MATERIAL STORAGE AND SHELF-LIFE CONTROL

1.0 Introduction

1.1 This EPM is cited as EPM 3-02, Issue 3 Revision 0: Material Storage and Shelf-Life Control.

2.0 Objective

2.1 Ensures that aircraft components and materials are properly controlled, stored safely, and utilized efficiently, thereby maintaining compliance with aviation standards and minimizing waste.

3.0 Interpretation

3.1 A shelf-life item is an aircraft component, part, or material that has a specific time frame during which it is considered to be safe and effective for use. This period is determined based on the item's properties, manufacturer specifications, and regulatory requirements.

4.0 Applicability

4.1 Applicable to all AMO Personnel: Maintenance personnel, Storeman, Warehouse and Logistics personnel, and AMO Planners.

5.0 Non-Compliance

5.1 Any person who contravenes any provision in this EPM commits an offence against the EPM and MOE of GAM. As these are the basis of GAM's Part 145 Approval, it denotes an offence against the requirements of CAAM.

5.2 Offenders may be subjected to investigation by the company. On conviction, he or she may be liable to actions as per the legal framework of labour law of Malaysia.

6.0 References and Compliances

6.1 MOE 2.2 Acceptance / Inspection of Aircraft Components And Materials From Outside Contractors

6.2 MOE 2.3 Storage, Tagging and Release of Aircraft Component and Materials to Aircraft Maintenance

7.0 Documentation

7.1	Serviceable Tag	(ref: GAM/E-005)
7.3	Quarantine Tag	(ref: GAM/E-007)
7.4	Unserviceable Tag	(ref: GAM/E-006)
7.5	Temperature & Humidity Record	(ref: GAM/E-026)
7.6	Tyre Rotation Records	(ref: GAM/E-067)
7.7	Scrap Label	(ref: GAM/E-058)
7.8	Scrap Log	(ref: GAM/E-059)

8.0 Storage Facility

8.1 Storage facilities for serviceable aircraft components are clean facilities, well ventilated, environmentally controlled rooms maintained at a constant dry temperature to minimize the effects of condensation.

8.2 Ideal temperature is to be set at 18°C - 24°C and relative humidity is to be maintained not exceed 75%. Any temperature or humidity beyond 24°C and 75% should be monitored closely. The recording is using Temperature & Humidity Record (ref: GAM/E-026).

8.3 Storage recommendation by the manufacturer must be observed indefinitely to ensure parts remain in a serviceable state.

8.4 Personnel movement into and out of the storage area is to be strictly limited to avoid unnecessary opening of doors.

9.0 General Standard of Storage of Parts / Components

9.1 All aircraft parts, wherever practicable, should remain packaged in protective material to minimize damage and corrosion during storage.

9.2 Avionics parts, radio, instrument and electrical power system components are particularly prone to damage due to high humidity. During storage, they must be protected by a suitable anti-static wrapping to prevent dust and moisture ingress. All connectors and replaceable are blanked or capped. Silica gel bags may be used to protect against moisture and inspected at regular intervals for sign of saturation.

9.3. Whenever possible use the original sealed transit case or packing, otherwise use polythene bagging with open end folded or loosely stapled.

9.4 General parts may be stored in non-metallic containers, cardboard boxes or jars.

9.5. ‘O’ rings, seals and packings are to remain in sealed packets. Packing with opened sealed packet is be discarded.

9.6. Rubber parts should be stored in their original seal envelopes and should not be exposed to direct daylight or sunlight.

9.7. Flux Valves and Standby Compass must be stored on wooden or plastic shelving away from any magnetized material such as speakers and weather radar transceiver.

9.8 Components containing inhibiting fluid should be checked periodically for fluid loss and agitated to re-distribute the fluid.

9.9 Fuel, Pneumatic and hydraulic components all inlet and outlet must be covered with protective blanks and caps and stored in plastic bags.

9.10 Hoses are to be stored without kinks or bends and must be properly blanked.

9.11 Windshield and windows are to be stored in their original shipping container and be kept away from heat and other contaminant by solvent.

9.12 Tyres are to be stored away from sunlight and heat and must not be allowed to become contaminated with oil and grease. Tyre are to be stored vertically, supported by two tubes with two thirds being above the support point. Tyres are to be turned periodically not exceeding 3 months to a new position. For complete wheel assembly storage position is the same as the requirements for tyres and storage pressure should not exceed 30 psi. The tyre rotation must be recorded in Tyre Rotation Records form (GAM/E-067).

9.13 Fire Extinguisher is to be stored above the floor in their original shipping containers. Discharge outlets should be blanked.

9.14 Pyrotechnics such as fire extinguisher cartridges, flares and squibs are to be stored in a lockable steel container in a dry room.

9.15 Batteries are to be stored off the floor in a well-ventilated room. Ni-cad batteries must be strictly segregated from Lead Acid type.

9.16 Flammable fluids are to be stored in in separate POL store located separate from the store.

9.17 Engines, propellers and other bulky items are stored in (bonded) bulk store where possible. Where no suitable bulk storage is available the item is to be sealed/protected and positioned in the hangar or workshop where the likelihood of damage is minimal. Items stored as such are to be inspected prior to issue from stock.

9.18 Avionics material, radios and instruments must never be stored in racking underneath stored fuel, oil, or hydraulic system components. Any leakage of fluid from these components is capable of seriously damaging the material stored below them.

9.19 Avionics parts are preferably to be segregated from fluid system parts and if storage space constraints total segregation, then the fluid system components should be always placed on the lower shelves, with avionics and electrical equipment above them.

9.20 Storage methods should ensure materials or parts are issued in strict rotation. Old stock is to be issued before new stock with particular attention to perishable goods, instruments or components with a definite storage limiting period.

9.21 Any additional control requirements specified on the manufacturer's label are to be closely followed.

9.22 Electrostatic-sensitive components are to be stored in its original packaging. All packages containing goods inward must have electronic sensitive device external markings.

10.0 Determination of Shelf Life of Components / Parts and Methods of Control

10.1 The Store Inspector is responsible for the monitoring shelf life of components/parts. The controlling of the shelf-life item store will be carried out by Warehouse Personnel.

10.2 The Shelf Life must be determined in accordance with manufacturer instruction.

10.2 The component or part with shelf life will go through the acceptance procedure in EPM 3-01 Acceptance of Aircraft Component and Material.

10.3 Upon registration of the item in AERONET System, Serviceable Tag (ref: GAM/E-005) issued and clearly indicated with the shelf life of the item.

10.4 The “First in, first out” policy must be observed by Warehouse Personnel during issuance item with shelf life. This can either be indicated by the shelf life that registers in the AERONET System or the shelf-life expiry of the item.

10.5 AERONET system will indicate Items nearing storage life expiry by color code and will appear orange color in the list then later change to red color when expired. the AERONET System will alert the Warehouse and Logistic Personnel by way of weekly notification by email.

10.6 When the expiry date is due, such items are to be removed from the Bonded Store and place in an Out-going Area. The Warehouse Personnel will register the item in Scrap Log (ref: GAM/E-059) and label it with the Scrap Label (ref: GAM/E-058) for scrap action.

11.0 Recertification

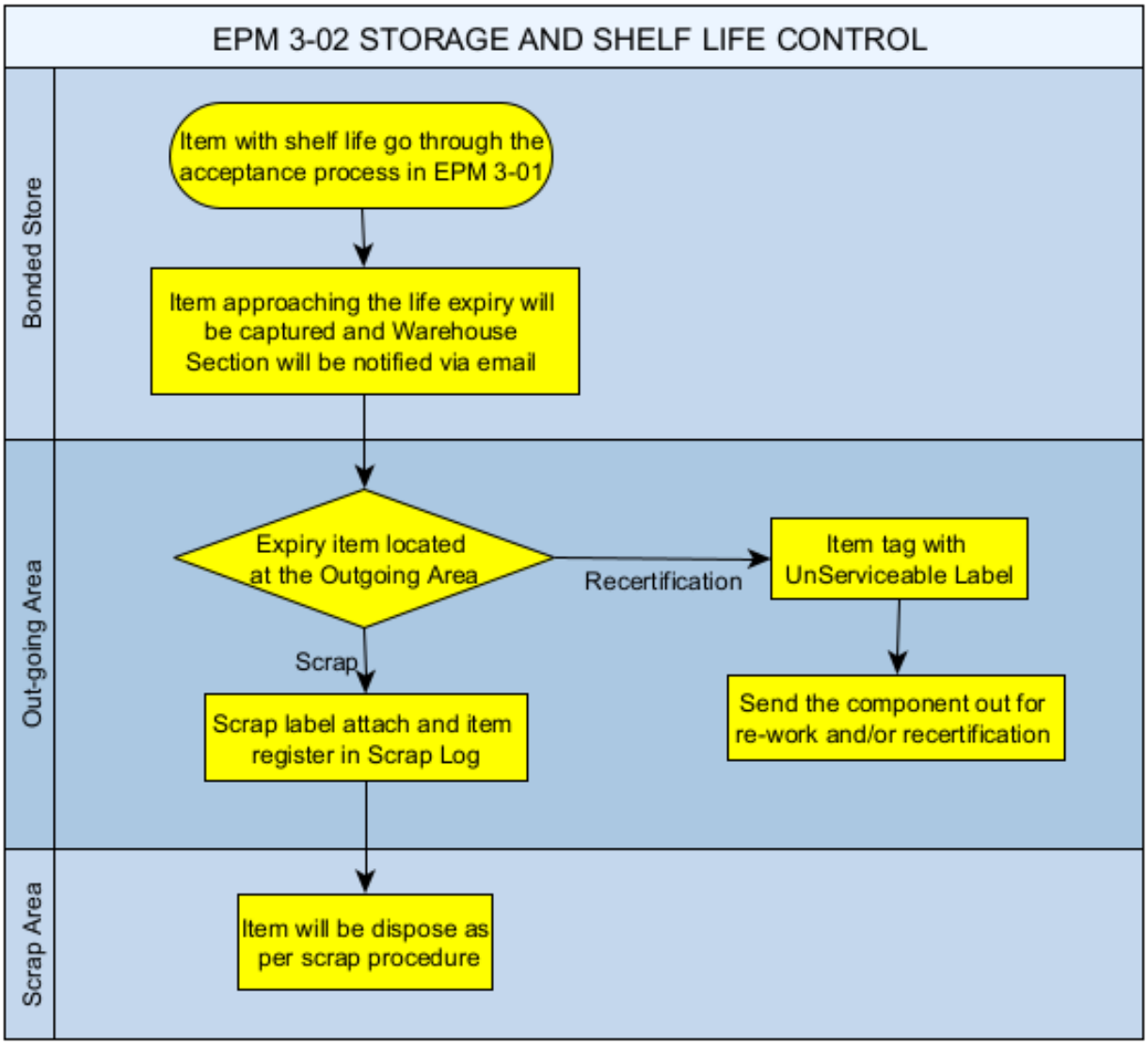
11.1 In all cases where the shelf life has expired and an item is offered for recertification (if any), the unserviceable label (ref: GAM/E-006) must be raised with details:

a) The GiN Number.
b) The supplier, or last repair agency who handled the item, and its status on receipt at GAM (i.e. New / Overhauled / Repair).
c) The date it was received at GAM.
d) Details of any previous shelf-life expiry since receipt at GAM.

11.1 The procedure to send the component out for re-work and/or recertification must be as per EPM 3-07.

12.0 Cancellation

This issue cancels EPM 3-02 Issue 2 Rev 2 dated 09 Sep 2022, which should be destroyed.


EPM 3-02 STORAGE AND SHELF LIFE CONTROL
Bonded Store
Item with shelf life go through the acceptance process in EPM 3-01
Item approaching the life expiry will be captured and Warehouse Section will be notified via email
Out-going Area
Expiry item located at the Outgoing Area
Recertification
Item tag with UnServiceable Label
Scrap
Send the component out for re-work and/or recertification
Scrap label attach and item register in Scrap Log
Scrap Area
Item will be dispose as per scrap procedure

END.