



Auditor Handbook

Revision 2 Highlights

Section

Description of Change

Changes have been made for consistency of language, punctuation, formatting, grammatical errors, web page links, and typographical errors throughout the handbook. Only changes of substance are listed on this highlights page. This revision also incorporates changes to address the granting of the D090 Operations Specification for repair stations, separating/clarifying concerns of the ACS versus the ARSS.

List of Effective Pages	Updated the revision dates
Table of Contents	Added link to the training website
C.A.S.E. History	Updated the years in operation
Part III, pg. 4	Added acronyms
Part III, pg. 7	Updated hyperlink and added acronym
Appendix E, pg. 2	Added detail for sample in-brief
Appendix E, pg, 3	Added detail for sample in-brief

Record of Revision

[illegible]

List of Effective Pages

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Feedback for this document may be submitted to the co-chairs listed on the C.A.S.E. website's Training page: <https://www.caseinc.org/index.php/trainingcmt>

Part I: C.A.S.E. History

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In the early 1960s, commercial aviation began to pick up steam and it was clear aircraft were going to be the future of travel. Safe, reliable equipment would be needed to sustain the momentum. In this setting, six aerospace companies came together to share supplier performance data. It didn't take long for the concept to catch on within the industry. The desire for a cost-effective supplier surveillance system saw the Coordinated Aerospace Supplier Evaluation "CASE" association established in 1967.

The 70's and 80's saw additional Sections added for nuclear power generation, ship building, and commercial air carriers as companies began to realize there were significant benefits to be had from sharing supplier surveillance oversight burdens. Federal Express joined C.A.S.E., now known as the Coordinating Agency for Supplier Evaluation, and, by 1983, a Section-at-Large was formed. In 1984, the FAA gave formal approval to the supplier oversight sharing concept in the form of Operations Specifications paragraph D090, recognizing it as a means for complying with 14 CFR 121.373(a) and 135.431(a) requirements. This recognition solidified the Air Carrier Section as viable alternate to each air carrier performing their own audits of their suppliers.

In 1992, C.A.S.E. was incorporated in the state of California as a non-profit corporation. C.A.S.E. continued to grow with the addition of the Aeronautical Repair Station, Airline Supplier, and Electronics and Computer Manufacturers as Sections-at-Large. Computer systems were also introduced and moved the corporation away from a paper-based Register.

The new millennium brought with it database access via the internet and gave members access to "real time" supplier surveillance data. C.A.S.E. also introduced a website in 2002, which the corporation continues to develop as a communication, promotional, and training portal.

The Key Points:

- C.A.S.E. became an official organization in 1967.
- The Air Carrier Section began in 1983. That's 40 plus years of air carriers and vendors/suppliers working together to successfully produce safe and reliable aircraft and aircraft parts!
- In 1984, the FAA approved an Air Carrier audit sharing program (Ops. Spec. D090).
- In 1993, the Aeronautical Repair Station Section (ARSS) was formed further, enhancing the ability for repair stations and air carriers to work together.
- By 2002, C.A.S.E. was using the internet to share audit information in "real time".
- Overall, C.A.S.E. has provided significant quality, safety, and cost efficiency benefits for over 55 years.

Part II:

Professionalism and

Auditor Traits

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C.A.S.E. has a long-standing reputation as a professional auditing organization. This strong reputation enhances our credibility and influence within the industry. The corporation is committed to performing thorough, fair, and informative audits that assist companies in achieving sustainable, robust quality systems. To that end, it is expected of auditors who represent C.A.S.E. that they adhere to an ethos (set of guiding beliefs). In addition to the “Professional Ethics” described in the C.A.S.E. *Policies and Procedures* manual for each Section, this “ethos” guides auditor behavior and provides a framework for professionalism.

C.A.S.E. Ethos

Auditors representing the Coordinating Agency for Supplier Evaluation (C.A.S.E.) will:

- Approach each audit as an independent agent, free from any known or potential conflict of interest, including those of a financial nature.
- Speak and act with honesty, integrity, and good will.
- Conduct audits in an organized, objective, and respectful manner.
- Present themselves in a professional manner by maintaining a high standard of dress and grooming.
- Seek to resolve conflicts in a diplomatic manner.
- Respect the customs and traditions of the country in which they are auditing.
- Adhere to Anti-Trust laws and ensure anti-competitive practices are avoided.
- Refrain from providing consulting services that would prepare a company for an audit performed in support of C.A.S.E.
- Avoid accepting unlawful gifts, compensation, discounts, or favors.
- Abstain from employment or other relationships which could constitute a conflict of interest with C.A.S.E.

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The C.A.S.E. organization will, at times, mention anti-trust laws and our commitment to abide by them during our audits and while conducting C.A.S.E. business. Anti-trust law refers to a collection of federal laws that are designed to protect competition. The primary laws are:

- 1) Sherman Antitrust Act of 1890
- 2) Clayton Antitrust Act of 1914
 - Robison-Patman Act of 1936, an amendment to the Clayton Act
- 3) Federal Trade Commission Act of 1914

Sherman Act:*

This law is the foundation of anti-trust regulation. In short, it makes it illegal to restrain trade or form a monopoly. A monopoly generally has to violate the “rule of reason”, which concludes that the monopoly somehow damages the economic environment of its competitors.

Clayton Act:†

In 1914, anti-trust regulation was amended with this law that prohibited price discrimination and tying if they substantially lessened competition. The law also governs mergers and acquisitions to ensure that fair competition is protected. The Robison-Patman Act was introduced in 1936 as an amendment to the Clayton Act. The Act prohibits anti-competitive practices by producers, specifically discrimination in price in the sale of goods to equally-situated distributors, when it would reduce competition.

How the Sherman and Clayton Acts apply to C.A.S.E. and its auditors:

These laws prohibit C.A.S.E. and its members from creating, or giving the perception of, a monopoly over the repair station industry, affecting pricing of maintenance, preventive maintenance, alterations, or otherwise negatively influencing competition. In general, auditors must refrain from stating or implying the following:

- A company’s status on a Section's Register affects a C.A.S.E. member’s ability to do business with them
- The price for work performed is influenced by a company’s status with C.A.S.E.
- Sub-contractors cannot be used unless they are also on a Section's Register or have been audited by a C.A.S.E. authorized auditor

Discussing the details of an audit in such a manner that what company was involved and what issues were found can be determined, is also a violation of anti-trust, if it were to negatively affect competition. It is the prime reason vendors must agree to volunteer audit information.

C.A.S.E. cannot act as a corporation that separates good companies from bad ones, as doing so would negatively affect a “bad” company’s ability to compete.

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In addition to professional behavior and abiding by anti-trust laws, C.A.S.E. expects its auditors to exemplify certain qualities which will reinforce our position as a leading auditing organization. They are:

- Good communicator – clarity of thought, proper word choice, spelling and grammar.
- Active Listener – being an engaged receiver of information by acknowledging and confirming what was communicated.
- Organized – every action is approached with a plan and purpose. Any deficiencies found during the audit are supported and documented with relevant facts.
- Good Judgment – separating and avoiding opinions and conjectures, and instead, striving to verify the standard and the facts.
- Dedicated – being thorough, efficient, focused and observant.
- Respectful investigative process – asking permission and keeping an open dialogue going.
- Knowledgeable – understanding the requirements and how to apply them. Can demonstrate familiarity with the process or type of work being audited, whether through experience or study.
- Personable – offering constructive feedback, having a positive outlook and fostering cooperation.

Remember, you are representing not only yourself but also your company and C.A.S.E. when performing an audit. You are an ambassador of the C.A.S.E. organization and your actions influence how others perceive us. The qualities and degree of professionalism you bring to an audit have far-reaching effects, even influencing how a vendor receives future auditors. How credible your findings are, how motivated the vendor is to correct findings, and the vendor's desire to work with your company can all be influenced by how you conduct the audit.

*Sherman Antitrust Act, http://en.wikipedia.org/wiki/Sherman_Act_1890, Retrieved 3 August 2013.

†Clayton Antitrust Act, http://en.wikipedia.org/wiki/Clayton_Act_1914, Retrieved 3 August 2013

Part III:

Audit Methodology

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An audit is an examination and verification against a standard. Essentially, an audit is a measurement and like any good measure it must be accurate and repeatable. The 1-A standard ensures accurate repair station audits are completed. It provides the tool with which we measure a provider against and defines the scope of our audits. The CACS-20 checklist and supplements ensure repeatability. It is a standardized record on which the audit is recorded.

This section will provide some methods for conducting audits to the 1-A standard.

Initiating Contact:

You should try to learn as much about the vendor as you can prior to making contact. Review the company's website, if available, FAA/NAA registers, and information in the Database. Once you do contact the vendor, communicate the following key points when requesting an audit appointment:

1. Scope of the audit/schedule of events – especially important for large facilities or team audits. If the audit is allocated or you intend to take Register action for a Section, make it clear this is an audit in support of C.A.S.E. and not an audit solely for your company.
2. Length of the audit, including start time, breaks, and end time.
3. Checklist(s) and standard(s) that will be used. Provide them copies in advance.
4. What documents and manuals you need in advance of your arrival and how soon you would like those items.
5. What records and documents you will want to see on-site (i.e., roster, employment summaries, calibration certificates, work packages, etc.).
6. How to reach you if there are questions or concerns.

Understand the following about the vendor:

1. How many fixed locations, buildings or levels are involved (size).
2. Union considerations or other interviewing protocols to observe.
3. Shifts and when shift changes occur.
4. Start times, breaks, and when key personnel end their work day.
5. Shop environment and required protective equipment.
6. Any documents you may need to get through security screening.

Arrange to receive the vendor's manual, aviation authority's authorization documents and any other documents (rosters, summaries) you can get in advance. The more you can get in advance of your arrival, the better off you will be. Remember, failing to prepare is preparing to fail!

You also need to be aware of any Audit and Compliance committee Alerts. These can be found on the C.A.S.E. website under the "Audit & Comp Cmte" tab of the "ACS" menu.

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When traveling internationally, be sure to confirm the protocols for entering and exiting the country. A visa or other permit may be required and some can take several weeks to acquire. For U.S. residents, the U.S. State Department website, <http://www.state.gov/travel/>, is great resource for making sure you are prepared for your trip out of the country.

Manual Review:

Once you receive the manuals and other pertinent documents, the desktop portion of your audit can begin. The desktop portion focuses on identifying required policies and procedures within the vendor's manual system. It also builds a foundation to work from during your on-site audit. A large portion of section 1 of the CACS-20 should be completed through the manual review process. Simply read through the documents and locate the required policy and procedure. It's a good idea to note where you found the information on the checklist if you need to reference it during the audit. Here are some additional things to consider during the manual review:

Cross-reference documents: To help identify inconsistencies, read through the manuals and highlight required topics as they appear. Use different color highlighting, different highlighting styles, notes, or other methods that clearly separates different topics. Once your topics are identified, examine them throughout the manual system and determine if the information is consistent. Be especially wary of referenced documents that are independent of the FAA-accepted or approved manuals. You may need to review those documents in advance as well.

Check your pages against the LEP: The LEP, or List of Effective Pages, should be in the front of each manual or document. The LEP will help you determine if you have the complete and accurate manual.

Aviation Authority's Authorization Documents vs. Manual: Some of these documents will have references back to a specific manual, manual section, or other document. Verify that these references are accurate.

Identify vendor-specific processes to verify on-site: A good practice is to note some memory joggers and the applicable manual section next to the portion of the checklist that addresses that topic. You may even consider a supplemental list of vendor-specific items to review.

Review supplements: U.S.-based with an EASA AMO approval – Refer to the current Maintenance Annex Guide (MAG) and C.A.S.E. MAG-US Supplement. Section B of the MAG contains a detailed description of what the supplement needs to describe. The C.A.S.E. supplement addresses the "Special Conditions" in the MAG.

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EU-based with a FAA repair station approval – Refer to the current Maintenance Annex Guide (MAG) and C.A.S.E. MAG-EU Supplement. Section C of the MAG contains a detailed description of what the supplement needs to describe. The C.A.S.E. supplement addresses the “Special Conditions” in the MAG.

U.S.-based FAA repair stations providing Canadian releases – Refer to the current Maintenance Implementation Procedures (MIP), Chapter 3 and Advisory Circular (AC) 43-10.

Transport Canada Approved Maintenance Organization (AMO) within Canada providing FAA releases – Refer to the current Maintenance Implementation Procedures (MIP), Chapter 3 and the C.A.S.E. AMO Supplement. The C.A.S.E. AMO Supplement identifies sections of the 1-A standard that do not apply and additional requirements. You may also need to review 14 CFR 43.17 and AC 43-10.

Aviation Authority’s Authorization Documents:

Below is a list of things to check when reviewing the most common aviation authority documents. Additional information on FAA Operations Specifications can be found in the 8900.1A.

FAA:

1. Air Agency Certificate
 - a. Based outside the U.S. – verify the certificate is not expired. If close to expiration, ensure the repair station is aware and has a plan for renewal.
 - b. Certificate number, address and business name match the Operations Specification (Op-Spec) pages and repair station manuals /documents.
2. Operations Specifications, Part A, Table of Contents (Part D may also apply)
 - a. Verify the amendment numbers listed match the various Op-Spec paragraphs. (found in each paragraph’s signature block or at the bottom of the page)
 - b. Ensure all Op-Spec paragraphs listed have been provided to you.
 - c. Make sure all paragraphs you receive are listed.
3. A001 – Issuance and Applicability
 - a. Business name and address are consistent with the Air Agency Certificate and other repair station documents.
 - b. Any DBA (doing business as) names are listed; otherwise they may not be used on official documents (like an 8130-3).
 - c. For repair stations located outside the U.S., the expiration date of the Air Agency Certificate is listed and should not be expired.

4. A003 – Ratings and Limitations
 - a. Ratings are consistent with the Air Agency Certificate. FAA-certificated facilities located in an EASA-member country will reference A060. The EASA certificate number and current date of the certificate should be referenced.
 - b. FAA-certificated facilities that have a specialized service rating and are under the MAG must have FAA-approved data listed. Ensure the data is approved once on-site.
 - c. Note any limitations or special conditions imposed for on-site follow-up.
 - d. Note process specifications called out for further review and on-site follow-up.
 - e. Determine if a separate Capability Listing will need to be reviewed.
5. A004 – Summary of Special Authorizations and Limitations
 - a. Note what special authorizations have been granted for further review in the manual and on-site.
 - b. Note what limitations have been imposed. Pay special attention to A025.
6. A005 – Exemptions
 - a. May be issued if the repair station has obtained an authorization to deviate from a specific regulation or Operations Specifications requirement.
7. A007 – Designated Persons
 - a. Ensure people listed in the table are still employed and their information is accurate. This information often corresponds to management positions on the roster and can be used to verify names.
8. A025 – Electronic/Digital Recordkeeping System, Electronic/Digital Signature, and Electronic Media
 - a. Note what processes have been approved (recordkeeping, signatures, or media) and verify the manual covers each approved process.
 - b. Ensure the manual references cited in the A025 are accurate (see AC 120-78 for more information).
9. A060 – European Aviation Safety Agency Ratings for Repair Stations Located Outside the United States
 - a. Check through ratings and scope of work and compare against the Air Agency Certificate. Section A, Appendix 7 of the current MAG contains a comparison chart.
 - b. Note any FAA specialized services. The data used to perform these services must be FAA-approved data.
10. A101 – Additional Fixed Locations
 - a. Note the additional locations. Check with the vendor to determine if additional time will be needed to visit those locations. Facilities located within the EU may have additional fixed locations with EASA and the local aviation authority's approval. These additional locations must be located in EU member States.

- b. Review the RSM for detailed procedures on how product and equipment is transported between locations.

11. A449 – Antidrug and Alcohol Misuse Prevention Program

- a. The table identifies where compliance records are available. Most of the time there is a code within the table.
 - A1: The repair station manages their own drug and alcohol testing program and the records are available at the address in the table.
 - A2: The repair station has registered its program directly with AAM-800. The table will show the registration number, which always starts with CONN followed by 4 characters.
 - A3: The repair station is part of an air carrier's program. The table will contain the air carrier's four-letter identifier.

NOTE: These codes are being used when the repair station submits a change to the A449.

- b. Note whether the repair station has 50 or more safety-sensitive employees. If there are more than 50 employees, a report to the Drug Abatement Division of the FAA may be required.

- c. A drug and alcohol testing program is not required outside the U.S.

12. B050 – Geographic Authorization for Repair Stations Located Outside the U.S.

- a. Note the customers, aircraft make and model, and applicable contract for further review on-site.

NOTE: Per the MAG, the FAA converted Geographic Authorization to Line Station Authorizations (D107), for locations covered by the MAG.

13. D100 – Work to be Performed at a Place Other Than the Repair Station's Fixed Location

- a. Note the section(s) of the manual(s) listed in the table and verify it describes procedures for working away from the fixed location on a recurring basis.

NOTE: D100 is not required if the repair station does not intend to perform work away from its fixed location on a recurring basis, however, Part 145 does require the repair station to describe in its RSM how it would perform work away from the repair station on an emergency or infrequent basis. Those procedures must describe how the repair station will notify and receive FAA approval or if they waive their right to do so.

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EASA:

This section will cover items to look for when reviewing a U.S.-based facility issued an EASA approval. The Maintenance Annex Guide (MAG) is the source document and should be reviewed prior to conducting the audit.

1. Verify the facility has an EASA Form 3, approval certificate. The certificate is valid for two (2) years and renewed on a 2-year cycle. Due to the change from the MIP to the MAG, a renewal letter acknowledging the facility meets the MAG must be available.
2. Review the approval certificate to ensure the name and address match those listed on the FAA Operations Specifications.
3. If the repair station is certificated to perform line maintenance and will use that authorization on EU-registered aircraft, they must hold the appropriate airframe rating on their FAA Operations Specifications. The supplement will contain a list of operators and aircraft-types supported.
4. The following EASA website may be used to independently verify that the facility and any additional locations are EASA-approved. <https://www.easa.europa.eu/en/domains/aircraft-products/continuing-airworthiness-organisations/foreign-part-145-organisations-in-us>

Transport Canada:

The U.S. and Canada recognize each other's repair organizations under the United States—Canadian Bilateral Aviation Safety Agreement Maintenance Implementation Procedures (BASA-MIP). Listed below are some things to consider when examining Transport Canada Approved Maintenance Organization (AMO) authorization documents.

1. Transport Canada issues a Certificate of Approval that will identify specific categories in which that facility may perform maintenance.
2. The Certificate of Approval will be accompanied by "Approved Maintenance Organization Rating" documents that specify by a make or model, scope of work and authorization date, what the facility may work on. Additional details may be contained with the Maintenance Policy Manual (MPM).

Additional Preparation

Reviewing the manual and authorization documents may reveal that the facility you are going to audit is involved in some specialized work, such as non-destructive inspection/testing, welding, or shot peening. Your company may have specific checklists or standards that apply and must be used during the audit. Even so, it is a good idea to review standards that the aviation authority approved in advance of your audit. If you cannot get the specific standard,

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| researching the general process, via the internet or local library, or reviewing the airframe or engine manufacturer's procedures can help you navigate the special process once on-site. You may also consider reaching out to other auditors for some insights.

You should have a plan for auditing the facility that accounts for that company's daily routine. For a small facility, your plan will be very simple and may simply outline what areas in the company you will visit and in what order. Some companies deal in both manufacturing and repair so be sure to understand how those processes overlap. If your audit will take multiple days, identify what areas or process you will visit and when. A team audit will require you to identify who will be reviewing what areas and when. Multi-day and team audits should have a scheduled, daily exiting meeting. For the best results, share and discuss your audit plan with the vendor before you arrive, that way you'll have a better chance of the people you need to speak with being available on your timetable.

Finding the vendor's facility the day before the audit is a good practice since some can be buried within industrial parks or just plain hard to find. It will also help you judge the amount of time you'll need to ensure an on-time arrival the morning of the audit.

International trips require more preparation. You may be going to an area that doesn't speak a language you know, so consider bringing a translator program or pocket dictionary. You may want to learn a simple greeting to give at the in-brief. Also consider if there will be holidays that may make your preferred audit date unsuitable to the vendor. If you plan to use a credit card, be certain the country you are visiting accepts your type. Numerous travel websites, which can help you prepare and learn basic etiquette, are available. Some of these can be found in Appendix C.

Beginning the On-site Audit:

| Once you arrive at the facility, you will be expected to give a brief introductory meeting. The introductory meeting, or in-brief as it is commonly called, may be formal or informal. Ideally, leaders from each functional area you will be auditing are present. Auditors performing an audit in support of C.A.S.E. should cover the following basic information. An example in-brief is available in Appendix E (and also in chapter 3 of your section's *Policies and Procedures* manual).

Introduce yourself: Identify your name, what company you are with, and acknowledge any other team members you have with you so they may introduce themselves. This is a good time to exchange business cards.

State the purpose of your visit: Explain what type of audit you are performing – C.A.S.E. allocated (and what that means) or that you were not allocated the audit but will be performing the audit to a C.A.S.E. standard and will/will not be taking Register action for any Section.

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Introduce C.A.S.E.: Even if the company you are visiting has experienced an audit in support of C.A.S.E. before, take a few moments to explain C.A.S.E. Some key points to make are:

- C.A.S.E. has existed for many years
- Airlines from all around the world participate in C.A.S.E. Since we are an international organization, the audit will include EASA, FAA, and Transport Canada requirements as they apply to your company
- Audits are performed in support of all sustaining air carrier members
- The FAA recognizes the C.A.S.E. audit sharing program as a means for complying with regulatory oversight requirements
- The standard(s) and checklist(s) used is(are) controlled by the air carrier members. In some areas, the standard exceeds the applicable aviation authority's requirements. The standard exceeds these minimum requirements to ensure a high degree of quality and confidence in the work performed
- Their company is viewed as an extension of the maintenance program from each air carrier with which they do business, therefore, emphasis will be placed on ensuring air carrier requirements are met
- Audit results are shared in a non-prejudicial manner through a Section's Register. Password protected databases are accessible only to a Section's sustaining members.
- Placement in or removal from the a Section's Register does NOT guarantee nor prohibit air carrier/repair station business
- Auditors performing audits in support of C.A.S.E. are trained and authorized, initially and every two (2) years, by the C.A.S.E. organization. Auditors must pass written tests, an oral examination, and demonstrate their ability to perform an audit to the satisfaction of a C.A.S.E. appointed evaluator (Level IV). Reference Appendix D for a comprehensive list of the progressive training levels auditors go through to obtain their Level III

Present your ID card: Show the leadership your ID card so they have confidence you do, indeed, represent C.A.S.E.

Review the scope of the audit: State what your audit will cover. An audit in support of C.A.S.E. must cover all air carrier related capabilities. Make sure they understand that, as a C.A.S.E. authorized auditor, you are representing all the air carrier members/repair stations with which they do business. Explain the usage list and provide them a copy from the database.

Confirm the schedule: Confirm the order of events, such as when you plan to visit certain areas, and when you plan to take breaks. Be prepared to make adjustments if difficulties are presented or certain people are not available. If your audit involves a team or multiple days, establish when the daily exit meeting will occur and who should be present.

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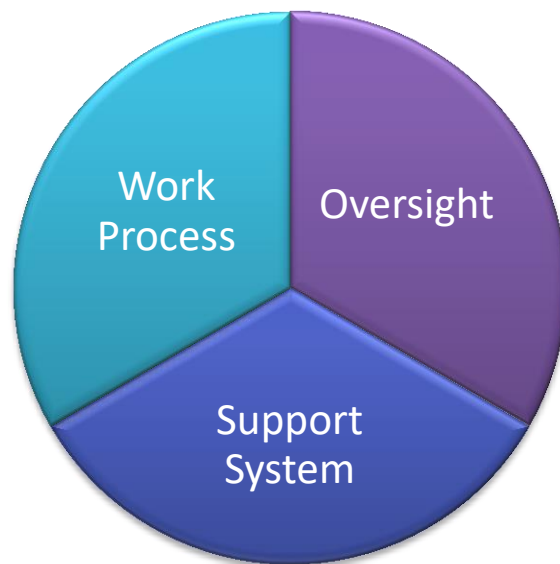
Audit Etiquette: Ensure you, and your team, if applicable, understands the protocols for walking the shop floor, interviewing personnel and when breaks or shift changes occur. Make sure it is understood that any concerns or issues you have must be brought to the attention of your host as soon as possible. Let your escorts know that the audit is an open process and they can ask to see your notes and challenge your concerns at any time.

Invite questions: Give the leadership a chance to ask any questions about the audit or C.A.S.E.

Once you complete your introductory briefing, it is a good idea to review any issues you had from your manual review. Bringing them up at the beginning of the audit will give the vendor a chance to get the information you need before the end of your audit.

The On-site Audit:

Audit styles vary greatly and there is no set format for completing an audit. Whether you determine compliance through interview, observation or sampling is up to you. Your goal is to verify all the requirements in the standard are met, however, you have a limited amount of time and resources to do so. Therefore, your audit process needs to flow together well, accomplishing as much as you can with each item reviewed. The repair station can be thought as three categories: oversight, support system, and work process.



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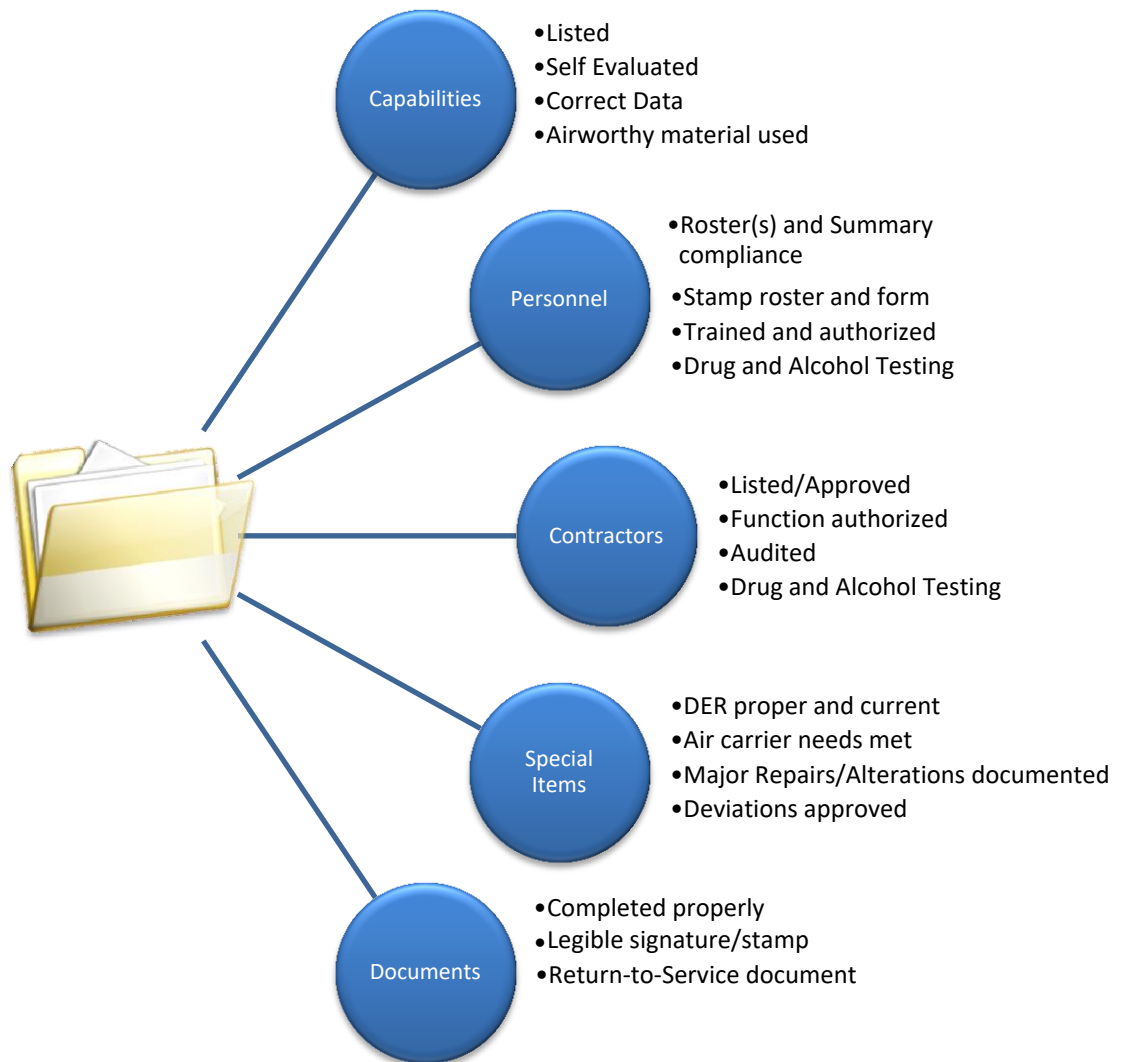
Work Process

| The work process category has three elements: work packages, work stations, and shop environment. Each element has several data points for the auditor to gather and examine to verify compliance with the 1-A standard. The following graphics depict what should be examined in each element. Keep in mind that the auditor is not only looking for the presence of each requirement but for consistency.

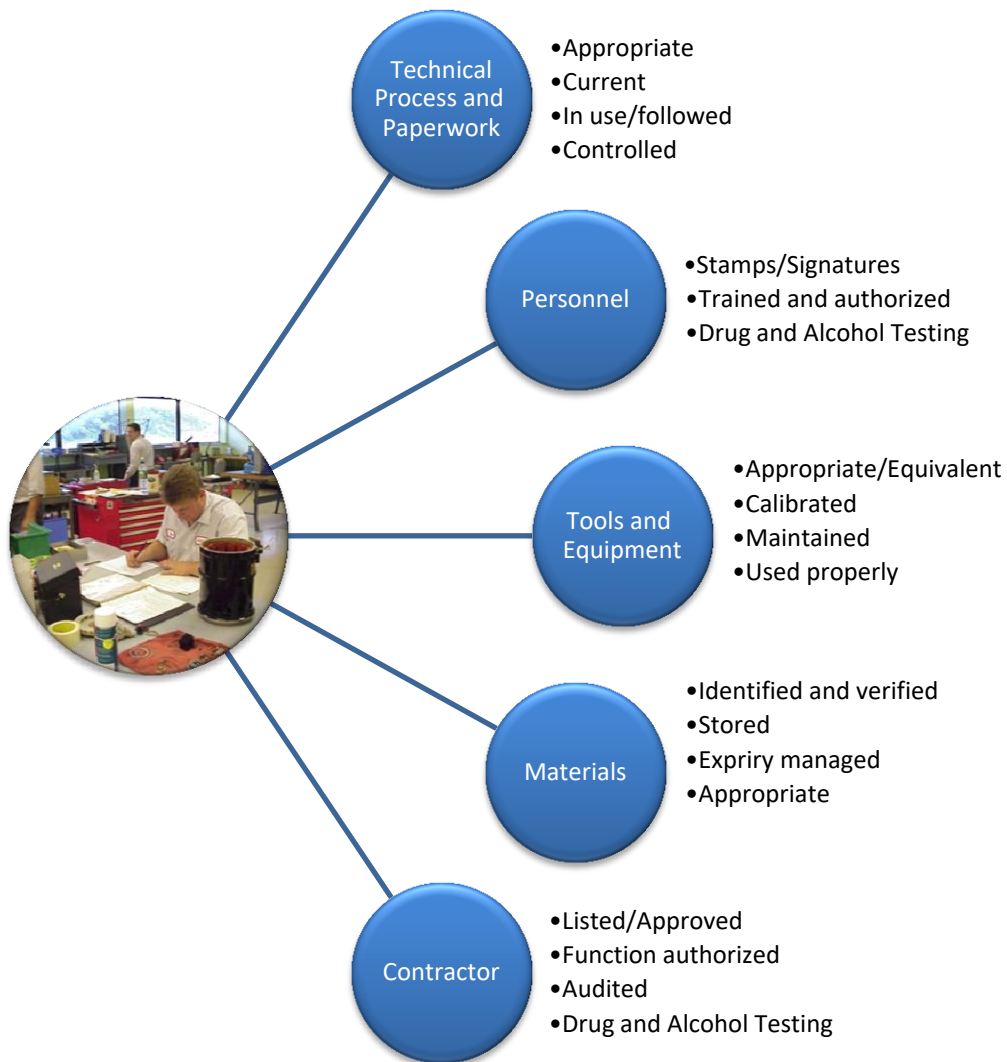
When it comes to air carrier requirements, reference the accompanying repair order/

| instructions. The C.A.S.E. ACS *Policies and Procedures* manual also contains an Appendix with each air carrier's special documents listed. This gives you an idea of what you can expect to find in use at the repair station for a particular carrier.

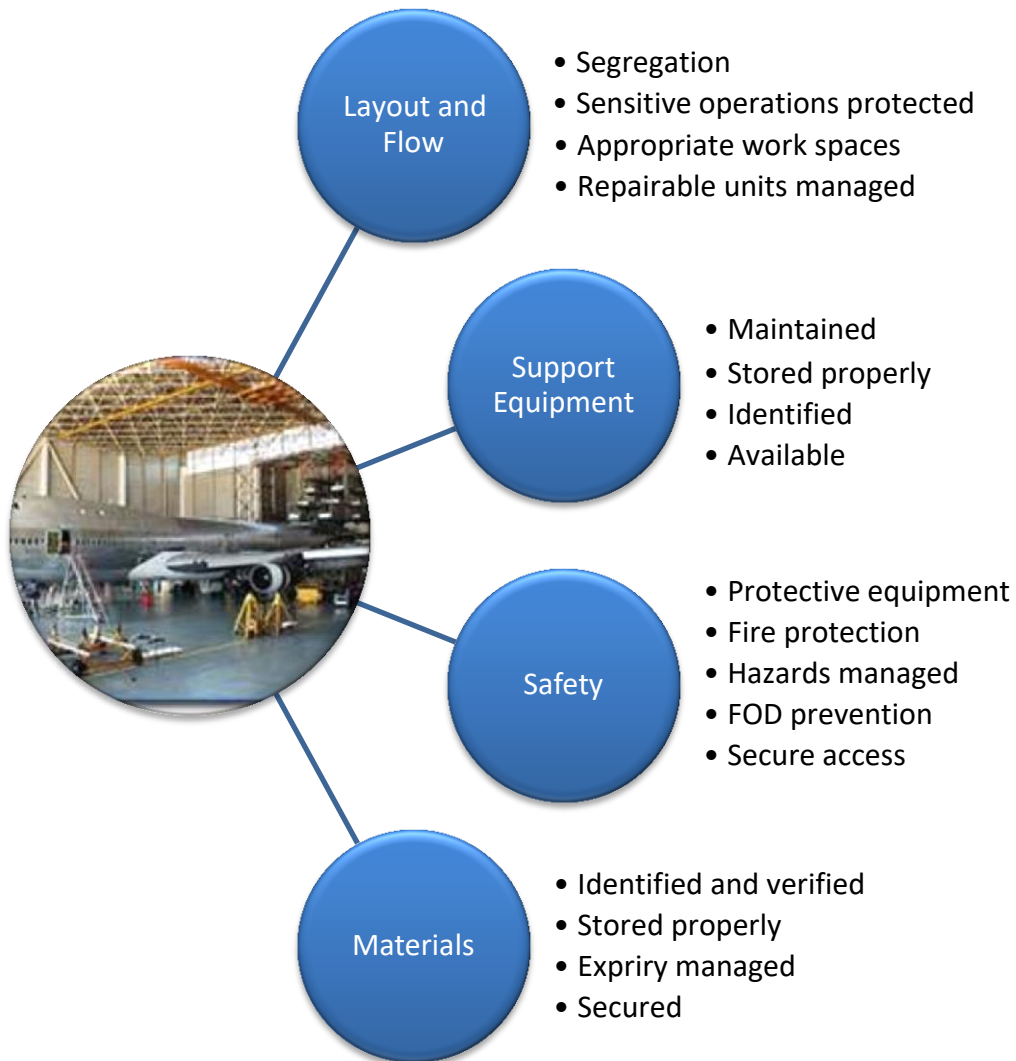
Work Packages



Work Stations



Work Environment



Support Systems:

The support systems category has four management elements: data, tools and equipment, material, and personnel. Support refers to the policies, procedures, and controls (checks and balances employed by the repair station) to achieve a reliable work process. The policies and procedures will have been examined during the desktop portion of the audit. You would have already determined if the process is defined well enough to ensure the desired result is repeatable. On-site, you will be verifying that those policies and procedures are actually being followed and the controls function. Whether or not those procedures produce an acceptable result is determined through examining the work process and work environment elements, however, if you are seeing acceptable results in the work process elements, do not assume that the support system is free from any issues. Just like an airframe, cracks can form and the structure still hold but they will need to be addressed eventually or the structure will fail. Careful examination can reveal these “cracks” in a process and ensure they are addressed before a problem occurs.

Oversight:

The oversight system is the audit program, which covers both internal and external (sub-contractor) audits. Audits must have an adequate scope, including EASA and AMO considerations. They should examine all elements of the repair station, not just one or two. The use of a checklist and references to standards is preferred. Be wary of long intervals between audits. Also note if the audit program is producing findings and the quality of those findings. Any finding must have an appropriate corrective action that addresses the root cause. At the end of your audit, consider how many of your findings are systemic or have clearly existed for a long period of time, if the internal audit program did not find these issues then it is likely that it is ineffective.

EASA Considerations:

If the vendor you are auditing is approved by EASA, then there are some additional things to consideration during your audit. The MAG requires a vendor that provides a dual release for the final product to ensure that all used parts (not to be confused with sub-contracted work) also have a dual release. If any used component only has a single release, then a dual release may not be provided.

Example: A U.S.-based, FAA-certificated repair station wants to install widget valve 12345 on CSD 001 and provide a dual-release for the CSD. The widget valve was removed from CSD 005, tested, inspected and certified serviceable by the repair station two months prior. If the certification for the widget valve was only to FAA regulations, then the repair station cannot install the widget valve and provide a dual release.

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For U.S.-based EASA-certified repair stations, the vendor must treat any non-EASA-certificated sub-contractor as a non-certificated entity. In other words, the procedures in place to use a non FAA-certificated facility must also be used for non-EASA-certificated facility, regardless of whether they also possess a FAA certificate. The list of contractors needs to clearly identify the contractors that will be used on EU-registered aircraft for aeronautical products to be installed on such aircraft. These requirements only apply for dual releases.

Tips and Techniques:

The techniques you employ during an audit can make the experience smooth and effective or it can cause frustration. Here are some tips and techniques to consider for your audit.

Take it all in: When you enter a space, take a moment to get the “big picture” before heading off to the first thing that catches your attention. Simply observing the room can help you identify areas of interest, such as test stations, storage lockers that may contain tools or manuals, and safety compliance. The same idea applies to work stations, just on a smaller scale.

Take Notes: Record the highlights of what you observed or discussed before moving on to a new area. These notes will be the basis for your exit briefing along with being a part of your sampling process. Make sure your notes have the relevant details: who, what, when and where.

Gather Evidence: When you run into something questionable that will need further investigation, obtain as much evidence you can about the situation before continuing on. Copies of technical data or work records, even pictures, can go a long way, especially if you are not sure of what all the relevant information is. Of course, always gain permission before taking copies or pictures.

Interview: You can accomplish a lot with keen observation and research, however, an interview will let you know how well that person understands and adheres to a process. Being able to interview effectively is a critical skill for an auditor. Here are some pointers when it comes to interviewing:

- *Introductions* – When you approach someone to interview, be aware of body language. You want to present yourself as open and personable in a manner that is appropriate for the country you are visiting. Share your name and air carrier with a genuine smile. A simple hello and polite question can help set a tone of familiarity.
- *Purpose* – There is no need to keep your goals a secret. Inform them that you want to verify the process (data, tools, materials, etc.) and documentation. You want to verify the technician has everything they need to complete the task. You also need to know that they are comfortable with what they are working on. Explain that you will be taking

notes and if they want to know what you are writing, they just need to ask. You may even consider writing your notes in a way that they can see what you are writing as well.

- *Ask open-ended and straight forward questions* – Avoid phrasing questions so that they need to only answer yes or no, unless you setting the stage for another question. Your questions need to be precise, not vague. "How do you repair this part?" (too vague) or "Are you familiar with how to repair this part?" (not open-ended) are not good questions (see Work Station Questions).
- *Mind your manners* – it is poor taste to assume you can pick up, move around, or look at anything and everything at a work station. Do not go rooting through personal toolboxes and desk drawers. People will be a lot more cooperative with you if you ask to look at something.
- *Wrap it up* – Once you've examined what you need to, end it with a polite thank you. Sharing some positive feedback is also good. Before you move on, confirm with the interviewee and your escort any deficiencies or open questions you have.

Scan and Sample: As you visit work stations and walk the shop environment, look for opportunities to gather samples against which to test the support systems and work processes. Some things to look for:

- *Shelf-life sensitive consumables* – These typically include sealants, O-rings, gaskets, paints, epoxies, lubricants, certain types of solder and flux, and certain bearings. Verify the manufacturer's stamped or the repair station's imposed expiration date. Record product type or brand name, purchase order, expiration, and where the product was located.
- *Tooling* – Look at the condition of the tool, if it is a precision (calibrated) tool, verify it has a protective container or is stored to preclude damage. Record calibration information, identifier, and where the tool was located.
- *Test Equipment* – Verify test equipment is well maintained and calibrated, as required. Check what equipment is being used against those called for in the technical data or work instructions. If something different is being used, verify the technical data allows it and that the repair station can prove it is an acceptable substitute. Be sure to record asset numbers, location, and what component(s) the unit services.
- *Technical Data* – Look at the title page for the revision level (do not rely on individual page revision information), the revision records for proper entries, the service bulletin listing, and temporary revision record. Observe the condition of the document. Record the identifier (ATA code, spec. number, etc.) and revision level, including applicable temporary revisions, for further verification.
- *Materials* – Check for replacement parts/materials and obtain the purchase order number or other identifier used by the facility. You can then use this information to

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request the trace paperwork and confirm the material is airworthy and legal. You can also check the part number against the technical data to verify it is a valid replacement part. Keep in mind, items kept in a “free stock” or “point-of-use” bins are considered issued to that shop location and C.A.S.E. does not require the vendor to maintain trace at that point, however, they do still need to be properly identified and stored.

- *Paperwork* – Verify processes are completed in order. Any skipped processes or steps are marked “N/A” and the “N/A” justified. Ensure the forms being used are the appropriate ones and the most current revision. Look for work sent to another company and ensure it was handled appropriately. Be vigilant for any air carrier-specific requirements and determine that the repair station is handling those items appropriately.
- *Safety* – Be on the lookout for fire extinguishers, eyewash stations, and first aid kits, which should be checked to ensure they are serviceable and conspicuous. Observe fire lanes and exits to verify they are clear. Verify that protective equipment is used as needed. All equipment should be setup and maintained to ensure it operates safely.

Investigate: If you suspect non-compliance, continue to investigate. You need to confirm that there is actually a non-compliance situation. You will also need to discover if there are multiple non-compliances occurring. Keep in mind we are not talking about doing a root-cause investigation but simply confirming you’ve exhausted all possible justifications.

Keep Track of Your Findings: Once you’ve confirmed something is a finding, make sure you document it thoroughly so that you’ll be able to find the relevant information quickly. Marking the “No” column on the checklist or circling/highlighting the relevant standard or checklist item can help you keep track of them. You may also consider using a tally sheet.

Closing Out the Audit:

Once you’ve completed your on-site audit, you will need to deliver an exit briefing. The exit briefing should include your host and the responsible managers, especially those that have findings. Ask your host for some time to draft your exit briefing notes. Before you leave the vendor, be sure to confirm all the contact information, addresses, and certificate numbers that will be submitted to the database. A typical exit briefing contains:

Introductory statement: Summarize what your audit covered for the benefit of those who were not present throughout the audit.

Explain the Findings/Concerns: Consider starting off this segment by saying there are X number of findings and X number of concerns/comments. Explain each finding in detail and why it is a finding (CFR requirement, C.A.S.E. standard only, etc.). Go through your findings slowly so they

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can take notes. Avoid acronyms to minimize possible confusion. Invite them to ask questions.

Register Status: Explain that they will either be updated on a Section's Register, updated upon completion of corrective actions, or removed. Explain the C.A.S.E. usage list and that the listed members may contact them about the audit. If they will be removed, explain the Vendor Appeal Process. Be sure they understand what must take place before they are eligible for reinstatement.

Responding: Explain how much time they have to respond. Discuss what their response needs to contain. At a minimum, the root cause, corrective action, and preventive action need to be detailed. Response time frames are determined by the auditor and are based on their air carrier's program but, for audits in support of the ACS, may not exceed ninety (90) days.

CACS-7, Vendor Expectations and Limitations Letter, and Usage List: Review the CACS-7 with management. Go over the advertising restrictions and when they need to contact you about changes. Inform them that you are responsible for their information in the database until the next audit for which a CACS-7 is signed is performed. Have them sign the appropriate sections. Show them the usage list from the database and explain the list to them. Tell them the listed air carriers/repair stations may contact them about the audit and, by signing the CACS-7, they voluntarily agree to share the details of the audit. Leave a copy of the usage list. Inform them that they will need to keep a copy of the completed CACS-7, the audit report, and their responses until superseded by the next audit for which they sign a CACS-7.

Closing statements: Share the positive things you observed. A professional auditor recognizes all the good things the company is doing and does not focus solely on those items that need correction. Thank them for their time and cooperation. Be sure they understand they are an important and valued business partner.

Putting the Results to Paper:

Once you complete your audit, you will be expected to write an audit report, usually in the form of corrective action requests (CARs). Findings should be delivered concisely yet contain enough detail that someone unfamiliar with the audit could understand the issue. To help you write comprehensive finding statements, consider the following methods:

Write it all out: Simply write out what you observed as it comes to you. Avoid editing at this stage. Your goal is to describe what happened in as much details as you can.

Review the contents: Once you have a description of what you found, review it to ensure all the key details are present. You want to ensure you have accurately described what happened, where it occurred, and who was involved.

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| Trim the excess: Read through your statement, out loud if you can, and ensure it is logical and easy to read. Your first sentence should be the finding. Any additional sentences are contextual. Look for unnecessary descriptions or extra details that do not add value to your statement. Give your statement to another person and see how they interpret it.

| Support your case: Ensure your statement conveys only the facts. Reference the standard(s) that was(were) not met which support(s) your position that a finding is warranted.

| Keep in mind that the next C.A.S.E. authorized auditor to visit the facility will need to verify the corrective actions taken for your findings were implemented and are effective. Also, many sustaining members obtain copies of audit reports to use in their CASS programs. They need to be able to easily understand the findings so they can perform effective risk assessment.

Appendix A: Work Station Questions

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Sample Work Station Questions:

- What are you working on today? Who is the customer?
- What technical data are you using to work on this part? (Is it appropriate? Is it complete?)
- How did you obtain this technical data?
- Could you tell me what revision the technical data is on? Are there any temporary revisions, service bulletins, or Airworthiness Directives that apply? Follow up a 'No' answer with: If there were, how would you find out about them?
- What stage of the work process are you in? Will you please go to that section of the technical data?
- Skim through the section, looking for any specific tooling called out, precision measurements required, or certain materials that need to be used. If nothing stands out, you can back-track to a previous process. Then you can ask them to show you the item (tool, material, equipment) used or that will be used to accomplish the task. If a traveler is used, verify it matches up with the current technical data
- Once you complete this (step, task, work card) how do you record your progress? Will you please show me how much has been recorded so far? Here you can check if the work is being done in sequence to the traveler and if any inspection sign-offs were required and completed
- How are replacement parts ordered? (Verify the IPC is used; verify how alternate parts are handled.) What checks do you perform on the replacement part?
- What happens to the unserviceable pieces of this unit?
- If part of this unit has to go to a third party or to another in-house shop, how is that documented, tracked, and then processed once it returns?
- Once you have completed your work, how is that work documented?
- What happens to the part(s) once you are done with it(them)?

Appendix B: Sampling

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Let's say you walk into a stockroom with 1,000 items and you are tasked with determining if the product within the stockroom can be traced to an acceptable source. How would you go about your verification?

You could check all 1,000 items. This method would show exactly how many items are in compliance and how many are out of compliance, however, reviewing 1,000 will take a lot of time. Time you do not have. So, what's the alternative? Sampling!

What is Sampling?[†]

Sampling is the process of selecting a portion of a population for review to determine some characteristic about the population. The population refers to all the items available for review. In quality assurance, our goal is to describe the level of conformity the population has to a standard.

How is Sampling performed?[†]

Before you can decide how many samples are appropriate, you need to decide on what constitutes the population. The population is defined around the question to be answered. If the question is about trace, then all items in the stockroom are eligible. If the question is about trace for shelf-life sensitive consumables, then the population is restricted to items that are considered consumable and have a shelf-life.

Once the population is identified, you may need to identify a sampling frame. A sampling frame is a population identified by one common feature, such as temperature sensitive. Identifying sampling frames is helpful in focusing your efforts on key features.

Sample selection can be approached in several ways. The simplest is a pure random sample. To be considered as a sampling method, each item within a frame must have equal chance of selection and be representative of the population. A simple random sample would be adequate for our trace question.

If this is not the case, a modified selection technique, such as stratified, systematic, or probability-proportional-to-size, sampling should be used. Let's consider our stockroom again. Say we want to determine that all items subject to shelf life are being tracked. We also consider that items like o-rings and sealants are easily identified for shelf life requirements but other items like bearings and resin-cored solder are not. Defining the less obvious items as a sub-population, or strata, we can apply a simple random sample or other sampling technique to this stratum.

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Systematic sampling is taking a uniformly distributed population and selecting an item at regular intervals throughout the population. Keep in mind the sample will only be representative if the population is not subject to a periodicity and the start point is chosen at random. A periodicity would be a reoccurring theme, such as the items in our stockroom are order by expiration date from left to right on each shelf within the row. Then selecting every 7th one on the shelf would limit our sample to the same expiration year within that row.

Probability-proportional-to-size can be used to randomly select a group to examine based on contribution to the overall population. This can be useful when selecting from which airlines to review work packages. For example: You want to review work packages from four (4) air carriers. To determine which air carrier gets selected, you determine how many completed work packages each air carrier has. Let's say AC1 = 200, AC2 = 100, AC3 = 350, AC4 = 55, AC5 = 150, AC6 = 115, AC7 = 80, AC8 = 250, AC9 = 310, for a total of 1600 records. We order the air carriers from smallest number of records to largest so that AC4 would have number 1 thru 55, AC7 would have 56 thru 136, etc. Since we want to sample from four (4) air carriers, we would generate a random number between 1 and 400 (equal to 1600/4) and count through the population by multiples of 400. If the random start was 145, we would select air carriers which have been allocated numbers 145, 545, 945, and 1345.

How Do I Select My Sample Size?⁺

So you have determined how you are going to select your samples but how do you determine how many samples to collect? Assuming a normal distribution, sample size is determined by the following:

- 1) **Acceptable Margin of Error:** Usually represented in a percentage, this describes the possible variance that exists between your sample and the actual population.

Margin of error is the first parameter we must decide on as it has the most effect on the sample size you will need. Based on our experience with and confidence in the vendor's quality control programs, we will have expectations for our sample. If you believe the vendor demonstrates a high likelihood of being in compliance with the standard, then you would be willing to tolerate a larger margin of error in the sample. The lower the margin of error, the greater your sample size will be.

- 2) **Confidence Level:** Describe the likelihood that you are within the margin of error of the true answer.

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Confidence level can also be thought of as repeatability and correlates to the margin of error. It describes how confident you can be that your sample reflects the population. If you have a large margin of error, you will need fewer samples to ensure subsequent sets of samples bear the same result (within the margin of error) as the first sample set.

- 3) Population: How many items you can choose from for your sample? We typically do not have a precise number on the population so an estimate will suffice.

Population size has a limited effect on your sample size. In general, populations greater than 1000 units will see relatively small changes in sample size requirements for a given margin of error and confidence level, the exception being high confidence levels (95% or greater) and/or tight margins of error (less than 5%).

- 4) Response Distribution: This is what you expect the results to be. If you have reason to believe the sample is skewed or favors one outcome over the other, then the population probably is as well. Factoring in a response distribution will adjust your sample size for this skewness; otherwise the default value is 50%.

Put together, these parameters will produce a sample size that will make a prediction about the population. For example, if 50% (response distribution) of all the parts in a population of 20,000 are non-compliant with the standard, then, if you surveyed 377 units, many times than 95% of the time (confidence level), your survey would find that between 45% and 55% (5% margin of error) of the parts you sampled were actually non-compliant. The remaining 5% of the time you would expect the survey results to be more than your margin of error away from the true answer.

The following chart is a guide for sampling size and is based on the principles discussed above. If you wish to raise the response distribution to 75%, lower your sample percentage by 1% where percentage is given and one (1) unit where units are given, expect for the 20% margin of error and 80% to 75% confidence level where a population greater than 70 requires only eight (8) samples and 20 to 69 only seven (7) samples.

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Sample Size Guide*			
Margin of Error Confidence Level	10% 90% to 85%	15% 85% to 80%	20% 80% to 75%
Population Range Percentage to Sample	0 to 15 100%	0 to 5 100%	0 to 5 100%
Population Range Percentage to Sample	16 to 25 80%	6 to 10 80%	6 to 8 5 units
Population Range Percentage to Sample	26 to 40 66%	11 to 15 69%	9 to 13 6 units
Population Range Percentage to Sample	41 to 60 58%	16 to 20 56%	14 to 19 7 units
Population Range Percentage to Sample	61 to 80 48%	21 to 25 52%	20 to 32 8 units
Population Range Percentage to Sample	81 to 100 43%	26 to 30 44%	33 to 65 9 units
Population Range Percentage to Sample	101 to 150 35%	31 to 35 40%	66 to 350 10 units
Population Range Percentage to Sample	151 to 200 27%	36 to 45 37%	Above 350 11 units
Population Range Percentage to Sample	201 to 250 23%	46 to 55 30%	
Population Range Percentage to Sample	251 to 300 19%	56 to 65 26%	
Population Range Percentage to Sample	301 to 350 17%	66 to 80 17 units	
Population Range Percentage to Sample	351 to 400 15%	81 to 122 18 units	
Population Range Percentage to Sample	401 to 500 13%	123 to 234 19 units	
Population Range Percentage to Sample	501 to 600 11%	235 to 500 20 units	
Population Range Percentage to Sample	601 to 800 8%	Above 500 21 units	
Population Range Percentage to Sample	801 to 1000 6.5%		
Population Range Percentage to Sample	Above 1000 68 units		

* Based on 50% response distribution and calculated using the Sample Size Calculator by Rasosoft. <http://www.raosoft.com/samplesize.html>

† Sampling (statistics), [http://en.wikipedia.org/wiki/Sampling_\(statistics\)](http://en.wikipedia.org/wiki/Sampling_(statistics)) (retrieved 22 July 2013).

‡ Sample size determination, http://en.wikipedia.org/wiki/Sample_size_determination (retrieved 13 November 2023).

Appendix C: Resources

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FAA Documents:

AC 20-62E, Eligibility, Quality, & Identification of Aeronautical Replacement Parts

AC20-97B, Aircraft Tire Maintenance and Operational Practices with Change 1

AC 21-29D, Detecting and Reporting Suspected Unapproved Parts

AC 39-7D, Airworthiness Directives

AC 43.9-1G, Instructions for Completion of FAA Form 337

AC 43-10C, United States—Canadian Bilateral Aviation Safety Agreement Maintenance Implementation Procedures

AC 43-13-1B, Acceptable Methods, Techniques, and Practices - Aircraft Inspection and Repair [Large AC. This includes Change 1.]

AC 43-14, Maintenance of Weather Radar Radomes

AC 43-207, Correlation, Operation, Design, and Modification of Turbofan/Jet Engine Test Cells

AC 43-214A, Repairs and Alterations to Composite and Bonded Aircraft Structure

AC 120-93, Damage Tolerance Inspections for Repairs and Alterations

AC 120-97A, Incorporation of Fuel Tank System Instructions for Continued Airworthiness into Operator Maintenance or Inspection Programs

AC 120-98A, Incorporation of Fuel Tank Flammability Reduction Requirements into a Maintenance or Inspection Program (Including Change 1)

AC 145-4A, Inspection, Retread, Repair, and Alterations of Aircraft Tires - Including Change 2

AC 145-10, Repair Station Training Program w/ Change 1

AC 145-11A, Repair Station Guidance for Compliance with the Safety Agreement between the United States and the European Union

Order 8900.1A, Flight Standards Information Management System (FSIMS)

Order 8130.21H, Procedures for Completion and Use of the Authorized Release Certificate, FAA Form 8130-3, Airworthiness Approval Tag - including Change 1

Find Designees and Delegations:

http://www.faa.gov/other_visit/aviation_industry/designees_delegations/find_designees/

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Travel Resources:

Trip Advisor - <http://www.tripadvisor.com/> Information on hotels and restaurants, reviews and traveler experiences.

Lonely Planet - <http://www.lonelyplanet.com/> Good information on things to do, reviews and traveler experiences.

| Wikitravel - http://wikitravel.org/en/Main_Page/ Excellent guides on transportation, money, culture, etc.

| Google Earth - <http://www.google.com/earth/about/> Maps, pinning feature to remember locations

Industry Standards:

| <http://www.nist.gov/calibrations/> Information on NIST calibration services

| <http://www.sae.org/standards/> Source for widely used NDT standard practices

<http://www.nfpa.org> Fire safety standards, most can be read online

Mass Transit:

| Germany – www.int.bahn.de

| Belgium – www.belgium.be/en/mobility/public_transport

Netherlands – www.ns.nl

Luxembourg – www.cfl.lu

United Kingdom – www.nationalrail.co.uk

| France – www.scnf.com/fr

| NYC Area – www.new.mta.info

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Aviation Act: U.S.C. Title 49, Subtitle VII, Part A, Chapter 447 §44701– General Requirements

- | (a) Promoting Safety—The Administrator of the Federal Aviation Administration shall promote safe flight of civil aircraft in air commerce by prescribing—
 - (1) minimum standards required in the interest of safety for appliances and for the design, material, construction, quality of work, and performance of aircraft, aircraft engines, and propellers;
 - (2) regulations and minimum standards in the interest of safety for—
 - (A) inspecting, servicing, and overhauling aircraft, aircraft engines, propellers, and appliances;
 - (B) equipment and facilities for, and the timing and manner of, the inspecting, servicing, and overhauling; and
 - (C) a qualified private person, instead of an officer or employee of the Administration, to examine and report on the inspecting, servicing, and overhauling;
 - (3) regulations required in the interest of safety for the reserve supply of aircraft, aircraft engines, propellers, appliances, and aircraft fuel and oil, including the reserve supply of fuel and oil carried in flight;
 - (4) regulations in the interest of safety for the maximum hours or periods of service of airmen and other employees of air carriers; and
 - (5) regulations and minimum standards for other practices, methods, and procedure the Administrator finds necessary for safety in air commerce and national security.
- | (b) Prescribing Minimum Safety Standards—The Administrator may prescribe minimum safety standards for—
 - (1) an air carrier to whom a certificate is issued under section 44705 of this title; and
 - (2) operating an airport serving any passenger operation of air carrier aircraft designed for at least 31 passenger seats.
- | (c) Reducing and Eliminating Accidents—The Administrator shall carry out this chapter in a way that best tends to reduce or eliminate the possibility or recurrence of accidents in air transportation, however, the Administrator is not required to give preference either to air transportation or to other air commerce in carrying out this chapter.
- | (d) Considerations and Classification of Regulations and Standards—When prescribing a regulation or standard under subsection (a) or (b) of this section or any of sections 44702–44716 of this title, the Administrator shall—
 - (1) consider—
 - (A) the duty of an air carrier to provide service with the highest possible degree of safety in the public interest; and
 - (B) differences between air transportation and other air commerce; and
 - (2) classify a regulation or standard appropriate to the differences between air transportation and other air commerce.

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(e) Bilateral Exchanges of Safety Oversight Responsibilities—

- (1) In general—Notwithstanding the provisions of this chapter, the Administrator, pursuant to Article 83 bis of the Convention on International Civil Aviation and by a bilateral agreement with the aeronautical authorities of another country, may exchange with that country all or part of their respective functions and duties with respect to registered aircraft under the following articles of the Convention: Article 12 (Rules of the Air); Article 31 (Certificates of Airworthiness); or Article 32a (Licenses of Personnel).
- (2) Relinquishment and acceptance of responsibility—The Administrator relinquishes responsibility with respect to the functions and duties transferred by the Administrator as specified in the bilateral agreement, under the Articles listed in paragraph (1) for United States-registered aircraft described in paragraph (4)(A) transferred abroad and accepts responsibility with respect to the functions and duties under those Articles for aircraft registered abroad and described in paragraph (4)(B) that are transferred to the United States.
- (3) Conditions—The Administrator may predicate, in the agreement, the transfer of functions and duties under this subsection on any conditions the Administrator deems necessary and prudent, except that the Administrator may not transfer responsibilities for United States registered aircraft described in paragraph (4)(A) to a country that the Administrator determines is not in compliance with its obligations under international law for the safety oversight of civil aviation.
- (4) Registered aircraft defined—In this subsection, the term “registered aircraft” means—
 - (A) aircraft registered in the United States and operated pursuant to an agreement for the lease, charter, or interchange of the aircraft or any similar arrangement by an operator that has its principal place of business or, if it has no such place of business, its permanent residence in another country; and
 - (B) aircraft registered in a foreign country and operated under an agreement for the lease, charter, or interchange of the aircraft or any similar arrangement by an operator that has its principal place of business or, if it has no such place of business, its permanent residence in the United States.

(f) Exemptions—The Administrator may grant an exemption from a requirement of a regulation prescribed under subsection (a) or (b) of this section or any of sections 44702–44716 of this title if the Administrator finds the exemption is in the public interest.

Appendix D: Training List

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NOTE: Confirm the accuracy of this listing with your section's *Policies and Procedures* manual, section 2-3-1, Training and Qualification Requirements.

- A. Level I – An applicant's Level I auditor training program shall provide a minimum:
 - 1) Auditing techniques and professional behavior.
 - 2) Basic people and interviewing skills.
 - 3) Technical writing skills.
 - 4) Introduction to the CFRs relative to vendor surveillance.
 - 5) CAS/Surveillance program orientation.
 - 6) Introduction to its company's maintenance procedures manual.
 - 7) On-site audit on-the-job training.
 - 8) Formal Root Cause Analysis and Comprehensive Corrective Action training.

- B. Level II – This describes the professional auditor that the Air Carrier Section's members expect to see representing their interests in the field. The training, testing, and evaluation process utilized by the air carrier to create a Level II auditor should produce this level of expertise and award Level II company auditor status. As an end result, this person has the skills to:
 - 1) Handle the entire audit process in a professional and positive manner.
 - 2) Evaluate a vendor against their company's program and the appropriate sections of the CFRs.
 - 3) Where and when applicable, cite the vendor for non-compliance.
 - 4) Explain in detail the rationalization for any finding.
 - 5) Evaluate the vendor's corrective action.

- C. Level III – classroom training/check-ride shall include:
 - 1) C.A.S.E. policies and procedures with written examination.
 - 2) 1-A and/or 2-A standard, as appropriate, with written examination.
 - a) For maintenance auditor:
 - i) 14 CFR Parts 43, 65, 120, 121 or 135 (as appropriate), and 145
 - ii) Title 49 of the United States Code (49 U.S.C.) § 44701 (formerly the Aviation Act of 1958), see Appendix C
 - iii) Twelve (12) vendor facility audits conducted to the C.A.S.E. standard, appropriate to the authorization sought, within the twelve (12) month period preceding the application. Six (6) of these audits must have been completed within the past six (6) months
 - iv) Evaluation check-ride conducted by Level IV evaluator from another member of your Section.

Appendix E:

Sample In-Brief

IN-BRIEF SAMPLE - AIR CARRIER 1-A STANDARD

C.A.S.E. stands for the Coordinating Agency for Supplier Evaluation. This corporation was established by the aerospace industry in 1963. By 1982, air carriers saw the need to become part of the organization and, soon after, the Air Carrier Section was formed. Currently, there are #___ member airlines.

This audit is in support of the C.A.S.E. Air Carrier Section and was allocated to my airline. The allocation process is how we determine what audits are due each year, which airlines will perform the audits, and when they will be conducted. This repair station may or may not be an approved vendor for my airline. Please be aware that many non-C.A.S.E. authorized auditors, airlines, and repair stations use the C.A.S.E. standard(s) and checklist(s). I am providing you a copy of the members that show usage of your services. Should anyone not on this list contact you about these audit results, please refer them to me. An authorized auditor will have C.A.S.E. identification (**make sure you present your C.A.S.E. ID**) and can take Register action on the Air Carrier Section's Register based on either allocated audits or non-allocated audits.

This audit is being conducted to verify that you are in compliance with the C.A.S.E. ACS 1-A standard and the maintenance programs of the members who use your repair station. The C.A.S.E. ACS 1-A standard exceeds the CFR requirements based on the needs of the air carrier sustaining members, of which your repair station is an extension of their maintenance programs. Information on your repair station is maintained in the C.A.S.E. database. This information may consist your contact information, a certification package, and your status on the ACS Register.

C.A.S.E. prepares experienced member airline auditors with initial training and performance evaluations per the C.A.S.E. policies and procedures and the applicable standard(s) which they will use during audits. In order to maintain their certification under C.A.S.E., auditors must undergo recurrent training and performance evaluations a minimum of every two (2) years.

The FAA has accepted the C.A.S.E. organization and its shared audit methods as a means of compliance with the surveillance requirements of 14 CFR 121.373 and 135.431. Audits conducted by C.A.S.E. qualified personnel in accordance with the 1-A standard result in more uniform quality and provide air carrier members the means of sharing the audit burden with other member carriers. Because of C.A.S.E., your repair station may enjoy a significant reduction of on-site visits. Keep in mind that individual members have the right to perform their own surveillance as they deem necessary to support their own quality programs.

C.A.S.E. uses a Vendor Expectations and Limitations letter (CACS-7) which is the contract between your repair station and C.A.S.E. As a non-profit organization, C.A.S.E. cannot allow a business advantage for any station over another. You may not advertise listing on a Section's Register nor use the C.A.S.E. logo (unless you, yourselves, are C.A.S.E. members). Until the next audit for which ACS Register action is taken, I will be your contact. Please contact me if you experience any changes as listed on the CACS-7. You voluntarily agree to provide the results of this audit to the members on your usage list. This can be done through the database (VEL option a) or by providing each member the results individually (VEL option b). You will need to keep a copy of the completed CACS-7, the audit report, and your responses until they are superseded by the next audit for which a CACS-7 is signed.

Auditor Handbook

Our audit today will be conducted in accordance with the C.A.S.E. 1-A standard and the following areas will be covered:

- Work packages (one (1) for each member that uses your services)
- Stamp control program and stamp log
- Personnel roster(s) and employment summaries
- Internal audit program
- Vendor list and contractor/sub-contractor audits
- Maintenance functions list
- Previous audit in support of C.A.S.E. (findings, corrective actions, and CACS-7).
- Training records
- Certifications
- Technical data
- Shelf life
- Parts and material storage
- Repair areas
- Shipping and receiving
- Stock rooms
- Scrap and quarantine
- Safety and security
- Tooling, equipment, and calibration
- Return to service
- Inspection
- Special processes (NDT, specialized services, welding, etc. (as applicable))
- Electrostatic sensitive devices (ESD)
- Cyber security

Upon completion of our audit, we will discuss areas needing correction (findings) and concerns that we may resolve during an out-brief. If it is determined that your facility satisfactorily complies with all requirements set forth in the C.A.S.E. 1-A standard, then your repair station may be entered onto/remain on the ACS Register. Members of the C.A.S.E. ACS will have ready access to your status. If your repair station will not remain on/be added to the ACS Register, you have the right to appeal the auditor's decision if you feel the decision was not based on non-compliance with the standard.

This audit will take most of the day. When you are to take your normal breaks or lunch, I will also break. Are employees in this facility represented by a Union? I do not intend to disrupt or interfere with you, your personnel, or any of your operation. Please operate as normal and let me know if I'm in the way.

Do you have any questions for me regarding the C.A.S.E. organization? If not, let's get started.

Appendix F:

Authorization

Package Checklist

Auditor Handbook

Initial ACS Level III Authorization Package

- 1) CACS-5s
 - a) Pre-check-ride evaluation (PCE) #1
 - b) PCE #2
 - c) PCE #3 with Level III signature and "Recommended for Check-Ride" block checked
- 2) CACS-4, including twelve (12) audits in the last twelve (12) calendar months with six (6) in the past six (6) calendar months (three (3) of those as PCEs).
- 3) CACS-9 policies and procedures training (within the past twelve (12) calendar months).
- 4) CACS-9 1-A or 2-A/4-A training (within the past twelve (12) calendar months).
- 5) CACS-9 database training.
- 6) Recommendation letter from the company representative to C.A.S.E.
- 7) FAA airframe and/or powerplant (or equivalent NAA issued) certificate(s)(license(s)), if applicable.
- 8) Copies of diploma(s), if applicable.
- 9) Proof of experience and training documentation:
 - A brief resume of aircraft maintenance/quality auditing/quality assurance experience
 - Auditing techniques and professional behavior
 - Basic people and interviewing skills
 - Technical writing skills
 - Introduction to the CFRs relative to vendor surveillance
 - CAS/Surveillance program orientation
 - Introduction to your company's maintenance procedures manual
 - On-site audit on-the-job training
 - Formal Root Cause Analysis and Comprehensive Corrective Action training
 - Qualified Level I company auditor
 - Qualified Level II company auditor

NOTE: Refer to your section's *Policies and Procedures* manual, sections 2-3-0 and 2-3-1, for the details of the C.A.S.E. Auditor Authorization program.