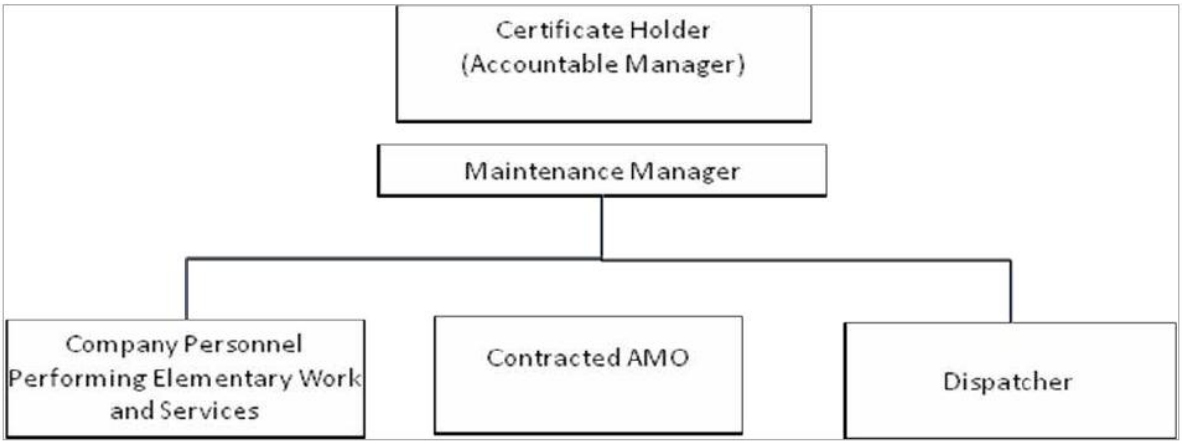
PERSONNEL

President/Accountable manager Name

Maintenance Manager (or alternate title) Name

Dispatcher Name

ORGANIZATIONAL CHART



DUTIES AND RESPONSIBILITIES

The maintenance manager is responsible for the air operator maintenance control system. Management functions may be assigned to specific employees. Assigned duties are defined in the following sections. Organization personnel are required to be conversant with their assigned duties as described in this manual.

Maintenance Manager

The maintenance Manager shall be responsible for the certificate Holder for, but not limited to, the following:

a. The Planning and Control of all maintenance and maintenance records
b. Liaison with CAAT.
c. Liaison with Approved Maintenance Organizations.
d. The maintenance of the company Evaluation Program.
e. Developing and maintaining this manual and aircraft maintenance schedules.
f. The review and safe keeping of all Technical Records.
g. The training and retention of records associated with Elementary Work and Servicing of company aircraft.
h. The Initial and Recurrent Training of all personnel and maintenance of the associated personnel records.
i. The maintenance process control including maintenance arrangements, maintenance records and retention of Weight and Balance reports for all company aircraft.
j. Airworthiness Directive compliance and Service Publication review.
k. Identifying items for service difficulty reports (SDR) and the submission of SDR reports.

h. Performance Standards Where an air operator uses standards for the performance of elementary work or servicing that are other than those recommended by the manufacturer, the identification of those standards is

required. The operator must be able to demonstrate that the standard is equivalent to those specified by the manufacturer.

If the standards other than the manufacturer's recommendations are used, they must be described in the GMM.

For instance, a manufacturer of a particular aircraft may describe a seat belt removal and replacement procedure in their manual that is complex and is time consuming. On the other hand, an organization may have had extensive experience with this aircraft type, and developed a procedure that uses less time and effort to arrive at the same result. The organization must demonstrate to CAAT that the procedure is equivalent to the manufacturers. This may be accomplished by means of a letter from the manufacturer or documented evaluation by an expert in the field. The new standard must be identified in the GMM.

Example:

All work carried out by this organization will be performed in accordance with the manufacturer's recommendations, and standard industry practices with the exception of the following:

The Maintenance Manager will maintain a file containing applicable procedures, specifications and letters of acceptance from the aircraft manufacturer.

i. **Regulatory and Technical Information** The General Maintenance Manual (GMM) of an air operator shall contain at least procedures to ensure that regulatory information and technical data appropriate to the work performed are used in respect of elementary work and servicing

This paragraph should explain the system that ensures any person who performs elementary work and/or servicing has the latest applicable technical manuals, airworthiness directives, regulatory requirements or other related information. This system should be easily auditable and should address how technical and regulatory information is controlled for any work that is performed away from base.

Example:

Regulatory and Technical Information:

The Maintenance Manager will insure that no work is initiated unless the latest regulatory and technical information is on hand and available to all persons performing work on behalf of the operator.

The following publications are held in the company library:

i. CAAT Regulations
ii. Aeronautical Engineering Notices/ Requirements or any equivalent publications
iii. Airworthiness Directives and type certificates
iv. Specific Aircraft Maintenance Manual
v. Specific Engine Service Manual
vi. Service Letters and Bulletins for aircraft operated

j. Technical Records The General Maintenance Manual (GMM) of an air operator shall contain at least the information detailing the methods used to record the maintenance, elementary work or servicing performed, and ensure that any defects are recorded in the technical record established pursuant to Regulation 66 (AOC Regulation).

This will include, the technical log, separate technical records for the airframe, engines, variable pitch propellers; and an empty weight and balance report

It could be as simple as having the person who performed the work write all of the details in the tech log or it may involve a complex system of organization forms and computer tracking accomplished by a dedicated technical records department.

Whatever system is chosen, the following key points should be considered:

i. Keep the system as simple and direct as possible
ii. Eliminate duplication of information on multiple forms
iii. The system should be easily auditable

Example:

The following will be recorded in the aircraft Technical log as soon as possible, but no later than before the next flight:

i. Maintenance
ii. Defects
iii. Elementary work

A work order package is used to record each maintenance function performed by the AMO. All documentation related to the maintenance performed will be attached to the work order and form part of the work order package. The work order package contains as appropriate, check sheets, additional work sheets, and other documents developed to control maintenance tasks. The work order forms part of the technical record.

The Maintenance Manager will verify the work order package for completeness, accuracy and that the work performed was certified by the appropriate individual.

Each entry is to be legible, permanent, dated and include the unique number and signature of the authorized person.

All technical records will be kept at the company main base or on board the company aircraft as applicable. A copy of all maintenance related records will be maintained in the company records office and filed in chronological order for each aircraft. All records will be kept at the company office for a period not less than three years.

A copy of each empty weight and balance report will be kept on file at the company main base.

k. Approved maintenance schedules The General Maintenance Manual (GMM) of an air operator shall contain at least the identification of any maintenance schedule approved by the Authority in respect of any of the air operator's aircraft.

All maintenance schedules developed by the air carrier must contain maintenance and inspection requirements for the air carrier's airframes, engines, propellers, appliances, survival equipment, emergency equipment and other equipment installed on the aircraft, including all applicable out of phase equipment requirements. The maintenance schedules must take into account the requirements of any modifications incorporated

Aircraft maintenance schedules are standalone documents not forming part of the GMM and are maintained separately with their own list of effective pages; however, they may be kept with the GMM for convenience. If desired, the

schedules may be included as an appendix or incorporated by reference to this manual.

Example:

All aircraft operated by LLB Aerospace Ltd. will be maintained in accordance with maintenance schedules approved by CAAT.

LLB Aerospace Ltd has CAAT Approved Maintenance Schedules for the Cessna 185 and for the GA8 (Air Van) aircraft.

The maintenance schedules are approved separately from this manual, by the CAAT and are included as an attachment to this manual.

l. **Maintenance Planning and Control** The General Maintenance Manual (GMM) of an air operator shall contain at least a detailed description of the procedure used to ensure that any maintenance tasks required by the maintenance schedule, an airworthiness directive, or any task required for the rectification of a defect is completed within specific time.

The complexity of the system depends on the size of the air operator, the aircraft types and the number of aircraft operated. The system is the process used by the Maintenance Manager to track the status of aircraft to forecast maintenance. From this information arrangements can be made for the required maintenance to be scheduled.

An effective Maintenance Planning system will reduce the necessity to use tolerances.

Example:

The Maintenance Manager will track and control maintenance requirements to ensure that required intervals are not exceeded. This is done using the following information:

i. Aircraft registration;
ii. Aircraft total airframe hours;
iii. Engine time since new;
iv. Item description;
v. Item interval;
vi. Date/hours/cycles item last done;
vii. Date/hours/cycles next due;

viii. Hours remaining; and

ix. Deferred defects.

A maintenance reminder card in the Technical Log is used to notify the pilot of the next maintenance event. An example of this card is included in the appendices.

The Maintenance Manager will review the Technical Logs daily and update the spreadsheet.

When an aircraft has an item with 10 hours/ 20 cycles or less remaining to the next maintenance event the Maintenance Manager will make arrangements with the AMO.

Tolerances applicable to tasks are identified in the maintenance schedule. Prior to the commencement of any tolerance the Maintenance Manager will ensure the aircraft is inspected to the degree necessary to ensure that it is airworthy, and in a satisfactory condition to operate for the period of the tolerance. The use of the tolerance will be recorded in the Technical Log and the maintenance reminder card updated. Tolerances may not be applied to ADs or life-limited components.

m. Evaluation Program The General Maintenance Manual (GMM) of an air operator shall contain at least a description of the evaluation program. The evaluation system must include a review of all manufacturers' publications and the Maintenance Schedules.

An evaluation program reviews the entire maintenance control system, including but not limited to a periodic, recurring internal audit. An internal audit is intended to identify and document areas that fail to be effective in meeting regulations, standards and company policies and procedures.

The program should determine the root cause of deficiencies, areas of noncompliance, areas that need improvement, corrective actions needed and follow-up to ensure that the changes were effective.

A root cause is the underlying fault in a system that allowed it to fail. If the root cause identifies inadequate policies or procedures then the policies or procedures must be amended.

An air operator must describe the evaluation process, including its frequency and the associated record keeping.

The size of an organization and its activities determines the complexity of the evaluation program. The program must cover all functions defined or required within the approved GMM.

Example:

The Evaluation Program is under the direct control of the Maintenance Manager. Corrective actions made in response to findings of the program are the responsibility of the Maintenance Manager.

The evaluation will be accomplished by a continuous review of organization activities in accordance with the following

i. An initial audit to assess all company activities will be carried out within six months from the date the operating certificate is issued. This will be done using the Activity Area Checklists (see Appendix);
    1. Any findings will be recorded on the Audit Finding Form A (see appendix),
    2. The company auditor will forward the findings to the Maintenance Manager for assessment of the findings, determining the root cause, formulating a corrective action plan, including an implementation timetable,
    3. The Maintenance Manager will implement the corrective actions per the plan;
    4. The Maintenance Manager will schedule a follow-up audit of the areas that generated findings within three months of implementation of the corrective action.

ii. Routine audits will be carried out annually. They will cover all company activities using the Annual Audit Report Form B and the Activity Area Checklists (see Appendix);
    1. Previous audit findings and amendments to company documentation and procedures incorporated during the previous 12 months will be evaluated during the annual audit for effectiveness,
    2. All findings will be recorded on the Audit Finding Form A (see Appendix),

3. Upon completion of the annual audit, the Annual Audit Report and the Audit Findings will be forwarded to the Maintenance Manager for root cause analysis and corrective action plan development and implementation;
4. The corrected findings will be forwarded to the annual audit file for review at the next annual audit for evaluation of effectiveness,
5. A follow- up audit covering any non- conformance and the corrective actions will be carried out within 3 months of the annual audit, and
6. Records of all audits, any non- conformance found, and any corrective actions required will be kept on file for 5 years.

iii. The Regulations will be reviewed at each amendment for any changes that affect the organization. A record of this review will be recorded. Any pertinent changes will be incorporated and forwarded to the annual audit file for follow-up action.

iv. All service bulletins and other manufacturer's recommendations will be reviewed upon receipt.

The decision record or action taken will be attached and retained with the publication and kept on file for 5 years.

n. Defect Control and Rectification The General Maintenance Manual (GMM) of an air operator shall contain at least a description of the defect rectification and control procedures including details of:

i. the methods used to detect and report recurring defects and
ii. unless incorporated into the MEL preamble, the procedures for scheduling the rectification of defects whose repair has been deferred

An aircraft is allowed to be operated with equipment removed or inoperative under certain conditions and with certain restrictions. The GMM will include procedures to ensure that aircraft are not operated with unserviceable equipment unless the defect can be deferred.

The complexity of the system used to control defects, including rectification and deferral, as well as identifying and handling recurring defects will vary according to the type of aircraft operated and the size and nature of the

operation. It may include policies and procedures for the use of an approved Minimum Equipment List (MEL).

The pilot in command must know the status of the aircraft in order to make an informed decision on its serviceability for the intended flight. Additional crew workload must be taken into consideration if defects are deferred.

The GMM must contain procedures to manage defects and to ensure that the Maintenance Manager knows the status of the aircraft so the necessary rectifications can be arranged within required time limits.

Example:

Defect control and rectification

The company will not operate aircraft with defects or unserviceable equipment unless the defect has been recorded and deferred in accordance with the procedures contained in this manual. Any aircraft with defects that cannot be deferred will be immediately removed from service by the Maintenance Manager for rectification of the defect.

All defects will be entered in the aircraft Tech Log by the person who discovers the defect and will report the defect to the Maintenance Manager. This will be done as soon as possible but no later than before the next flight.

The Maintenance Manager will assess whether the defect can be deferred or if it must be rectified. If the Maintenance Manager is unable to make a determination, the contracted maintenance organization will be consulted.

The final authority to reject an unsafe aircraft rests with the pilot. The Maintenance Manager will train and authorize pilots to record the deferrals of defects that occur away from base.

For aircraft operated with an MEL the following procedures apply:

i. Any defect identified prior to departure will be recorded in the Tech Log immediately. The pilot will notify the Maintenance Manager. If the item can be deferred, as identified in the MEL, the pilot will ensure that the "O" & "M" procedures in the MEL are followed and ensure the appropriate entries are made in the Tech Log;

ii. If the defect occurs in flight the defect will be recorded in the Tech Log as soon as practical but before the next flight. The pilot in command will consult the MEL and defer the item, if permitted, following the appropriate MEL procedures. The PIC will notify the Maintenance Manager as soon as possible;

iii. The Maintenance Manager will enter the defect into Maintenance Planning and Control Program and include the date and time by which the MEL'd item must be rectified;

iv. The Maintenance Manager will make the necessary arrangements to have all defects rectified;

v. Once the defect is rectified, any placards and/or circuit breaker collars will be removed and the item will be deleted from the Maintenance Planning and Control Program.

vi. Once a defect is rectified, an appropriate logbook entry will be made.

For aircraft operated without a MEL, the following procedures apply:

i. Any defect identified will be recorded in the Tech Log by the person who discovered the defect and will notify the Maintenance Manager immediately;

ii. Any defect that occurs during a flight will be recorded in the Tech log by the person who discovered the defect as soon as practical after the flight but no later than before the next flight and they will notify the Maintenance Manager as soon as possible upon the completion of that leg of the flight;

iii. The Maintenance Manager will determine if a defect can be deferred or if it must be rectified prior to flight. If the Maintenance Manager is unable to make the determination he will consult with the Director of Maintenance of the AMO;

iv. If the defect can be deferred the Maintenance Manager will arrange, as necessary, to have placards installed, unserviceable equipment removed the system or component isolated and have the action(s) entered in the Tech log as required. Depending on the action to be taken, an AMO may be required.

v. The Maintenance Manager will record the deferred defect on the Deferred Defect Sheet (see Appendix) which is attached to the front page of the Tech log. The sheet will include the date the defect must be rectified by. The Maintenance Manager will enter the defect into Maintenance Planning and Control Program and include the date and time by which the defect must be rectified;

vi. For any defect that cannot be deferred the Maintenance Manager will make the arrangements to have an appropriately rated AMO rectify the defect.

Recurring Defects

Once a defect has been identified as a recurring defect the Maintenance Manager will remove the aircraft from service in order to conduct an investigation into the root cause of the defect. The aircraft will remain off-line until the Maintenance Manager is satisfied that the source of the defect has been permanently fixed.

o. **Service Difficulty Reporting** The General Maintenance Manual (GMM) of an air operator shall contain at least the procedures used to report service difficulties.

Service difficulty reports (SDR) are used to report problems with parts, operating procedures, maintenance procedures or manufacturing processes including suspected unapproved parts. An investigation into service difficulty could lead to an Airworthiness Directive or even a manufacturer's maintenance manual amendment. It is important that the system described in the GMM is clear and reflects that each reportable incident be submitted as a separate report.

The description of the system should include who submits the report, when and in what format

Example:

The Maintenance Manager will submit Service Difficulty Reports (SDRs). This will be done within 3 working days from the day the item was first discovered.

If all of the information is not available within three days the Maintenance Manager will submit an interim report and the report will be updated within 14 days.

Flight crew and dispatch personnel are to report any defect, malfunction or failure of an aeronautical product affecting, or that if not corrected is likely to affect, the safety of the aircraft, its occupants or any other person to the Maintenance Manager. The Maintenance Manager will review all service difficulties submitted by flight crew and dispatch personnel and all defects found during maintenance to determine if they are reportable. If there is any doubt if the item qualifies to be reported the Maintenance Manager will submit a report.

The Maintenance Manager will contact the Director of Maintenance of the AMO to determine if the AMO reported any service difficulties found during maintenance. If the AMO did not file reportable service difficulties, the Maintenance Manager will obtain the data from the AMO and file the reports.

p. **Technical Dispatch** The General Maintenance Manual (GMM) of an air operator shall contain at least a description of the technical dispatch procedures, including procedures for ferry- flight authorizations, all weather operation, or any other special operation

The purpose of the technical dispatch procedures is to ensure that only those aircraft that conform to applicable airworthiness and operational requirements are dispatched. This system also forms the basis upon which the pilot will determine aircraft serviceability in respect of airworthiness directives, maintenance, weight and balance control or operational requirements.

The system should be designed to prevent the dispatch of an aircraft unless all equipment necessary for the specific flight is serviceable, maintenance performed on the aircraft was complete and properly certified, and identifies any test flight requirements.

The Maintenance Manager will ensure that no aircraft are operated unless they are airworthy and appropriately equipped for their intended use.

Before accepting an aircraft, the pilot will review the aircraft Tech Log for the next maintenance event due, for the completion of any maintenance performed prior to flight including a maintenance release and review of the Deferred Defect Sheet for any outstanding defects.

There shall be sufficient hours/cycles/days remaining to the next maintenance event to complete the intended flight.

q. Personnel Records The General Maintenance Manual (GMM) of an air operator shall contain at least a description of the kinds of personnel records to be retained

r. Weight and Balance Control The General Maintenance Manual (GMM) of an air operator shall contain at least a description of the procedure used to ensure that the empty weight and balance of an aircraft is recorded.

The GMM must describe a procedure that identifies the aircraft empty weight and balance in the Tech Log. If alternate configurations are used, an entry in the tech log must indicate the current Weight and Balance Report.

Example:

The Maintenance Manager will maintain and retain Empty Weight and Balance reports for all company aircraft.

Details of the Empty Weight and Empty Centre of Gravity will be entered in the Tech log of each aircraft

If the performance of elementary work, such as removing or installing seats, affects the weight and balance of the aircraft, an entry will be made in the Tech log prior to flight to show the new empty weight and empty center of gravity.

Copies of the Empty Weight and Balance Report will be carried on board the aircraft including the Equipment List in the aircraft Flight Manual.

If alternate configurations are used for the aircraft type, a copy of the Weight and Balance Report for each configuration will be carried on board. When switching between configurations, the entry in the Tech log will indicate which Weight and Balance Report is applicable.

s. Maintenance arrangements

The General Maintenance Manual (GMM) of an air operator shall contain at least details of the procedures governing maintenance arrangements entered in to and a list of all such arrangements.

This shall include the procedure used to communicate to an approved maintenance organization the maintenance requirements with regard to planned and unforeseen maintenance activities as well as those mandated by airworthiness directives.

Maintenance of company aircraft will be contracted to an appropriately rated Approved Maintenance Organization. All maintenance arrangements will be authorized through a formal contract, purchase order or letter, copies of which will be kept by the Maintenance Manager.

A maintenance control sheet, will be completed by the Maintenance Manager, which will specify the work to be done and reference the applicable standard.

The control sheet, the Approved Maintenance Schedule (if applicable) and any relevant check sheets will form the maintenance package delivered to the AMO. Following maintenance, the completed maintenance package will be kept on file by the Maintenance Manager. The Maintenance Manager will confirm that all required tasks have been completed and certified in the technical records prior to flight.

All maintenance will be coordinated by the Maintenance Manager. In the case of unscheduled maintenance arising away from main base, the Pilot shall contact the Maintenance Manager for direction. The Maintenance Manager will make arrangements with an appropriately rated AMO to carry out the work.