

**Element Performance Inspection (EPI) Data Collection Tool**  
**1.3.17 Weight and Balance Program (AW)**

**ELEMENT SUMMARY INFORMATION**

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

- To ensure the aircraft weight and center of gravity are accurately calculated and current records are maintained.

**Objective** (FAA oversight):

- To determine the effectiveness of the certificate holder's procedures in meeting the desired output of the process.
- To determine if the certificate holder follows its procedures, controls, process measurements and interfaces for the Weight and Balance Program.
- To determine if there were any changes in the personnel identified by the certificate holder as having responsibility and/or authority for the Weight and Balance Program.

**Specific Instructions:**

- To accomplish this EPI, the inspector shall ensure the certificate holder follows its policies and procedures for Weight and Balance. The inspector shall ensure the certificate holder maintains Weight and Balance records, and provides flight crew with proper Weight and Balance information.

**Related EPIs:**

- 1.2.1 Airworthiness Release / Logbook Entry (AW)
- 1.3.1 Maintenance Program (AW)
- 1.3.2 Inspection Program (AW)
- 1.3.3 Maintenance Facility / Main Maintenance Base (AW)
- 1.3.8 Control of Calibrated Tools and Test Equipment (AW)
- 1.3.9 Engineering / Major Repairs and Alterations (AW)
- 1.3.14 General Maintenance Manual / Equivalent (AW)
- 4.2.1 Maintenance Training Program (AW)
- 5.1.1 Line Stations (AW)

**SUPPLEMENTAL INFORMATION**

**Specific Regulatory Requirements (SRRs):**

- SRRs:
  - 119.43(b)
  - 119.43(b)(1)
  - 119.43(b)(2)
  - 119.43(c)
  - 119.49(a)(9)
  - 119.49(b)(9)
  - 121.135(a)(1)
  - 121.135(b)(1)
  - 121.135(b)(2)
  - 121.135(b)(21)

- SRRs:  
121.135(b)(3)  
E.096  
E.096a  
E.096b

**Related CFRs & FAA Policy/Guidance:**

- Related CFRs:  
Intentionally left blank
- FAA Policy/Guidance:  
FAA Order 8900.1, Volume 3, Chapter 46  
FAA Order 8900.1, Volume 3, Chapter 47  
AC-120-27E

<b>EPI Section 1 - Performance Observables</b>	
<b>Objective:</b> The tasks and questions in this section of the data collection tool (DCT) are designed to assist the inspector in determining if the certificate holder follows its written procedures and controls and meets the established performance measures of the process. To accomplish this, questions have been generated to test both the outputs of the process as well as the process itself. Question 1 and its following subquestions are directed at the output(s) of the process, whereas questions 2-6, when answered, should be directed at the process itself.	
<b>Tasks</b>	
	To meet this objective, the inspector must accomplish the following tasks:
1.	Review information listed in the Supplemental Information section of this DCT.
2.	Review the certificate holder's policies, procedures, instructions, and information for the Weight and Balance Program.
3.	Review the last accomplished associated safety attribute inspection (SAI) for this element with emphasis on the controls, process measurements, and interface attribute section responses.
4.	Observe the certificate holder's Weight and Balance Program to gain an understanding of the procedures, instructions, and information.
5.	Discuss the Weight and Balance Program with the personnel (other than management) who perform the duties and responsibilities required by the program.

<b>Questions</b>		
	To meet this objective, the inspector must answer the following questions:	
1.	Determine whether the following performance measures were met:	
1.1.	<p>Did the certificate holder ensure the aircraft was configured to the current equipment list before weighing the aircraft?</p> <p><i>Related Performance JTIs:</i></p> <ol style="list-style-type: none"> <li>1. Check at the records repository that any leased aircraft under a short term lease arrangement have current weight and balance data in accordance with the certificate holder's design. <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 46, Paragraph 3-3948A4</li> <li>2. Check at the records repository that aircraft are being periodically re-weighed and having its data reevaluated in accordance with the certificate holder's design. <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3968B</li> <li>3. Check at the air carrier operated maintenance facility that a designated person follows pre-weighing instructions and requirements in accordance with the certificate holder's design. <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2</li> <li>4. Check at the contract maintenance facility that a designated person follows pre-weighing instructions and requirements in accordance with the certificate holder's design. <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2</li> <li>5. Check at the air carrier specified location that a designated person follows pre-weighing instructions and requirements in accordance with</li> </ol>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

	<p>the certificate holder's design.  <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2</p> <p>6. Check at the records repository that a current equipment list is maintained for each aircraft in accordance with the certificate holder's design.  <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2</p> <p>7. Check at the air carrier operated maintenance facility that when weighing an aircraft the airplane weight, residual fluids, scale tare weights and type and serial number for each scale used is recorded in accordance with the certificate holder's design.  <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2</p> <p>8. Check at the air carrier operated maintenance facility that when weighing an aircraft the airplane weight, residual fluids, scale tare weights and type and serial number for each scale used is recorded in accordance with the certificate holder's design.  <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2</p> <p>9. Check at the contract maintenance facility that when weighing an aircraft the airplane weight, residual fluids, scale tare weights and type and serial number for each scale used is recorded in accordance with the certificate holder's design.  <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2</p> <p>10. Check at the contract maintenance facility that when weighing an aircraft the airplane weight, residual fluids, scale tare weights and type and serial number for each scale used is recorded in accordance with the certificate holder's design.  <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2</p> <p>11. Check at the air carrier specified location that when weighing an aircraft the airplane weight, residual fluids, scale tare weights and type and serial number for each scale used is recorded in accordance with the certificate holder's design.  <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2</p> <p>12. Check at the air carrier specified location that when weighing an aircraft the airplane weight, residual fluids, scale tare weights and type and serial number for each scale used is recorded in accordance with the certificate holder's design.  <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2</p> <p>13. Check at the aircraft that the designated person ensures that aircraft are configured in accordance with approved data and the certificate holder's design.  <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2</p>	
1.2.	Did the certificate holder ensure the pre-weighing instructions and requirements were met?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

1.3.	<p>Did the certificate holder weigh its aircraft using calibrated equipment that was traceable to a national standard?</p> <p><i>Related Performance JTIs:</i></p> <ol style="list-style-type: none"> <li>1. Check at the air carrier specified location that scales used to weigh aircraft are calibrated and traceable to a national standard in accordance with the certificate holder's design. <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2 AC 120-27C Paragraph 7 f</li> <li>2. Check at the air carrier specified location that scales used to weigh aircraft are zeroed, and used in accordance with the certificate holder's design. <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2 AC 120-27C Paragraph 7 f</li> <li>3. Check at the air carrier operated maintenance facility that scales used to weigh aircraft are zeroed, and used in accordance with the certificate holder's design. <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2 AC 120-27C Paragraph 7 f</li> <li>4. Check at the contract maintenance facility that scales used to weigh aircraft are zeroed, and used in accordance with the certificate holder's design. <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2 AC 120-27C Paragraph 7 f</li> <li>5. Check at the air carrier specified location that scales were periodically calibrated either by the manufacturer or in accordance with the civil authority for weights and measures having jurisdiction over the area in which the scales are used in accordance with the certificate holder's design. <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B2 AC 120-27C Paragraph 7 f</li> <li>6. Check at the air carrier specified location that if a contractor is utilized to weigh items, the contractor complies with Certificate Holder's approved weight and balance control program, including calibration of scales in accordance with the certificate holder's design. <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3979</li> <li>7. Check at the contract maintenance facility that if a contractor is utilized to weigh items, the contractor complies with Certificate Holder's approved weight and balance control program, including calibration of scales in accordance with the certificate holder's design. <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3979</li> <li>8. Check at the air carrier specified location that if a contractor was utilized to weigh items, their records reflect compliance with the Certificate Holder's approved weight and balance control program, including calibration of scales in accordance with the certificate holder's design. <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3979</li> <li>9. Check at the contact maintenance facility that if a contractor was utilized to weigh items, their records reflect compliance with the Certificate Holder's approved weight and balance control program, including calibration of scales in accordance with the certificate holder's design. <i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3979</li> </ol>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.4.	Did the certificate holder ensure the aircraft was accurately weighed and the	<input type="checkbox"/> Yes

	<p>weight and center of gravity accurately calculated?</p> <p><i>Related Performance JTIs:</i></p> <ol style="list-style-type: none"> <li>1. Check at the air carrier specified location that changes to the aircraft individual or fleet empty weight and CG is monitored its data recalculated, if necessary, in accordance with the certificate holder's design.</li> </ol> <p><i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3968B</p>	<input type="checkbox"/> No, Explain
1.5.	<p>Did the certificate holder weigh and reweigh their aircraft at intervals specified in their approved Weight and Balance Program?</p> <p><i>Related Performance JTIs:</i></p> <ol style="list-style-type: none"> <li>1. Check at the records repository that aircraft were weighed at the intervals that were approved by the PMI in accordance with the Certificate Holder's design.</li> </ol> <p><i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3971F</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.6.	<p>Were personnel trained on the methods and techniques in the certificate holder's Weight and Balance Program for weighing the aircraft and calculating the weight and center of gravity?</p> <p><i>Related Performance JTIs:</i></p> <ol style="list-style-type: none"> <li>1. Check at the training center after completing a review of the weight and balance records and recording the personnel that completed and signed for the weighing of the aircraft. Check that those personnel have been trained in accordance with the certificate holder's design.</li> </ol> <p><i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B7</p> <ol style="list-style-type: none"> <li>2. Check at the training center that records can be provided of those personnel who have completed training in weigh and balance and specifically, weighing an aircraft to establish weight and balance and CG of an aircraft in accordance with the certificate holder's design.</li> </ol> <p><i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3988B8</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.7.	<p>Did the certificate holder maintain a complete, current, and continuous weight and balance record of alterations and changes affecting either the weight and/or center of gravity of the aircraft?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.8.	<p>Did the certificate holder reestablish the weight and center of gravity when the cumulative change was more than plus or minus one-half of 1 percent (0.5 percent) of the maximum landing weight, or whenever the cumulative change in the CG position exceeded one-half of 1 percent (0.5 percent) of the mean aerodynamic chord (MAC)?</p> <p><i>Related Performance JTIs:</i></p> <ol style="list-style-type: none"> <li>1. Check at the records repository that aircraft are being periodically reweighed and having its data reevaluated in accordance with the certificate holder's design.</li> </ol> <p><i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3968B</p> <ol style="list-style-type: none"> <li>2. Check at the air carrier specified location that changes to the aircraft individual or fleet empty weight and CG is monitored its data recalculated, if necessary, in accordance with the certificate holder's design.</li> </ol> <p><i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3968B</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

1.9.	<p>Did the certificate holder properly rotate all aircraft when using periodic fleet weights to weigh their aircraft?</p> <p><i>Related Performance JTIs:</i></p> <ol style="list-style-type: none"> <li>1. Check at the records repository that aircraft operating under fleet weights meet established operating weight and CG position limits as authorized by OPSSPECS in accordance with the certificate holder's design.</li> </ol> <p><i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, paragraph 3-3972B2</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable
1.10.	<p>When aircraft were added to the the fleet, did the certificate holder have an initial empty weight and CG established in accordance with their procedures?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable
1.11.	<p>Did the certificate holder amend the Weight and Balance Program to accommodate leased aircraft?</p> <p><i>Related Performance JTIs:</i></p> <ol style="list-style-type: none"> <li>1. Check at the records repository that the weight and balance program was amended to accommodate any leased aircraft that are intended to be maintained in accordance with the lessor's program in accordance with the Certificate Holder's design.</li> </ol> <p><i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 46, Paragraph 3-3944</p> <ol style="list-style-type: none"> <li>2. Check at the FAA location that the weight and balance program was amended to accommodate any leased aircraft that are intended to be maintained in accordance with the lessor's program in accordance with the certificate holder's design.</li> </ol> <p><i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 46, Paragraph 3-3944</p> <ol style="list-style-type: none"> <li>3. Check at the dispatch center that the weight and balance program was amended to accommodate any leased aircraft that are intended to be maintained in accordance with the lessor's program in accordance with the certificate holder's design.</li> </ol> <p><i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 46, Paragraph 3-3944</p> <ol style="list-style-type: none"> <li>4. Check at the records repository that any leased aircraft under a short term lease arrangement have current weight and balance data in accordance with the certificate holder's design.</li> </ol> <p><i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 46, Paragraph 3-3948A4</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable
1.12.	<p>Did the certificate holder have aircraft specific weight and balance information available for use by flight crews and dispatch?</p> <p><i>Related Performance JTIs:</i></p> <ol style="list-style-type: none"> <li>1. Check at the dispatch center that the dispatchers are using the approved weight and balance control system based on average, assumed, or estimated weight to comply with applicable airworthiness requirements and operating limitations in accordance with the certificate holder's design.</li> </ol> <p><i>Sources:</i> 121.153(b)</p> <ol style="list-style-type: none"> <li>2. Check at the dispatch center that the approved weight and balance control system was used based on average, assumed, or estimated weight to comply with applicable airworthiness requirements and operating limitations in accordance with the certificate holder's design.</li> </ol>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

	<p><i>Sources:</i> 121.153(b)</p> <p>3. Check at the dispatch center that the weight and balance program was amended to accommodate any leased aircraft that are intended to be maintained in accordance with the lessor's program in accordance with the certificate holder's design.</p> <p><i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 46, Paragraph 3-3944</p> <p>4. Check at the aircraft cockpit that aircraft do not exceed the authorized weight and balance limitations during all ground and flight operations in accordance with the certificate holder's design.</p> <p><i>Sources:</i> FAA Order 8900.1, Volume 3, Chapter 47, Paragraph 3-3968B</p>	
2.	Were the certificate holder's policies, procedures, instructions and information for the Weight and Balance Program followed?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
3.	Were the Weight and Balance Program controls followed?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
4.	Did the records for the Weight and Balance Program comply with the instructions provided by the certificate holder's?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
5.	Were the process measurements for the Weight and Balance Program effective in identifying problems or potential problems and providing corrective action for them?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
6.	Did personnel properly handle the associated interfaces by complying with other written policies, procedures, instructions and information that are related to this element?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain



<b>EPI Section 1 - Performance Observables Drop-Down Menu</b>	
1.	Personnel.
2.	Tools and Equipment.
3.	Technical Data.
4.	Procedures, policies or instructions or information.
5.	Materials.
6.	Facilities.
7.	Controls.
8.	Process Measures.
9.	Interfaces.
10.	Desired Outcome.
11.	Other.

### EPI Section 2 - Management Responsibility & Authority Observables

**Objective:** The questions in this section 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:
	NOTE: If no personnel or major program changes (as defined by the principal inspector (PI)) affecting the responsibility or authority attributes for this element have occurred since the last SAI and/or EPI was accomplished, then do not perform tasks 3-6, below. Answer questions 1 and 2 below, and provide the name/title.
1.	Identify the person who has overall responsibility for the Weight and Balance Program.
2.	Identify the person who has overall authority for the Weight and Balance Program.
3.	Review the duties and responsibilities for the person(s) who manage the Weight and Balance Program.
4.	Review the appropriate organizational chart.
5.	Discuss the Weight and Balance Program with the management personnel identified in tasks 1 and 2.
6.	Evaluate the qualifications and work experience of the management personnel identified in tasks 1 and 2.

#### Questions

	To meet this objective, the inspector must answer the following questions:	
1.	Is there a clearly identified person who is responsible for the quality of the Weight and Balance Program?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain Name/Title:
2.	Is there a clearly identified person who has authority to establish and modify the certificate holder's policies, procedures, instructions and information for the Weight and Balance Program?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain Name/Title:
3.	Does the responsible person know that he/she has responsibility for the Weight and Balance Program?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> No Change
4.	Does the person with authority know that he/she has authority for the Weight and Balance Program?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> No Change
5.	Does the person with responsibility for the Weight and Balance Program meet the qualification standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> No Change
6.	Does the person with authority to establish and modify the Weight and Balance Program meet the qualification standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> No Change

7.	Does the person with responsibility understand the controls, process measurements and interfaces associated with the Weight and Balance Program?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> No Change
8.	Does the person with authority understand the controls, process measurements and interfaces associated with the Weight and Balance Program?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> No Change
9.	Does the responsible person know who has authority to establish and modify the Weight and Balance Program?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> No Change
10.	Does the individual with authority know who has the responsibility for the Weight and Balance Program?	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> No Change

<b>EPI Section 2 - Management Responsibility &amp; Authority Observables Drop-Down Menu</b>	
1.	Assignment of responsibility.
2.	Assignment of authority.
3.	Does not understand procedures, policies or instructions and information.
4.	Does not understand controls.
5.	Does not understand process measurements.
6.	Does not understand interfaces.
7.	Span of control.
8.	Position vacant.
9.	Other.