Safety Attribute Inspection (SAI) Data Collection Tool
1.2.2 Major Repairs and Alterations Records (AW)

ELEMENT SUMMARY INFORMATION

Purpose of this Element (certificate holder's responsibility):

- To ensure that reports of major repairs and major alterations are prepared, submitted, made available for inspection, and transferred in accordance with the applicable Federal Aviation Regulations and the certificate holder's system, and to ensure that a list of current major alterations is kept by the certificate holder.

Objective (FAA oversight):

- To determine if the certificate holder's Major Repairs and Alterations Records process meets all applicable requirements of Title 14 of the Code of Federal Regulations (14 CFR) and FAA policies.

- To determine if the certificate holder's Major Repairs and Alterations Records process incorporates the safety attributes.

- To identify any shortfalls in the certificate holder's Major Repairs and Alterations Records process.

Specific Instructions:

- Intentionally left blank

SUPPLEMENTAL INFORMATION

Specific Regulatory Requirements (SRRs):

- SRRs:
  121.135(a)(1)
  121.135(b)(1)
  121.135(b)(2)
  121.135(b)(26)
  121.135(b)(3)
  121.368(d)(10)
  121.368(d)(9)
  121.380(a)(2)(vii)
  121.380(c)(1)
  121.380(c)(3)
  121.380a
  121.380a(a)
  121.380a(b)
  121.707(a)
  121.707(b)
  43.5(b)

Related CFRs & FAA Policy/Guidance:

- Related CFRs:
  Intentionally left blank

- FAA Policy/Guidance:

    FAA Order 8900.1, Volume 3, Chapter 31, Section 5
    FAA Order 8900.1, Volume 3, Chapter 43, Section 1
    FAA order 8900.1, Volume 6, Chapter 2, Section 6

SAI Section 1 - Procedures Attribute

Objective: Procedures, instructions, and information are

documented methods for accomplishing a process. The certificate holder's policies should establish their compliance posture. Policies may be stand-alone statements, or they may be imbedded within procedures, instructions, or information regarding a particular regulatory requirement. The questions in this section of the data collection tool (DCT) are designed to assist the inspector in determining if the certificate holder has documented or prescribed methods of accomplishing the process requirements that provide answers to the associated questions regarding who, what, when, where, and how. This section contains policy questions, procedural

questions, and instructional or informational questions pertaining to various types of certificate holder

requirements such as actions, prohibitions, or resources (i.e., personnel, facilities, equipment, technical data, etc.).

Tasks	
	To meet this objective, the inspector must accomplish the following tasks:
1.	Review the information listed in the Supplemental Information section of this DCT.
2.	Review the duties and responsibilities for management and other personnel identified by the certificate holder who accomplish the Major Repairs and Alterations Records process.
3.	Review the certificate holder's Major Repairs and Alterations process to ensure it contains the policies, procedures, instructions and information necessary for personnel to perform their duties and responsibilities with a high degree of safety.

Questions		
	To meet this objective, the inspector must answer the following questions:	
1.	Does the certificate holder's Major Repairs and Alterations Records process meet the specific regulatory and FAA policy requirements:	
1.1.	Does the certificate holder's Major Repairs and Alterations Records process contain instructions and information necessary for personnel to keep a list of current major alterations for each: SRRs: 121.135(a)(1); 121.380(a)(2)(vii)	
1.1.1	Airframe? SRRs: 121.380(a)(2)(vii)	☐ Yes ☐ No, Explain
1.1.2	Engine? SRRs: 121.380(a)(2)(vii)	☐ Yes ☐ No, Explain
1.1.3	Propeller? SRRs: 121.380(a)(2)(vii)	☐ Yes ☐ No, Explain ☐ Not Applicable
1.1.4	Appliance? SRRs: 121.380(a)(2)(vii)	☐ Yes ☐ No, Explain
1.2.	Does the certificate holder's Major Repairs and Alterations Records process contain instructions or information to retain records of current major repairs until the work is repeated or superseded by other work or for one year after the work is performed? SRRs: 121.380(c)(1); 121.135(b)(26)	☐ Yes ☐ No, Explain
1.3.	Does the certificate holder's Major Repairs and Alterations Records process contain instructions or information to retain and transfer a list of current major	☐ Yes

	alterations to each airframe, engine, propeller, and appliance with the aircraft at the time the aircraft is sold? SRRs: 121.380(c)(3); 121.135(b)(26)	☐ No, Explain
1.4.	Does the certificate holder's Major Repairs and Alterations Records process contain instructions or information to transfer to the purchaser, at the time of sale, the following records of that aircraft in plain language form or coded form at the election of the purchaser, when it sells a U.S. registered aircraft: SRRs: 121.380a; 121.135(b)(26)	
1.4.1	A list of current major alterations to each airframe, engine, propeller, and appliance? SRRs: 121.380a(a)	☐ Yes ☐ No, Explain
1.4.2	Records of current major repairs that have not been repeated or superseded by other work or have not exceeded one year after the work was performed? SRRs: 121.380a(b)	☐ Yes ☐ No, Explain
1.5.	Does the certificate holder's Major Alterations and Repairs records process include instructions and information necessary to allow personnel to promptly upon its completion, prepare a report of each major alteration or major repair of an airframe, aircraft engine, propeller, or appliance of an aircraft that it operates? SRRs: 121.135(a)(1); 121.707(a) *Related Design JTIs:* 1. Check that the Certificate Holder has a system that ensures report(s), required by 121.707 contain at least the identification of the altered airframe, aircraft engine, propeller or appliance. The report(s) should provide a means of positively identifying each altered item and its technical data approval basis.. *Sources:* 121.707; FAA Order 8900.1, Volume 3, Chapter 31, Section 5, Paragraph 3080(E). *Interfaces:* 1.3.9(AW); 1.3.14(AW)	☐ Yes ☐ No, Explain
1.6.	Does the certificate holder's Major Alteration and Repair Records process include instructions and information necessary to allow personnel to submit a copy of each report of a major alteration to, and retain a copy of each report for inspection by, the representative of the Administrator who is assigned to it? SRRs: 121.707(b) *Related Design JTIs:* 1. Check that the Certificate Holder has a system that ensures report(s), required by 121.707 contain at least the identification of the altered airframe, aircraft engine, propeller or appliance. The report(s) should provide a means of positively identifying each altered item and its technical data approval basis.. *Sources:* 121.707; FAA Order 8900.1, Volume 3, Chapter 31, Section 5, Paragraph 3080(E). *Interfaces:* 1.3.9(AW); 1.3.14(AW)	☐ Yes ☐ No, Explain
1.7.	Does the certificate holder's Major Alteration and Repair Records process include instructions and information for personnel to make available, to the Administrator, a list of major structural alterations for an airplane which an aging airplane inspection and records review is required?	☐ Yes ☐ No, Explain ☐ Not Applicable

	SRRs: 121.135(a)(1); 121.368(d)(9)	
1.8.	Does the certificate holder's Major Alteration and Repair Records process include instructions and information for personnel to make available, to the Administrator a report of major structural repairs, and the current inspection status for those repairs, for an airplane which an aging airplane inspection and records review is required? SRRs: 121.135(a)(1); 121.368(d)(10)	☐ Yes ☐ No, Explain ☐ Not Applicable

1.9.	Does the certificate holder's Major Repairs and Alterations Records process comply with the guidance contained in FAA Order 8900.1, Volume 3, Chapter 31, Section 5?
	
	Related Design JTIs:
	
	1. Check that the Certificate Holder's system ensures a current list of major alterations has the associated item to which the major alteration has been installed, the list of major alterations contains a description, or reference to the FAA- approved technical data used to make the major alteration, and ensures detailed records of all unscheduled maintenance that has not been superseded by work of equivalent scope and detail for major repairs.
	
	    Sources: FAA Order 8900.1, Volume 3, Chapter 31, Section5, Paragraph 3079.
	
	    Interfaces: 1.3.9(AW); 1.3.14(AW)
	
	2. Check that the Certificate Holder's system ensures a list of major alteration and/or reports of major repairs contains the date of accomplishment.
	
	    Sources: FAA Order 8900.1, Volume 3, Chapter 31, Section 5, Paragraph 3079.
	
	    Interfaces: 1.3.9(AW); 1.3.14(AW)
		☐ Yes
		☐ No, Explain

2.	Does the certificate holder's manual contain general policies for the Major Repairs and and Alterations Records process that comply with the SRRs? SRRs: 121.135(b)(1); 121.380(a)(2)(vii); 121.707(a); 121.707(b); 121.380a(a); 43.5(b)	☐ Yes ☐ No, Explain
3.	Does the certificate holder's manual reference the appropriate Federal Aviation Regulations listed in the Supplemental Information section of this safety attribute inspection (SAI)? SRRs: 121.135(b)(3)	☐ Yes ☐ No, Explain
4.	Does the certificate holder's manual contain the duties and responsibilities for personnel who will accomplish the Major Repairs and Alterations records process? SRRs: 121.135(b)(2)	☐ Yes ☐ No, Explain
5.	Does the certificate holder's manual include instructions and information for personnel to meet the requirements of the Major Repairs and Alterations Records process? SRRs: 121.135(a)(1)	☐ Yes ☐ No, Explain

SAI Section 1 - Procedures Attribute Drop-Down Menu
1. No procedures, policy, instructions or information specified.
2. Procedures or instructions and information do not identify (who, what, when, where, how).
3. Procedures, policy or instructions and information do not comply with CFR.
4. Procedures, policy or instructions and information do not comply with FAA policy and guidance.
5. Procedures, policy or instructions and information do not comply with other documentation (e.g., manufacturer's data, Jeppesen's Charts, etc.).
6. Procedures, policy or instructions and information unclear or incomplete.
7. Documentation quality (e.g., unreadable or illegible).
8. Procedures, policy or instructions and information inconsistent across Certificate Holder manuals (FOM - Flight Operations Manual to GMM - General Maintenance Manual, etc.).
9. Procedures, policy or instructions and information inconsistent across media (e.g., paper, microfiche, electronic).
10. Resource requirements incomplete (personnel, facilities, equipment, technical data).
11. Other.

SAI Section 2 - Controls Attribute

Objective: Controls are checks and restraints designed into a process to ensure a desired result. The questions in this section of the DCT are designed to assist the inspector in determining if checks and restraints are designed into the process to ensure the desired result is achieved. Controls should be written into the system to ensure that the most important policies, procedures, or instructions and information will be followed.

Controls may be in the form of administrative controls, which are secondary or supplemental written procedures. Like written procedures, administrative controls also need to provide answers to questions regarding who, what, when, where, and how. Controls may also be in the form of engineered controls, such as automated features or mechanical actions or devices (i.e., safety devices, warning devices, etc.).

Tasks
To meet this objective, the inspector must accomplish the following tasks:
1. Review the control questions below.
2. Review the certificate holder's policies, procedures, instructions, and information to gain an understanding of the controls that it has documented.

Questions		
	To meet this objective, the inspector must answer the following questions:	
1.	Are the following controls built into the Major Repairs and Alterations Records process:	
1.1.	Is there a control or controls in place to ensure that the certificate holder promptly prepares a report of each major repair or major alteration upon its completion?	☐ Yes ☐ No, Explain
1.2.	Is there a control or controls in place to ensure that the certificate holder submits a copy of each report of a major alteration to the representative of the Administrator who is assigned to it?	☐ Yes ☐ No, Explain
1.3.	Is there a control or controls in place to ensure that the certificate holder keeps a list of current major alterations to each airframe, engine, propeller, and appliance?	☐ Yes ☐ No, Explain
1.4.	Is there a control or controls in place to ensure that the certificate holder keeps a copy of each report of a major repair available for inspection by the representative of the Administrator?	☐ Yes ☐ No, Explain
2.	Does the certificate holder have a documented method for assessing the impact of any changes made to the controls in the Major Repairs and Alterations Records process?	☐ Yes ☐ No, Explain

SAI Section 2 - Controls Attribute Drop-Down Menu	
1.	No controls specified.
2.	Documentation for the controls do not identify (who, what, when, where, how).
3.	Controls incomplete.
4.	Controls could be circumvented.
5.	Controls could be unenforceable.
6.	Resource requirements incomplete (personnel, facilities, equipment, technical data).
7.	Other.

	SAI Section 3 - Process Measurement Attribute

Objective: Process measurements are used by the certificate holder to measure and assess its processes, to identify and correct problems or potential problems, and to make improvements to the processes. The questions in this section of the DCT are designed to assist the inspector in determining if the certificate holder measures or assesses information to identify, analyze, and document potential problems with the process. Process measurements are a certificate holder's internal evaluation or auditing of the most important policies, procedures, or instructions and information associated with an element.

To prevent the duplication of work, process measurements are most commonly addressed through a combination of auditing features contained in both the certificate holder's safety program/internal evaluation program (for operations and cabin safety related issues) and the auditing function of the Continuous Analysis and Surveillance System (for airworthiness or maintenance/inspection related issues). The director of safety and the quality assurance department often work together to accomplish this function for the certificate holder. This approach requires amendment of the safety program/internal evaluation program audit forms or checklists and the Continuous Analysis and Surveillance System audit forms or checklists to include the specific process measurements for each element.

Tasks	
	To meet this objective, the inspector must accomplish the following tasks:
1.	Review the process measurement questions below.
2.	Review the certificate holder's policies, procedures, instructions, and information to gain an understanding of the process measurements that it has documented.

Questions		
	To meet this objective, the inspector must answer the following questions:	
1.	Does the certificate holder's Major Repairs and Alterations Records process include the following process measurements:	
1.1.	Is there a process measurement or process measurements that would identify if the certificate holder failed to promptly prepare a report for each major repair or major alteration upon its completion?	☐ Yes ☐ No, Explain
1.2.	Is there a process measurement or process measurements that would identify if the certificate holder failed to submit a copy of each report of a major alteration to the representative of the Administrator who is assigned to it?	☐ Yes ☐ No, Explain
1.3.	Is there a process measurement or process measurements that would identify if the certificate holder failed to keep a list of current major alterations to each airframe, engine, propeller, and appliance?	☐ Yes ☐ No, Explain
1.4.	Is there a process measurement or process measurements that would identify if the certificate holder failed to keep a report for each major repair available for inspection by the representative of the Administrator?	☐ Yes ☐ No, Explain
2.	Is there a process measurement or process measurements that would reveal if the certificate holder s policy, procedures, instructions, and information were not followed?	☐ Yes ☐ No, Explain

3.	Does the certificate holder document its process measurement results?	☐ Yes ☐ No, Explain
4.	Does the certificate holder use its process measurement results to improve its programs?	☐ Yes ☐ No, Explain
5.	Does the organization that conducts the process measurements have direct access to the person with responsibility for the Major Repairs and Alterations Records process?	☐ Yes ☐ No, Explain

SAI Section 3 - Process Measurement Attribute Drop-Down Menu
1.   No process measurements specified.
2.   Documentation for the process measurements does not identify (who, what, when, where, how).
3.   Inability to identify negative findings.
4.   No provisions for implementing corrective actions.
5.   Ineffective follow-up to determine effectiveness of corrective actions.
6.   Resources requirements (personnel, facilities, equipment, technical data).
7.   Other.

SAI Section 4 - Interfaces Attribute

Objective: Interfaces are used by the certificate holder to identify and manage the interactions between processes. The questions in this section of the DCT are designed to assist the inspector in determining whether or not interactions between the policies, procedures, or instructions and information associated with other independent processes within the certificate holder's organization are documented. Written policies, procedures, or instructions and information that are interrelated and located in different areas within the certificate holder's system must be consistent and complement each other. For the interfaces to be effectively managed, the certificate holder's system should identify and document the interfaces.

Tasks	
	To meet this objective, the inspector must accomplish the following tasks:
1.	Review the interfaces associated with the Major Repairs and Alterations Records process that have been identified along with the individual questions in section 1, Procedures, of this DCT.
2.	Review the certificate holder's policies, procedures, instructions, and information to gain an understanding of the interfaces that it has documented.

Questions		
	To meet this objective, the inspector must answer the following questions: NOTE: The design job task items (JTIs) displayed with the questions in section 1, Procedures, of this DCT identify potential interfaces (by element number) for this element	
1.	Does the certificate holder's system properly address the interfaces that are identified along with the questions in section 1, Procedures, of this DCT?	☐ Yes ☐ No, Explain
2.	Does the certificate holder document a method for assessing the impact of any changes to the associated interfaces within the Major Repairs and Alterations Records process?	☐ Yes ☐ No, Explain

SAI Section 4 - Interfaces Attribute Drop-Down Menu
1.   No interfaces specified.
2.   The following interfaces not identified within the Certificate Holder's manual system:
3.   Interfaces listed are inaccurate.
4.   Specific location of interfaces not identified within the manual system.
5.   Other

SAI Section 5 - Management Responsibility & Authority Attributes

Objective: The questions in this section of the DCT address the responsibility and authority of the process. They are designed to assist the inspector in determining if there is a clearly identifiable, qualified, and knowledgeable person who is responsible for the process, is answerable for the quality of the process, and has the authority to establish and modify the process. (The person with the authority may or may not be the person with the responsibility.)

Tasks	
	To meet this objective, the inspector must accomplish the following tasks:
1.	Identify the person who has overall responsibility for the Major Repairs and Alterations Records process.
2.	Identify the person who has overall authority for the Major Repairs and Alterations Records process.
3.	Review the duties and responsibilities of the person(s) documented in the certificate holder's manual.
4.	Review the appropriate organizational chart.

Questions		
	To meet this objective, the inspector must answer the following questions:	
1.	Does the certificate holder clearly identify who is responsible for the quality of the Major Repairs and Alterations Records process?	☐ Yes ☐ No, Explain Name/Title:
2.	Does the certificate holder clearly identify who has authority to establish and modify the policies, procedures, instructions, and information for the Major Repairs and Alterations Records process?	☐ Yes ☐ No, Explain Name/Title:
3.	Does the certificate holder's manual include the duties and responsibilities of those who manage the work required by the Major Repairs and Alterations Records process? SRRs: 121.135(b)(2)	☐ Yes ☐ No, Explain
4.	Does the certificate holder s manual include instructions and information for those who manage the work required by the Major Repairs and Alterations Records process? SRRs: 121.135(a)(1)	☐ Yes ☐ No, Explain
5.	Does the certificate holder clearly and completely document the responsibility for this position?	☐ Yes ☐ No, Explain
6.	Does the certificate holder clearly and completely document the authority for this position?	☐ Yes ☐ No, Explain
7.	Does the certificate holder clearly and completely document its qualification standards for the person having responsibility for the Major Repairs and Alterations Records process?	☐ Yes ☐ No, Explain
8.	Does the certificate holder clearly and completely document its qualification standards for the person having authority to establish and modify the certificate holder's policies, procedures, instructions, and information for the Major Repairs and Alterations Records process?	☐ Yes ☐ No, Explain

9.	Does the certificate holder clearly and completely document the procedures for delegation of authority for the Major Repairs and Alterations Records process?	☐ Yes ☐ No, Explain

SAI Section 5 - Management Responsibility & Authority Attributes Drop-Down Menu
1.   Not documented.
2.   Documentation unclear.
3.   Documentation incomplete.
4.   Other.