Chapter 3 Planning

Section 1 Safety Assurance System: Module 2 Planning

10-3-1-1 General. The principal inspector (PI)/certification project manager (CPM) assesses the certificate holder’s or applicant’s systems and operating environment for indications of hazards. This process helps to highlight risks and identify areas on which to focus attention. The Comprehensive Assessment Plan (CAP) is a tool for planning, documenting, and tracking assessments. The PI/CPM uses the CAP to add assessments and Data Collection Tools (DCT), adjust the resource order, adjust due dates of assessments, and record the reasons for making adjustments. The PI/CPM uses risk indicators in the Certificate Holder Assessment Tool (CHAT) to associate risk to the certificate holder’s or applicant’s proposed or current operating system.

NOTE: Security is an important feature of the Safety Assurance System (SAS) automation. If a SAS user detects a security breach, or there is an indication of a security risk, he or she should immediately notify the office SAS Security Auditor or SAS Administrator. See Volume 10, Chapter 1, Section 1, Subparagraph 10-1-1-5J, Security Risks, for more information.

A. Purpose. The planning process is used to assess the scope of operation and develop a risk-based, data-supported CAP.

B. Scope. In Module 2, Planning, the PI/CPM will:

- Review and assess planning data;
- Review and update the CHAT;
- Review, adjust, and validate the CAP; and
- Forward the CAP to management for the next process, Module 3, Resource Management.

10-3-1-3 Reserved.

10-3-1-5 Background. SAS encompasses certification, routine surveillance, and certificate management processes for the Federal Aviation Administration (FAA) to perform oversight of certificate holders. It assesses the safety of Title 14 of the Code of Federal Regulations (14 CFR) parts 121, 135, and 145 certificate holders’ operating systems using system safety principles, Safety Attributes, and risk management (RM). SAS also assesses the requirement to provide service at the highest level of safety in the public interest. Module 2 is used by the PI/CPM to develop a risk-based, data-supported CAP. This plan assists the PI/CPM with decisions about the certificate holder’s or applicant’s compliance with regulations and the design of the programs. Module 2 consists of the CHAT and CAP.
10-3-1-7 PLANNING.

Figure 10-3-1A. Module 2 Planning Process Flowchart

10-3-1-9 PROCEDURES.

A. Review and Assess Planning Data (see flowchart process step 10-3-1-9A).

The first step in this process is for the PI/CPM to review and assess the planning data to identify risk in the certificate holder’s or applicant’s system and operating environment. The review of planning data is conducted quarterly for part 121 and at least annually for parts 135 and 145. The PI/CPM assembles planning data from various sources and inputs.

1) Inputs to Planning.

a) Analysis and Assessment. The input from the Analysis and Assessment (Module 5) portion of the Analysis, Assessment, and Action (AAA) is used when the PI/CPM determines more data collection is required to make an assessment determination. PIs will use data information acquired through the AAA process to determine input into the planning process.

b) Action. The input from the Action (Module 5) portion of the AAA is used when the PI/CPM determines, based on the assessment results, that change is required to be made to the current risk indicators in the CHAT. After making changes to the CHAT, the PI may make plans for future assessments. The PI should update the CHAT with any newly identified risk. If actions have already been addressed in the AAA, the PI may document “No Action Required.”

c) Configuration. Input from the configuration helps the PI/CPM plan activities specific to the certificate holder’s or applicant’s new or changed scope of operation.

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d) Resource Management. If management does not agree with the PI/CPM’s plan, the PI/CPM may need to work with the Frontline Manager (FLM)/Office Manager (OM) to make changes to the plan.

e) Safety Performance Analysis System (SPAS). Provides a detailed data package for the selected element, system, or subsystem that is useful for planning and analysis.

f) National Safety Analysis (NSA). The Safety Analysis and Promotion Division’s Analysis and Information Program Office (AIPO) provides national-level analysis which may result in a baseline interval (criticality) of an assessment and/or a National Custom Data Collection Tool (C DCT). AIPO uses the NSA functional analysis to identify new hazards and recommend actions to mitigate the associated risks.

g) Other Sources of Planning Data:

1. Feedback from Team Members. This feedback can be gathered and used to support the development of the CAP and CHAT.

2. Operations Research Analyst (ORA). The ORA is available to review internal and external data.

3. SAS Reports. SAS reports are available in tableau format to any SAS user from the SAS automation. A list of reports is located in the SAS Automation User Guide (AUG).

4. Program Tracking and Reporting Subsystems (PTRS). PTRS data can provide additional information to help the PI/CPM evaluate planning data.

5. Commercial Aviation Safety Team (CAST) Safety Portfolio. The CAST Safety Portfolio provides information on Safety Enhancements (SE) developed by the CAST. Data shows that CAST SEs, when implemented by the certificate holder, contribute to our goal of the highest level of safety and overall safety strategy to help identify hazards and risk.

   a. The CAST Safety Portfolio is provided by the Safety Analytical Services Division (AVP-200). It is located in the SAS Resource Guide (SRG) and is updated periodically. A broadcast message is sent to all SAS users to announce when a new version of the CAST Safety Portfolio is added to the SRG. (Refer to the Department of Transportation (DOT) Office of the Inspector General (OIG) Audit Report AV-2014-017, FAA’s Safety Data Analysis and Sharing System Shows Progress, but More Advanced Capabilities and Inspector Access Remain Limited.)

   b. Participation in the CAST SE program is voluntary for the certificate holder. Operations Specification (OpSpec) Part S, Voluntary Data Submission, is used to collection voluntary SE reporting (see Volume 3, Chapter 18, Section 12).
c. A part 121 PI must review the CAST Safety Portfolio during the planning meeting, regardless of certificate holder participation, to become familiar with new and existing SEs. To assist with the review, it is recommended that the PI coordinate with an ORA to help determine if there is existing risk. If a certificate holder is not implementing CAST SEs, it may be an indicator of risk in the associated program area. If risk is identified with an SE, then the PI must document the risk in the CHAT by selecting the risk indicator, “Voluntary Programs,” and the appropriate action should be taken.

d. System or Subsystem Performance Assessment (SPA) 1.1 (OP) and (AW) Safety Programs will be used to assess and document the certificate holder’s application and implementation of the SEs.

6. Safety Risk Management (SRM) and Safety Assurance (SA) Documentation. For applicable certificate holders, the PI/CPM reviews the SRM and SA documentation to ensure the certificate holder is effectively identifying and mitigating risk.

7. Planning for Coordinated Surveillance Report. A link to the report is on the CAP. For part 145 PIs, the report will display assessments planned for Essential Maintenance Providers (EMP) based on their CAP.

8. PI Instructions to Identify Risk for En Route Inspection and Random Inspection (RI) C DCTs. Anytime risk is identified that impacts the En Route inspection and/or RI C DCTs, PIs create or update the PI instructions on the template. The PI instructions entered on the En Route inspection and RI C DCT template will be included on both the unplanned (ad hoc) and planned (CAP) C DCT. PIs have the ability to change the PI common instructions and add additional DCT assignment instructions when adding an En Route inspection/RI C DCT to the CAP.

a. To update the template, select the “Manage My PI Custom DCT Templates” tab, then select “En Route” or “Random” from the “DCT Type” drop-down. The PI instructions will be used to identify areas of risk they want observed by any aviation safety inspector (ASI) who conducts En Route inspections or RIs on the certificate holder. For example, if risk has been identified that maintenance items are not properly deferred, the PI would list that question ID (QID) from the En Route inspection or RI national template in the PI instructions. The questions cannot be removed or edited by the PI. The PI may include a header on the template describing the area, such as flight operations, airworthiness, dispatch, and cabin safety operations.

b. Airworthiness inspectors (Principal Avionics Inspectors (PAI)/Principal Maintenance Inspectors (PMI)) will coordinate and maintain a single “En Route” and a single “Random” template with PI instructions. Operations and Airworthiness PIs will maintain separate templates with their own instructions. The following are examples of the methods the PI may use to communicate special emphasis and risk areas through the PI instructions.
i. Example 1: Using the QID number:

- Airworthiness: Please respond to QID #15830.
- Flight Operations: Current and Qualified Pilots: Please respond to QID #15834.

ii. Example 2: PIs may list special emphasis items, risk items, and specific areas that need to be observed:

- Airworthiness: Ensure deferred items are documented in the aircraft log and notated on the dispatch release. Pay special attention to repair interval.
- Flight Operations: Ensure newly qualified pilots are complying with high minimums for takeoff and landing.

2) **Annual Planning Meeting.** Required for parts 121, 135, and 145. The annual planning meeting may be held in person or virtually. The purpose of this meeting is for the PI and office personnel to review and evaluate the certificate holder’s system and operating environment for risks, including the results from coordinated surveillance. The PIs will also coordinate and update the En Route inspection and RI C DCT template(s) with items identified during the meeting. This includes a review and update of the CHAT if the certificate holder’s risk has changed. Based on the results of the annual planning meeting, the PI develops or adjusts the CAP and updates the CHAT. The PI can schedule each of his or her certificates at different times during the year as long as each certificate is reviewed at least once per year.

3) **Quarterly Planning Review.** The purpose of the Quarterly Planning Review is for the PI and office personnel to review conditions that may affect the CHAT and CAP. Based on the results of the Quarterly Planning Review, the PI updates the CHAT and the En Route inspection/RI C DCT PI instructions with newly identified risk and adjusts the CAP, as necessary. The Quarterly Planning Review is optional for parts 121, 135, and 145 and may be held in person or virtually.

B. **Review/Update the CHAT(s) (see flowchart process step 10-3-1-9B).** Based on the review and assessment of the planning data, the PI/CPM updates the CHAT to reflect the risk identified during the AAA. This is done by selecting the risk indicators and then by selecting the associated PI option(s) (action) to address the risk. If risk indicators are selected, the PI/CPM must select an action and describe the reason for selecting the risk indicator and associated action in the comment text box.

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<table>
<thead>
<tr>
<th>If the PI:</th>
<th>Then the PI:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identified no risk in the annual review and no previous risk was identified for the certificate holder,</td>
<td>Selects “No Action” and must provide an appropriate explanation. (For example: No additional risk identified during the annual review, and no previous risk was monitored.)</td>
</tr>
<tr>
<td>Has not identified any new risk, but has previously identified risk,</td>
<td>Continues to monitor the previous risk in the Action Item Tracking Tool (AITT), selects “Clear” for a new CHAT record, selects “No Action Required,” and must provide an explanation. (For example: No additional risk identified during the annual review, previous risk identified is still being monitored during normal surveillance.)</td>
</tr>
<tr>
<td>Identified new risk,</td>
<td>Continues to monitor the previous risk in the AITT and selects “Clear” for a new CHAT record to document the new risk and the actions to mitigate, such as conducting additional surveillance or initiating a Risk Management Process (RMP).</td>
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</tbody>
</table>

NOTE: Clearing the CHAT will not close the previous version history of the risk identified in the CHAT that has not been mitigated. There is an AITT action associated with the previous CHAT record and the PI will document any additional actions or events in the AITT.

1) **CHAT.** The CHAT is an automated tool containing a list of risk indicators that helps the PI/CPM associate risk to a certificate holder’s/applicant’s current or proposed operating environment. There is one CHAT for Airworthiness and another for Operations. The CHAT contains a series of risk indicators that help the PI/CPM identify and document conditions that may expose hazards to their operation. At a minimum, the CHAT must be reviewed and updated annually during the planning meeting. If the certificate holder has a significant event, such as an accident, the PI should review/update the CHAT with any new risk and/or verify the previously identified risk is still accurate.

NOTE: For an initial certification, the CPM will not use the CHAT until the setup of the initial oversight plan.

2) **Complete the CHAT.** Having an accurate CHAT is essential to developing a CAP that is tailored to the certificate holder’s or applicant’s identified risk. When you identify one or more new risks in the CHAT, select the appropriate risk indicators and associated PI action(s) for each identified risk indicator. The CHAT is updated based on the results of Module 5, AAA. Module 5 closes the loop in the SAS model. The CHAT is reviewed after the AAA, anytime a change occurs, or at least annually. When the CHAT is submitted, the CHAT version is then updated. The risk indicators and PI options will autopopulate on the AITT once the CHAT is submitted.
a) Risk Indicators. Risk indicators are groupings of safety- and/or performance-related data that reflect areas of potential risks and help prioritize the CAP. The CHAT contains three risk indicator categories:

1. Performance History. Performance history is the results of the certificate holder’s operation over time (see Figure 10-3-1C, CHAT Performance History Risk Indicator and Descriptions by Peer Group).

2. Organizational. Organizational and environmental factors internal to the certificate holder organization, which can be managed to improve system stability and safety (see Figure 10-3-1D, CHAT Organizational Risk Indicator and Descriptions by Peer Group).

3. Operational. Organizational and environmental factors related to the certificate holder operations, which can be managed to improve system stability and safety (see Figure 10-3-1E, CHAT Operational Risk Indicator and Descriptions by Peer Group).

NOTE: “Financial Conditions,” “Rapid Growth or Downsizing,” and “Certificate Holder’s Management of Off-Hour Activities”: If the PI selects these risk indicators, then the PI must use the Financial Condition Assessment Decision Aid, the Rapid Growth/Downsizing Assessment Decision Aid, and/or the Off-Hour Decision Aid located in Volume 6, Chapter 2, Section 18. (Refer to the OIG Audit Report AV-2018-012, FAA Oversight Is Not Keeping Pace With the Changes Occurring in the Regional Airline Industry.)

b) PI Options. To evaluate the risk identified in the CHAT, the PI can select actions they would like to take to assess the scope of the risk and determine any mitigation needed. These options include:

<table>
<thead>
<tr>
<th>PI Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Element Design Assessment(s) (EDA)</td>
<td>Select this option if you want to revalidate the design of an affected program(s), or in certificate management oversight to approve or accept new or changed programs. Additional considerations to determine if this option is necessary would be if the operator exhibits:</td>
</tr>
<tr>
<td></td>
<td>• Inability to effectively perform a process, which may indicate an issue with the design;</td>
</tr>
<tr>
<td></td>
<td>• Failure in system controls, including an inability to reduce problems, which may indicate an issue with the design;</td>
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<tr>
<td></td>
<td>• Poorly documented procedures; and</td>
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<tr>
<td></td>
<td>• Rapid and widespread changes in personnel, procedures, or training that impact the design.</td>
</tr>
<tr>
<td>PI Options</td>
<td>Description</td>
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</table>
| **Adjust Priority or Resource Order** | Select this option if you want to adjust the priority or resource order of a Performance Assessment (PA) or Design Assessment (DA). More specific considerations to determine if this option is necessary to use would be if the operator exhibits:  
  - Increasing number of events or issues in the same system, subsystem, or element;  
  - Multiple data points in same area(s);  
  - Rapid and widespread changes in personnel, procedures, training, or infrastructure for a system, subsystem, or element;  
  - Inconsistent implementation of a procedure, process, or training within a system, subsystem, or element; and  
  - Perceived difficulty in performance of a system, subsystem, or element. |
| **Add Element Performance Assessment (EPA)** | Select this option if you want to target areas of interest. More specific considerations to determine if this option is necessary to use would be if the operator exhibits:  
  - Repeated events in different systems, subsystems, or elements that interface;  
  - Inconsistent implementation of a procedure, process, or training across systems, subsystems, or elements;  
  - Perceived difficulty in performance across systems, subsystems, or elements; and  
  - Broad changes to operations across systems, subsystems, or elements. |
| **Add C DCTs** | Select this option if you want to target areas of interest by using a select number of DCT questions. More specific considerations to determine if this option is necessary to use would be if the operator exhibits:  
  - Repeated events in different systems, subsystems, or elements that interface;  
  - Inconsistent implementation of a procedure, process, or training across systems, subsystems, or elements;  
  - Perceived difficulty in performance across systems, subsystems, or elements;  
  - Broad changes to operations across systems, subsystems, or elements; and  
  - A proactive approach to validate contracted maintenance through coordinated surveillance. |
| **Identify New Hazard (Request NSA Support)** | Select this option to request national-level support for a new hazard you identified. A new hazard is identified as one where the associated risk is not adequately controlled by current directives or risk controls do not exist to effectively mitigate risk (e.g., in the case of new or emerging technology that did not previously exist in the National Airspace System (NAS)). The hazard may be a systemic or a potentially systemic safety issue that may apply to multiple certificate holders. New hazards will be tracked in the AITT.  
  Note: Use of “Identify New Hazard (Request NSA Support)” must be coordinated with your manager. |
| **Initiate RMP** | Select this option if you want to initiate an RMP for an existing hazard. The PI identifies hazards involving the certificate holder knowingly or unknowingly accepting or generating an undesirable level of safety and there is enough information to assess the risk. The RMP is used to document and track an existing hazard and oversee and evaluate the disposition of the associated risk. |
| **No Action Required** | Select when the PI has determined that no action is required. No action is required when the risk has been previously identified and documented and action is being taken. |
3) **CHAT Report.** The CHAT Report is a list of certificate holder risk indicators and PI options, and is used to update the CAP.

C. **Are Changes Required to the CAP? (see flowchart process step 10-3-1-9C).** If the PI/CPM determines that, based on the results of the CHAT, changes are required to the CAP, see Step 10-3-1-9D, Add/Adjust Assessments and/or Custom DCTs in the CAP. If the PI/CPM determines that changes are not required, then see Step 10-3-1-9E, Review/Validate and Submit the CAP.

1) **What is the CAP?** The CAP is a 2-year plan to schedule SPAs. The following items may also be planned on the CAP (as needed):

   a) EPAs and EDAs. EPAs and EDAs are added or adjusted based on known risks or safety priorities.
   
   b) EMPs.
   
   c) C DCTs, as needed.
   
   d) En Route inspections, as needed.
   
   e) RIs (Ramp), as needed.

2) **Part 121/135 CAPs.** Each PI/CPM will have a CAP which will include assessments associated with their assigned certificate holders and applicants. Assessments may be shared between Maintenance and Avionics.

3) **Part 121/135/145 Airworthiness CAPs.** Parts 121, 135, and 145 have only one Airworthiness CAP. That CAP may be shared between Maintenance and Avionics. If one PI makes a change to the due date of an assessment, then it changes the CAP for the other PI. Because the CAP is shared, it is important that both the PMI and PAI coordinate with each other regarding any CAP changes.

4) **Certificate Holder Evaluation Process (CHEP) CAP.** The CHEP CAP assessments are added to the end of the CAP. Otherwise, it functions like all other CAPs.

5) **Initial Certification CAP.** The initial certification CAP is placed with the regular CAP. The assessments will not be limited by quarter.

6) **How is the CAP Organized?** The CAP defaults to criticality, due date, certificate holder or applicant (alpha/numeric), and then the Master List of Functions (MLF) label. The CAP is organized into four groups:

   - SPAs, EPAs, and EDAs;
   - C DCTs and EMP inspections;
   - Initial certification assessments; and
   - CHEP assessments.

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D. Add/Adjust Assessments and/or Custom DCTs in the CAP (see flowchart process step 10-3-1-9D). The PI/CPM can add assessments and DCTs and adjust assessment due dates and assessment interval and/or assessment resource order based on the results of the CHAT and other risk-related factors. Assessments can also be generated as a result of data collection, the AAA, a National/Divisional directive, and the AITT. Only action items from configuration and the AAA autopopulate the CAP.

1) Adding an Assessment or DCTs. The PI/CPM needs to determine the number of DCTs necessary to assess the certificate holder’s or applicant’s performance or design for each assessment, based on risk.

a) SPA, EDA, or EPA. The PI/CPM determines if a team or a single ASI should complete the SPA, EDA, or EPA. All SPAs, EDAs, and EPAs go through the AAA.

b) C DCTs. The PI/CPM can create a C DCT from one specialty (Airworthiness or Operations) and from either PA or DA questions, but not both. Template C DCTs consist of prepopulated questions for focused inspections. C DCTs can be assigned to a team or a single ASI. The National/Divisional C DCT template can be used to create En Route inspection and RI C DCTs. This template allows the PI to communicate special emphasis items to any ASI performing an En Route inspection or RI. If the PI does not create a C DCT template, it will default to the national template. The PI will maintain the PI C DCT for the En Route inspection and RI in the “Manage My PI Custom C DCT Templates” tab of the “Manage My Created DCTs” link on the SAS menu.

NOTE: When creating a C DCT, the PI/CPM can request that the DCT be assessed on its own by choosing “Needs Own Assessment.” When the DCT is completed, it becomes available in Module 5 for AAA. If the PI determines that the C DCT does not need its own assessment, the individual questions are included in the AAA the next time the element containing those questions is assessed.

c) RIs (Ramp) and En Route Inspections. The PI/CPM can schedule RIs (Ramp) and En Route inspections using the National/Divisional C DCT template.

d) Analysis. Both planned and ad hoc RIs and En Route inspections will go through the AAA for analysis, but not as individual assessments. The RI and En Route inspection results are populated in the AAA of the appropriate SPA based on the following:

- RIs (OP) and En Route inspections (OP) for peer groups 121A, 135B, and 135E are linked to Subsystem 2.2, Aircraft Operations (OP), for the purposes of performing assessments.
- RIs (OP) and En Route inspections (OP) for peer groups 135C and 135D are linked to System 2.0, Flight Operations (OP), for the purposes of performing assessments.
• RIs (AW) and En Route inspections (AW) for peer groups 121A, 135B, and 135E are to be linked to Subsystem 4.3, Maintenance Operations (AW), for the purposes of performing assessments.

• RIs (AW) and En Route inspections (AW) for peer groups 135C and 135D are to be linked to System 4.0, Technical Operations (AW), for the purposes of performing assessments.

NOTE: RIs (Ramp), En Route inspections, and Dynamic Observation Reports (DOR) cannot be assigned to a team.

2) PI/CPM Considerations When Adding an Assessment and/or C DCT.

a) Risk Assessment. The PI/CPM identifies and evaluates known or perceived risks and plans the appropriate assessments to address those risks. An example may include maintenance-provider-coordinated surveillance. A PI/CPM may plan a combination of assessments and DCTs, such as adding additional DCTs to an SPA or selecting the option to add a specific EPA from within the System or Subsystem Performance Data Collection Tool (SP DCT). If the PI/CPM chooses to do this, there are many ways to approach this.

NOTE: The automation defaults to one assessment on the CAP.

NOTE: For maintenance-provider-coordinated surveillance, see Volume 6, Chapter 2, Section 40.

b) Public Law (PL) 111-216, Airline Safety and Federal Aviation Administration Extension Act of 2010 (formally known as H.R. 5900). The term “random inspection” (RI) is the result of PL 111-216 and it supports on-demand work. An RI is an onsite inspection of air carriers that provide air transportation pursuant to a contract with a part 121 air carrier, to ensure such air carriers are complying with all applicable safety standards of the administration (refer to PL 111-216).

c) Geographic Resource (Geographic Airport Data Display (GEO ADD) Tool). One way a PI can determine if a geographic resource is needed is based on the results of a Geographic Review (GEO ADD Tool). The PI should review the GEO ADD Tool annually by the end of the fiscal year (FY).

d) PI Instructions. If the PI/CPM has instructions that apply to each of the DCTs in an assessment, they can provide common PI instructions that will be attached to all DCTs. If they have specific instructions that apply to individual DCTs in an assessment, the specific instructions can be added to the individual DCT. These instructions may call out specific training programs, fleets, or inspection and maintenance programs the PI/CPM is focusing on during the assessment. PI instructions assist the ASI in determining focus areas while collecting data. Instructions will also assist the FLM in determining resource assignments. The PI/CPM may change the instructions prior to the DCT being submitted for data review.

1. Make, Model, and Series (M/M/S). Should the PI/CPM determine that data is needed to be collected on a specific M/M/S, he or she should include the specific information in the M/M/S selection.
2. Location. When the PI enters a location in the DCT, the ASI is required to complete the inspection at that specific location.

3. En Route Inspection and RI C DCTs. PI instructions are used to communicate special emphasis items to be observed, specific to a certificate holder. PI instructions will determine the minimum number of questions to be answered for the DCT.

3) **Resource Recommendation.** The PI/CPM recommends individuals or teams by selecting the name from a drop-down list. If the PI is the only individual providing oversight, then the automation defaults to the PI. The PI/CPM can consider grouping specific assessments together regardless of criticality for better resource management.

   NOTE: RIs related to “GEOADD” and PL 111-216 requirements should include instructions to the ASI to enter “GEOADD” or “PL 111-216,” without quotes or spaces, and in capital letters, in the “Local/Regional/National Use” field in the RI common data field.

4) **Adjustment.** The following are reasons the PI/CPM may need to adjust the assessment due date or baseline interval on the CAP. If a CAP adjustment does occur, a justification may be required.

   - The results of the CHAT indicate a change is needed;
   - New elements added because of major changes to the certificate holder’s or applicant’s operations;
   - Results of the AAA;
   - Result of unassigned work from the previous planning cycle;
   - Resolution of issues raised during CAP concurrence;
   - The addition of PI instructions for completing the DCT;
   - Geographic program requirements;
   - National/Divisional C DCT; and/or
   - Realign assessment dates (bundling).

5) **Due Dates and Resource Order.** The PI/CPM should consider factors that may affect the assessment due dates and resource order (see Figure 10-3-1B, Baseline Intervals by Peer Group, and Table 10-3-1A, Intervals, Due Date, and Resource Order Definitions). If necessary, adjust either the resource order or the due date and include an explanation when the assessment is moved outside of the baseline interval. Some examples include:

   - A planned change to a program in a future quarter;
   - National guidance that directs a focused inspection;
   - NSA inputs; and
   - Part 135 or 145 certificate holders not exercising the privileges of their certificates.

   NOTE: PIs assigned to part 135 or 145 certificate holders that are not exercising the privileges of those certificates (e.g., due to government contract requirements).
may move the baseline performance assessments out 12 months. If the certificate becomes active, the PIs should adjust the baseline as applicable.

Figure 10-3-1B. Baseline Intervals by Peer Group

<table>
<thead>
<tr>
<th>Part</th>
<th>Peer Group</th>
<th>Certificate Holder Description</th>
<th>System Performance Assessment Intervals</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>System/Subsystem Criticality = High</td>
</tr>
<tr>
<td>121</td>
<td>A</td>
<td>All Part 121 Certificate Holders</td>
<td>6 months</td>
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<tr>
<td></td>
<td>B</td>
<td>10 or more seats</td>
<td>6 months</td>
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<tr>
<td></td>
<td>C</td>
<td>9 or less seats</td>
<td>N/A</td>
</tr>
<tr>
<td>135</td>
<td>D</td>
<td>9 or less seats—single pilot only</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>Helicopter Air Ambulance (HAA)*</td>
<td>6 months</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>Within the U.S.</td>
<td>N/A</td>
</tr>
<tr>
<td>145</td>
<td>G</td>
<td>Outside U.S. without Aviation Safety Agreement</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>H</td>
<td>Outside U.S. with Aviation Safety Agreement</td>
<td>SAS automation does not schedule an SPA for Peer Group H. The PI/CPM must schedule a C DCT for a certificate renewal.</td>
</tr>
</tbody>
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* Air ambulance (fixed-wing) operators with OpSpec A024 may be in Peer Group A, B, C, or D.

NOTE: Title 49 of the United States Code (49 U.S.C.) § 44733(e) mandates annual inspections at foreign repair stations.
Table 10-3-1A. Intervals, Due Date, and Resource Order Definitions

| Baseline Interval | The baseline interval is the criticality value of the assessment (high, medium, and low). The PI/CPM can move a medium criticality above a high, or a low above a medium or high. Any vertical movement requires justification. The PI may shorten the interval based on need. |
| Adjusted Interval | An adjusted interval is when the PI/CPM changes the baseline interval to a shorter interval for a specified period of time. An adjustment cannot be made until the first assessment is complete. |
| Criticality | NSA establishes the criticality. Criticality is the likelihood that a failure of a certificate holder’s or applicant’s system, subsystem, or element could lead to an unsafe condition.  
- High criticality. A high likelihood that a failure in the certificate holder’s or applicant’s system, subsystem, or element could lead to an unsafe condition.  
- Medium criticality. A moderate likelihood that a failure in the certificate holder’s or applicant’s system, subsystem, or element could lead to an unsafe condition.  
- Low criticality. A low likelihood that a failure in the certificate holder’s or applicant’s system, subsystem, or element could lead to an unsafe condition. |
| Due Date | The default due date for all planned assessments is the last day of the quarter. The due date is the same as the baseline date, unless the PI makes an adjustment based on CHAT results or other factors. |
| Resource Order | Resource order is the order in which assessments are planned based on criticality and due dates. |
| Grace Period | All assessments (including C DCTs) have a 30-calendar-day grace period between the time the due date is exceeded and the time they are considered overdue. The grace period is used for data review and PI decision for the AAA. The grace period begins at midnight the day after an incomplete assessment exceeds its due date. Initial Certification and CHEP assessments will turn red during the grace period but continue to move forward. |
| Overdue | An assessment is overdue when:  
- Its grace period has expired (for SPAs); or  
- It passes its due date (for all others).  
An assessment becomes overdue at midnight following the last day of its grace period (for SPAs) or due date (for all others). |

E. Review/Validate and Submit the CAP (see flowchart process step 10-3-1-9E).

1) **Review/Validate the CAP.** The PI/CPM reviews the CAP to ensure the information is accurate and that the assessments are balanced throughout the quarters and most importantly, risk-based. For an Airworthiness CAP, the assessments may not appear to be balanced between PMIs and PAIs. Their respective workloads are balanced and risk-based. The PI/CPM can make any final adjustments if necessary.

2) **Submit the CAP for Resource Management.** After the PI/CPM validates the CAP, he or she then submits the CAP for resourcing and concurrence. After the CAP is
submitted, the PI/CPM should notify the FLM. The automation will send the FLM a notification once the CAP is submitted.

**Figure 10-3-1C. CHAT Performance History Risk Indicator and Descriptions by Peer Group**

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<tr>
<th>Risk Indicator</th>
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<th>Peer Group</th>
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| Accidents/Incidents/Occurrences | Data on accidents/incidents/occurrences and the certificate holder’s response, corrective action planning, and ongoing followup activities determine this risk indicator’s applicability. Accidents/incidents/occurrences may provide insights into areas of risk. Considerations to determine the presence of this risk indicator include:  
  - Repeated events;  
  - Number of events;  
  - Severity of event(s) as defined by Volume 7, Chapter 1, Sections 1 and 2 and FAA Order 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting;  
  - Analysis of root cause;  
  - Certificate holder controls;  
  - Certificate holder followup to event(s);  
  - Indicators of a trend with an escalation in severity; and  
  - FAA and National Transportation Safety Board (NTSB) data sources. If root cause(s) and/or failure of event(s) are generally known and validated, consider the system(s), subsystem(s), and element(s) that relate to the failure or root cause. Consider also the SAS training subsystems and the Organizational Management System. If the certificate holder has not effectively and appropriately managed the events, also consider its manuals. | ALL        |
| Enforcement Actions            | Enforcement history of a certificate holder or the certificated airmen they employ determines this risk indicator’s applicability. Enforcement action may indicate an unwilling attitude or inability to comply with safety standards. The greatest systemic safety risk is not from a specific operational event or its outcome, but rather from an airman or organization’s unwillingness or inability to comply with safety standards and, most importantly, operating contrary to the core principles of SRM. Considerations to determine the presence of this risk indicator include:  
  - History and details of Compliance Action per Volume 14 to correct performance problems;  
  - Corrective acting effectiveness;  
  - Pending enforcements;  
  - Management’s attitude toward compliance;  
  - Safety culture “attitude and strength”; and  
  - Enforcement history. Enforcement action may indicate that this risk exists, requiring increased surveillance. | ALL        |
## Certificate Holder Performance History Risk Indicators

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| **Surveillance History** | Surveillance data that identifies surveillance problems may indicate nonmitigated or new areas of risks in the certificate holder’s system. Considerations to determine the presence of this risk indicator include:  
- A decline in a specific system’s performance;  
- An escalation of negative trending across systems;  
- Repeated concerns or ineffective corrective actions;  
- Certificate management negative trends tracked outside of SAS/SPAS (e.g., National Program Tracking and Reporting Subsystem (NPTRS), certificate holder Safety Management System (SMS), etc.); and  
- Lack of surveillance data due to FAA resources. For negative SAS/SPAS data trends related to surveillance findings, associate the problem area(s) with the corresponding systems, subsystems, and elements. Focus on the areas that are the source of the adverse trend, including manuals, training, and personnel. | ALL |
| **Department of Defense (DOD) Audits** | The results of DOD audits and/or DOD Air Carrier Survey and Analysis Team monitoring data determine this risk indicator’s applicability. These audits can help to identify hazards, risks, and systemic problems in the design and performance of its systems. Considerations to determine the presence of this risk indicator include:  
- Placement on DOD Close Watch program for safety concerns;  
- Temporary nonuse status for safety issues;  
- Recent DOD recertification after temporary nonuse status;  
- DOD survey results that are incomplete or not current; and  
- Removal from the DOD’s list of qualified certificate holders. Evaluate and focus on those areas that correspond or are related to the adverse DOD findings. | ALL |
| **Voluntary Disclosures** | Data derived from voluntary reports of regulatory noncompliance and their corrective action(s) determine this risk indicator’s applicability. Although corrective actions address the noncompliance, this may also indicate new areas of risks or those not fully mitigated in the certificate holder’s system. Considerations to determine the presence of this risk indicator include:  
- Documented procedures for self-disclosure process;  
- Management’s attitude towards submission of self-disclosures;  
- Participation in disclosure programs;  
- Corrective actions or repeated violations;  
- Employee awareness of the disclosure process; and  
- Repeated disclosures. Focus on the area of the voluntary self-disclosure(s). Drill down to the root cause(s) and relate these to the systems, subsystems, and elements. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. | ALL |
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<td>Voluntary Programs</td>
<td>The use of voluntary program(s) to identify ongoing RM issues and how program data is used to manage risk determine this risk indicator’s applicability. These programs include Internal Evaluation Programs (IEP), Aviation Safety Action Programs (ASAP), flight operations quality assurance (FOQA), or independent flight safety programs such as the CAST. Voluntary data aids in hazard/risk identification and management of corrective actions. Considerations to determine the presence of this risk indicator include:</td>
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|                                      | • Determination of root cause(s);  
• Documented disclosure or reporting process procedures;  
• Management’s attitude towards voluntary program participation;  
• Program effectiveness;  
• Repeated noncompliance;  
• Implementation of corrective actions;  
• Personnel awareness and use of voluntary programs;  
• Program trends; and  
• Participation in voluntary programs.  
Associate the data that causes concern with the applicable systems, subsystems, or elements. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. |            |
| Safety Hotline and Complaints       | Documented complaints (including consumers, employees, whistleblowers, vendors, or other certificate holders) determine this risk indicator’s applicability. Considerations to determine the presence of this risk indicator include:                                                                                                                                       | ALL        |
|                                      | • Multiple complaints in same area(s) of concern;  
• A complaint in areas of concern;  
• Resolution history;  
• Implementation of corrective action; and  
• Effective and appropriate management of events.  
Focus on the subject area and nature of the complaint(s). Associate the data that causes concern with the applicable systems, subsystems, or elements. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. |            |
## Certificate Holder Organizational Risk Indicators

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| Key Management Changes          | Key management (as defined in 14 CFR part 119 or 145) changes determine this risk indicator’s applicability. Any changes, regardless of operational experience, could significantly affect operational stability. Considerations to determine the presence of this risk indicator include:  
- SPAS flags;  
- Effects identified from key management changes (regardless of SPAS flag);  
- Reviewing the OpSpecs and eVID regularly to determine changes or vacancies in key management personnel;  
- Rapid and widespread changes in key management in multiple departments or operational areas, including middle managers;  
- Key management assuming multiple roles;  
- Relationship between the certificate holder and the FAA, including the certificate holder’s willingness to share data and disclose findings to the FAA; and  
- Reorganizations that reduce the amount of safety oversight within the certificate holder. | ALL        |
| Financial Conditions            | Reports of a certificate holder’s financial difficulty, financial statements generated by the certificate holder, or the DOT’s Economic Authority determine this risk indicator’s applicability. During financial instability, the possibility for risk may increase due to a number of complex and interrelated causes, factors, and results. These may directly or indirectly impact various aspects of the certificate holder’s systems, subsystems, or elements. Considerations to determine the presence of this risk indicator include:  
- Deferment of discretionary spending (capital expenditure, training, advertising, etc.);  
- Sale of assets (spare parts, aircraft, lease back, operational routes, etc.);  
- Loss of significant vendors;  
- Delays in meeting payroll and other financial obligations;  
- Entrance into Debtor in Possession (e.g., bankruptcy); and  
- Effective and appropriate management of events. | ALL        |

Volume 6, Chapter 2, Section 18 discusses in detail the issues of RM for parts 121 and 135 certificate holders. This section includes a decision aid for scoring risk as it relates to rapid growth/downsizing. Use this decision aid to determine what action to take based on the risk.

**NOTE:** “Financial Conditions,” “Rapid Growth or Downsizing,” and “Certificate Holder’s Management of Off-Hour Activities”: If the PI selects these risk indicators, then the PI must use the Financial Condition Assessment Decision Aid, check with FSIMS to verify current version before using.
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<td>Change in Other Management Personnel</td>
<td>Changes within major lines of business (safety, quality assurance (QA), engineering, operations, and maintenance departments) determine this risk indicator’s applicability. Regardless of the certificate holder’s size, personnel changes could significantly impact the operational stability if processes are not in place to manage the change. Considerations to determine the presence of this risk indicator include: • Sudden change in management; • Significant change rate in management within maintenance and operations organization(s); • Retraining/cross-training required for retained and new personnel or for expanded job functions; • Prior history of middle management change; • Rapid or widespread changes in management in multiple departments or operational areas; and • Effective and appropriate management of events. Volume 6, Chapter 2, Section 18 discusses in detail the issues of RM for parts 121 and 135 certificate holders. This section includes a decision aid for scoring risk as it relates to rapid growth/downsizing. Use this decision aid to determine what action to take based on the risk.</td>
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<td>Turnover in Personnel</td>
<td>High-volume turnover in personnel who are required to produce the quality of systems, maintenance, and operations throughout the organization determine this risk indicator’s applicability. A high turnover of operations or maintenance personnel can increase the potential for risk. Considerations to determine the presence of this risk indicator include: • Rate of turnover in personnel; • Replacement personnel qualifications; • Turnover within the maintenance and operations organizations that impact systems and operational stability; • Cross-training to cover the vacated positions; • Turnover in safety-sensitive areas; • Effective and appropriate management of events; and • Streamlining personnel departments that may reduce the amount of safety oversight within the certificate holder. Volume 6, Chapter 2, Section 18 discusses in detail the issues of RM for parts 121 and 135 certificate holders. This section includes a decision aid for scoring risk as it relates to rapid growth/downsizing. Use this decision aid to determine what action to take based on the risk.</td>
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| Reduction in Force                  | Workforce reductions, layoffs, or buyouts determine this risk indicator’s applicability. The impact of workforce reduction can increase the potential for system failure or noncompliance. The safety impact depends on the reduction itself, the reason it occurred, and what/who was involved. Considerations to determine the presence of this risk indicator include:  
  - Timing or synchronization of reduction in personnel;  
  - Reduction/downsizing within the maintenance and operations organizations that reduces the amount of internal safety oversight within the certificate holder;  
  - Reduction in experienced, safety-related, or training personnel;  
  - History of comparable reductions in workforce;  
  - Rapid and widespread reduction in safety-sensitive areas;  
  - Effective and appropriate management of events;  
  - Ensuring management has assessed the impact of a reduction in force layoff, or buyout timelines on certificate responsibilities; and  
  - Workforce reductions or layoffs and impact on remaining staff to be retrained or cross-trained to perform new functions.  
Volume 6, Chapter 2, Section 18 discusses in detail the issues of RM for parts 121 and 135 certificate holders. This section includes a decision aid for scoring risk as it relates to rapid growth/downsizing. Use this decision aid to determine what action to take based on the risk. | ALL        |
| Rapid Growth or Downsizing          | The addition/reduction of aircraft, repair station ratings, routes, employees, programs, or business practices (e.g., increase/decrease in aircraft utilization) and other operational areas determine this risk indicator’s applicability. Considerations to determine the presence of this risk indicator include:  
  - Development and implementation of business plan(s);  
  - Reliability rates, minimum equipment list (MEL) management, turn times between flights, and crew rest requirements; and  
  - Effective and appropriate management of events.  
Volume 6, Chapter 2, Section 18 discusses in detail the issues of RM for parts 121 and 135 certificate holders. This section includes a decision aid for scoring risk as it relates to rapid growth/downsizing. Use this decision aid to determine what action to take based on the risk.  
NOTE:  “Financial Conditions,” “Rapid Growth or Downsizing,” and “Certificate Holder’s Management of Off-Hour Activities”: If the PI selects these risk indicators, then the PI must use the Financial Condition Assessment Decision Aid, the Rapid Growth/Downsizing Assessment Decision Aid, and/or the Off-Hour Decision Aid located in Volume 6, Chapter 2, Section 18. (Refer to the OIG Audit Report AV-2018-012.) | ALL        |
### Certificate Holder Organizational Risk Indicators

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| Merger or Acquisition          | The details of the merger or acquisition (combination of divergent corporate and organizational structures and safety cultures, or simply a name change) determine this risk indicator’s applicability. The inadequate management of a merger or acquisition may negatively impact the certificate holder’s ability to perform continued compliance and safe operating procedures. Considerations to determine the presence of this risk indicator include:  
  - Effective management of the certificate holder’s procedures, controls, and process measurement;  
  - Experience with the new type and complexity of the operation;  
  - Inquiring if key personnel will be retained or replaced and if the buyer has an aviation background;  
  - Interfaces between processes, procedures, and programs across departments;  
  - Adherence to new processes, procedures, and programs;  
  - Transition plan for accomplishing the merger or acquisition; and  
  - Effective and appropriate management of the events.  
  Volume 6, Chapter 2, Section 18 discusses in detail the issues of RM for parts 121 and 135 certificate holders. This section includes a decision aid for scoring risk as it relates to rapid growth/downsizing. Use this decision aid to determine what action to take based on the risk. |
| Labor Management Relationship  | The relationship between the certificate holder’s management and its labor organizations determines this risk indicator’s applicability. Since a threatened or actual shutdown in operations can have an adverse economic impact on a certificate holder, poor labor-management relations negatively impact the stability of a certificate holder’s systems. Considerations to determine the presence of this risk indicator include:  
  - Informational picketing;  
  - Newspaper advertisements, billboards, or other methods that describe lack of contract negotiations or bargaining;  
  - Cross-utilization of employees in safety-sensitive areas due to the unrest (e.g., management working line functions in addition to their normal managerial responsibilities);  
  - Status of bargaining agreement between labor and management;  
  - Signs that indicate a lack of trust between parties;  
  - Threatened or actual shutdown in operations that adversely impact the certificate holder;  
  - Requests for employee concessions by management and lower than industry average compensation and benefits;  
  - Work stoppage due to labor unrest; and  
  - Effective and appropriate management of the events.  
  Consider the labor and management relationship issues that cause concern with the applicable systems, subsystems, or elements. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. Dissatisfaction among groups within the owner/operator base may indicate instability. For example, long hours and low pay for an owner/operator impact a repair station’s system and operational stability. | ALL        |
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| **Relationship with FAA and Compliance Attitude** | The working relationship between certificate holder personnel and FAA personnel assigned to oversee the certificate holder (i.e., level of communications, trust) determines this risk indicator’s applicability. A weak communications infrastructure between parties can have a negative impact on certificate holder operations, quality, and safety. This, in turn, can affect the stability of the certificate holder’s systems and may be an indication of risk. Considerations to determine the presence of this risk indicator include:  
  - History of communications between the certificate holder and assigned FAA personnel;  
  - Willingness to share data and findings with assigned FAA personnel;  
  - Reception of FAA recommendations and suggestions;  
  - Cooperation with assigned FAA personnel; and  
  - Participation in voluntary programs.  
Consider which system(s), subsystem(s), and element(s) are directly affected by the lack of cooperation and/or communication. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. | **ALL** |
| **Human Factors** | Interactions of employees with the certificate holder’s system, procedures, and controls determine this risk indicator’s applicability. A certificate holder’s failure to consider human factors when implementing procedures and controls could increase the level of risk in the system. Considerations to determine the presence of this risk indicator include:  
  - Human factors addressed in systems;  
  - Errors or violations related to human factors; and  
  - Effective and appropriate management of events.  
Human factors issues could potentially impact every certificate holder system, as all systems involve human input and interaction. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. | **ALL** |
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| Age of Fleet                | Many aircraft of the current U.S. commercial fleet are considered to be aging aircraft. The age of the fleet must be considered to determine this risk indicator’s applicability. The age of a certificate holder’s fleet can impact its systems. Considerations to determine the presence of this risk indicator include:  
  - Management of operational risk associated with aging aircraft;  
  - Aging aircraft identification process;  
  - Communications flow regarding the maintenance and operational requirements of an aging fleet;  
  - Corrective action plans;  
  - Maintenance program associated with aging aircraft;  
  - Aircraft approaching the timeline for aging aircraft; and  
  - Effective and appropriate management of events.  
Aging aircraft impacts the technical operations system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. | ABCDE      |
| Varied Fleet/Configuration  | A certificate holder with a varied fleet or mixed configuration consists of:  
  - Different aircraft types;  
  - A mix of models and series of the same type; or  
  - A number of different configurations of the same make and model within the same fleet.  
The ability to maintain or operate a varied fleet/configuration determines this risk indicator’s applicability. Considerations to determine the presence of this risk indicator include:  
  - Management structure to handle the impact of a varied fleet mix and mixed fleet configuration;  
  - Class ratings (for air agencies);  
  - Impact on the certificate holder’s maintenance program;  
  - Impact on the certificate holder’s operations program;  
  - Impact on the certificate holder’s training program;  
  - Controls for the varied fleet mix and mixed fleet configuration;  
  - Performance history with varied fleet mix and mixed fleet configuration;  
  - Tooling, equipment, and facilities; and  
  - Appropriate or effective management of events.  
Maintenance or operation of varied fleet or mixed configuration could potentially impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. | ALL        |
| Change in Aircraft Complexity | Changes in aircraft complexity, programs, and/or air agency ratings may require additional procedures and training. Considerations to determine the presence of this risk indicator include:  
  - Controls and process measurement for managing changes in operations and maintenance; | ALL        |
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|                | • Experience of personnel with new technologies and the operational environment;  
|                | • Audits to assess the effectiveness of the certificate holder’s training programs and operation within its environment;  
|                | • Performance history with incorporating complex aircraft;  
|                | • Impact on system design or performance due to the change in aircraft complexity; and  
|                | • Appropriate or effective management of events.  
|                | Changes to an aircraft complexity could potentially impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. | ALL |

- **Outsource** (Maintenance, Training, Ground Handling, etc.)
  - The use of vendors, suppliers, and contractors could introduce risks associated with certificate holder processes and programs.
  - Considerations to determine the presence of this risk indicator include:
    - • Confusion of procedures due to association with multiple certificate holders;  
    - • Contract personnel training and records for adequacy and accuracy;  
    - • DOD findings against the contractor employed by the certificate holder;  
    - • Contractor qualifications and abilities;  
    - • Frequent changes of contractors;  
    - • Historical data;  
    - • Effective audits;  
    - • Contractor’s violation history;  
    - • Certificate holder’s oversight of all vendors and subcontractors; and  
    - • Determining if the contract maintenance provider (CMP) was approved by the contracting repair station.
  - Use of outsource (maintenance, training, ground handling, etc.) could impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. For example, a repair station's outsourcing policies affect their internal surveillance requirements.

- **Certificate Holder’s Management of Off-Hour Activities**
  - A certificate holder’s ability to manage its off-hour activities could impact overall effectiveness of all certificate holder systems.
  - Considerations to determine the presence of this risk indicator include:
    - • Amount, type, and complexity of activities;  
    - • Effective managerial oversight;  
    - • Availability of other resources (e.g., help desks, vendor support);  
    - • Exchange of information during shift change (e.g., shift change logs); and  
    - • Nontraditional work hours.
  - Volume 6, Chapter 2, Section 18 contains the Off-Hour Decision Aid. Use this decision aid to determine what action to take based on the risk. Consider that while some components of the decision aid scoring are primarily geared toward airworthiness activities, an assessment can also be made for flight/ground operations in conjunction with the decision aid.

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<td>Off-hour activities potentially impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System.</td>
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<tr>
<td><strong>NOTE:</strong> “Financial Conditions,” “Rapid Growth or Downsizing,” and “Certificate Holder’s Management of Off-Hour Activities”: If the PI selects these risk indicators, then the PI must use the Financial Condition Assessment Decision Aid, the Rapid Growth/Downsizing Assessment Decision Aid, and/or the Off-Hour Decision Aid located in Volume 6, Chapter 2, Section 18. (Refer to the OIG Audit Report AV-2018-012.)</td>
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| New/Changes to Certificate Holder Programs | Program additions, deletions, or changes determine this risk indicator’s applicability. Considerations to determine the presence of this risk indicator include:  
- Documented changes to programs;  
- Changes that are motivated by cost-cutting;  
- System control(s) to support the new/changed program;  
- Staffing and training to support the changed programs;  
- Performance history with new/changed programs; and  
- Effective and appropriate management of events.  
New and major changes to certificate holder programs could impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. | ALL |
| Continuing Analysis and Surveillance System (CASS) | The procedures and data collection, data analysis, and trend reporting performed in support of the CASS to continuously monitor and correct deficiencies in its maintenance and inspection programs, as well as corrective action of any shortcomings identified by ASIs, determine this risk indicator’s applicability. Considerations to determine the presence of this risk indicator include:  
- Recurring findings after the issues have been mitigated;  
- CASS corrective actions result in new problem(s);  
- Recurring CASS findings are associated with the same system(s), subsystem(s), or element(s);  
- CASS results for consistency with other outside audit results (e.g., FAA and DOD);  
- Internal audit system of CASS (e.g., Safety Audit Program);  
- CASS performance history as indicated by an IEP, safety program, or other equivalent program(s).  
Since CASS could impact every certificate holder system, consider which system(s), subsystem(s), and element(s) are affected. | ABCDE |

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| Increases in Logbook Discrepancies, MEL Deferrals, or Requests for Escalation | The number and type of logbook discrepancies, MEL deferrals, and requests for escalation determine this risk indicator’s applicability. Considerations to determine the presence of this risk indicator include:  
- Repeat maintenance logbook discrepancies;  
- MEL management;  
- Number of extensions to MEL requests; and  
- Requests for escalation of maintenance and inspection program items. Increases in logbook discrepancies, MEL deferrals, or requests for escalation could impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. | ABCDE |
| Seasonal Operations | Attention to and preparation for seasonal operations may determine this risk indicator’s applicability. Considerations to determine the presence of this risk indicator include:  
- Experience with seasonal operations;  
- Procedures and controls that support the operation; and  
- Audits of its seasonal operations. Seasonal operations could impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. | ABCDE |
| Complex Operations and Environmental Considerations | The certificate holder’s ability to manage complex operations and environmental considerations that have influences on their scope of operation. The certificate holder’s inability to adapt to such influences may lead to an unacceptable level of risk. Considerations to determine the presence of this risk indicator include:  
- Management of complex operations and environmental considerations;  
- Experience, training, or competency of personnel; and  
- Resource management. Complex operations and environmental considerations could impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. | ALL |
| Relocation and Closing of Facilities | Relocation and closing of facilities determine this risk indicator’s applicability. Considerations to determine the presence of this risk indicator include:  
- Performance history with regard to the relocation and closing of facilities;  
- Equipment and facilities;  
- Rate and pace of relocation and/or closing;  
- Personnel requirements, adequate resources, training, documentation, and manual changes;  
- Background and experience of personnel at new facility; and  
- Management of the event(s). Relocation and closing of facilities could impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System. | ALL |
<table>
<thead>
<tr>
<th>Risk Indicator</th>
<th>Description</th>
<th>Peer Group</th>
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<tbody>
<tr>
<td>Management System. For example, a new repair station may require more surveillance than an older established facility, or it may lack the tools or equipment to do the required work.</td>
<td>ABCDE</td>
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<tr>
<td>Lease Arrangements and Code-Share Agreements (Refer to the OIG Audit Report AV-2013-045, Growth of Domestic Airline Code Sharing Warrants Increased Attention.)</td>
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<tr>
<td>The use of lease arrangements (e.g., wet lease, dry lease, interchange, and code-share agreements) determines this risk indicator’s applicability. The variety of leasing arrangements or code-share agreements a certificate holder enters into and different aspects of those arrangements can have an impact on its maintenance, training, operations, and programs. Considerations to determine the presence of this risk indicator include: Establishment of operational control; Audits of lease agreements; Flightcrew and ground crew training; Controls and interfaces in procedures required by lease agreement; and Impact on normal certificate holder operations. Lease arrangements and code-share agreements could impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System.</td>
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<tr>
<td>Safety Management</td>
<td>The certificate holder’s management of its safety-related processes determines this risk indicator’s applicability. Considerations to determine the presence of this risk indicator include: Designated safety responsibilities for management personnel; Conducting risk assessments before implementing new systems, revising systems/processes, or developing new procedures, or after hazards or deficiencies have been identified in a design; Proper identification of hazards; Designing and implementing risk controls; Internal audits, evaluations, monitoring employee reports, or investigation of operational events; and Safety performance of the process and the followup action. Safety management could impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System.</td>
<td>ALL</td>
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<tr>
<td>HAA System Safety Risk Management/Assessment Program</td>
<td>The certificate holder’s management of the HAA System Safety Risk Management/Assessment Program determines this risk indicator’s applicability. This program contains risk assessment and management procedures that identify risks in HAA operations. Considerations to determine the presence of this risk indicator include: Overwater briefings and procedures; Inadvertent instrument flight rules (IFR) procedures; Visual flight rules (VFR) flight planning procedures; Preflight risk analysis; System safety risk management/assessment program; and Adherence to the system safety risk management/assessment program.</td>
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<td>Risk Indicator</td>
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<td>HAA System Safety Risk Management/Assessment Program(s) could impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System.</td>
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<tr>
<td>Status of Air Medical Resource Management (AMRM) Training</td>
<td>The certificate holder’s management of the status of AMRM training determines this risk indicator’s applicability. AMRM enhances the air medical community by promoting team cohesiveness and adaption during change through management of available resources. Considerations to determine the presence of this risk indicator include: • Training to accurately reflect the operating philosophies, policies, practices, and procedures of the organization; • Defined and implemented procedures, training, and operational practices; • Management’s commitment to the training program; • Training curriculum (e.g., team building, communication skills, coordination involved in the decision-making process, recurring training); and • Assessment process for training. AMRM could impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System.</td>
<td>BCDE</td>
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<tr>
<td>Special Equipment</td>
<td>The certificate holder’s management of special equipment determines this risk indicator’s applicability. The General Operations Manual (GOM), maintenance manual, MEL, ground and flight training curricula, and OpSpecs contain details regarding the certificate holder’s special equipment (e.g., night vision goggles (NVG), polar equipment, Head-Up Display (HUD), onboard cameras, and Forward Looking Infrared (FLIR)). Considerations to determine the presence of this risk indicator include: • Training curriculum; • Consistent information across manuals; and • Testing and inspections requirements. Special equipment could impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System.</td>
<td>ABCDE</td>
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<tr>
<td>Handling of Hazardous Materials (Hazmat)/Dangerous Goods</td>
<td>The certificate holder’s management of hazmat determines this risk indicator’s applicability. Handling of hazmat/dangerous goods could increase the level of risk in the system and processes. Considerations to determine the presence of this risk indicator include: • Procedures to accept, reject, handle, store, and load hazmat; • Procedures for notification of loaded hazmat on board an aircraft; and • Training curriculum for all direct and contracted employees that handle hazmat. Hazmat could impact every certificate holder system. Consider which system(s), subsystem(s), and element(s) are affected. Evaluate interfaces such as training and personnel, and also consider the Organizational Management System.</td>
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## Certificate Holder Operational Risk Indicators

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<tr>
<td>Other Risks Identified by the PIs</td>
<td>The PI’s identification of risks not captured in the CHAT Risk Indicator Table above for the certificate holder, which requires further analysis.</td>
<td>ALL</td>
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</tbody>
</table>
| GEO Political: Health                   | The sociological interest in political systems is having confidence with who holds the power in the relationship of the government and its people and how the government’s power is used. Some types of political systems are (sociology of political systems):  
  - Authoritarianism;  
  - Monarchies; and  
  - Democracy.  
  Consider the three types of political system when evaluating the health of the aviation authority (AA) in determining risk. The inability to conduct oversight would be a consideration in selecting this risk indicator. | ALL        |
| GEO Economical: Health                  | Economic security is becoming a vital component to a country’s ability to manage its relationships in the global aviation environment with the expansion of regional trade deals and the integration of global financial markets.  
  Considerations to determine the presence of this risk indicator include:  
  - Rising global geopolitical tensions;  
  - Economic crises within the country;  
  - Relationship between politics and economics, especially on an international scale;  
  - Political factors relating to or influencing a nation or region; and  
  - Agreements between countries. | ALL        |
| AA/Health                               | The ability of the AA to conduct oversight of the Approved Maintenance Organizations (AMO) identified in the agreement.  
  Considerations that influence this risk indicator include:  
  - Training for inspectors conducting oversight of the AMOs;  
  - Newly formed agreements between the United States and the AA for oversight of the AMOs;  
  - Foreign policies: stability/finances of the AAs; and  
  - Span and control: the capacity to effectively provide oversight due to distance and amount of AMOs. | ALL        |

10-3-1-11 through 10-3-1-29 RESERVED.