

### MSTAR 145 AUDIT CHECKLIST

<b>AUDIT REPORT NO</b>		<b>AUDIT START DATE</b>	
<b>AUDIT AREA</b>		<b>AUDIT END DATE</b>	
<b>AUDITOR(S)</b>	1. 2. 3.	<b>AUDITEE(S)</b>	1. 2. 3.

PART	DESCRIPTION	COMPLIANCE			REMARKS/OBJECTIVE EVIDENCE
		Y	N	NA	
<b>1.0 Facility Requirements</b>					
1.1	<b>Facilities</b> (as appropriate): - Protection from the weather elements. - Aircraft hangars visit plan.				
	<b>Specialised workshops:</b> - Access to the hangar.				
	<b>Line Maintenance:</b> - Access to the hangar. - Area for maintenance staff				
1.2	<b>Office accommodation:</b> (e.g. for technical records; quality) - Sufficient room to carry out assigned tasks.				
1.3	<b>Working environment:</b> - Appropriate - Temperature control - Contamination hazard - General lighting & specific lighting - Noise levels - Personal equipment to stop excessive noise				
	<b>Specific environmental requirement:</b> - Appropriate and conform to maintenance data - Environment acceptable (T°, moisture, hail, ice, snow, wind, light, dust).				
1.4	<b>Secure:</b> - Access restricted to authorised personnel				
	<b>Storage conditions:</b> - Must ensure segregation of serviceable (A/C components and material) from unserviceable (A/C components, material, equipment and tools).				
	Incoming inspection / tagging of parts.				
	<b>Storage facilities:</b> - Aircraft - Components - Equipment - Tools and material; well-ventilated - Manufacturers storage recommendations - Storage racks				
	<b>Conditions of storage:</b> - Manufacturer's instructions followed (e.g. tyres); A/C components should remain packaged				

PART	DESCRIPTION	COMPLIANCE			REMARKS/OBJECTIVE EVIDENCE
		Y	N	NA	
<b>2.0 Personnel Requirements</b>					
2.1	<b>Post Holders qualification and requirements:</b> <ul style="list-style-type: none"> <li>- Accountable Manager</li> <li>- Quality Manager</li> <li>- Base maintenance manager</li> <li>- Line maintenance manager</li> <li>- Workshop manager</li> <li>- Deputisation in the case of lengthy absence of said manager(s)</li> </ul>				
2.2	<b>Production man-hours plan:</b> <ul style="list-style-type: none"> <li>- Availability of man-hour plan</li> <li>- Procedure for review of man-hour plan</li> <li>- Responsible person to manage the man-hour</li> </ul>				
2.3	<b>Competence of Personnel</b> <ul style="list-style-type: none"> <li>- Procedure must be established to control the competence of maintenance, management and quality audit personnel.</li> <li>- Expertise related to the job function // understanding of the application of human factors and human performance issues.</li> </ul> Assessment for Initial human factors training // Human factors continuation training. Initial human factors training syllabus. Initial training on fuel tank safety (CDCCL tasks)  Note: Verify & sample records				
2.4	<b>NDT (Non-Destructive Test)</b> <ul style="list-style-type: none"> <li>- Personnel carry out NDT must be qualified iaw the European Standard (EN4179) or equivalent standard recognised by DGTA.</li> </ul> <b>Specialised Tasks (Non-destructive inspections)</b> <ul style="list-style-type: none"> <li>- Personnel appropriately qualified to official process (e.g. baroscopic inspection)</li> </ul>				
2.5	<b>Line Maintenance</b> <ul style="list-style-type: none"> <li>- Certifying staff qualified as Cat B1, B2, as appropriate, iaw MSTAR 66 and 145.A.35. When required armament qualified B1 or B2, or.</li> <li>- Certifying staff qualified as category A and B2 iaw MSTAR 66 plus 145.A.25 minor scheduled line maintenance and simple defect rectification.</li> </ul> <b>Base Maintenance</b> <ul style="list-style-type: none"> <li>- Certifying staff qualified as category C iaw MSTAR 66 and 145.A.35</li> <li>- Appropriate type rated staff CAT B1 and B2 to support CAT C. Register to be maintained for CAT B1 &amp; B2 support staff.</li> </ul> <u>B1 &amp; B2 support staff</u> - Ensure all relevant tasks or inspections have been carried out before the CAT C issues CRS.  <u>CAT C</u> - Ensure all required maintenance work has been accomplished during base maintenance or work package.				
2.6	<b>Certifying staff of components</b>				

PART	DESCRIPTION	COMPLIANCE			REMARKS/OBJECTIVE EVIDENCE
		Y	N	NA	
	- Certifying staff authorised based on appropriate competence, training and experience.				
2.7	<p><b>Specific Circumstances:</b></p> <p><u>Repetitive pre-flight AD carries out by the flight crew</u></p> <ul style="list-style-type: none"> <li>- Sufficient practical training</li> <li>- Limited certification authorisation</li> <li>- Flight crew license</li> </ul> <p><u>Aircraft operating away from a supported location</u></p> <ul style="list-style-type: none"> <li>- Sufficient practical training</li> <li>- Limited certification authorisation (commander and/or the flight engineer on the bases of the flight crew license held) – <i>specified in MOE</i></li> </ul> <p><u>Aircraft grounded at a location other than MOB where no appropriate Certifying Staff is available</u></p> <ul style="list-style-type: none"> <li>- One-off certification authorisation of its employees holding equivalent type authorisations on similar aircraft.</li> <li>- One-off certification authorisation to a person conforms with conditions (5 years' experience /...) provided there is no organisation appropriately 145 approved.</li> <li>- Report to DGTA within 7 days after issuing such certification authorisation – must be specified in MOE procedures. Any such maintenance that could affect flight safety is re-checked by an appropriately 145 approved organisations.</li> </ul>				
<b>3.0 Certifying Staff &amp; Support Staff</b>					
3.1	Adequate knowledge and understanding of relevant A/C, A/C component(s) and organisation procedures (training and examination)				
3.2	Issuance of a certification authorisation to certifying staff in relation to the aircraft maintenance licence MSTAR 66				
3.3	All Certifying staff and support staff are involved in at least 6 months / 2 years period – meaning: has certified and/or carried out maintenance on relevant aircraft or component as specified on certification authorisation				
3.4	<u>Continuous training</u> for certifying staff and support staff in each 2 years period: relevant technology updating, organisation procedures, human factor issues, fuel tank safety, EWIS -Recommended that such training is reviewed at least once in every 2 years period-				
3.5	Programme for the continuous training for certifying staff and support staff + (MOE) procedure to ensure compliance with 145.A.35 (issuing certification authorisation) and MSTAR 66				
3.6	Assessment all prospective Certifying staff for competence, qualification and capability before issue or re-issue of a Part 145 certification authorisation + (MOE) procedure				
3.7	Certification authorisation that clearly specifies the <u>scope and limits of such authorisation</u>				

PART	DESCRIPTION	COMPLIANCE			REMARKS/OBJECTIVE EVIDENCE
		Y	N	NA	
3.8	Certification authorisation must be in a style that makes its scope clear, where codes are used to define scope, the organisation shall make a code translation readily available				
3.9	Responsibility of the quality system for <u>issuing 145 certification authorisations</u> to certifying staff.				
3.10	<u>Retention of record</u> : all certifying staff and support staff with detail of license held under Annex III (Part 66), scope of the certification authorisations, training completed and particulars of staff with limited or one-off certification authorisation - At least 3yr after leaving-				
3.11	Certifying staff must be provided with a <u>copy</u> of their certification authorisation.				
3.12	Certifying staff must be able to produce their certification authorisation within 24 hours.				
3.13	The <u>minimum age</u> for certifying staff and support staff is 21 years.				
3.14	<u>Category A aircraft task training</u> carried out by MO 145 or MTO 147; Include practical hands on training and theoretical training. Satisfactory completion of training: examination or workplace assessment carried out				
3.15	<u>Category B2: Maintenance</u> performed on avionics and electrical systems Electrical and avionics <u>tasks</u> within powerplant and mechanical systems. - Satisfactory completion of the relevant CAT A aircraft task training (practical/theoretical) and 6 months of documented practical experience. Demonstrated by an examination or by workplace assessment				
<b>4.0 Equipment, tools and material</b>					
4.1	Necessary equipment, tools and material				
4.2	Control register (special tools / personal tools / alternative tooling / tools rarely needed) and procedures				
4.3	Use of alternative tooling or equipment (iaw procedure)				
4.4	Equipment and tools must be permanently available / case of tool and equipment infrequently used.				
4.5	Sufficient aircraft access equipment and inspection platforms/docking.				
4.6	Where necessary, tools, equipment and particularly test equipment to be controlled and calibrated to officially recognised standards.				
4.7	Labelling system for all tools, equipment and test equipment (due date)				
4.8	Inspection, service or calibration on regular basis iaw the manufacturer instructions				

PART	DESCRIPTION	COMPLIANCE			REMARKS/OBJECTIVE EVIDENCE
		Y	N	NA	
4.9	A register of all precision tooling and equipment + record of calibrations and standards used				
<b>5.0 Acceptance of components</b>					
5.1	<b><u>Classification of the components</u></b> : satisfactory condition (Form 1 or equivalent); unserviceable; unsalvageable (reached their certified life limit or contain a non-repairable defect); standard parts (IPC, maintenance data); material both raw and consumables (certificate of conformity); Appropriately segregated				
5.2	<b><u>Eligibility</u></b> of the component prior to installation (modification and / or AD standards / Life limited part)				
5.3	<b><u>Fabrication</u></b> of a restricted range of parts under the scope of a 145 approval – must be specified in MOE procedure- In the course of undergoing work within its own facilities (only for internal use)				
5.4	Components which have reached their certified life limit or contain a non-repairable defect shall be classified as unsalvageable. Ensure that they are disposed in a manner that does not allow them to be returned to service				
<b>6.0 Maintenance Data</b>					
6.1	<b><u>Availability and use</u></b> applicable up to date maintenance data to perform maintenance including modifications and repairs.				
6.2	<b><u>Maintenance data</u></b> : Tech Doc approved by Tech Control/ <b>MatMan</b> , including SB, TCTO, AD				
6.3	If found, any inaccurate, incomplete or ambiguous procedures, practices, information or maintenance instructions contained in the maintenance data: recorded and notified to the Tech Control / <b>MatMan</b>				
6.4	The MO must provide a common <b><u>Workcard or worksheet system</u></b> throughout the relevant department. <u>Workcards and/or Worksheets system</u> : reference to the maintenance task(s) contained in such maintenance data; <u>Complex maintenance tasks</u> : subdivided into clear stages				
6.5	Electronic dBase: adequate safeguards and a back-up electronic (updated within 24 hours)				
6.6	All applicable maintenance data must be readily available for use by maintenance personnel: in base / line / workshop				
6.7	Data in proximity of the aircraft / component maintenance being performed				
6.8	Computer system / microfilm or microfiche readers/printers (sufficient)				
6.9	<b><u>Maintenance data is kept up to date</u></b> : control list / subscription / monitoring of amendment status. Special attention for life limited part				

PART	DESCRIPTION	COMPLIANCE			REMARKS/OBJECTIVE EVIDENCE
		Y	N	NA	
6.10	Operator controlled and provided maintenance data; written confirmation // work orders specifying the amendment status // on operator amendment list				
<b>7.0 Production Planning</b>					
7.1	System appropriate to the amount and complexity of work to plan the availability of all necessary personnel, tools, equipment, material, maintenance data and facilities to ensure the safe completion of the maintenance work.				
7.2	The production planning function elements: scheduling the maintenance work ahead; during maintenance work, organising maintenance teams and shifts and provide all necessary support				
7.3	The planning of maintenance tasks, and the organisation shifts, must take into account human performance limitations				
7.4	Shift or personnel changeover, relevant information must be adequately communicated between outgoing and incoming personnel.				
7.5	Understand and communicate the important elements of the job or task (Outgoing personnel)				
7.6	Understand and assimilate the information (Incoming personnel)				
7.7	Formalised process for exchanging information between outgoing and incoming persons.				
<b>8.0 Performance of Maintenance</b>					
8.1	Procedure to ensure that: <u>a general verification is carried out</u> : aircraft or component is clear of all tools, equipment and any extraneous parts or material, all access panels removed have been refitted				
8.2	Procedure to ensure that: an <u>error capturing method</u> is implemented after the performance of any critical maintenance task - <i>Adequate for the work and the disturbance of the system (visual inspection, operational check, rigging check, functional check) - Independent Inspection // Reinspection (only one person is available)</i>				
8.3	Procedure to ensure that: the <u>risk of multiple errors during maintenance and the risk of errors being repeated in identical maintenance tasks</u> are minimised 1) <i>Plan the performance by different persons of the same task in different systems.</i> 2) <i>Duplicate inspection or re-inspection procedure; Prevent</i>				

PART	DESCRIPTION	COMPLIANCE			REMARKS/OBJECTIVE EVIDENCE
		Y	N	NA	
	<i>omissions: task or group of tasks should be signed-off after completion // authorised personnel // critical steps to be clearly identified // personnel under supervision</i>				
<b>9.0 Certification of Maintenance</b>					
9.1	Certificate of release to service (aircraft // aircraft component) must be issued				
9.2	Appropriately authorised staff (Certifying staff)				
9.3	A CRS must not be issued in case of any non-compliance known that endangers flight safety				
9.4	All maintenance ordered has been properly carried out Task carried out to a fuel system (CDCCL): marking "CDCCL task"				
9.5	Before flight: base and line maintenance, at the completion of any maintenance, A/C Form Contains basic details of maintenance carried out // date // certifying staff identity // signature // cross-reference to work-package				
9.6	New defects or incomplete maintenance work shall be brought to attention CAMO:  For obtaining agreement to rectify such defects or completing the missing elements of maintenance work order, Deferral/Tech waiver procedure				
9.7	Issued CRS at the completion of any maintenance on A/C component whilst off A/C requires a EMAR/BMAR Form 1 or equivalent				
9.8	When the MO is unable to complete all required maintenance, this must be entered in the CRS				
9.9	When A/C is grounded outside MOB, (MOE) procedure for component temporarily fitted without appropriate release certificate, but with suitable serviceable tag and operator's agreement				
<b>10.0 Occurrence Reporting</b>					
10.1	Acceptable internal occurrence reporting system: collection and evaluation of such reports, including the assessment and extraction of those occurrences to be reported to BMAA				
10.2	All pertinent information and evaluation results; adequate format				
10.3	Reporting to the operator (COA)				
10.4	Reports delay: 72 hours				
<b>11.0 Safety and quality policy, maintenance procedures and quality system</b>					
11.1	The MO must establish a <b>safety and quality policy</b> to be included in the MOE				

PART	DESCRIPTION	COMPLIANCE			REMARKS/OBJECTIVE EVIDENCE
		Y	N	NA	
11.2	<b><u>Maintenance procedures</u></b> must be established, taking into account human factors and human performance, to ensure good maintenance practices and compliance requirements				
11.3	Include a clear contract - between CAMO and MO – before providing maintenance services				
11.4	Maintenance procedures must cover all aspects of the activity: standards, procedures, personnel				
11.5	Procedure must be established that cover the control of any specialised services (NDT, paint,) and lay down the standards to which the MO intends to work				
11.6	<p>The MO must establish a <b><u>quality system</u></b> that includes:</p> <ul style="list-style-type: none"> <li>- Independent audits to monitor Aircraft/ aircraft component standards and adequacy of procedure to ensure good maintenance practices</li> <li>- Product sampling and Procedure - one product on each product line at least every 12 months in accordance with a scheduled plan</li> <li>- A report should be raised each time an audit is carried out and must describe what has been checked, the resulting findings against applicable requirements, procedure and products</li> <li>- Audit of products / workshop activities / personnel qualification / work card / technical log completion / process exemptions / special process control / finding notified / identified</li> <li>- All aspects of 145 compliance and product sampling are checked every 12 months: scheduled internal auditing plan, training of the auditors</li> </ul>				
11.7	<p><b><u>Quality audit feedback system</u></b> (may not be contracted to outside persons):</p> <ul style="list-style-type: none"> <li>- Findings properly investigated and corrected in a timely manner</li> <li>- Reports to relevant departments</li> <li>- Information to Quality Department or to auditor after corrective actions</li> <li>- Feedback to Managers and Accountable Manager - Meeting at least twice per year</li> <li>- Records storage period (at least 2 years)</li> </ul>				



PART	DESCRIPTION	COMPLIANCE			REMARKS/OBJECTIVE EVIDENCE
		Y	N	NA	
<b>12.0 Maintenance Organisation Exposition</b>					
12.1	Provide a maintenance organisation exposition (MOE) with the following information: <ul style="list-style-type: none"> <li>- Statement by the Accountable Manager</li> <li>- The organisation its safety and quality policy</li> <li>- The title(s) and name(s) of Mgt person(s)</li> <li>- The duties and responsibilities of Mgt person(s)</li> <li>- Organisation chart</li> <li>- List of certifying staff, support staff within their scope of approval</li> <li>- A general description of manpower resources</li> <li>- A general description of the facilities</li> <li>- Scope of work – including capability list for components</li> <li>- The notification procedure for approved organisation changes</li> <li>- The maintenance organisation exposition amendment procedure</li> <li>- Maintenance organisation's procedure and quality system</li> <li>- List of subcontracted organisations</li> <li>- List of line stations</li> <li>- List of contracted organisations</li> </ul> <p>Note: List of subcontracted organisations, line stations and contracted organisation may be kept as separate documents (soft copy)</p>				
12.2	MOE and subsequent changes must be approved by DGTA				
12.3	Minor changes may be approved through a MOE procedure				
<b>13.0 Privileges of the organisation</b>					
13.1	Maintain any A/C or A/C component: locations identified in approval certificate // MOE				
13.2	Arrange for maintenance at another MO: subcontracting under the quality system of the AMO				
13.3	Procedure for the control of subcontractors: <ol style="list-style-type: none"> <li>1. Pre-audit</li> <li>2. Record of audit</li> <li>3. Corrective action follows up plan</li> <li>4. Know when subcontractor is being use</li> </ol>				
13.4	Maintain any A/C or A/C component: unserviceability of the A/C or occasional line maintenance (MOE procedure)				

PART	DESCRIPTION	COMPLIANCE			REMARKS/OBJECTIVE EVIDENCE
		Y	N	NA	
13.5	Maintain any A/C or A/C component: Locations identified as a line maintenance location (scope of work and list in MOE)				
<b>14.0 Privileges of the organisation</b>					
14.1	Maintain an A/C or A/C component: locations identified as a line maintenance location (Scope of work and list in MOE)				
<b>15.0 Changes to the organisation</b>					
15.1	The MO must notify any of the following changes: <ul style="list-style-type: none"> <li>• The name of the organisation</li> <li>• The main location of the organisation</li> <li>• Additional locations of the organisation</li> <li>• The accountable manager</li> <li>• Any of the persons nominated point 145.A.30(b)</li> <li>• The facilities, equipment, tools, material, etc.</li> <li>• MO procedures</li> <li>• Approved scope of work</li> <li>• Certifying staff and airworthiness review staff</li> <li>• Notification to the authority</li> <li>• Changes to capability lists controlled and recorded</li> </ul>				
<b>16.0 Continued validity</b>					
16.1	The approval (3 years approval) remains valid subject to: <ol style="list-style-type: none"> <li>1) the maintenance organisation remains in compliance with MSTAR 145;</li> <li>2) the MSTAR being granted access to the 145 MO;</li> </ol> the MOA certificate not being surrendered or revoked				
16.2	Upon surrender or revocation, the approval shall be returned to the DGTA				
<b>17.0 Findings (N/A for units)</b>					
17.1	<b>Level 1:</b> any significant non-compliance with MSTAR 145 requirements which lowers the safety standard and hazards seriously the flight safety				
17.2	<b>Level 2:</b> any non-compliance with MSTAR 145 requirements which could lower the safety standard and hazard the flight safety.				
17.3	After receipt of findings, the MO shall: <ol style="list-style-type: none"> <li>1) define a corrective action plan; demonstrate corrective action to the satisfaction of the DGTA within a period agreed with the DGTA</li> </ol>				



**INSTRUCTION FOR COMPLETING GAM/Q-008B – MSTAR 145 AUDIT CHECKLIST**

No.	Description	Instruction
1.	Audit Report No.	State the audit report no. E.g. IAR-2024/077
2.	Audit Start Date	State Audit start date.
3.	Audit Area	State the audit area. E.g. APMM AS365N3 (Tools & Equipment)
4.	Audit End Date	State audit end date.
5.	Auditor(s)	Fill up on the auditor(s) name.
6.	Auditee(s)	Fill up the auditee(s) name.
7.	Compliance	Tick compliance status.
8.	Remarks/Objective Evidence	Enter remarks/objectives evidence.
9.	Notes/Remarks	Write notes/remarks during the audit.