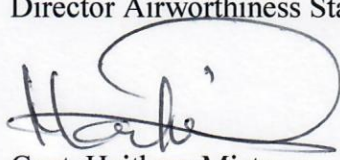




Jordan Civil Aviation Regulatory Commission

Guidance Procedure: AWS 36

Approved Maintenance Organization- Tools & Equipment

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Civil Aviation Regulatory Commission
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Records of Revisions

Issue	Revision	Date	Reason for the change (include chapter/subchapter and a short description)
01	00	Dec. 2019	First Issue



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List of Effective Pages

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0. Introduction



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0.2. Definitions and abbreviations.

Abbreviations	
AMC	ACCEPTABLE MEANS OF COMPLIANCE
AMO	APPROVED MAINTENANCE ORGANIZATION
AMTO	APPROVED MAINTENANCE TRAINING ORGANIZATION
AOG	AIRCRAFT ON GROUND
CAP	CORRECTIVE ACTION PLAN
C/S	CERTIFYING STAFF
CC/S	COMPONENT CERTIFYING STAFF
GM	GUIDANCE MATERIAL
MOE	MAINTENANCE ORGANIZATION EXPOSITION
MOR	MANDATORY OCCURRENCE REPORTING
OEM	ORIGINAL EQUIPMENT MANUFACTURER
S/S	SUPPORT STAFF
STCH	SUPPLEMENTAL TYPE CERTIFICATE HOLDER
TCH	TYPE CERTIFICATE HOLDER
WH	WORKING HOURS



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0.3. Purpose

This guidance procedure is designed to be used by maintenance organization and the assigned inspector when:

- The maintenance organization is:
 - Defining the processes and procedures related to:
 1. the tools/equipment classification;
 2. the tools /equipment equivalence assessment ;
 3. the tool/equipment calibration;
 - Evaluating compliance with Part-145.40(a) with particular reference to the availability of the tools to perform the approved scope of work and Part-145.40.(b) with regards to tool/equipment calibration;
- Assigned inspector is :
 - Evaluating by sampling the Compliance of the maintenance organization with Part-145.40 (a) and Part-145.40 (b);

0.4. Distribution

This procedure shall be published on CARC official website. The holders of this procedure are CARC airworthiness standards inspectors and the key management (post holders) of CARC approved maintenance organizations. Holders are responsible to download this procedure and follow its guidelines.

0.5. Amendments

This procedure will be reviewed each time there is a regulation change that affects it and as long as it is considered necessary by CARC.

- Any amendment to this procedure will go through CARC's document control procedure, the amendment shall be approved by the Chief Commissioner/CEO and becomes effective only after incorporation to this procedure and publishing it on CARC official website.

0.6. Scope and Applicability.

This guidance procedure is applicable to JCAR Part-145 applicant and CARC approved Part-145 AMOs (hereafter referred as maintenance organizations).

The provisions of this guidance procedure are complementary to the requirements of Part-145 regulation "as amended" and does not supersede or replace the associated regulatory requirements.



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1. Processes flow chart



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This guidance procedure intends to describe the two main processes that shall be used by a maintenance organization to demonstrate compliance with Part-145.40 (a) and Part-145.40 (b).

In particular those processes represent the basic elements expected to be described in the MOE chapter 2.6 "Use of Tooling and Equipment by Staff (including alternate tools)" and in the chapter 2.5 "Calibration of Tools and Equipment", refer to MOE Guidance procedure (AWS-33).

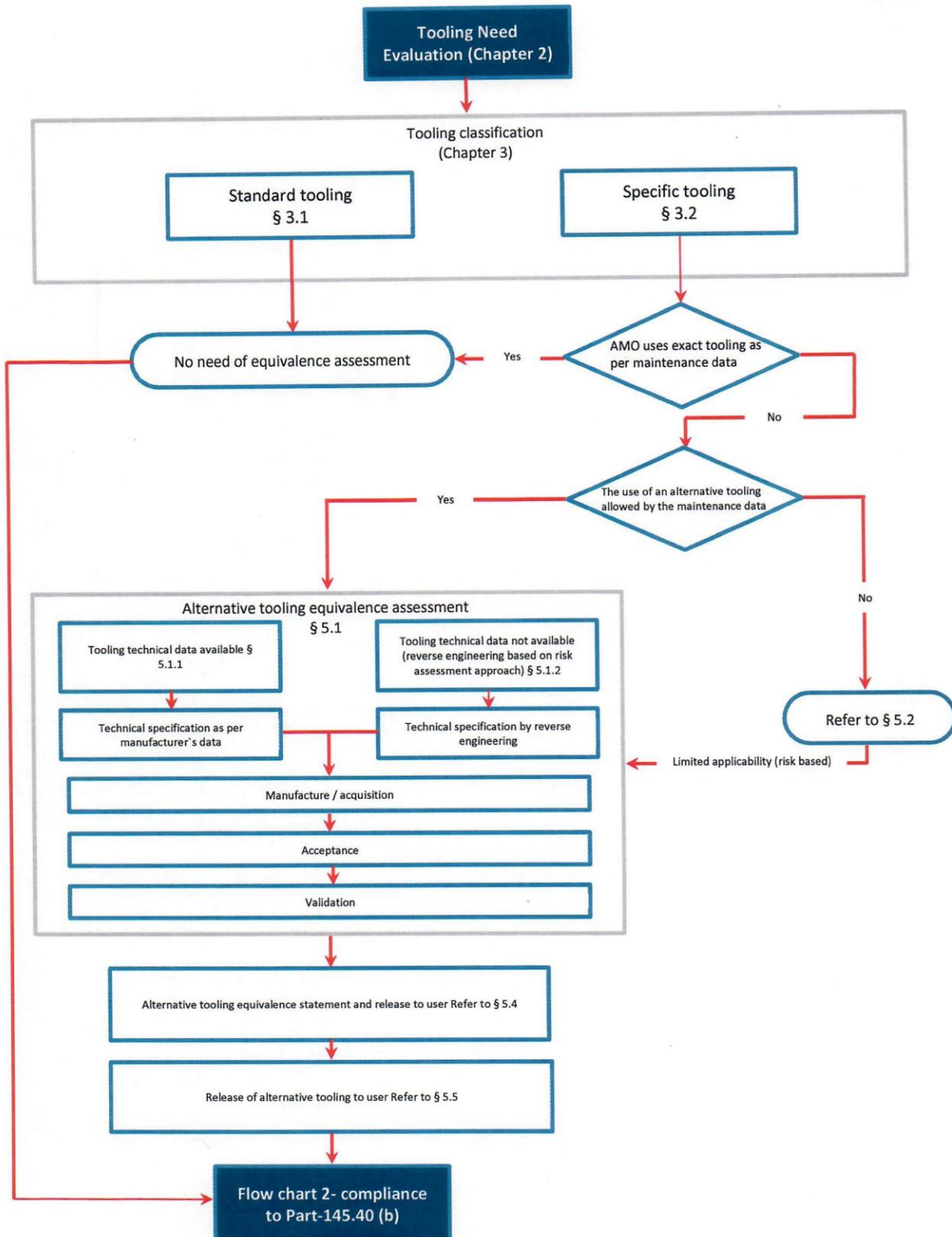
For the purpose of this guidance procedure the term **"tooling"** is used to indicate any tool or equipment. The maintenance organization may vary in the terminology used to define and classify the tooling; therefore, adherence to any particular designation shown in this guidance procedure may not match each maintenance organization's structure.

Note: Other requirements apply to the use of tooling within the maintenance organization, which are however not intended to be covered in this guidance procedure (e.g. after completion of all maintenance a general verification must be carried out to ensure the aircraft or component is clear of all tools, use of personal tools, etc.).



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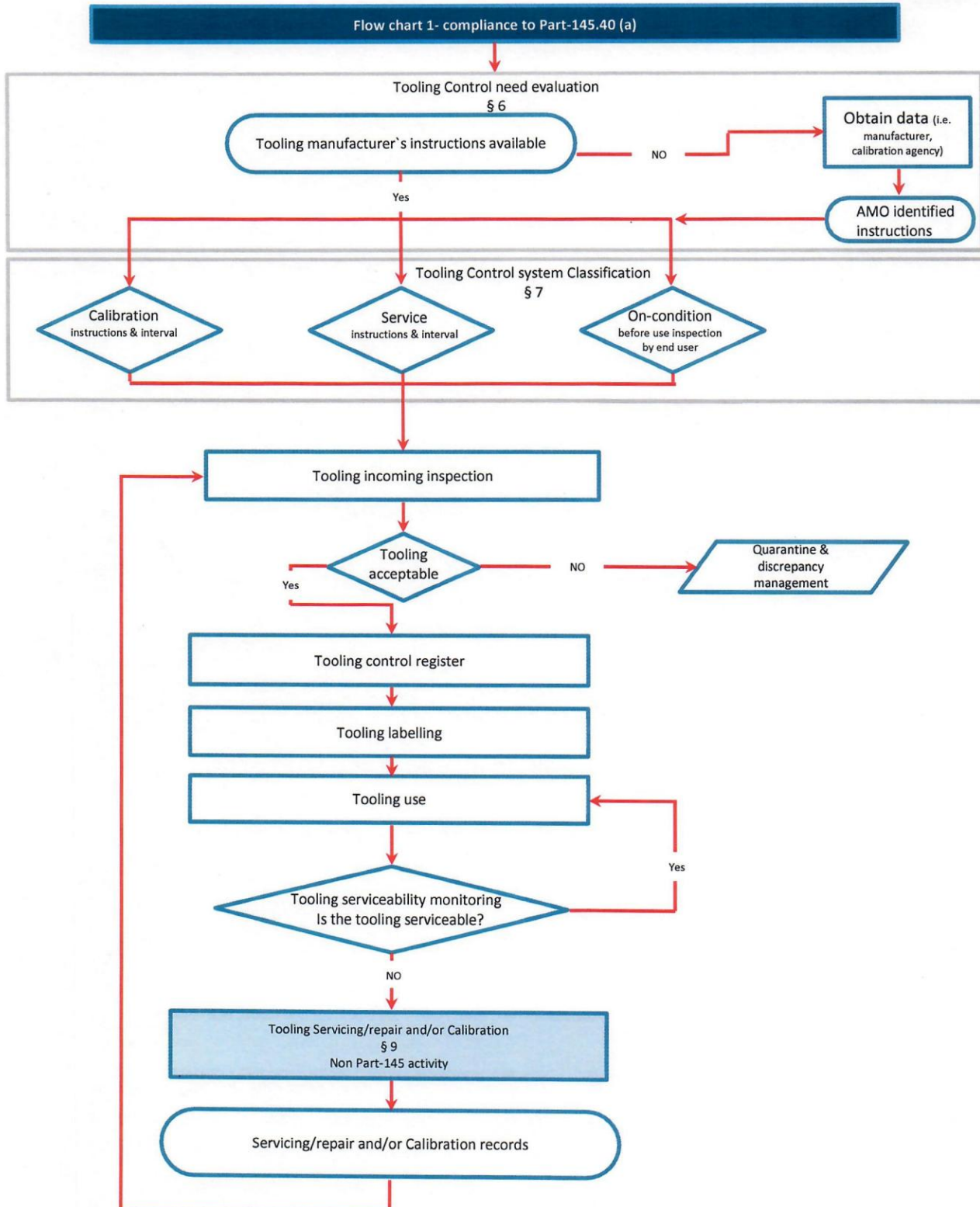
1.1. Flow chart 1- compliance to Part-145.40 (a)





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1.2. Flow chart 2- compliance to Part-145. 40 (b)





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2. Tooling need evaluation



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As mentioned in Part-145 “once the applicant for an initial approval or for a change of an approval has determined the intended scope of approval for consideration by CARC, it will be necessary to show that all tools and equipment as specified in the maintenance data¹ can be made available when needed”.

This demonstration is to be achieved with a “**tooling need evaluation**” which consist in:

- Identifying, classifying and listing all tooling required to perform the intended scope of work by analyzing the maintenance tasks;
- Identifying and listing the tooling that is permanently available in the maintenance organization and those that are leased or loaned²; in the case of tooling which is not permanently available (limited to infrequently used ones), the maintenance organization needs to ensure that they can be made available when needed (a contract is an acceptable way for demonstration);
- Demonstrating that the tooling in use is the one specified by the maintenance data or in the case the maintenance organization is using alternative tooling, as agreed by CARC through an MOE procedure, such tooling has been assessed to be equivalent.

¹ The AMC 145.45 (b) indicates which maintenance data is to be considered applicable under the rating (e.g. Aircraft maintenance manual, non- destructive testing manual, component maintenance manual, service bulletin, etc.).

² In the case of leased or loaned tooling it remains the responsibility of the maintenance organization using the tooling to make sure the tooling complies with CARC Part-145 and therefore this GP also applies in such cases.



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3. Tooling classification



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For the purpose of this guidance procedure, due to the need to have different level of tooling assessment depending on the related complexity, the tooling is classified in the following categories:

- Standard Tooling;
- Task Specific Tooling.

3.1. Standard tooling

Standard tooling are those tools and equipment not being of exclusive use in the aviation industry (e.g. being commercially available) and being generically identified by the maintenance data by type and/or family and/or characteristics.

The following examples extracted from maintenance data are considered to be “standard tooling”:

- ladder, access platform 4m, screw driver, standard wrench, protective cover, circuit breaker safety clip, syringe, nitrogen bottle charged to 3000 psi, caps and plugs, grease gun, container suitable for oil (4 Liters), etc.;
- Multimeter $\pm 5\%$ accuracy used to measure 115 V, 28 V, and 28 volts DC; Torque wrench 0 to 300 inch•pounds / 0 to 33.9 Nm; Pressure Gage, 800 to 2500 PSIG.; Hydraulic jack nose gear, minimum capacity 10.000 daN (22480.89 lbf); Portable Hydraulic Cart, Capable of 3000 PSI and a minimum flow of 50 GPM, etc.;

Note: the values mentioned above are not intended to be used as parameters defining the standard tooling. These values are only typical examples extracted from the maintenance data.

3.2. Task specific tooling

Task Specific tooling³ are those tools and equipment designed for the particular Aircraft/Engine/Component/NDT/etc. maintenance task and specifically identified in the maintenance data (e.g. by P/N, vendor and description). The following examples extracted from maintenance data are considered to be “Task Specific Tooling”:

- MLG wheel adapter, P/N J32032-22, vendor: 81205;
- pin - Locking, Valve, Hydraulic Reservoir Pressurization Shutoff (Part #: A29002-6, Vendor: 81205, A/C Effectivity);
- jack adapter-fuselage, reference 98D07013500000;
- temperature switch tool, P/N 622, vendor: Desco Cort, Walnut, CA;
- oil service dispenser, Malabar WF150-1;
- A10444 tire removal machine;
- analyzer - Databus, Datatrac Models 600, 650, 650H (Part #: 01-1405-00, vendor: 41364);
- dolly wheel/brake change P/N 175, vendor 94861;
- jack Axle, 8398-012, 65 Ton, Regent Manufacturing, vendor 02708; o GFCI Tester - AC Hydraulic Pump (Part #: J24014-24, vendor: 81205); o adapters – air data system flushing, reference 98D34103002000;
- adaptor-charging pitot probe, reference 36122;
- standby compass calibration, reference 2591553-903.

³ When the maintenance organization is using an automated bench test operated by software, the maintenance organization is responsible to ensure that the software complies with the CMM requirements at the latest revision.



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4. Use of tooling



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On the basis of the tools classification given in the previous chapter of this Guidance procedure, the maintenance organization may use tooling, as detailed below.

4.1. Use of “Standard tooling”

For “standard tooling” the assessment of the particular tool or equipment to be used starting from the information given in the maintenance data is self-explanatory and the end user⁴ (e.g. technician, certifying staff, etc.) should have the necessary knowledge in order to determine, before starting the maintenance task, that the tooling is adequate to perform the intended work and a formalized equivalence assessment is not required. However, the maintenance organization may decide to develop such an equivalence assessment if deemed useful.

4.2. Use of “task specific tooling”

When dealing with a “task specific tooling”, the maintenance organization may proceed according to one of the following options to:

- a) acquire/use the “task specific tooling” as indicated by the maintenance data (exact P/N, vendor) and in such case, there is no need of any further equivalence assessment⁵;
Note: when the maintenance data itself identifies for the same task a main tooling plus other possible substitute(s), the maintenance organization may use the main or the substitute tooling without any need of further equivalence assessment.
- b) acquire/use a different tooling⁶ from the one specified in the maintenance data. Such replacement tooling is defined, in this guidance procedure, as “**alternative tooling**” and may be used only subject to compliance with the conditions specified in the following chapter “alternative tooling equivalence assessment” of this guidance procedure.

⁴ The end user is intended to be the person formally authorized by the maintenance organization to perform and sign-off the maintenance task for which the tooling is to be used.

⁵ The maintenance organization remains however responsible for the acquisition, acceptance, identification, control or calibration of the tools according to CARC Part-145 requirements and its MOE procedures

⁶ This option may be considered for various reason (e.g. the tool specified is not available in the necessary time frame, another tool is already available in the maintenance organization, etc.)





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5. Alternative tooling equivalence assessment



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5.1. Maintenance data allowing the use of alternative tooling

The maintenance data are normally providing clear statements on the cases where alternative tooling to the one specified may be used⁷. Only when this possibility is given in the maintenance data, the maintenance organization is entitled to proceed with an equivalence assessment process in order to use alternative tooling. Alternative tooling may be obtained by different means⁸, however, regardless of the type of acquisition process, the two possibilities given in the following paragraphs have to be considered by the maintenance organization.

5.1.1. The tooling technical data is available

Tooling technical data may be considered acceptable when:

- the maintenance data (AMM, CMM, etc...) already includes such data (e.g. manufacturing drawing, technical characteristics, manufacturing procedure, etc.), or;
- the maintenance organization obtains additional data (e.g. manufacturing drawings, etc.) from the relevant manufacturer (may be the applicable TCH, STCH, OEM or the tool manufacturer which is specified in the maintenance data of the product or component being maintained).

In both cases the following minimum steps shall be considered and described in the MOE:

- **Technical Specification:** engineering document establishing:
 - the technical characteristics of the tooling to be acquired/manufactured to demonstrate it is in conformity to the relevant technical data (e.g. dimensions, material, functions, accuracy, etc.), and;
 - the applicable inspection/service/calibration need (refer to chapter 7 of this guidance procedure for definitions);
- **Manufacture/acquisition:** process in use to manufacture the tool and/or to acquire it from any internal or external source;
- **Acceptance:** incoming inspection process to verify the tooling meets the requirements established in the Technical Specification and is identified accordingly;
- **Validation:** practical demonstration (e.g. functional check, etc.) that the alternative tool is capable of correctly performing the relevant maintenance task;
- **Alternative tooling equivalence statement:** the satisfactory completion of the process mentioned above is finalized with a formal approval by the maintenance organization, as described in paragraph 5.4 “Alternative tooling equivalence statement” of this guidance procedure;
- **Release to user:** process describing how the user is informed of the use of alternative tooling, as described in paragraph 5.5 “release to user” of this guidance procedure.

⁷ May be in the “front matter” of the aircraft maintenance manual, in a specific tools/equipment manual when published, in the TCH aircraft maintenance task card manual, in the special tools section of the component maintenance manual, etc. A declaration or other data from the tooling manufacturer stating that its tooling is equivalent or may be used in lieu of a tooling specified by the CMM (or AMM, etc.) is not sufficient to consider such tooling an equivalent alternative, unless such tooling manufacturer is also the OEM issuing the CMM (or TCH issuing the AMM, etc.);

⁸ Internal or external manufacture, purchase from an external provider not being identified by the manufacturer, loan, use of an already available tool approved for another product or component, etc.



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5.1.2. The tooling technical data is not available

This case applies when no acceptable tooling technical data, is available to establish conformity of an alternative tooling.

The maintenance organization, may still intend in this situation to use an alternative tooling, applying its engineering judgment through a reverse engineering approach.

The main driver to evaluate the applicability of this option is a **risk based approach** that shall be considered by the maintenance organization on a case by case basis. This option is to be limited to the cases where the use of the alternative tooling does not affect the content and sequence of the maintenance task. Moreover, the use of an alternative tooling shall be assessed by the organization to be of low risk for the overall performance of the maintenance. The low risk assessment needs to be demonstrated and documented by a detailed engineering analysis.

The following minimum steps needs to be described in the MOE:

- **Technical Specification:** engineering document establishing:
 - the technical characteristics of the tool to be acquired/manufactured based on a reverse engineering approach (e.g. dimensions, material, functions, accuracy, etc.) to demonstrate it is equivalent to the one specified in the maintenance data of the product or component being maintained, and;
 - the applicable inspection/service/calibration need (refer to chapter 7 of this guidance procedure for definitions);
- **Manufacture/acquisition:** process in use to manufacture the tool and/or to acquire it from any internal or external source;
- **Acceptance:** incoming inspection process to verify the tooling meets the requirements established in the Technical Specification and is identified accordingly;
- **Validation:** practical demonstration (e.g. functional check, etc.) that the alternative tool is capable of correctly performing the relevant maintenance procedure;
- **Alternative tooling equivalence statement:** the satisfactory completion of the process mentioned above is finalized by a formal approval by the maintenance organization, as described in paragraph 5.4 “Alternative tooling equivalence statement” of this guidance procedure;
- **Release to user:** process describing how the user is informed of the use of alternative tooling, as described in paragraph 5.5 “release to user” of this guidance procedure.



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5.2. Maintenance data not stating the possibility to use alternative tooling.

There are cases, where the maintenance data neither allows nor prohibit the use of alternative tooling. In those cases, the maintenance organization may either:

- Acquire the specific tooling P/N by the identified vendor (s), or;
- Request a revision of the maintenance data directly to the TCH or STCH or TSO holder to include the alternative tooling proposed by the maintenance organization before its use.

However, the use of an alternative tooling maybe still acceptable in limited circumstances. The main driver to evaluate the applicability of this option is a **risk based approach** that shall be considered by the maintenance organization on a case by case basis. This option is to be limited to the cases where the use of the alternative tooling does not affect the content and sequence of the maintenance task. Moreover, the use of an alternative tooling shall be assessed by the organization to be of low risk for the overall performance of the maintenance. The low risk assessment needs to be demonstrated and documented by a detailed engineering analysis.

For this case the MOE procedure developed in compliance to paragraphs 5.1. of this Guidance procedure, can be used with the additional requirement of notification to the TCH/STCH about the use of the alternative tooling.

5.3. Personnel dedicated to the alternative tooling equivalence assessment

The alternative tooling equivalence assessment is considered to be a complex engineering task and in order to be allowed to follow this process, the maintenance organization shall have staff assigned to this activity who needs to be appropriately qualified according to an MOE procedure acceptable to CARC. In addition, the quality department has to be involved in this process, at least but not necessarily limited to the following:

- definition of the job description and qualification requirements for the above staff;
- competence assessment and issuance of the related individual authorizations;
- definition of the forms and procedures to be used;
- inclusion of this area of activity in the independent audit plan.

5.3.1. Alternative tooling in the NDT activity

In the case of tools related to NDT activity (e.g. ultrasonic probes, etc.), only a person qualified as NDT level III on the relevant method can determine if an alternative tool is equivalent to the one specified by the maintenance data. Therefore, in this case, the equivalence assessment shall be signed by an NDT level III.

5.4. Alternative tooling equivalence statement

The successful completion of the process related to establishing that an alternative tooling is equivalent to the one specified in the maintenance data, needs to be formally documented in a form to be included in the MOE Part 5.1 "sample of documents". This Form shall include:

- the reference to the maintenance data requiring the tooling;
- the identification of the tooling as given by the maintenance data;
- the identification of the alternative tooling to be used by the maintenance organization;
- the reference to technical specification which has been developed by the maintenance organization to acquire/manufacture the alternative tooling;
- a statement that the alternative tooling is equivalent to the one specified by the maintenance data;
- Identification/signature of the person performing the assessment;

Note: the form described above need to be kept on-file 3 years after the tool has been permanently withdrawn from service by the maintenance organization.



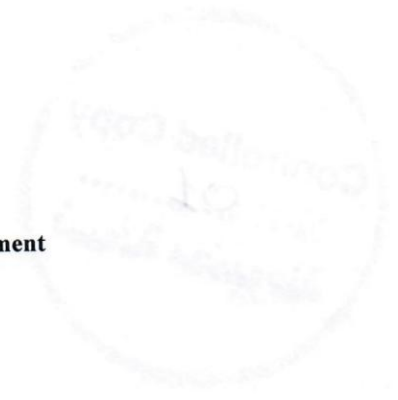
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5.5. Release of alternative tooling to user

Updated documentation on the alternative tooling shall be provided to the user. In particular, a system shall be in place so that maintenance staff can easily identify the alternative tooling to be used as replacement of the one identified in the maintenance data (e.g. by information provided in the maintenance task card, or by developing modified maintenance data, or in a system that can provide the same level of information and traceability).



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6. Tooling control need evaluation



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As required by Part-145, the maintenance organization shall ensure that “all tools, equipment and particularly test equipment, as appropriate, are controlled and calibrated according to an officially recognized standard at a frequency to ensure serviceability and accuracy”

In order to comply with this requirement, the maintenance organization shall, for any tooling in use, identify the related inspection/service/calibration needs.

This “**tooling inspection/service/calibration need evaluation**” must be carried out at any application for initial or extension of a Part-145 approval or each time a certain type of tooling (P/N) is entering the maintenance organization for the first time. This includes tooling that are infrequently used and leased or loaned by the maintenance organization in order to ensure their availability at the time the maintenance is to be performed.

This will allow the maintenance organization to ensure/demonstrate that the need of inspection, service and calibration for the tooling required to perform the intended scope of work has been considered.





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7. Tooling control system classification





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For the purpose of this guidance procedure, the tooling control processes are classified in the following groups having different control requirements in order to establish serviceability:

- On Condition;
- Service;
- Calibration;

The main driver for establishing in which group a certain tooling should be entered depends on the applicable requirements defining the serviceability.

This information is normally given by the tooling manufacturer instructions, when published.

In the absence of such data, it is the responsibility of the maintenance organization to retrieve the necessary documentation (e.g. by the tooling manufacturer, a calibration agency, etc.).

7.1. On Condition

Tooling which requires a visual inspection prior to each use.

The following examples are normally considered to be “on-condition tooling”:

- o Simple tooling (including task specific tooling as defined by paragraph 3.2 “task specific tooling” of this Guidance procedure) which are not used for measuring purposes: LDG lock pin, LDG adapters, wheel dolly, screw driver, standard wrench, ladder, etc.;

7.2. Service

Tooling which requires:

- a visual inspection prior to each use, and;
- servicing at established frequency.

The following examples are normally considered to be “tooling subject to servicing”:

- o Portable Hydraulic pump, grease gun, movable platforms, etc.

7.3. Calibration

Tooling which requires:

- a visual inspection prior to each use, and;
- calibration at established frequency and, when applicable, servicing.

The following examples are normally considered to be “tooling subject to calibration”:

- o all precision tooling used for measuring purposes according to maintenance data tasks, such as: multimeter, torque wrench, manometer, test benches, crimping tools, etc.



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8. Tooling control management



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The tooling control management system is composed by the following minimum elements:

- incoming inspection system;
- control register;
- labelling system;
- serviceability monitoring system;

8.1. Incoming inspection

The purpose of the tooling incoming inspection system is to verify the tooling meets all applicable standards.

The satisfactory result of the incoming inspection allows to proceed with the entry of relevant data in the control register as described in the following paragraph “Control register” of this Guidance procedure.

The unsatisfactory result of the incoming inspection, requires to consider the tooling as unserviceable and to quarantine it in order to avoid its use until any identified problem is solved.

In addition, particular attention is needed during receiving inspection of calibrated tooling. The following minimum elements shall be verified by the maintenance organization:

- calibration laboratory meets the MOE specified requirements (e.g. accreditation of the laboratory, etc.). In the case of accredited laboratories, this also includes verification that the accreditation of the laboratory is valid (e.g. proof of accreditation on file, etc.) and its scope of accreditation specifically covers the intended calibration activity;
- calibration certificate includes:
 - standard used for the specific calibration;
 - traceability to master instrument used for calibration;
 - measurement/calibration results;
 - person(s) performing the calibration;
 - where applicable, reference to any accreditation held by the laboratory;
- conformity to the calibration order (ref. par. 9.2.2) sent to the laboratory (availability of a confirmation that calibration results are within acceptable limits is expected as part of the incoming inspection process).

8.2. Control register

The purpose of the control register is to maintain the inventory and status of all the tooling in use by the maintenance organization.

The system in use shall be able to provide the following minimum information:

- At the level of tooling P/N (family):
 - identification of the tooling P/N and description;
 - classification of the tooling control system as defined in the previous chapter 7 “tooling control system classificationn” of this Guidance procedure ;
 - identification of the reference instruction/ to be used for the inspection, servicing or calibration;
 - identification of the servicing or calibration intervals where applicable;





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- At the level of each specific tool S/N:
 - identification of tooling S/N;
 - location within the maintenance organization (e.g. wheels workshop, Line stations, hangar, line maintenance);
 - status (e.g. serviceable, unserviceable, scrapped, sent for calibration, loaned, etc.).

The tooling control register can be in the form of a paper or electronic system (e.g. electronic list, database, etc.), as appropriate depending on the size and complexity of the maintenance organization. In particular, where for a small component workshop a simple paper or electronic list could be acceptable, for a major maintenance organization having several workshops, line station, hangar, a database should be expected, which is capable to manage the complexity of the information and can be accessed from different locations.

8.3. Labelling

The purpose of the tooling labelling system is to:

- indicate to the end users that the item is within any inspection or service or calibration time-limit, and;
- formally declare the tooling serviceability status.

The labelling system in use has to be adapted to the tooling type and working condition to ensure the information displayed remains at any time legible. After the labelling, the tooling enters the maintenance process and remains in serviceable condition subject to the serviceability monitoring system.

It is not the intent of this Guidance procedure to describe the tooling labelling system. For further guidance on this matter refer to the MOE Guidance procedure, AWS 33, chapter 2.4 "Acceptance of Tools and Equipment".

8.4. Serviceability monitoring

The purpose of the serviceability monitoring is to ensure that the status of any tooling is controlled by the maintenance organization so that a tooling is:

- segregated when in unserviceable⁹ condition;
- sent for inspection/service/calibration when reaching any applicable due date;
- sent for repair when necessary;

The maintenance organization shall ensure that any servicing or calibration interval required by the tooling manufacturer is complied with.

This process has to be done in accordance with an MOE procedure approved by CARC. However, when a servicing/calibration interval is recommended or required to be reduced based upon the servicing/calibration results, such change is to be systematically and immediately implemented by the maintenance organization.

It is not the purpose of this Guidance procedure to describe the tooling serviceability monitoring system. For further guidance on this matter refer to the MOE Guidance procedure AWS 33, chapter 2.5 "Calibration of Tools".

⁹ The unserviceable condition may occur for several reasons:

- due to an incident which requires a repair to the tooling; or
- due to reaching the inspection/servicing due date (for "service" or "calibration" tooling); or
- due to reaching the calibration due date (for "calibration" tooling); or
- due to phase-out, etc.;



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9. Tooling Servicing/Repair and/or Calibration



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Part-145 regulation states that the maintenance organization *“shall ensure that all tools, equipment and particularly test equipment, as appropriate, are controlled and calibrated according to an officially recognized standard”*.

However, performing tooling servicing, repair and calibration is NOT a CARC Part-145 privilege, and the activities described in the following paragraphs 9.1 “Tooling servicing/repair” and 9.2 “Tooling Calibration”, are formally outside the CARC Part-145 remit.

The intent of these paragraphs is to describe how the maintenance organization may adequately discharge its responsibilities.

The “tooling service provider(s)” which carry out those activities have to be identified in a list under the control of the quality department referred in the MOE chapter 2.4 (refer to the MOE Guidance procedure, AWS 33).

Any tooling related service provider (e.g. service, repair and calibration) is expected to meet the applicable requirements of this chapter.

9.1. Tooling servicing/repair

The repair and/or servicing process is to be carried out ensuring the following minimum requirements:

- The activity is done according to the tooling manufacturer’s instruction, and;
- A record is kept on file by the maintenance organization for each tooling, providing evidence of:
 - the expected servicing activities to be performed and related frequency, and;
 - servicing accomplishment to demonstrate that content and frequency requirements are met, and;
 - any repair carried out, including replacement of parts, and;
 - the indication of “tooling service provider” which has carried out such activities.

9.2. Tooling calibration

9.2.1. Definitions

Accreditation bodies: They provide third-party laboratory accreditation for accreditation of laboratory and testing facilities.

Accredited Laboratory: means a laboratory which is accredited by an accreditation body.

Laboratory: means an entity performing tooling, equipment and test equipment calibration

9.2.2. Calibration requirements

In order to comply with Part-145 the maintenance organization shall ensure that:

- (a) Tooling requiring calibration is periodically calibrated in accordance with the tool manufacturers’ published standards and recommendations.
- (b) Where no recommendations for calibration are published or where the calibration methods or standards are not specified, calibration is carried out in accordance with the requirements of the ISO 10012. This standard details both the generic requirements and guidance for the implementation of measurement management systems.



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Based on the evaluation above the applicable requirements shall be clearly specified in a calibration order sent to the calibration laboratory together with the tooling, including any relevant specific requirements/information (e.g. tool incidentally damaged or specific accuracy requirements contained in the A/C, engine, CMM or tooling manufacturer instructions, etc.).

When using tooling requiring test, calibration or measurement, a maintenance organization shall ensure that the calibration or measurement interval required by the tooling manufacturer is complied with. This process is detailed in paragraph 8.4 “serviceability monitoring “of this guidance procedure.

