

C.A.S.E. – AIR CARRIER SECTION

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Note: This checklist is presented as a convenience tool for use at the auditor's discretion. It was designed for use at a facility whose primary function involves the calibration of precision tooling. It was **not designed** for use at a FAA 145 Repair Station facility.

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1. Quality Control/Documentation

YES NO N/A

A. Does the laboratory have an established quality program and is the program appropriate to the type, range and volume of calibration activities?
(Operational certifications: ANSI, ISO, MIL-STD, FAR) _____|_____|_____

B. Does the current quality manual state the laboratory's policies and operational procedures for: (obtain a copy)

- 1) Establishing and changing calibration intervals? _____|_____|_____
- 2) The technique used for determining measurement uncertainty and calibration/verification adequacy? _____|_____|_____
- 3) Achieving traceability of measurements? _____|_____|_____
- 4) Calibration, verification and maintenance of equipment? _____|_____|_____
- 5) Address out-of-calibration condition? _____|_____|_____
- 6) Is the manual readily available to laboratory personnel? _____|_____|_____

C. Where appropriate, does documentation identify the person, by title, and back-up person, by title, responsible for the:

- 1) Quality program? _____|_____|_____
- 2) Inspection Systems? _____|_____|_____
- 3) Internal calibration systems? _____|_____|_____
- 4) Technical documentation (manufacturer's calibration procedures, customer requests and instructions)? _____|_____|_____
- 5) Shelf-life limited items? _____|_____|_____
- 6) Scrap (disposition of unusable parts)? _____|_____|_____

D. Does the vendor have an active internal audit and surveillance function? _____|_____|_____

- 1) Are internal audit results documented, and do they include non-compliance corrective action items? _____|_____|_____

E. Does the documented corrective action system include a preventive action system with follow-ups that notify clients whose work may be affected? Are those systems effective? _____|_____|_____

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YES NO N/A

2. Personnel/Training

- A. Does the vendor have a sufficient number of trained and experienced personnel to conduct the calibrations being performed? _____|_____|_____
- B. Does the vendor have an active training program that documents formal and OJT activities? _____|_____|_____
- C. Are records on the qualifications, training, skills and experience of the technical personnel current and available? _____|_____|_____

3. Measuring and Test Equipment (Stds/Refs Material)

- A. Does the laboratory have a tool calibration program? _____|_____|_____
- B. Are all equipment used for calibration activities being properly maintained/calibrated per documented procedures, and identified to indicate their calibration or serviceability status? _____|_____|_____
- C. Is the overall calibration program designed and operated so as to ensure the measurements made by the laboratory are traceable to national, international, or intrinsic standards of measurement? _____|_____|_____
- D. Are precision tools and instruments stored in a manner that prevent damage and not affect calibration? _____|_____|_____
- E. Do records:
- 1) Identify equipment? _____|_____|_____
 - 2) Show date calibrated and calibration due date? _____|_____|_____
 - 3) Identify individual/vendor that performed calibration? _____|_____|_____
 - 4) Reflect P/N and S/N of standard/ref. Material used to perform the calibration? _____|_____|_____
 - 5) Have a certificate for each item calibrated by an outside agency? _____|_____|_____
 - 6) Reveal details/history of adjustments and repairs? _____|_____|_____
 - 7) Indicate calibration interval? _____|_____|_____
- F. Is the calibration recall system effective?
number of items sampled _____ errors found _____|_____|_____

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YES NO N/A

4. Work Processing

- A. Does the laboratory have all the necessary equipment (including reference material) required for the correct performance of calibration/verifications being requested? _____|_____|_____
- B. Upon receipt of an item, is the item inspected and any miss-handling, storage or transportation problems recorded on the work instructions? _____|_____|_____
- C. Does the laboratory have a documented procedure to Consult with the customer, whenever:
- 1) There is any doubt as to the item's suitability for calibration? _____|_____|_____
 - 2) The calibration required is not fully specified? _____|_____|_____
 - 3) The item does not conform to the description provided? _____|_____|_____
 - 4) The calibration is to be sub-contracted? _____|_____|_____
- D. Do documented calibration procedures conform to established standards, and:
- 1) Identify equipment to be calibrated by: manufacturer, Model number, etc.? _____|_____|_____
 - 2) Identify applicable measurement standards and test accuracy requirements? _____|_____|_____
 - 3) List the acceptable tolerance for each instrument parameter being calibrated? _____|_____|_____
 - 4) Include sufficiently detailed calibration instructions and documentation results? _____|_____|_____
 - 5) Provide an acceptable test accuracy ratio between measurement standards and the instrument being calibrated? _____|_____|_____
 - 6) Identify any unusual environmental control requirements and adequate compensation and/or corrections to be applied in instances where the defined environmental conditions cannot be met? _____|_____|_____

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E. Does the vendor employ a sub-contractor for any part of the proposed calibration? YES NO N/A
_____|_____|_____

IF YES:

Can the vendor demonstrate that its sub-contractor is competent to perform the activities in question, by producing details of its vendor approval (normally a check-list similar to this, covering the sub-contractor)? _____|_____|_____

Does the laboratory have a list of all its approved sub-contractors and their approved specific activities? _____|_____|_____

5. Facilities Operations Environment

A. Is the vendor's facility adequately equipped to perform the requested work (lighting, storage, working space, etc.)? _____|_____|_____

B. Are all appropriate environmental conditions being effectively monitored, controlled and recorded? _____|_____|_____

C. Are good housekeeping practices being exercised? _____|_____|_____

6. Records

A. Are all records pertaining to calibrated equipment stored secure and held in confidence for the customer for the period specified in the quality manual? _____|_____|_____

7. Certificates and Reports

A. Does each certificate or report include at least the following information?

1) A title, e.g. "Calibration Report," "Certificate of Calibration." Etc.)? _____|_____|_____

2) Vendor's name, address and phone number? _____|_____|_____

3) Unique identification (i.e. serial number) of the certificate or report on each page, and the total number of pages? _____|_____|_____

4) Name and address of customer? _____|_____|_____

5) A clear description and identification of the item calibrated? _____|_____|_____

6) Condition of calibrated item as received? _____|_____|_____

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- | | <u>YES</u> | <u>NO</u> | <u>N/A</u> |
|---|------------|-----------|------------|
| 7) Date when calibration was completed, and next calibration due date? | _____ | _____ | _____ |
| 7) Identification of the calibration procedure, including: | | | |
| a) Modifications to the procedure? | _____ | _____ | _____ |
| b) Standard used, including date status of standard? | _____ | _____ | _____ |
| 9) Sampling procedure, if used? | _____ | _____ | _____ |
| 10) Calibration results? | _____ | _____ | _____ |
| 11) A statement of the estimated uncertainty of the calibration results? | _____ | _____ | _____ |
| 12) The person's signature and title who accepts responsibility for the certificate or report contents? | _____ | _____ | _____ |
| 13) The certificate's or report's date of issue | _____ | _____ | _____ |
| 15) Where relevant, a statement to the effect that the results relate only to the items calibrated? | _____ | _____ | _____ |
| 16) A statement that the certificate or report shall not be reproduced, except in full, without written approval from the vendor? | _____ | _____ | _____ |
| 17) Special limitations of use | _____ | _____ | _____ |
| 18) A statement providing traceability to a recognized source (i.e. National Standards Laboratory of a country)? | _____ | _____ | _____ |

8. Shipping

- | | | | |
|---|-------|-------|-------|
| A. Are tools and/or test equipment returned in an appropriate shipping container, or as specified by the customer? | _____ | _____ | _____ |
| B. Does the vendor verify that the identifying data (P/N, S/N, nomenclature, model no.) on the certificate/report coincides with the tool/test equipment being shipped? | _____ | _____ | _____ |