ATO-SG

Safety Guidance

U.S. Department of Transportation

Federal Aviation Administration

ATO-SG-15-03

Effective Date: 06/17/15

Air Traffic Organization
Safety and Technical Training (AJI)

SUBJECT: Guidance for an Effective Air Traffic Quality Control Program

1. PURPOSE: The information in this Air Traffic Organization (ATO) Safety Guidance (ATO-SG) describes the fundamental principles and elements that are contained in an effective local Quality Control (QC) program for field facilities. In addition, this ATO-SG establishes guidance for initiating, developing, and completing Corrective Action Requests (CARs) and Corrective Action Plans (CAPs) related to the Quality Assurance (QA) and Quality Control functions outlined in Federal Aviation Administration (FAA) Order JO 7210.633, *Air Traffic Organization Quality Assurance Program (QAP)*, and FAA Order JO 7210.634, *Air Traffic Organization (ATO) Quality Control*.

This Safety Guidance does not pertain to Voluntary Reporting Safety Programs (VRSPs). The roles, responsibilities, and processes for CARs generated by VRSPs are defined in FAA Order JO 7200.20, *Voluntary Safety Reporting Programs (VSRP)*, as well as in Memoranda of Understanding (MOU) and technical work instructions/standard operating procedures developed by the Safety and Technical Training (AJI) Safety Programs Group and the National Air Traffic Controllers Association (NATCA).

This ATO-SG will also enable facilities to better understand how to establish and maintain local processes that align with the intent of the national QA and QC orders while establishing differences between QC and other proactive safety management processes when applicable.

2. AUDIENCE: This ATO-SG applies to all ATO employees and contractors, except those in Technical Operations.

3. EFFECTIVE DATE: This ATO-SG is effective on 04/30/2015 and will remain in effect until incorporated into FAA Order JO 7210.634.

4. CANCELATION: This ATO-SG cancels ATO-SG-14-05, *Guide to an Effective Air Traffic Facility Quality Control Program*, dated 05/07/2014, and ATO-SG-15-01, *Air Traffic Organization Corrective Action Requests and Corrective Action Plans*, dated 01/07/2015.

5. APPLICABLE POLICY AND RELATED DOCUMENTS: The following documents are applicable to this ATO-SG:

a. FAA Order JO 7210.632, *ATO Occurrence Reporting*

b. FAA Order JO 7210.633

c. FAA Order JO 7210.634

d. FAA Order JO 1030.3, *Initial Event Response*

e. FAA Order JO 3400.20, *Individual Performance Management (IPM) for Operational Personnel*

f. FAA Order JO 7200.21, *Partnership for Safety Program*

g. FAA / NATCA MOU, dated March 5, 2013

h. FAA/NATCA MOU, dated October 26, 2011

i. FAA/NATCA MOU, dated March 27, 2008

j. FAA Performance Management System and FAA/NATCA Collective Bargaining Agreement

k. ATO-SG-12-05, *Navigating the Proactive Safety Management Orders*, dated January 7, 2013

6. BACKGROUND: To comply with the ATO's proactive safety management orders implemented in January 2012, air traffic facilities must operate QC as a systemic (de- identified) data collection process. FAA Order JO 7210.634 prescribes the required activities that support QC at the local level. However, a comprehensive understanding of the key elements of a local QC program, as well as how they interact with other QC processes and proactive safety management processes, is essential to successful identification and correction of systemic non-compliance.

a. Historical Versus Modern Approach

(1) Legacy methods of identifying safety hazards and risk have focused primarily on the active mistake (controller error) and/or event outcome (e.g., loss or no loss of separation) instead of looking for underlying and latent factors. The risk/hazard identification methods prescribed in FAA Order JO 7210.634 require facilities to look beyond the individual mistake to discover underlying causal factors and not focus solely on negative outcome events.

(2) FAA Order JO 7210.634 and its associated processes in the Comprehensive Electronic Data Analysis Reporting (CEDAR) tool are designed to create data that provide facilities with a comprehensive picture of systemic facility performance. Historical focus has been on individual negative outcome events (i.e., operational errors), which has inhibited

understanding and use of data that identify non-compliance regardless of outcome. Acting on this data increases the opportunity for implementing corrective actions prior to a negative result.

b. Impact on Individual Performance Management (IPM): QC processes were designed to run in parallel with the IPM and occurrence reporting/safety reporting processes; they will not be used to trigger IPM actions. Each of these unique processes contributes to a strong proactive safety management system.

c. Local Orders: Previous national QA orders have required the creation of local orders. There is no such requirement in FAA Order JO 7210.634. Facilities may choose to create local QC orders; however, facilities must not create local orders that either duplicate or contradict the national order and/or MOUs.

d. Use of Local Safety Councils (LSCs): The establishment of LSCs is a key component of Partnership for Safety (PFS). LSCs support collaborative safety efforts, involve front-line employees in the corrective action process, and provide facilities with access to additional safety data through the PFS Portal.

e. Interaction of CARs, CAPs, and the Safety Management System (SMS)

(1) Finding and fixing safety issues is the primary purpose of the ATO SMS. Quality Assurance and Quality Control support the ATO SMS by identifying issues of non-compliance with national, Service Area, and local requirements.

(2) The ATO uses CARs primarily to identify and address safety concerns and/or non-compliance issues. Non-VSRP CARs may only be initiated by the Safety and Technical Training (AJI) Quality Assurance Group (AJI-12) with approval from the Vice President for AJI. CAPs are used as a method of correcting validated non-compliance issues (problems) identified in a CAR, including mitigations. The tracking of CAPs provides a means for measuring the completion and effectiveness of identified mitigations. CAPs must be completed and closed before the associated CAR can be closed.

(3) Existing safety hazards identified as a result of a CAR must be evaluated in accordance with the Safety Risk Management process outlined in the current version of the ATO SMS Manual to identify the mitigations that will be included in a CAP. In addition, any mitigation applied that results in a change to the National Airspace System (NAS) must also comply with the current version of the ATO SMS Manual.

7. QC MODEL

a. Critical Points

(1) A strong QC program integrates five QC elements: The five-step process, Local (facility) Safety Reports, the LSCs, local QC orders, and a QC activity plan. The core of these five elements is the five-step process. Together, the five elements and the five-step process form a dynamic “5 X 5” QC program model. The five-step process is a continuous and cyclical process. The five-step process and additional QC elements are listed below and displayed in Figure 7.1. It is important to recognize that IPM is not a component of QC.

(a) Collect data (supports initial identification of non-compliance and monitors implemented corrective actions)

(b) Validate and understand potential facility problems/issues (assess/analyze)

(c) Develop and implement CAPs

(d) Document findings/actions

(e) Review data for integrity

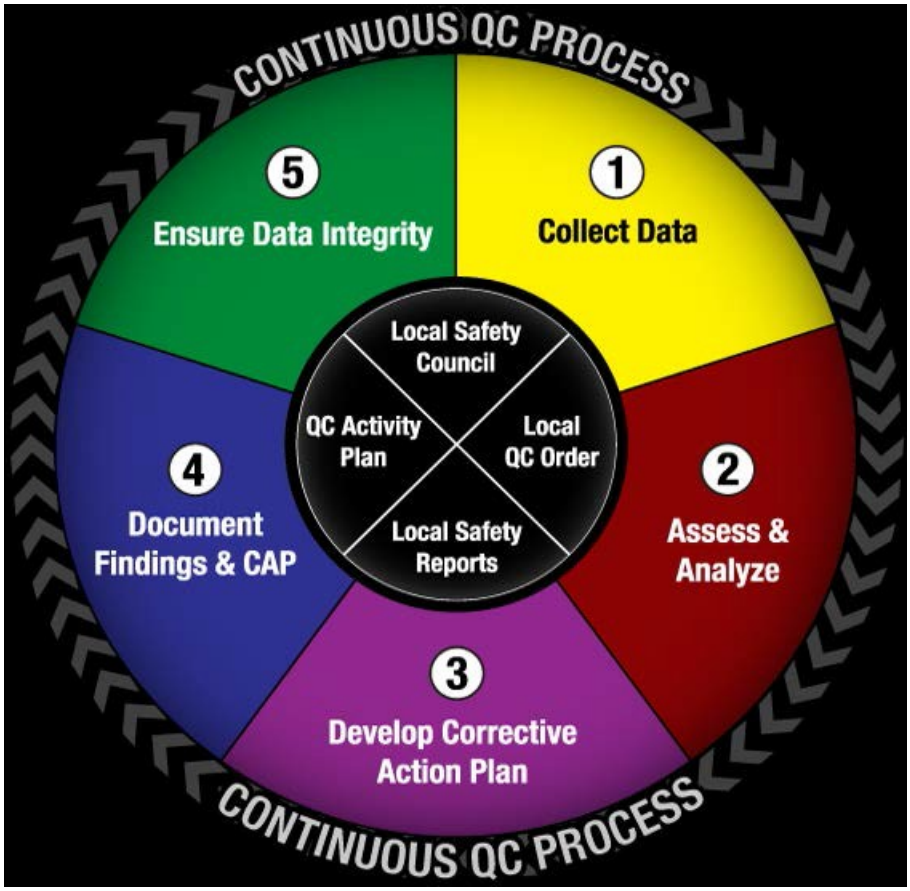

Figure 7.1: The Five-Step Process/QC Elements

b. Overview: Facilities must use the processes prescribed in FAA Order JO 7110.634, along with the associated tools in CEDAR, when performing the functions of Quality Control (see Appendix A). Below is an overview of the five-step process.

(1) **Collect data:** Facilities must collect data through the following:

(a) QC Operational Skills Assessments (QC OSAs)

(b) Emphasis Items

(c) Compliance Verifications

(d) PFS Portal (must have an LSC)

(e) Mandatory Occurrence Report (MOR)/Electronic Occurrence Report (EOR) data

(f) QC Checks (require facilities to look for trends on an annual basis and provide a bridge from data collection to understanding what the data may mean)

(2) **Validate and Understand Facility Problems (Assess/Analyze):** Facilities must ensure they properly understand potential identified problems by rigorously assessing collected data through standardized processes. Before developing a CAP, facilities must assess potential trends by utilizing one of the following processes:

(a) Service Reviews

(b) QC Checks

(c) Compliance Verifications

(3) **Develop and Implement CAPs:** Once a problem is understood (in scope and causal factors), facilities must develop corrective actions to address the problem facility wide. CAPs must be designed to address the specific problem and be implemented throughout the facility or applicable operational area. In addition, CAPs must include how the effectiveness of implemented mitigations will be assessed. Facilities must monitor implemented CAPs as they continue to collect data. This can be done through performing QC OSAs, designing specific Emphasis Items to assess a specific CAP, performing Internal Compliance Verifications (ICV), reviewing reported/detected occurrence data; or analyzing data available in the PFS Portal through the Local Safety Council.

(4) **Document:** Facilities must document CAPs within CEDAR to maintain a record of implemented corrections for mitigation monitoring and effectiveness determinations. Resultant CAPs of the Internal Compliance Verification and External Compliance Verification (ECV) processes are documented in the Compliance Verification Tool (CVT). LSC mitigations, safety information, and problems should be documented in ATC InfoHub.

(5) **Data Integrity:** Facilities must ensure that data collected through QC OSAs and Emphasis Items accurately reflect demonstrated technical performance. In addition, facilities must validate documentation associated with On-the-Job-Training (OJT) and Certification Skill Checks to ensure these processes accurately reflect facility performance. This ensures a solid foundation of data upon which CAPs are built.

8. FACILITY/DISTRICT QC ORDERS

a. Critical Points

(1) Facilities and/or districts must not create QC orders that either duplicate or contradict the national order and/or MOUs.

(2) Facility/district QC orders (see Appendix B) may only contain the following elements:

(a) QC OSA sampling plan (see Appendix E)

(b) Plan for conducting random/scheduled System Service Reviews (SSRs) (and Traffic Management Reviews (TMRs) for facilities with Traffic Management Units (TMUs))

(c) Designation of points of contact for Systemic Issue Reviews (SYSIRs)

(d) Schedule for conducting On-the-Job Training Instructor (OJTI) Checks, Efficiency Checks, and System Performance Checks

(e) QC OSA Validation sampling plan to be documented in CEDAR

(f) Certification Skill Check Validation process to be documented in CEDAR

(g) OJT Documentation Validation process to be documented in CEDAR

(h) Procedures for random sampling of radar and voice data for radar facilities without continuous automated loss detection capability and all airport traffic control towers (including those in combined Tower/Terminal Radar Approach Control (TRACON) facilities)

(i) Requirements for recurring reports on performed QC processes, results of analyses of safety data, implemented corrective action plans, and data monitoring activities

9. DATA COLLECTION (STEP 1)

a. Overview: Detailed information about data collection is contained in Appendix C of this ATO-SG.

(1) All ATO safety data are initially collected/reported by air traffic facilities or are remotely detected through electronic means. This data is the foundation for local, Service Area, and national compliance assessments and corrective actions. In addition, this data is used in the ATO's Risk Analysis Process (RAP) and development of the "Top 5" each fiscal year. For these reasons, it is imperative that facilities accurately capture data collected in all QC processes and ensure that all suspected safety occurrences are reported in a timely and accurate manner.

(2) All data collected/reported by facilities must be submitted in CEDAR or the CVT, as appropriate. This supports consistent data sources and ensures transparency and visibility throughout the NAS.

(3) Facilities must review all available data on a continual basis to assess facility compliance with national standards and requirements.

(4) Facility data sources include the following:

(a) QC OSAs

(b) Emphasis Items

(c) MOR and EOR groupings or trends

(d) ICV and ECV findings

(e) PFS Portal data (e.g., Air Traffic Safety Action Program (ATSAP) trends, MOR trends, cohort facility data)

(f) Risk analysis causal factor trends

(g) QC Check data

Note: Facilities must conduct sufficient numbers of QC OSAs to ensure adequate data exist to properly assess facility technical performance. QC OSA targets are contained in Appendix B of this ATO-SG.

(5) Facilities must review this data to identify potential trends in facility non-compliance.

(6) Any potential trends identified from available data must first be assessed through the SSR process before development of a CAP (except when using the Compliance Verification processes).

b. IPM Considerations with Data Collection

(1) Data collected through QC processes must not be used to support or initiate IPM activities. This includes data collected in:

(a) QC OSAs

(b) Emphasis Items

(c) Compliance Verifications

(d) PFS Portal

(e) Risk analysis causal factors

(f) QC Checks

(2) MORs and/or EORs may be used to support or initiate IPM actions (whether categorized as a Risk Analysis Event (RAE) or not). Facilities must ensure they comply with the requirements prescribed in the MOU between FAA and NATCA, dated October 26, 2011, when using MOR/EOR data to support IPM activities.

(3) When notified by the Service Area Quality Assurance office that an MOR/EOR has been identified as an RAE, facilities must notify involved personnel as soon as possible, but not

while on an operational position. Identification of an MOR/EOR as an RAE only means the occurrence will undergo additional analysis. Facilities must not use an RAE notification as the sole basis for initiating or supporting IPM activities.

c. Critical Points

(1) QC OSAs must be targeted at operational/control positions and not at individuals.

(2) QC OSAs can be performed by support staff and management personnel.

(3) QC OSAs must be performed in sufficient numbers to ensure an accurate assessment of facility performance.

(4) Personnel conducting QC OSAs should remain vigilant toward recognizing potential systemic issues during each review.

(5) Emphasis Items should be utilized often and are an excellent tool to assist in identifying issues or validating mitigations/corrective actions.

(6) Facilities should not focus solely on loss of separation occurrences when reviewing MOR/EOR data. Facilities must focus on identifying patterns of systemic underlying issues.

(7) The use of RAE data to determine potential issues is based upon aggregate groupings of causal and contributory RAE factors and must not be based on individual RAEs or attributed to individuals.

(8) Facility safety data is intended to be used for three primary purposes:

(a) Initially identifying potential facility systemic issues

(b) Identifying issues or focus areas for service reviews, Compliance Verifications, or additional data collection through QC OSAs and/or Emphasis Items

(c) Assessing the effectiveness of implemented corrective actions

10. ASSESSING AND ANALYZING COLLECTED DATA (STEP 2)

a. Overview

(1) Facilities must review collected data to identify potential facility systemic non-compliance (step one of the five-step process).

(2) To correct systemic non-compliance, facilities must understand potential facility systemic issues before implementing corrective actions. Understanding is accomplished through assessing and analyzing a potential issue.

Note: It is understood that with some significant events or compliance issues, facilities may need to implement corrective actions prior to conducting an assessment. This should happen only

under extraordinary circumstances. When this occurs, an SSR should be conducted as soon as possible to validate or modify the issue and CAP.

(3) Assessments of potential facility systemic issues are primarily accomplished through the service review process. Service reviews include:

(a) SSRs

(b) Covered Event Reviews (CERs)

(c) TMRs

(d) SYSIRs

(4) QC Checks and Compliance Verifications (ICVs/ECVs) may supplement the service review process or be used as a method to assess and understand potential issues in lieu of a service review.

(5) The assessment and analysis must accomplish the following:

(a) Validate or invalidate the existence of facility systemic compliance issue.

Note: Facilities should expect that some potential facility systemic issues will be invalidated through the assessment/analysis process.

(b) Identify the nature and scope (e.g., facility-wide, limited to an operational area within the facility, encompasses more than one facility) of a validated issue.

(c) Identify and understand the underlying causal factors associated with a validated issue.

(6) Assessments that validate an issue must either result in a documented CAP or recommend one for action.

(7) Facilities are encouraged to use their LSC in their local assessment activities.

b. Critical Points

(1) Service reviews are collaborative, in-depth analyses intended to identify and/or validate systemic facility non-compliance and must be conducted outside the operation.

(2) Service reviews may be triggered for a variety of reasons. These include the following for each type of service review:

(a) SSRs may be conducted to validate a suspected systemic facility non-compliance issue; or in response to potential compliance issues associated with a single reported/detected occurrence (post-event). In addition, SSRs must be conducted on a random or scheduled basis and must be conducted post-event for any occurrence (non-accident) color-coded yellow or red

per FAA Order JO 1030.3; NATCA/FAA MOU, dated January 18, 2013, Section 10; and NATCA/FAA MOU, dated October 26, 2011, Section 7.

(b) CERs must be conducted after any aircraft accident involving fatalities in which air traffic services were provided.

(c) TMRs are only conducted at the Air Traffic Control Systems Command Center and facilities with a TMU. TMRs may be conducted to review significant delay events, to review special events, or at the request of operational management. In addition, facilities must conduct TMRs on a random or scheduled basis.

(d) SYSIRs are only performed when a QC OSA or any of the service review processes identify a potential systemic issue.

(3) Principal facility union representatives or their designees must be afforded the opportunity to participate in service reviews.

(4) Service reviews are the primary process for validation of suspected facility non-compliance and causal factor identification. Resultant CAPs are documented in CEDAR.

(5) QC Checks can also serve as an initial step in identifying and understanding potential facility non-compliance. QC Check Teams may develop a CAP, refer the issue to an SSR for additional analysis, or choose to collect additional data before a final determination.

(6) Compliance Verifications are checklist-driven assessments that identify facility non-compliance. Facilities may opt to refer an issue to an SSR team for additional analysis or collect additional data prior to taking action depending on the severity of the non-compliance. Non-compliance identified through a Compliance Verification must be addressed through a CAP that is documented in the CVT.

11. DEVELOP AND DOCUMENT CAPs (STEPS 3 AND 4)

a. Overview: Finding and fixing problems is the fundamental purpose of our SMS and specifically of Quality Control. CAPs are the method facilities must use to correct (or fix) validated systemic non-compliance (problems).

(1) CAPs are actions taken by a facility to correct non-compliance that has been properly identified, validated, and understood through data collection and analysis.

(2) CAPs may be generated from any of the following:

(a) Service Reviews

(b) Compliance Verifications

(c) QC Checks

(d) Significant events/investigations (require an SSR to validate the issue and CAP)

(e) LSC analysis (validation through SSRs is encouraged)

(f) Local Runway Safety Action Teams (RSATs)

(3) CAP development teams should ensure that they gather input from key facility personnel to ensure all information is considered in creating a CAP. Key facility personnel could include the following depending on the specific issue:

(a) Facility staff personnel (e.g., Quality Control, airspace/procedures, training)

(b) Operational staff (e.g., controllers, supervisors, operations managers)

(c) Facility management (e.g., support managers, facility manager, staff manager)

(4) The following steps are required to complete a CAP:

(a) Describe the specific corrective actions that will mitigate the facility non-compliance. Examples of corrective actions include, but are not limited to:

(i) Training (must target the specific knowledge gap);

(ii) Changes to local procedures and/or processes;

(iii) Realignment of airspace; and

(iv) Changes to letters of agreement with adjacent facilities, airport operators, etc.

(b) Identify the scope of the correction (e.g., facility-wide, certain operational areas within an Air Route Traffic Control Center or large TRACON).

(c) Identify a timeframe for completion of the action(s) taken.

(d) Identify a monitoring plan for determining effectiveness of the implemented corrective actions. Monitoring plans should include a frequency of data review and what data must be reviewed, as well as assign responsibility within the facility for ensuring monitoring is conducted.

(e) Identify the target for mitigation effectiveness.

<u>Example</u>: A collaborative SSR team validates systemic facility non-compliance with the application of vectors to intercept the final approach course. This was based on QC OSA data and supported by EOR and RAP data. The team develops a CAP requiring training for all radar certified personnel on the issue. Once the training is completed within the required 60 days, the facility will include a new Emphasis Item in all QC OSAs on vectoring to the final approach course to be collected for 90 days from the completion of all training. The facility will consider the non-compliance mitigated if compliance with this Emphasis Item meets or exceeds 90%.

(5) If the mitigation effectiveness target is not met, a revised CAP must be developed, documented, and enacted. This must include a monitoring plan to assess effectiveness of the revised CAP.

(6) All elements of a CAP must be documented in the following programs:

(a) CVT for any issue identified through an ICV or ECV

(b) ATC InfoHub for issues identified and corrected solely through an LSC

(c) CEDAR for all other types of CAPs

b. Critical Points

(1) CAPs must be developed for all validated systemic facility non-compliance.

(2) CAPs must be documented primarily in CEDAR (or the CVT or ATC InfoHub when applicable/required).

(3) CAPs must address five critical elements:

(a) Identify specific mitigations to correct the systemic non-compliance.

(b) Define the intended scope of the CAP.

(c) Define a timeframe for completion of the CAP.

(d) Define a monitoring plan, including what data will be used, a timeframe, and who is responsible for accomplishing monitoring.

(e) Define mitigation effectiveness, including how the facility will determine the CAP was effective using the collected data.

(4) If the CAP does not effectively mitigate the validated systemic non-compliance, a revised CAP must be developed, documented, and implemented.

12. ENSURE DATA INTEGRITY (STEP 5)

a. Overview

(1) QC data collected by facilities is the foundation for local, Service Area, and national compliance assessments and corrective actions. It is imperative that facilities accurately capture data collected in all QC processes to ensure the effective identification of non-compliance and associated corrective actions.

(2) Quality Control Validations (QCVs) are the primary method facilities must use to ensure the integrity of data collected in the QC processes prescribed in FAA Order JO 7210.634.

(3) QCVs require facilities to review samplings of QC OSAs, Certification Skill Checks, and OJT documentation to validate accuracy and completeness within each process.

(4) Facilities must develop a local validation plan for each of the three required QCVs. Local validation plans must contain the following:

(a) Target number of validations to be performed: Targets may be defined by any calendar unit (e.g., monthly, quarterly, annually). Validations must be conducted in sufficient numbers to ensure an accurate assessment of facility performance in conducting each of the processes being validated. Required percentages are defined for the minimum number of OJTIs eligible for review in FAA Order JO 7210.634. It is recommended that facilities validate a minimum of 15% of all QC OSAs, Certification Skill Checks, and OJTI documentation (produced by eligible OJTIs) each quarter.

(b) Sampling method: While each process should be sampled randomly, local validation plans should include selection methods that ensure a cross-section of sectors/positions are reviewed. For example, a local validation plan could include a requirement that at least one QC OSA for each operational position be validated each fiscal year.

(c) Replay tools to be used: Required replay tools are defined in FAA Order JO 7210.634 for OJT Documentation Validations. Facilities must use both radar and voice data (where available) to compare actual performance to that documented by the reviewer for both QC OSA and Certification Skill Check Validations. Validations must be conducted within the maximum data retention periods for the facility to ensure availability of required data.

(d) Feedback process: Facilities may provide feedback to individual non–bargaining unit personnel for QCVs. Individual feedback must always come through the individual's immediate supervisor. Facilities must only provide facility-wide feedback to bargaining unit employees for all QCVs.

(e) Follow-up process: Facilities must follow-up on issues identified through validations to ensure feedback was effective in improving the performance of the respective process (QC OSAs, Certification Skill Checks, and OJT documentation). Follow-up processes should include a summary of the previously identified issue, a defined period for follow-up review, and closure if the issue is resolved. If the issue still exists, additional feedback must be provided.

(5) QCVs must be conducted in accordance with Article 51 of the FAA/NATCA Collective Bargaining Agreement, which defines union participation. Facilities are encouraged to establish collaborative teams to conduct QCVs.

(6) QCVs must only be used to identify organizational or systemic issues.

b. Critical Points

(1) QCVs must be performed on QC OSAs, Certification Skill Checks, and OJT documentation.

(2) Facilities must create local validation plans that include:

(a) Target number of validations to be performed (for QC OSAs and Certification Skill Checks)

(b) Sampling method

(c) Replay tools to be used

(d) Feedback process

(e) Follow-up process

(3) QCVs must be performed by collaborative teams.

(4) QCVs are intended to identify organizational or systemic issues.

13. MONITORING

a. Overview: Facilities must monitor implemented CAPs and assess their effectiveness. Using collected/reported data to assess facility performance is the primary method for monitoring CAPs.

(1) All CAPs must include a specific monitoring plan for assessing effectiveness. This plan must include the data to be reviewed and the target for mitigation effectiveness.

(2) There are five primary methods for collecting data for a monitoring plan. These include:

(a) Emphasis Items: Develop an Emphasis Item for all OSAs that collects data specific to the non-compliance and associated mitigation.

Example: An En Route facility has completed training of all radar-certified personnel on the use of speed control with terminal arrivals, as required by a CAP. The facility subsequently implements a new Emphasis Item for all OSAs. This Emphasis Item requires each OSA conducted for the next 90 days to specifically assess compliance with the issue. At the end of that time period the data will be assessed to determine the level of compliance with the requirement. Compliance will be used to determine CAP effectiveness.

(b) Log entries: Require entries on the Facility Operations Log (Form 7230-4) in CEDAR. Log entries must be for a specific type operation/occurrence and must include a specific keyword to support the word search function in CEDAR.

Example: A terminal facility has revised and implemented local policies regarding combining/decombining arrival and final positions in the TRACON, as required by a CAP. The facility will require a log entry each time any of these positions are combined/decombined for the next 60 days to determine the level of compliance with the new requirement. Each log entry must include the keyword “FINCAP” to flag the entry for word searches. At the end of that time

period the data will be assessed to determine the level of compliance with the requirement. Compliance will be used to determine CAP effectiveness.

(c) Compliance Verifications: Use the facility's ICV. There must be a checklist item directly related to the non-compliance and mitigation.

Example: A terminal facility has completed training on its local QC OSA sampling plan in response to a CAP (QC OSAs were not being conducted in sufficient numbers to meet the facility defined quarterly target). The facility will assess compliance with the CAP during its upcoming ICV under the checklist item "Quality Control Monitoring." The facility will consider the non- compliance mitigated if the target is met in each quarter remaining in the fiscal year.

(d) PFS Portal: Use data available through the PFS Portal to assess mitigation effectiveness. Facilities must have an LSC to use the PFS Portal.

Example: A terminal facility has completed training of all operational personnel on vectoring and speed control techniques when sequencing arrivals for final approach, as required by a CAP. The CAP was developed in response to a high number of go-arounds due to unstable approaches. After 120 days, the facility's LSC will review track data and ATSAP reports (accessed through the PFS Portal) to assess the effectiveness of the CAP. The LSC will specifically compare go-arounds during this time period to the time period used in the CAP.

(e) MOR data: Use a specific MOR that is directly related to the non-compliance and associated mitigation.

Example: An En Route facility has completed training of all operational personnel on the handling of formation flights, as required by a CAP. After 180 days, the facility will review all "Suspected Loss Involving Formation Flight" MORs to assess compliance with the requirements of joining and separating formation flights. Compliance will be used to determine CAP effectiveness.

(3) Facilities may also use RAP causal factor data in conjunction with the above data sources to assess CAP effectiveness.

(4) Facilities may also use EOR data in conjunction with the above data sources to asses CAP effectiveness.

(5) Facilities may choose to use combinations of any of the above options to maximize their ability to properly assess facility compliance with a specific requirement and determine the effectiveness of a CAP.

b. Critical Points

(1) Facilities must monitor all implemented CAPs to determine their effectiveness and close out the CAP or revise it depending on their findings.

(2) CAP monitoring is primarily accomplished by assessing collected/reported facility data.

(3) There are five primary methods for collecting data for a monitoring plan:

(a) Emphasis Items

(b) Facility Operations Log entries

(c) Compliance Verifications

(d) PFS Portal (must have an LSC)

(e) MOR data

(4) Facilities may also use RAP causal factor and EOR data to supplement the above data sources to determine CAP effectiveness.

14. LOCAL (FACILITY) SAFETY REPORTS

a. Overview

(1) Facilities are encouraged to create regular reports of collected data to support the identification of non-compliance, provide visibility into facility performance, and ensure the facility's QC program is operating as intended. Reports can be generated monthly, quarterly, or at some other frequency depending on available resources, size, and complexity of the facility; the amount of available data; and identified compliance issues. A sample facility safety report is contained in Appendix D of this ATO-SG.

(2) Facilities are encouraged to include the data listed below in their recurring safety reports.

(a) Statuses: This section should list the statuses of required QC processes. The following statuses should be considered:

(i) QC OSAs conducted during the reporting period

(ii) Emphasis Items (include pre-existing Emphasis Items, new Emphasis Items created during the reporting period, and Emphasis Items closed during the reporting period)

(iii)Service reviews conducted during the reporting period (include each different service review (SSR, CER, TMR, SYSIR) and the reason for each)

(iv) Status of current fiscal year ICV (include the percentage of items completed and remaining)

(v) QC Validation information (include numbers of items reviewed and whether this is in accordance with the facility plan for each)

(vi) QC Check information (include status of completed or planned QC Checks for the current fiscal year)

(b) Facility reporting data: This section is intended to provide information on the health of the reporting culture for the facility and assist in trend identification when used with QC data and analyzed through the service review process. The following data should be considered:

(i) Number (by type) of MORs reported during the reporting period

(ii) Number of EORs detected during the reporting period (may include deferred EORs and EORs that were invalidated as losses by QA)

(iii) Number of RAEs during the reporting period and their associated risk score

(c) Findings: This section should provide information on validated instances of systemic facility non-compliance derived from available data sources. The following findings should be considered:

(i) Findings from service reviews (the report should include all topic areas from the CEDAR question tree in which the service review team validated an issue and include a brief synopsis on selected (most serious) identified issues)

(ii) Findings from the ICV (include any items rated non-compliant and their current status (open/closed))

(iii) Findings from QCVs (include any compliance issues identified.

(iv) Findings from QC Checks (include any compliance trends identified on QC Checks conducted during the reporting period)

(d) CAPs: This section should include information on all facility CAPs regardless of the triggering process (for example, CAPs created from service reviews, ICV/ECVs, QCVs, and QC Checks). The following types of CAPs should be considered:

(i) New CAPs created during the reporting period (include the associated monitoring plans)

(ii) CAPs closed during the reporting period (include data indicating how the CAP data target was met)

(iii) Status of pre-existing CAPs not closed during the reporting period (include the status of the associated monitoring plan(s) and any preliminary findings, if available)

15. PFS AND LSCs

a. Overview

(1) The mission of the PFS Program is to facilitate the identification and mitigation of hazards at the local level through LSCs. LSCs provide a collaborative method for facilities to mitigate hazards and participate in a lessons learned method to share ATO safety information. LSCs accomplish these goals by doing the following:

(a) Utilize the Safety Data Portal to collaboratively identify and mitigate local safety hazards.

(b) Review safety problems and perform post-occurrence analysis at the direction of the facility manager and the union principal facility representative to determine systemic causal factors and risk.

(c) If requested, assist the facility Quality Control staff with the performance and documentation of SSRs, TMRs, CERs, SYSIRs, and ICVs; analysis of QC OSA data to monitor facility compliance with ATO directives; and establishment of facility Emphasis Items and QC Checks in accordance with FAA Order JO 7210.634.

(d) Collaborate with other LSCs, as appropriate, when a proposed change or mitigation will affect another facility.

(e) Document all LSC-identified safety issues, mitigations, and lessons learned/best practices in ATC InfoHub. LSCs will provide as much detail as possible and attach all supporting documentation, including the processes and products that have been generated to help mitigate or reduce risk and increase collaboration, participation, and reporting (e.g., training materials, briefing materials, reports).

(f) Information provided on the PFS Portal shall be used to assist in identifying, resolving, or monitoring systemic or organizational safety issues. This information may not be used to attribute an occurrence to an employee, to identify an individual employee, or for IPM purposes.

b. Critical Points with PFS/LSCs

(1) Facilities with an LSC will have access to the PFS website, which includes access to ATC InfoHub and the Safety Data Portal. PFS Portal access is restricted to LSC members.

(2) The Safety Data Portal provides access to multiple data sources, including MOR/EOR data, ATSAP data, and the National Off-load Program, and allows LSCs to compare facility data to cohort facilities, merge different data sources, and mine data for trends.

(3) The Safety Data Portal is primarily utilized by LSCs for the initial identification of potential safety issues/trends. LSCs may identify local systemic safety hazards through their access to the Safety Data Portal.

(4) The Safety Data Portal may also be used for:

(a) CAP monitoring: PFS Portal data can be used to assess the effectiveness of mitigations.

(b) Validation of suspected trends or issues: Potential facility problems identified through other means (e.g., service reviews, QC Checks, Compliance Verifications, Emphasis Items, MOR/EOR data) often require additional data to determine the validity and scope of the issue.

(5) Facilities should use their LSC and the associated Safety Data Portal access as a resource for identifying potential issues or validating suspected issues.

(6) Potential systemic non-compliance identified in the Safety Data Portal may be analyzed through the SSR process to better understand and/or to validate the potential non-compliance.

(7) Facilities are encouraged to use local QC data and PFS portal data together to identify and/or validate the existence of local systemic safety hazards. This is only accomplished through ongoing strong communications between the facility Quality Control staff and LSCs.

Joseph Teixeira
Vice President
Safety and Technical Training

APPENDIX A: QUALITY CONTROL ELEMENTS

DATA COLLECTION

WHAT	WHY	HOW	HOW OFTEN	WHAT TO LOOK FOR
QC OSA	Primary method to assess facility technical performance – assessments **NOT** outcome driven	Must have a facility sampling plan that ensures **ALL** operational positions are assessed on a continual basis	Recommended quarterly target by facility type, number of positions, areas, and/or personnel	Potential trends of systemic facility non-compliance to be assessed in the SSR process
EMPHASIS ITEMS	• Monitoring CAP effectiveness • Validation of suspected trends • Emphasizing special focus issues	Created from customized sub-tasks in OSA module in CEDAR – EIs must have defined start/stop time periods	**No recommended target** The need for EIs should be reviewed regularly based on suspected issues, implemented CAPs, and potential special focus issues	• CAP effectiveness • Suspected issues valid/invalid • Initial data collected – was awareness heightened and/or does an issue exist for SSR review?
MOR/EOR DATA	Method to identify potential trends of systemic facility non-compliance – should be used in conjunction with other QC data	Review groupings (MOR by type and EOR by geography) for potential trends – potential trends **MUST** be assessed through SSR process	**No recommended target** MOR/EOR data should be reviewed on a regular basis – facilities may set a regular schedule (monthly/quarterly)	MOR/EOR groupings associated with: • Sectors/positions • Specific phase of flight • Type of clearance • Airspace configurations
PFS SAFETY PORTAL DATA	• Safety portal merges multiple data sources • Involves front-line employees • Provides powerful tools	Local Safety Council may review Safety Portal data on a continual basis – defined in local charter	**No recommended target** Frequency of data review determined locally through Local Safety Council charter	• Potential systemic facility issues • Potential system improvements
COMPLIANCE VERIFICATIONS	• Monitoring CAP effectiveness • Indicator of targeted QC OSAs, service reviews and EIs • Identification of potential systemic facility non-compliance	**Internal** – collaborative facility teams use standardized checklists to assess facility compliance **External** – collaborative teams use dynamic checklist to assess facility compliance	**Internal CVs** must be conducted **once each fiscal year** **External CVs** are conducted on an **"as-needed"** basis – data-driven or directed by operational leadership	• Assess compliance with each required checklist item – compare actual performance to requirement • Any non-compliance must be assessed for seriousness (high/low) and documented in the CV tool
RISK ANALYSIS PROCESS (RAP) DATA	Risk Analysis Events (RAE) undergo in-depth scrutiny – severity and repeatability are assessed - causal factors are identified – trends combined with QC data can aid facilities in local problem identification	RAP causal factors can be requested from AJI QA staff located in the service area office RAP causal factor data will be available in future CEDAR update	Recommended that facilities request **quarterly** updates to RAP data from AJI QA staff	• Aggregate groupings/trends of RAP causal factors • Compare RAP data to QC OSA data • Use SSR process to fully understand trends before taking corrective action(s)

ASSESS/ANALYZE

WHAT	WHY	HOW	HOW OFTEN	WHAT TO LOOK FOR
SYSTEM SERVICE REVIEW (SSR)	• Analyze collected data to validate potential facility systemic non-compliance • Understand systemic non-compliance • Develop corrective action plans	• Must use collaborative teams • Must use CEDAR question tree to explore all subject areas • Must develop CAPs for all validated issues	**No recommended target** • Required for all yellow/red (non-accident) occurrences • May be conducted post-event • Must be conducted on a regular and random basis – facility needs schedule plan	• Systemic non-compliance • Validate potential non-compliance • Nature/scope of valid non-compliance • Underlying causal factors of valid non-compliance • **Develop CAP for valid issues**
COVERED EVENT REVIEW (CER)	• Review post-accident services • Validate/understand facility systemic non-compliance • Review services provided by employees • Develop individual/facility corrective action plans	• Collaborative teams must use CEDAR question tree • Must review both systemic issues and individual performance • Training via ERC when ATSAP is submitted • Must develop CAPs for all validated systemic issues	**No recommended target** • Required for all fatal accidents in which AT services provided • Must be completed within 3 admin days of accident • Must never be started until ALL required SAR, notifications, and SRTs are completed	• Systemic non-compliance • Validate potential non-compliance • Individual provision of AT services – need for training • Nature/scope of valid non-compliance • Underlying causal factors of valid non-compliance • **Develop CAP for valid issues**
TRAFFIC MANAGEMENT REVIEW (TMR)	• Review significant delay events, special events, and randomly to identify issues that may impact system efficiency • Develop corrective action plans	• Must use collaborative teams • Must use CEDAR question tree to explore all subject areas • Must develop CAPs for all validated issues	**No recommended target** • Randomly • After significant delay events • After special events • When requested by organizational leadership	Identify issues associated with: • TMIs – triggers, scope, effectiveness • Coordination/communication/execution • Facility performance/knowledge gaps • **Develop CAP for valid issues**

ASSESS/ANALYZE

WHAT	WHY	HOW	HOW OFTEN	WHAT TO LOOK FOR
SYSTEMIC ISSUE REVIEW (SYSIR)	Identify, review, validate and address potential facility systemic issues	• SYSIRs can be identified by anyone conducting an OSA, SSR, or CER • Collaborative review process • Facility assigned POC must review and concur, concur/elevate, or non-concur with SYSIR • Concurrence requires CAP	**No recommended target** Initial identification can be done by: • Any OSA reviewer • Any SSR/CER team Facility POC(s) must address all SYSIRs	• Systemic non-compliance • Validate potential non-compliance • Nature/scope of valid non-compliance • Underlying causal factors of valid non-compliance • **Develop CAP for valid (concur) issues**
QUALITY CONTROL CHECKS (QCC)	Identify, review, validate, and address potential facility systemic non-compliance	• Collaborative process • Utilizes QC Check module in CEDAR • Review aggregate facility data for: o QC OSAs o OJT Skill Checks o TMRs o SYSIRs • Document findings and actions in CEDAR	**At least once each fiscal year no closer than 180 days apart** Facilities may review data more often but QC Checks may only be officially documented as noted above	• Initially most prevalent non-compliance • Assess potential risk of non-compliance • Prioritize non-compliance based on risk • Based actions on priority • **Develop CAP for prioritized issues**
INTERNAL COMPLIANCE VERIFICATIONS (ICV)	Uses standardized checklists to Identify facility non-compliance in areas that may not be reviewed through other QC processes	• Collaborative process • Assess facility compliance with specific requirements using a standardized checklist • ICV Teams must: • Monitor operations • Review facility data in CEDAR • Review local orders, SOPs, LOAs • Conduct interviews • Findings must be documented in CV Tool • Non-compliance requires CAP	**Once each fiscal year**	• Instances of non-compliance • Nature/scope of valid non-compliance • Underlying causal factors of valid non-compliance • **Develop CAP for valid issues (non-compliant high requires immediate action)**

CORRECTIVE ACTION PLANS

MUST BE DOCUMENTED IN CEDAR, CV Tool, or ATCInfohub

WHAT	WHY	HOW	HOW OFTEN	WHAT TO LOOK FOR
SPECIFIC MITIGATIONS	To correct specific validated systemic facility non-compliance	• Training • Changes to procedures/processes • Airspace realignment • LOA changes • Changes to local policies • Other actions	Whenever systemic non-compliance is validated and understood through a QC process, corrective actions must be developed and implemented to fix the problem	Corrective actions should: • Specifically address the problem • Target the appropriate audience • Be clearly defined
SCOPE	To ensure corrective actions are targeted to the correct audience (facility-wide, tower-only, ops area only)	Assess the nature of the non-compliance and determine how broadly it exists across the facility	Scope should be assessed for every CAP developed by a facility	Determine prevalence of non-compliance across: • Operational areas • Types of operations (runway crossing, final approach, en route, arrival sector) • Phases of flight (takeoff, climb/descent, level flight, landing)
TIME FRAME	CAPs must be implemented within a specific time frame to ensure completion and to measure actual execution	Assess specific corrective actions and scope to determine appropriate time frame for implementation	Implementation time frame must be assessed and defined for every CAP developed by a facility	Time frames should: • Allow sufficient time for implementation • Ensure facility is aggressive in correcting the problem
MONITORING PLAN	Facility performance must be monitored to assess effectiveness of corrective actions Using collected/reported data is the primary method for monitoring CAPs	**Methods**: • Emphasis Items • Required 7230-4 entries • Internal CVs • PFS Safety Portal • MOR Data • RAP Causal Factors • EOR Data **Must identify who is responsible for monitoring**	• All CAPs must have a monitoring plan to assess effectiveness • **Monitoring plans must have defined time period**	• Nature/severity of non-compliance • Type of corrective action(s) • Match monitoring methods to specific corrective actions • Use multiple monitoring methods • Sufficient time/data to assess CAP effectiveness
EFFECTIVENESS TARGET	Facility performance data collected in monitoring plans must be measured to a defined benchmark to determine CAP effectiveness	Determine required level of compliance for monitoring method(s): • % of compliance • % reduction in causal factors • ICV checklist item rated compliant	Each monitoring plan associated with every CAP must have a **pre-defined** effectiveness target **CAP modification required if target not met**	Effectiveness targets: • Must ensure improved facility compliance • May vary depending on severity of non-compliance • Set high standard for compliance

LOCAL QC ORDERS

WHAT	WHY	CONTENT
QC OSA SAMPLING PLAN	QC order requires local sampling plan	• Target number of OSAs per quarter (see recommended targets) • Schedule for conducting QC OSAs • Method to ensure all functions/positions are reviewed • Method to ensure random selection • Schedule for conducting QC OSAs
RANDOM SSR/TMR PLAN	QC order requires that SSRs and TMRs be conducted on a random or scheduled basis and not being solely conducted post-event – this ensures assessment of facility performance outside of reportable occurrences (negative outcomes)	• Schedule for conducting SSR/TMRs • Method to ensure random selection • Method to ensure all functions/positions are periodically reviewed
SYSIR POC DESIGNATIONS	QC order requires facilities to designate a specific POC for each systemic issue subject area: • Training • Efficiency • Airspace/airport • Procedures • Directives • Equipment • Resource Management	• Identify by position or name the POC for each subject area – this ensures appropriate routing of SYSIRs in CEDAR for review and closure
QC CHECK SCHEDULES	QC order requires QC Checks to be conducted at least once per fiscal year no closer than 180 days apart	• Identify by position or name person responsible for ensuring completion of each QC Check (reminder – requires collaborative team) • Identify time period or date for completion • May describe method for prioritizing non-compliance (prevalence + severity)
QC VALIDATIONS SAMPLING PLANS	QC order requires local sampling plans for all QC Validations	• Target number of validations by week/month/quarter • Method to ensure randomness and all sectors/positions are reviewed • Replay tools to be used (radar AND voice where available) • Schedule that ensures data availability (within data retention time periods) • Feedback process to reviewers • Follow-up process to ensure effectiveness of feedback
MONTHLY AUDIT PROCEDURES	QA order requires monthly ATCT and non-TARP facility audits	• Identify by position or name responsibility for conducting audits • Sampling plan that ensures randomness and sampling of all positions
FACILITY SAFETY REPORT REQUIREMENTS	Recommend facilities develop local safety reports that provide operational management with visibility into facility performance	• Type of data to be included • Frequency of report • Responsibility for creation of report

FACILITY SAFETY REPORTS

WHAT	WHY	CONTENT
STATUS OF REQUIRED QC PROCESSES	Provides operational management with information about ongoing data collection and assessment/analysis of facility performance	• QC OSAs conducted during reporting period • Emphasis Items – Existing EIs, new EIs, terminated EIs • Service Reviews conducted during reporting period – include each type service review and reason for each (post-event, random, targeted) • Status of current Internal CV – include percentage completion • QC Validations – include number reviewed and whether facility target met • QC Checks – status of completed/planned QC Checks for current FY
FACILITY REPORTING DATA	Provides information on the health of the reporting culture and assists in potential trend identification to be assessed through service review processes	• Number (by type) of MORs reported during reporting period • Number of EORs (by geographic area) detected during reporting period • Number and risk score of RAEs during reporting period
VALIDATED FINDINGS	Provides information on validated systemic facility non-compliance (requires action plan)	• Findings from service reviews – topic areas from CEDAR question tree – include summary of selected (most serious) findings • Findings from Internal CV – non-compliant and exemplary items – include current status (open/closed) • Findings from QC Validations – level of compliance • Findings from QC Checks – compliance trends identified during reporting period
CORRECTIVE ACTION PLANS	Provides status of all Corrective Action Plans – existing, new, and recently completed CAPs	• New CAPs created during the reporting period – include monitoring plan • CAPs closed during the reporting period – include data on how effectiveness target was met • Status of existing CAPs not closed during reporting period – status of monitoring plans and preliminary findings if applicable

APPENDIX B: GENERIC FACILITY QUALITY CONTROL ORDER

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

Generic ATCT/TRACON Policy

XYZ
7210.634

SUBJ: Generic ATCT/TRACON Quality Control

1. Purpose of This Order. This order conveys requirements for facility Quality Control (QC) and audit processes in accordance with Federal Aviation Administration (FAA) Order JO 7210.634, *Air Traffic Organization (ATO) Quality Control*, and FAA Order JO 7210.633, *ATO Quality Assurance Program (QAP).*

2. Audience. This order applies to all Generic Air Traffic Control Tower (ATCT)/Terminal Radar Approach Control (TRACON) (XYZ) personnel.

3. Where Can I Find This Order? This order can be found on the facility ACE-IDS Facility Order page, in the facility library, and the FAA Facility Directives Repository website.

4. Distribution. This order is distributed to the Quality Control Group, Eastern Service Center, and to the Director, Air Traffic Services, _____(geographic location, e.g., South Central).

5. Background. Compliance with national QC and Quality Assurance (QA) directives requires air traffic facilities to develop local plans for operational sampling, analysis, validations, audits, checks, compliance verifications, emphasis items, Point of Contact (POC) designations, corrective actions, and internal safety reports.

6. Applicable Policy and Related Documents.

a. FAA Order JO 7210.634

b. FAA Order JO 7210.633

c. FAA Order JO 1030.3, *Initial Event Response*

d. ATO-SG-12-05, *Navigating the Proactive Safety Management Orders*, dated January 7, 2013

e. ATO-SG-XX-YY, *Guidance for an Effective Air Traffic Facility Quality Control Program*

7. QC Operational Skills Assessment (QC OSA) Sampling Plan.

a. Generic ATCT/TRACON will complete a minimum of 52 QC OSAs per quarter. This target includes QC OSAs on all types of positions (Certified Professional Controller (CPC), Front Line Manager (FLM) / Controller In Charge (CIC), Traffic Management Coordinator (TMC)).

b. QC OSAs will be conducted by operational management and support staff. The support manager for Quality Control must collaborate with the operations managers to coordinate support staff and FLM accomplishment of QC OSAs and is responsible for ensuring quarterly targets are met.

c. QC OSAs must be conducted on all operational positions in each quarter. The support manager for Quality Control is responsible for ensuring this requirement is met.

d. QC OSAs will be no less than thirty (30) minutes in duration.

e. QC OSAs will be conducted utilizing playback tools to the maximum extent possible. Falcon and voice data must be attached to each QC OSA in the Comprehensive Electronic Data Analysis and Reporting (CEDAR) tool.

8. Service Review Sampling Plans. Facilities must conduct service reviews randomly and post event. This section describes the specific triggers and methods for ensuring compliance with national requirements for service reviews.

a. System Service Reviews (SSRs).

(1) The purpose of SSRs is three-fold: To identify and understand active and latent factors that are causal to a reported safety occurrence; to validate (or invalidate) a potential facility-systemic issue and identify and understand the active and latent causal factors for validated issues; and to randomly assess air traffic services on a regular basis to ensure comprehensive reviews are conducted on all aspects of the facility's operations.

(2) SSRs are not a mechanism for individual performance management, however if performance is notable, it must documented in the SSR OSA (i.e., QC OSA, which is de-identified) and combined with other QC OSAs to be used as aggregate data.

(3) SSRs must be conducted outside of the operation. SSRs must be conducted collaboratively with union participation; the principal facility union representative (or their designee) must be afforded the opportunity to participate in SSRs.

(4) SSRs must be documented in CEDAR. The collaborative team must thoroughly consider each of the required topics in the CEDAR question tree (including the possibility of any systemic issues).

(5) SSRs must be conducted after any non-accident safety occurrence color-coded red or yellow per FAA Order JO 1030.3; NATCA/FAA MOU, dated January 18, 2013, Section 10; and NATCA/FAA MOU, dated October 26, 2011, Section 7.

(6) SSRs must be conducted to validate and understand a suspected facility-systemic issue initially identified through a review of facility data (OSA, Emphasis Item, Mandatory Occurrence Report (MOR) / Electronic Occurrence Report (EOR), or Risk Analysis data).

(7) SSRs may be conducted in response to potential compliance issues associated with a reported safety occurrence. The support manager for Quality Control will determine when to conduct select post-event SSRs.

(8) SSR-validated issues must have a corresponding Corrective Action Plan (CAP) or must be identified in CEDAR as a potential systemic issue to be addressed in the Systemic Issue Review (SYSIR) process.

(9) Generic ATCT/TRACON must conduct a minimum of four (4) SSRs per month. An SSR must be conducted on every operational position a minimum of once per fiscal year. SSRs conducted post-event or triggered by potential systemic issues may satisfy this requirement. The support manager for Quality Control is responsible for ensuring that these requirements are met and will direct random SSRs as necessary.

b. Traffic Management Reviews (TMRs).

(1) The purpose of TMRs is to identify and understand active and latent factors that are causal to a significant delay or special event and to randomly assess traffic management services on a regular basis to ensure comprehensive reviews are conducted on facility operations that may impact system efficiency.

(2) TMRs must be conducted outside of the operation. TMRs must be conducted collaboratively with union participation; the principal facility union representative (or their designee) must be afforded the opportunity to participate in TMRs.

(3) TMRs must be documented in CEDAR. The collaborative team must thoroughly consider each of the required topics in the CEDAR question tree (including the possibility of any systemic issues).

(4) The primary triggers for conducting a TMR are after significant delay events (due to weather, equipment outages, Traffic Management Initiatives, etc.), after special event activities (e.g., sporting events, fly-ins, Temporary Flight Restrictions, etc.), and at the request of operational management.

(5) TMRs must be conducted when requested by Air Traffic Services or System Operations organizational leadership.

(6) Generic ATCT/TRACON must conduct a minimum of two (2) TMRs per month. TMRs conducted post-delay or special event satisfy this requirement. The traffic management officer is responsible for ensuring that these requirements are met and will direct random TMRs as necessary.

c. SYSIR POCs. The POCs for reviewing and adjudicating potential systemic issues are:

(1) Training and directives – the support manager for Quality Control and training

(2) Efficiency – the traffic management officer

(3) Airspace/airport, procedures, and equipment – the support manager for airspace and procedures

9. QC Validation Sampling Plans. The support manager for Quality Control and training is responsible for ensuring all QC Validations are conducted in accordance with the following requirements.

a. OSA Validations.

(1) Generic ATCT/TRACON will validate a minimum of four (4) OSAs per month. This target includes QC OSAs on all types of positions (CPC, FLM/CIC, TMC).

(2) OSA Validation samples should be randomly selected but must ensure each sector/position is reviewed a minimum of once each six (6) months.

(3) Radar sector/position OSA Validations must use Falcon with voice to review and compare demonstrated technical performance against that documented in the original OSA. Tower validations must use voice data to review and validate the OSA.

(4) Feedback. Systemic issues/trends identified through validations of OSAs will be forwarded to the support manager for Quality Control and training for dissemination to personnel conducting OSAs.

(5) Follow-up. The support manager for Quality Control and training must review OSA Validation findings for a time period to be defined to determine if previously identified systemic issues/trends have been resolved.

b. Certification Skill Check Validations.

(1) Generic ATCT/TRACON will validate a minimum of 20% of all Certification Skill Checks conducted per quarter.

(2) Certification Skill Check Validation samples must be randomly selected.

(3) Radar sector/position Certification Skill Check Validations must use Falcon with voice to review and compare demonstrated technical performance against that documented in the original Certification Skill Check. Tower validations must use voice data to review and validate the Certification Skill Check.

(4) Feedback. Issues identified through Certification Skill Check Validations will be forwarded to the appropriate operations manager for feedback to the supervisor performing the original Certification Skill Check.

(5) Follow-up. The responsible operations manager is responsible for ensuring identified issues are corrected.

c. On-the-Job Training (OJT) Documentation Validations.

(1) Validation samples for OJT documentation must be randomly selected.

(2) Radar sector/position OJT Validations must use Falcon with voice to review and compare demonstrated technical performance against that documented in the original OJT documentation. Tower validations must use voice data to review and validate the OJT documentation.

(3) Feedback. Systemic issues/trends identified through validations of OSAs will be forwarded to the support manager for Quality Control and training for dissemination to personnel conducting OJT.

(4) Follow-up. The support manager for Quality Control and training must review OJT Documentation Validation findings for a time period to be defined to determine if previously identified systemic issues/trends have been resolved.

10. QC Check Schedules. The support manager for Quality Control and training is responsible for ensuring all QC Checks are conducted in accordance with the following requirements.

a. The support manager for Quality Control and training will designate the lead POC for the collaborative team conducting a QC Check and solicit union participant(s) for the team. The lead POC is responsible for scheduling meetings and documenting the findings of the QC Check.

b. Issues identified through a QC Check must have a corresponding CAP documented in CEDAR.

c. OSA Checks. OSA Checks must be conducted during the first quarter of the fiscal year.

d. OJT Checks. OJT Checks must be conducted during the second quarter of the fiscal year.

e. Efficiency Checks. Efficiency Checks must be conducted during the third quarter of the fiscal year.

f. System Performance Checks. System Performance Checks must be conducted during the fourth quarter of the fiscal year.

11. Monthly Audit of Tower Voice Data. Generic ATCT/TRACON must conduct monthly audits of tower voice data to assess effectiveness in identifying and reporting MORs. The support manager for Quality Control and training is responsible for ensuring monthly tower voice audits are accomplished in accordance with FAA Order JO 7210.633 and the following requirements.

a. A minimum of two (2) hours of voice data of tower operations must be reviewed per month. Multiple positions may be reviewed each month to satisfy the two-hour requirement; however, no single position will be reviewed for less than thirty (30) minutes.

b. Each tower position of operation must be reviewed a minimum of once per quarter.

c. A minimum of one (1) hour per month of voice data reviewed must include time periods of known peak traffic. Midnight shift operations must be reviewed for a minimum of one (1) hour per quarter.

d. Monthly audits should include time periods of low instrument meteorological conditions when such periods occurred during the month under review.

e. Personnel conducting audits should review MOR data and identify groupings of go-around and/or Airport Surface Detection Equipment alert reports and focus periodic audits on these occurrences to ensure proper identification and reporting of occurrences.

f. Any reportable occurrences identified through this audit process must be reported as soon as possible through the MOR process defined in FAA Order JO 7210.632 using CEDAR.

g. Suspected systemic issues or other potential operational concerns should be referred to the system service review process for proper analysis.

12. Facility Safety Report. Generic ATCT/TRACON must create a monthly safety report that reviews overall facility performance and ensures the facility's QC program is operating as intended. The support manager for Quality Control and training is responsible for creating and updating this monthly report. The report shall be published no later than the 15th of each month and shall provide information from the previous month. The report shall include the following information.

a. Update on QC processes conducted during the reporting period. QC process updates must include:

(1) The number of QC OSAs conducted during the previous month and for the fiscal year through the previous month.

(2) A list of all Emphasis Items to be reviewed during QC OSAs. The report must breakout Emphasis Items into new items created during the reporting month, items closed/deleted during the reporting month, and those that are still active.

(3) Service reviews conducted during the previous month. Service reviews must be listed by type and include the reason (trigger) for each.

(4) Status of the current fiscal year Internal Compliance Verification (ICV). Include the percentage of items completed and remaining.

(5) The number of QC Validations conducted during the previous month and for the fiscal year through the previous month. Include whether these numbers are in compliance with the facility sampling plan.

(6) Status of current fiscal year QC Checks. Include completed QC Checks when the next check is planned.

b. Update on facility reporting data during the period. Facility reporting updates must include the following items.

(1) Number (by type) of MORs reported during the previous month and fiscal year to date.

(2) Number of EORs detected during the previous month and fiscal year to date (EORs must be listed as deferred, closed, and those that were validated by Safety and Technical Training QA as losses of separation).

(3) Number and risk score of risk analysis events during the previous month and fiscal year to date. Information must include aggregate and individual causal factors associated with facility Risk Analysis Events (RAEs). RAE data may be obtained from AJI Service Area staff.

(4) Fatal accidents with air traffic control services during the previous month and fiscal year to date.

(5) Significant events color-coded red or yellow during the previous month and fiscal year to date, per FAA Order JO 1030.3; NATCA/FAA MOU, dated January 18, 2013, Section 10; and NATCA/FAA MOU, dated October 26, 2011, Section 7.

c. Update on validated instances of systemic facility non-compliance identified from available data and analyses. Updates on facility findings must include:

(1) Validated systemic non-compliance identified through any service review (SSR, Covered Event Review, TMR, SYSIR) during the previous month. Issue descriptions must include the type service review conducted, the topic area identified in the CEDAR question tree, and brief synopsis of the issue.

(2) Any compliance issues identified through QC Validations during the previous month. Issue descriptions must include the type validation conducted and a brief description of the non-compliance.

(3) Any compliance trends identified through QC Checks during the previous month. Issue descriptions must include the type of check conducted and a brief description of the trend.

(4) Any items rated non-compliant during the current fiscal year facility ICV (update monthly). Issue descriptions must include the checklist item and its current status.

d. Status of facility CAPs. This includes any CAP for Generic ATCT/TRACON. CAPs may be generated in response to service reviews, ICV / External Compliance Validation, QC

Validations, QC Checks, significant events, fatal accidents, and/or as required by the district manager/director of operations. Updates on facility CAPs must include:

(1) Any new CAP generated during the previous month. The information for each CAP must include the process for identification, a description of the issue, the specific mitigations, and all aspects of the monitoring plan to determine mitigation effectiveness.

(2) Any CAPs closed during the previous month. Information must include data collected in accordance with the monitoring plan and demonstrate how the mitigation effectiveness target was met.

(3) Status of open CAPs not closed during the previous month. Information must include a brief description of the issue, status of the monitoring plan, and when applicable, any preliminary findings from data collected in accordance with the monitoring plan.

APPENDIX C: DATA COLLECTION

This appendix contains specific information about how, why, and how often facilities should be collecting and reviewing Quality Control (QC) / safety data in order to identify potential issues.

1. QC OPERATIONAL SKILLS ASSESSMENTS (QC OSAs)

a. QC OSAs are de-identified samplings of individual technical performance and may not be used for or to trigger Individual Performance Management (IPM) actions.

b. Each QC OSA must accurately capture the technical performance demonstrated during that session. Data captured during QC OSAs is the basis for many other QC processes; accurate documentation is essential to ensure proper identification of facility performance issues.

c. QC OSAs may be conducted by both management and non-management facility staff since they will only be used for identifying facility systemic issues and not for IPM.

d. Any OSA created within a System Service Review (SSR) is a QC OSA and must not include any personally identifiable information.

e. Results of QC OSAs must be documented in the "Create QC OSA" module in the Comprehensive Electronic Data Analysis and Reporting (CEDAR) tool.

f. QC OSAs must only be used to identify facility/organizational systemic non-compliance.

g. Facility QC OSA sampling plans must assess each type of operational/control position including watch supervision and traffic management.

h. QC OSAs may be conducted via real-time remote monitoring, real-time co-located monitoring, or via playback tools. Facilities are encouraged to utilize available playback tools as their primary method of conducting QC OSAs.

i. Facilities must regularly review aggregate results from completed QC OSAs and identify potential facility systemic non-compliance. The "OSA Report" in CEDAR displays aggregate information on QC OSA results for a user selected date range.

j. Potential systemic non-compliance identified in QC OSAs must be analyzed through the SSR or the Compliance Verification processes to validate and understand the potential non-compliance.

k. Facilities are required to conduct a number of QC OSAs that will ensure an accurate assessment of facility performance. The quarterly target, listed in Table C.1 and Table C.2 below, provides a 95% confidence level that QC OSA data collected will meet this accuracy threshold. These targets were developed by analyzing facility types and the associated numbers of certified operational personnel or operational areas. Applying this analysis to a statistical model provides the resultant QC OSA target value.

Table C.1: Terminal Quarterly QC OSA Plan by Facility

Terminal Quarterly QC-OSA Plan by Facility	
Certified Facility Personnel Range	**CPC OSA Target**
0-50	Half of Staff
51-75	31
76-100	41
101-125	52
126-150	61
151-175	70
176-200	79
201-225	87
226-250	95

Table C.2: En Route Quarterly QC OSA Plan by Facility

En Route Quarterly QC-OSA Plan by Facility	
# of Operational Areas	**Quarterly OSA Target (25 x # of Areas)**
8	200
7	175
6	150
5	125
4	100
ZAN, ZSU, ZUA	Half of Staff

2. EMPHASIS ITEMS

a. Emphasis Items are prioritized custom sub-tasks in OSAs and should be used to collect data on specific focus items for a period of time defined by the facility.

b. An Emphasis Item can be developed for any issue beyond the standard sub-tasks in the CEDAR OSA forms.

c. Facilities can choose to develop an Emphasis Item or may be directed to do so by their district manager, director of operations, or vice president.

d. There are three primary purposes of Emphasis Items.

(1) Monitoring Corrective Action Plans (CAPs): Collecting data to assess the effectiveness of corrective actions implemented to mitigate a specific hazard.

(2) Collecting additional data to validate suspected trends or issues: Potential facility problems identified through other means (e.g., service reviews, QC Checks, Compliance Verifications, PFS Portal data, Local Safety Council (LSC) identification) often require additional data to determine the validity and scope of the issue. Facilities are encouraged to use Emphasis Items as a method of collecting such data.

(3) Emphasizing special focus issues: Facilities, districts, Service Areas, and/or Service Units may use Emphasis Items to place special focus on specific issues by requiring a topic to be assessed in every OSA conducted within the applicable location/organization. Collected data must be used to assess compliance with the requirement under review.

e. Emphasis Items must be entered into CEDAR to ensure documentation and organizational visibility into collected data.

f. Facilities can create an Emphasis Item by first creating a custom sub-task in their OSA module. Once a custom sub-task is created, checking the "emphasis item" radio button for that custom sub-task will move it to the top of the OSA form and identify it as an Emphasis Item.

g. Each Emphasis Item must have a defined start and stop time period associated with it. Facilities should select a time period that will ensure sufficient data is collected on the sub-task (a minimum of 60 days is recommended).

h. Facilities should regularly review both custom sub-tasks and Emphasis Items in their local OSAs to revalidate the need for each and make revisions as necessary. Large numbers of custom sub-tasks can overload OSA evaluators resulting in items being overlooked or not assessed. Conversely, small numbers of custom sub-tasks can result in data being missed on items important to a facility. Routine review of these custom items ensures the local list of sub-tasks remains fresh and relevant to operation of the facility.

3. MANDATORY OCCURRENCE REPORT (MOR) / ELECTRONIC OCCURRENCE REPORT (EOR) DATA – GROUPINGS/TRENDS AND SIGNIFICANT EVENTS

a. Facilities should review local MOR and EOR data to identify potential patterns or trends that may be indicators of facility non-compliance. The review should not exclusively focus on loss of separation occurrences. It is expected that MOR and EOR data be reviewed on a regular basis. However, based on the volume of potential occurrences that can be generated at some

facilities, this review is not intended to create a workload that consumes all QC efforts or resources.

b. Facilities should start their review by initially focusing on groupings of MOR types or geographic groupings of EORs. Facilities should target only MORs that have been validated by the Service Area Quality Assurance staff and have been closed. Facilities may focus on both EORs that have been validated and invalidated as losses as well as deferred EORs. Non-loss EORs may be indicators of needed changes to Traffic Analysis Review Program configurations, airspace alignment issues, procedures that increase Traffic Collision Avoidance System resolution advisories, or other issues that may warrant attention.

c. Facilities should then determine whether the MOR or EOR groupings are associated with various aspects of the facility's operation. These would include but not be limited to:

(1) Certain sectors/positions,

(2) Specific aircraft phases of flight (e.g., final approach, landing, takeoff, departure, en route (level flight and transition to/from terminal areas)),

(3) Types of clearances (e.g., holding instructions, runway crossings, radar vectors, final approach course intercept vectors, climb/descent clearances, speed control), and

(4) Specific airspace configurations (e.g., shelved airspace, special use airspace, frequently combined sectors/positions).

d. Some individual MORs and EORs may involve substantial compliance issues and/or qualify as potential significant events that warrant immediate corrective actions. These issues should always be assessed through the SSR process to ensure the problem, its scope, and its underlying factors are well understood and appropriately addressed.

Note: In certain cases, facilities may need to implement corrective actions prior to conducting an SSR. When this occurs, an SSR should be conducted as soon as possible to validate or modify the issue and CAP. Criteria and the notification processes for significant events are contained in Federal Aviation Administration (FAA) Order JO 1030.3, *Initial Event Response*.

e. Potential systemic non-compliance identified in MORs or EORs must be assessed through the SSR process to validate and understand the potential facility non-compliance. Facilities with established LSCs are encouraged to use their LSC to review, identify, and mitigate facility systemic non-compliance. This includes using LSCs in the service review process.

4. COMPLIANCE VERIFICATIONS (INTERNAL AND EXTERNAL)

a. Compliance Verifications use checklists to assess facility compliance and implement corrective actions on specific items. Facilities must complete an Internal Compliance Verification (ICV) once each fiscal year utilizing the Compliance Verification Tool (CVT). External Compliance Verifications (ECVs), which are also documented in the CVT, are

conducted primarily by the Service Center Quality Control Groups and are based on data-driven indicators of risk.

b. Facilities should use Compliance Verifications in three ways:

(1) CAP monitoring: Use the results of ICV and ECV checklist items as indicators of the effectiveness of mitigations.

(2) Indicators of potential target areas: These target areas include QC OSAs, non–event-driven service reviews (SSRs and Traffic Management Reviews (TMRs)), and possible Emphasis Items.

(3) Identification of potential systemic issues: Potential systemic non-compliance identified through the evaluation of checklist items must be analyzed through the SSR process or by the Compliance Verification Team in order to validate and understand the potential facility non-compliance. Facilities with established LSCs are encouraged to use their LSC to review, identify, and mitigate facility systemic non-compliance. This includes using LSCs in the ICV/ECV and service review process.

5. RISK ANALYSIS PROCESS (RAP) DATA

a. Safety and Technical Training (AJI) manages and executes the RAP program. RAP conducts in-depth analyses of individual occurrences that meet the criteria for a Risk Analysis Event (RAE). This process assesses multiple factors to determine the severity, repeatability, and associated causal and sub-factors for each RAE. RAP is a standardized process focused on consistently and effectively identifying and addressing systemic risk.

b. RAEs include occurrences that include both air traffic control and pilot involvement. Some RAEs may solely involve pilot actions or inactions.

c. RAP is designed to identify risk systemically across the National Airspace System. It is not intended for nor designed as a method to identify individual event risk factors for local action.

d. Facilities should not rely solely on RAP results from individual events as a means of identifying local problems needing correction.

e. Facilities should review aggregate groupings or trends of causal factors identified in RAP and use them in conjunction with other QC data. RAP causal factor groupings/trends should be compared to QC OSA data (or other data sources) to provide facilities with additional information that will enable them to better focus their service reviews or to create Emphasis Items to collect additional data.

f. Potential facility compliance issues must not be identified from individual RAE causal factors. This should only occur after comparison with facility QC data and an assessment of all pertinent data within the service review process. RAE causal factors can supplement a service review or LSC activities but must not be the primary or sole reason for implementing facility corrective actions.

g. RAP causal factors can be requested from the AJI Quality Assurance staff located in the Service Area office. RAP causal factor data will be available through CEDAR in a future update.

6. QC CHECK DATA

a. QC Checks require facilities to look for trends on an annual basis and provide a bridge from data collection to understanding data. Data sources facilities are required to review in QC Checks are:

(1) QC OSAs

(2) On-the-Job Training Skill Checks

(3) TMRs

(4) SYSIRs

b. Facilities may, and are encouraged to, review the above data at any time to identify potential trends.

c. Facilities must conduct a QC Check at least once per fiscal year. Facilities that perform ongoing reviews of any of the above data should ensure one is performed as a QC Check each fiscal year to satisfy the annual fiscal requirement.

d. When conducting a QC Check, facilities must use the appropriate QC Check module in CEDAR. This ensures documentation of any identified issues and implemented mitigations.

e. When conducting a QC Check, facilities must review the aggregate data presented within each respective QC Check module. Reviews should include a qualitative analysis of the most prevalent issues, focusing on those with the most serious potential hazards.

f. Potential systemic issues may require further analysis to ensure sound hazard identification.

APPENDIX D: ASSESSING AND ANALYZING COLLECTED DATA

This appendix contains specific information about how, why, and how often facilities should be assessing and analyzing collected Quality Control (QC) / safety data.

1. SYSTEM SERVICE REVIEWS (SSRs)

a. SSRs are an in-depth, comprehensive, and collaborative facility operational review.

b. SSRs may be triggered for a variety of reasons. The primary triggers for conducting an SSR are:

(1) To validate a suspected facility systemic issue identified through a review of collected QC data.

(2) In response to potential compliance issues associated with a single reported/detected safety occurrence.

c. Facilities must also conduct SSRs on a random or scheduled basis to review the delivery of air traffic services. Facilities are encouraged to develop local plans for conducting random/scheduled SSRs. When conducting random or scheduled SSRs, facilities should focus on specific positions or operational areas (e.g., the arrival positions in a Terminal Radar Approach Control (TRACON), ground control in an Airport Traffic Control Tower (ATCT), an operational area in an Air Route Traffic Control Center (ARTCC), arrival sectors to a common approach control in an ARTCC) when determining when and where to focus the SSR.

d. SSRs must be conducted post-event for any non-accident occurrence color-coded yellow or red, in accordance with Federal Aviation Administration (FAA) Order JO 1030.3, *Initial Event Response*; National Air Traffic Controllers Association (NATCA) / FAA Memorandum of Understanding (MOU), dated January 18, 2013, Section 10; and NATCA/FAA MOU, dated October 26, 2011, Section 7.

e. There is no recommended target number of SSRs to conduct. However, facilities are encouraged to conduct SSRs often, resources permitting. Greater numbers of SSRs increase the opportunity to identify systemic facility issues.

f. SSRs must be conducted in a collaborative manner.

g. SSRs must be documented in the Comprehensive Electronic Data Analysis and Reporting (CEDAR) tool. The collaborative team must thoroughly consider each of the required topics in the CEDAR question tree (including the possibility of any systemic issues).

h. Facility issues validated through an SSR must result in either a Corrective Action Plan (CAP) that addresses the specific issue or be identified as a potential Systemic Issue Review (SYSIR) for a CAP to be developed through that process. Each section in the CEDAR question tree includes the option for identification of a potential systemic issue. A particular issue should only be identified as systemic if the scope is either beyond the facility level or requires resources and/or information beyond the capabilities of the SSR team to adequately address the issue.

i. Resultant SSR CAPs must be documented in CEDAR.

2. COVERED EVENT REVIEW (CER)

a. CERs are an in-depth, comprehensive, and collaborative facility operational review focused on fatal aircraft accidents.

b. CERs must be conducted after any aircraft accident involving fatalities in which air traffic services were provided, in accordance with FAA Order JO 7210.634, *Air Traffic Organization (ATO) Quality Control*; FAA Order JO 1030.3; NATCA/FAA MOU, dated January 18, 2013; and NATCA/FAA MOU, dated October 26, 2011, Section 7.

c. A CER must never be initiated until all search and rescue activities, required notifications, and services rendered teleconferences have been completed.

d. The last employee(s) providing air traffic control services must be relieved from the operational position as soon as feasible and must remain relieved from operational duties until the CER and associated training, if assigned, are completed.

e. A CER must be completed within three administrative days of the fatal accident under review.

f. CERs must be conducted in a collaborative manner.

g. CERs must be documented in CEDAR. The collaborative team must thoroughly consider each of the required topics in the CEDAR question tree (including the possibility of any systemic issues).

h. CERs must also review and document the provisions of air traffic services by involved employees. This review must be documented via the CER OSA.

i. If involved employee(s) do not submit an Air Traffic Safety Action Program (ATSAP) report and the employee's supervisor believes training is warranted, the supervisor will assign appropriate training and ensure completion and documentation in accordance with FAA Order JO 3120.4, *Air Traffic Technical Training*.

j. If involved employee(s) submit an ATSAP report and the employee's supervisor believes training is warranted, the facility must submit its training recommendation to the ATSAP Event Review Committee (ERC) for consideration; joint, collaborative management/NATCA submissions are always preferred, however separate recommendations will be accepted by the ERC.

Note: Immediate ERC review of facility training recommendations as a result of a CER is required in accordance with FAA Order JO 7200.20 3, *Voluntary Safety Reporting Program (VSRP)*, paragraph 5c(3), and the FAA/NATCA MOU, dated January 18, 2013.

k. When an ATSAP report has been submitted, facilities must only administer ERC-assigned training. Documentation of ERC-assigned training must comply with existing requirements.

l. Any facility compliance issues validated through a CER must result in a CAP that addresses the specific issue. Facility issues validated through a CER must result in either a CAP that

addresses the specific issue or be identified as a SYSIR for a CAP to be developed through that process. Each section in the CEDAR question tree includes the option for identification of a potential systemic issue. A particular issue should only be identified as systemic if the scope is either beyond the facility level or requires resources and/or information beyond the capabilities of the CER team to adequately address the issue.

m. Resultant CER CAPs must be documented in CEDAR.

3. TRAFFIC MANAGEMENT REVIEW (TMR)

a. TMRs are an in-depth, comprehensive, and collaborative facility operational review focused on identifying issues that may impact system efficiency.

b. TMRs should only be conducted at facilities with a Traffic Management Unit (TMU) or at the Air Traffic Control System Command Center.

c. TMRs may be triggered for a variety of reasons. The primary triggers for conducting a TMR are:

(1) Significant delay events (due to weather, equipment outages, Traffic Management Initiatives, etc.),

(2) Special event activities (e.g., sporting events, fly-ins, Temporary Flight Restrictions), and

(3) A request from operational management.

d. Facilities must also conduct TMRs on a random or scheduled basis to review the services provided by TMUs. When conducting random or scheduled TMRs, facilities should focus on specific traffic management positions or functions when determining when and where to focus the TMR.

e. TMRs must be conducted when requested by Air Traffic Services or System Operations organizational leadership.

f. There is no recommended target number for TMRs to conduct. However, facilities are encouraged to conduct TMRs often, resources permitting. Greater numbers of completed TMRs increase opportunities to identify potential systemic facility issues.

g. TMRs must be conducted in a collaborative manner.

h. TMRs must be documented in CEDAR. The collaborative team must thoroughly consider each of the required topics in the CEDAR questions tree (including the possibility of any systemic issues).

i. Any facility issues validated through a TMR must result in a CAP that addresses the specific issue.

j. Resultant TMR CAPs must be documented in CEDAR.

4. SYSIR

a. SYSIRs are a comprehensive and collaborative review of potential systemic issues identified during OSAs, SSRs, and CERs.

b. Any individual conducting an OSA can identify a potential systemic issue.

Example: When conducting a QC OSA, the reviewer identifies the incorrect application of vectors to intercept the final approach course. The reviewer believes this may be more widespread beyond one QC OSA and that a possible systemic training issue may exist in the facility. The reviewer enters a potential systemic training issue in the OSA and describes the issue. The SYSIR is then forwarded to the facility lead/designee for all Training SYSIRs for review.

c. An SSR or CER collaborative team may determine that the scope of an issue warrants review under the SYSIR process.

Example: When conducting an SSR, the collaborative team determines via interviews that the application of tower visual separation is not being properly applied by facility personnel due to knowledge gaps and poor understanding of the language in FAA Order JO 7110.65, *Air Traffic Control*. As a result, the team believes a potential systemic issue of directives and training exists in the facility. The team enters both a potential systemic directives and training issue in the SSR and respectively describes both issues. Each SYSIR is then forwarded to the facility lead/designee for Directives and Training SYSIRs for review. The two SYSIRs will be linked through the original SSR to ensure they are reviewed in tandem.

d. The responsible facility Point of Contact (POC) and collaborative team must review each SYSIR forwarded for their review.

e. The collaborative team must examine each potential systemic issue sufficiently to determine its validity. Reviews may include but not be limited to the following:

(1) Interviews of operational and/or staff personnel

(2) Review of collected data (e.g., QC OSA data, Mandatory Occurrence Report/Electronic Occurrence Report data, Risk Analysis Process causal factor data, Compliance Verification data, Emphasis Item data)

(3) Reviews of:

(a) Facility training items (e.g, On-the-Job Training (OJT), recurrent, refresher, Mandatory Briefing Items (MBIs))

(b) Directives

(c) Equipment installation, operation, configuration, availability, etc.

(d) Local/national directives

(e) Traffic Management Initiatives, procedures, compliance, etc.

(f) Partnership for Safety (PFS) Portal data (must have a Local Safety Council)

(4) Collection of additional data through Emphasis Items or the facility Internal Compliance Verification (ICV).

f. It is the responsibility of the POC/lead and the team to ensure each issue is objectively reviewed and that no issue is pre-judged prior to the team's review.

g. Once the review is complete, the team has three options:

(1) Do Not Concur: No further action is required

(2) Concur: A CAP is required

(3) Concur and Elevate: A CAP is pending higher-level organizational guidance

h. Resultant SYSIR CAPs must be documented in CEDAR.

5. QC CHECKS

a. QC Checks are an annual required review of aggregate facility data intended to identify potential systemic non-compliance.

b. QC Checks support data collection but are also an initial step toward identifying and understanding (assessing) potential facility non-compliance.

c. QC Checks must be conducted in accordance with Article 51 of the FAA/NATCA Collective Bargaining Agreement, which defines union participation. Facilities are encouraged to establish collaborative teams to conduct QC Checks.

d. When reviewing aggregate data, QC Check Teams must:

(1) Initially identify the most prevalent non-compliance issues using the check module in CEDAR.

(2) Carefully assess each non-compliance issue and prioritize them based on a combination of prevalence and the potential risk associated with each issue. This assessment should consider the likelihood of recurrence (number of opportunities) and the possibility of a high-consequence outcome. Figure D.1 depicts the relationship between prevalence (recurrence) and consequence, as well as when action is normally required.

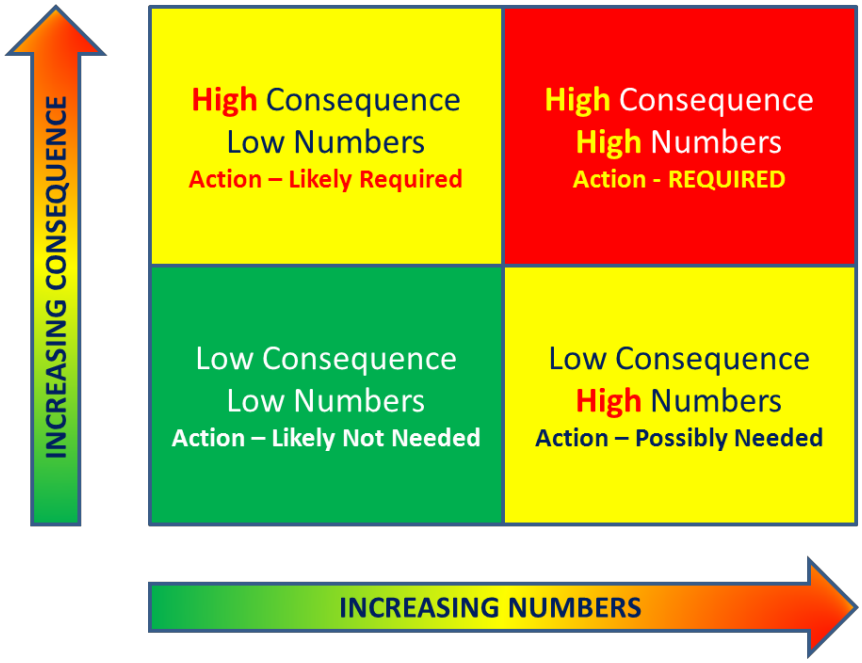

Figure D.1: Prevalence Versus Consequence

(3) Based on the results of this prioritization, determine which issues warrant action. Actions may include:

(a) Development of a CAP by the QC Check Team,

(b) Referral of the issue to an SSR Team for additional analysis, or

(c) Collection of additional data through Emphasis Items or monitoring of future QC OSAs.

(4) As depicted in Figure D.1, low-consequence/low-number non-compliance issues will likely not warrant immediate action.

(5) QC Check Teams should focus their efforts on higher consequence non-compliance issues using the expertise of collaborative teams to develop effective plans to correct the issue.

e. Resultant QC Check CAPs must be documented in CEDAR.

6. COMPLIANCE VERIFICATIONS

a. ICVs assesses compliance with specific requirements using a checklist. Facilities must conduct an ICV once per fiscal year and assess compliance with each required checklist item.

b. Use of a standardized checklist requires facilities to assess requirements that may not normally be reviewed through other QC processes.

c. Facilities should use a variety of methods to assess compliance with checklist items. This includes monitoring of operations (live and via playback tools), reviewing collected data in CEDAR, and interviewing facility personnel.

d. It is imperative that facilities document all non-compliance identified through the ICV process. This ensures an accurate record of facility compliance and correction.

e. External Compliance Verifications (ECVs) assess compliance with requirements based on data collected and assessed by Service Area and/or headquarters Quality Control and/or Quality Assurance staff. ECVs are conducted on an "as-needed" basis by teams from outside of a facility.

f. ICVs and ECVs must be conducted in accordance with Article 51 of the FAA/NATCA Collective Bargaining Agreement, which defines union participation. Facilities are encouraged to establish collaborative teams to conduct ICVs.

g. Items assessed as non-compliant require a corrective action (mitigation) plan. CAPs must be documented in the Compliance Verification Tool (CVT), which can be accessed through the PFS Portal.

h. Facilities may use SSRs to better understand non-compliance identified through the ICV process. SSR findings must be documented in CEDAR; any additional information or findings related to the original non-compliance should also be documented in the CVT in the mitigation section for the appropriate issue.

7. CARs AND CAPs OVERVIEW

Finding and fixing safety issues is the primary purpose of the Safety Management System (SMS). The Air Traffic Organization (ATO) helps ensure the safety and efficiency of air traffic services provided by implementing national, Service Area, and local requirements. Quality Assurance and Quality Control support the ATO SMS by helping identify safety issues and non-compliance with national, Service Area, and local requirements. It is essential that the ATO uses standardized processes to address safety issues and non-compliance before they become safety events.

In addition to all the processes identified above, Safety and Technical Training issues CARs[1] as the means to correct identified and validated safety issues.[2] Such CARs require Service Units to develop a CAP[3] as the method of correcting validated issues. The tracking of CAPs provides a means for measuring the completion and effectiveness of identified mitigations.[4] CAPs must be completed and closed before the associated CAR can be closed. Existing safety hazards identified as a result of a CAR must be evaluated in accordance with the Safety Risk Management (SRM) process outlined in the ATO SMS Manual to identify the mitigations that will be included in a

[1] CARs begin a top-down process to inform ATO of reported safety issues.
[2] When safety concerns are identified by Quality Assurance or when CARs/CAPs involve NAS changes, the ATO SRM process outlined in the ATO SMS Manual must be applied, per ATO SMS Manual, section 3.1.2.
[3] CAP. A plan used for correcting validated safety concerns and/or non-compliance issues (problems) identified in a CAR including mitigations. CAPs are used to address safety issues at all organizational levels.
[4] Mitigation. A specific action designed to correct (fix) validated safety concerns and/or non-compliance. Mitigations are elements of CAPs.

CAP. In addition, any mitigation applied that results in a change to the National Airspace System (NAS)[5] must also comply with the current version of the ATO SMS Manual.

8. CAP PROCEDURES

a. CAP Development. Once a CAR is issued, a CAP must be developed by the affected Service Unit and implemented to address the causes of the issue identified in the CAR. CARs that identify an existing safety hazard will require the SRM process to evaluate the safety issue and identify mitigations, which will be contained in the CAP.

b. CAP Case Management. ATO Safety Services Group, AJI-15, is responsible for overall case management of all Headquarter issued CAPs. Case management includes collaborating with the affected Services Unit(s) prior to issuance of the CAP, ensuring that the affected organizations and stakeholders are working to develop and implement the CAP, and ensuring that all required elements including SRM are applied per the ATO SMS Manual when required.

c. CAP Required Elements. CAPs must include the following elements:

(1) Scope. Define the scope of the CAP's applicability; in other words, whether the CAP is limited to Tower-only facilities, En Route facilities, etc.

(2) Mitigations. Prescribe specific actions that directly target the validated concerns identified in the CAR. Mitigations may include, but are not limited to, changes to procedures and/or airspace, implementation of new technologies, training of operational personnel, and changes to letters of agreement. Mitigations that involve NAS changes are subject to SRM per the ATO SMS Manual.

(3) Timeframe. Define the specific timeframe for implementing each mitigation and overall implementation of the CAP. Include who is responsible for implementing each mitigation.

(4) Monitoring Plan. Define the method(s) and specific data that will be used to measure the effectiveness of the mitigations in the CAP. Include who is responsible for collecting and reviewing data for the monitoring plan.

(5) Effectiveness Targets. Define the targets for determining mitigation effectiveness. Each set of data defined in the monitoring plan must have an effectiveness target.

d. CAP Approval. The Director for Safety, AJI-1, must approve all CAPs generated as a result of a Quality Assurance CAR. In addition, any modifications to approved CAPs to include time parameters/extensions and mitigation activities must be approved by the Director for Safety, AJI-1.

e. CAP Review and Closure. The Director for Safety, AJI-1, must determine if all mitigations are implemented and if the effectiveness targets are met.

[5] A NAS change is a modification to any element of the NAS that pertains to or could affect the provision of air traffic management and communication, navigation, and surveillance services. Air traffic controllers and technicians, their training, and their certification are elements of the NAS, per ATO SMS Manual, section 3.1.2.

(1) If the effectiveness targets are not met, the mitigations must be revised and implemented; in addition, a new monitoring plan must be created for the new mitigations and effectiveness targets. This review and modification process must continue until the effectiveness targets have been met.

(2) Once the effectiveness targets have been met, the affected Service Unit must forward the completed CAP to Safety and Technical Training for closure.

(3) CAP closure initiates a review and the possible closure of the associated CAR.

f. CAR Closure Review and Approval. CARs may only be reviewed and closed by the Quality Assurance Group, AJI-12, with approval from the Vice President for Safety and Technical Training once the associated CAP has been closed in CEDAR.

APPENDIX E: SAMPLE FISCAL YEAR QUALITY CONTROL ACTIVITY PLAN

SAMPLE FISCAL YEAR QC ACTIVITY PLAN FOR LARGE TOWER/TRACON TERMINAL FACILITY

OCTOBER FACILITY QUALITY CONTROL ACTIVITY PLAN					
QC AREA	**ACTIVITY**	**#**	**WHAT**	**REQUIREMENT**	**REFERENCE**
DATA COLLECTION	QC OSA	21	Conduct min. # QC OSAs	61 per quarter	Facility OSA plan & JO 7210.634
	ICV	0	Complete % of facility ICV	Complete 25% of ICV per quarter	Facility ICV plan & JO 7210.634
DATA REVIEWS	QC OSA Subtasks/Emphasis Items	2	Review OSA data to ID Trends	Review OSA data – 2X/mo.	Facility QC plan/order
	MOR/EOR Data	2	Review MOR/EOR groupings (by type/location) to ID Trends	Review MOR/EOR data – 2X/mo.	Facility QC plan/order
	RAP Data	1	Review RAP causal factor data	Request RAP data for review from SA QA – 1X/mo.	Facility QC plan/order
	ICV Data	1	Review completed ICV checklist items & compare to OSA & MOR/EOR Data	Review completed checklists items – 1X/mo.	Facility QC plan/order
	QC OSA Check	0	Review OSAs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	OJT Skill Check	0	Review OJT Skill Checks to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	Efficiency Check (TMR)	0	Review TMRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	System Performance Check (SYSIR)	1	Review SYSIRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
ANALYSIS	SSR	4+	• Conduct random/scheduled SSRs • Assess potential trends ID'd in Data Reviews • Conduct post-event for all red/yellow event (non-accident)	• Random/scheduled - 4Xmo. • Post-event and to assess potential trends - as necessary	Facility SSR plan JO 7210.634 JO 1030.3
	CER	TBD	Conduct post-accident CERs	Conduct after ALL fatal accidents with ATC services	JO 1030.3 & JO 7210.634
	TMR	2+	• Conduct random/scheduled • Conduct after significant delay and special events	• Random/scheduled - 2X/mo. • After significant delay and special events - as necessary	Facility TMR plan & 7210.634
	SYSIR	TBD	Conduct SYSIR on all potential systemic issues through OSAs and Service Reviews	Conduct - as necessary	JO 7210.634
DATA INTEGRITY	OSA Validation	7	Validate min. # OSAs each month	Validate min. 7 OSAs/mo.	Facility QC plan & JO 7210.634
	Cert Skill Check Validation	7	Validate min. # Cert Skill Checks each month	Validate min. 7 cert. skill checks/mo.	Facility QC plan & JO 7210.634
	OJT Validation	5	Validate min. # OJT forms each month	Validate min. 5 OJT forms/mo.	Facility QC plan & JO 7210.634
AUDITS	Monthly Audit	1	2-hour Audit of Tower Ops Voice Data	Audit 2-hours of voice data 1X/mo.	JO 7210.633
CAPs	Review CAPs generated from service reviews and Compliance Verifications	1	NEW – ensure contains ALL elements/review monitoring plan	Review min. 1X/mo. or as CAPs are created	Facility QC plan
		1	OPEN – review monitoring data/assess mitigation performance	Review min. 1X/mo.	Facility QC plan
		1	CLOSED – ensure effectiveness target met	Review min. 1X/mo. or as CAPs are closed	Facility QC plan
REPORTS	Facility Safety Report	1	Produce monthly safety report	Publish facility safety report 1X/mo.	Facility QC plan

NOVEMBER FACILITY QUALITY CONTROL ACTIVITY PLAN					
QC AREA	**ACTIVITY**	**#**	**WHAT**	**REQUIREMENT**	**REFERENCE**
DATA COLLECTION	QC OSA	20	Conduct min. # QC OSAs	61 per quarter	Facility OSA plan & JO 7210.634
	ICV	0	Complete % of facility ICV	Complete 25% of ICV per quarter	Facility ICV plan and JO 7210.634
DATA REVIEWS	QC OSA Subtasks/Emphasis Items	2	Review OSA data to ID Trends	Review OSA data – 2X/mo.	Facility QC plan/order
	MOR/EOR Data	2	Review MOR/EOR groupings (by type/location) to ID Trends	Review MOR/EOR data – 2X/mo.	Facility QC plan/order
	RAP Data	1	Review RAP causal factor data	Request RAP data for review from SA QA – 1X/mo.	Facility QC plan/order
	ICV Data	1	Review completed ICV checklist items & compare to OSA & MOR/EOR Data	Review completed checklists items – 1X/mo.	Facility QC plan/order
	QC OSA Check	0	Review OSAs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	OJT Skill Check	0	Review OJT Skill Checks to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	Efficiency Check (TMR)	0	Review TMRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	System Performance Check (SYSIR)	1	Review SYSIRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
ANALYSIS	SSR	4+	• Conduct random/scheduled SSRs • Assess potential trends ID'd in Data Reviews • Conduct post-event for all red/yellow event (non-accident)	• Random/scheduled - 4Xmo. • Post-event and to assess potential trends - as necessary	Facility SSR plan and JO 7210.634
	CER	TBD	Conduct post-accident CERs	Conduct after ALL fatal accidents with ATC services	JO 1030.3 & JO 7210.634
	TMR	2+	• Conduct random/scheduled • Conduct after significant delay and special events	• Random/scheduled - 2X/mo. • After significant delay and special events - as necessary	Facility TMR plan & 7210.634
	SYSIR	TBD	Conduct SYSIR on all potential systemic issues through OSAs and Service Reviews	Conduct - as necessary	JO 7210.634
DATA INTEGRITY	OSA Validation	7	Validate min. # OSAs each month	Validate min. 7 OSAs/mo.	Facility QC plan & JO 7210.634
	Cert Skill Check Validation	7	Validate min. # Cert Skill Checks each month	Validate min. 7 cert. skill checks/mo.	Facility QC plan & JO 7210.634
	OJT Validation	5	Validate min. # OJT forms each month	Validate min. 5 OJT forms/mo.	Facility QC plan & JO 7210.634
AUDITS	Monthly Audit	1	2-hour Audit of Tower Ops Voice Data	Audit 2-hours of voice data 1X/mo.	JO 7210.633
CAPs	Review CAPs generated from service reviews and Compliance Verifications	1	NEW – ensure contains ALL elements/review monitoring plan	Review min. 1X/mo. or as CAPs are created	Facility QC plan
		1	OPEN – review monitoring data/assess mitigation performance	Review min. 1X/mo.	Facility QC plan
		1	CLOSED – ensure effectiveness target met	Review min. 1X/mo. or as CAPs are closed	Facility QC plan
REPORTS	Facility Safety Report	1	Produce monthly safety report	Publish facility safety report 1X/mo.	Facility QC plan

DECEMBER FACILITY QUALITY CONTROL ACTIVITY PLAN					
QC AREA	**ACTIVITY**	**#**	**WHAT**	**REQUIREMENT**	**REFERENCE**
DATA COLLECTION	QC OSA	20	Conduct min. # QC OSAs	61 per quarter	Facility OSA plan & JO 7210.634
	ICV	25%	Complete % of facility ICV	Complete 25% of ICV per quarter	Facility ICV plan and JO 7210.634
DATA REVIEWS	QC OSA Subtasks/Emphasis Items	2	Review OSA data to ID Trends	Review OSA data – 2X/mo.	Facility QC plan/order
	MOR/EOR Data	2	Review MOR/EOR groupings (by type/location) to ID Trends	Review MOR/EOR data – 2X/mo.	Facility QC plan/order
	RAP Data	1	Review RAP causal factor data	Request RAP data for review from SA QA – 1X/mo.	Facility QC plan/order
	ICV Data	1	Review completed ICV checklist items & compare to OSA & MOR/EOR Data	Review completed checklists items – 1X/mo.	Facility QC plan/order
	QC OSA Check	0	Review OSAs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	OJT Skill Check	0	Review OJT Skill Checks to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	Efficiency Check (TMR)	0	Review TMRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	System Performance Check (SYSIR)	1	Review SYSIRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
ANALYSIS	SSR	4+	• Conduct random/scheduled SSRs • Assess potential trends ID'd in Data Reviews • Conduct post-event for all red/yellow event (non-accident)	• Random/scheduled - 4Xmo. • Post-event and to assess potential trends - as necessary	Facility SSR plan and JO 7210.634
	CER	TBD	Conduct post-accident CERs	Conduct after ALL fatal accidents with ATC services	JO 1030.3 & JO 7210.634
	TMR	2+	• Conduct random/scheduled • Conduct after significant delay and special events	• Random/scheduled - 2X/mo. • After significant delay and special events - as necessary	Facility TMR plan & 7210.634
	SYSIR	TBD	Conduct SYSIR on all potential systemic issues through OSAs and Service Reviews	Conduct - as necessary	JO 7210.634
DATA INTEGRITY	OSA Validation	7	Validate min. # OSAs each month	Validate min. 7 OSAs/mo.	Facility QC plan & JO 7210.634
	Cert Skill Check Validation	7	Validate min. # Cert Skill Checks each month	Validate min. 7 cert. skill checks/mo.	Facility QC plan & JO 7210.634
	OJT Validation	5	Validate min. # OJT forms each month	Validate min. 5 OJT forms/mo.	Facility QC plan & JO 7210.634
AUDITS	Monthly Audit	1	2-hour Audit of Tower Ops Voice Data	Audit 2-hours of voice data 1X/mo.	JO 7210.633
CAPs	Review CAPs generated from service reviews and Compliance Verifications	1	NEW – ensure contains ALL elements/review monitoring plan	Review min. 1X/mo. or as CAPs are created	Facility QC plan
		1	OPEN – review monitoring data/assess mitigation performance	Review min. 1X/mo.	Facility QC plan
		1	CLOSED – ensure effectiveness target met	Review min. 1X/mo. or as CAPs are closed	Facility QC plan
REPORTS	Facility Safety Report	1	Produce monthly safety report	Publish facility safety report 1X/mo.	Facility QC plan

JANUARY FACILITY QUALITY CONTROL ACTIVITY PLAN					
QC AREA	**ACTIVITY**	**#**	**WHAT**	**REQUIREMENT**	**REFERENCE**
DATA COLLECTION	QC OSA	21	Conduct min. # QC OSAs	61 per quarter	Facility OSA plan & JO 7210.634
	ICV	0	Complete % of facility ICV	Complete 25% of ICV per quarter - per facility ICV plan & JO 7210.634	Facility ICV plan and JO 7210.634
DATA REVIEWS	QC OSA Subtasks/Emphasis Items	2	Review OSA data to ID Trends	Review OSA data – 2X/mo.	Facility QC plan/order
	MOR/EOR Data	2	Review MOR/EOR groupings (by type/location) to ID Trends	Review MOR/EOR data – 2X/mo.	Facility QC plan/order
	RAP Data	1	Review RAP causal factor data	Request RAP data for review from SA QA – 1X/mo.	Facility QC plan/order
	ICV Data	1	Review completed ICV checklist items & compare to OSA & MOR/EOR Data	Review completed checklists items – 1X/mo.	Facility QC plan/order
	QC OSA Check	0	Review OSAs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	OJT Skill Check	1	Review OJT Skill Checks to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	Efficiency Check (TMR)	0	Review TMRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	System Performance Check (SYSIR)	0	Review SYSIRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
ANALYSIS	SSR	4+	• Conduct random/scheduled SSRs • Assess potential trends ID'd in Data Reviews • Conduct post-event for all red/yellow event (non-accident)	Conduct random/scheduled 4Xmo. + after each red/yellow event (non-accident) ***AND*** conduct as necessary to assess potential trends identified through OSA and MOR/EOR data reviews	Facility SSR plan and JO 7210.634
	CER	TBD	Conduct post-accident CERs	Conduct after ALL fatal accidents with ATC services	JO 1030.3 & JO 7210.634
	TMR	2+	• Conduct random/scheduled • Conduct after significant delay and special events	Conduct random/scheduled 2X/mo. + after significant delay and special events	Facility TMR plan & 7210.634
	SYSIR	TBD	Conduct SYSIR on all potential systemic issues through OSAs and Service Reviews	Conduct for each potential systemic issue identified through OSA/SSR/CER	JO 7210.634
DATA INTEGRITY	OSA Validation	7	Validate min. # OSAs each month	Validate min. 7 OSAs/mo.	Facility QC plan & JO 7210.634
	Cert Skill Check Validation	7	Validate min. # Cert Skill Checks each month	Validate min. 7 cert. skill checks/mo.	Facility QC plan & JO 7210.634
	OJT Validation	5	Validate min. # OJT forms each month	Validate min. 5 OJT forms/mo.	Facility QC plan & JO 7210.634
AUDITS	Monthly Audit	1	2-hour Audit of Tower Ops Voice Data	Audit 2-hours of voice data 1X/mo.	JO 7210.633
CAPs	Review CAPs generated from service reviews and Compliance Verifications	1	NEW – ensure contains ALL elements/review monitoring plan	Review min. 1X/mo. or as CAPs are created	Facility QC plan
		1	OPEN – review monitoring data/assess mitigation performance	Review min. 1X/mo.	Facility QC plan
		1	CLOSED – ensure effectiveness target met	Review min. 1X/mo. or as CAPs are closed	Facility QC plan
REPORTS	Facility Safety Report	1	Produce monthly safety report	Publish facility safety report 1X/mo.	Facility QC plan

FEBRUARY FACILITY QUALITY CONTROL ACTIVITY PLAN					
QC AREA	**ACTIVITY**	**#**	**WHAT**	**REQUIREMENT**	**REFERENCE**
DATA COLLECTION	QC OSA	20	Conduct min. # QC OSAs	61 per quarter	Facility OSA plan & JO 7210.634
	ICV	0	Complete % of facility ICV	Complete 25% of ICV per quarter	Facility ICV plan and JO 7210.634
DATA REVIEWS	QC OSA Subtasks/Emphasis Items	2	Review OSA data to ID Trends	Review OSA data – 2X/mo.	Facility QC plan/order
	MOR/EOR Data	2	Review MOR/EOR groupings (by type/location) to ID Trends	Review MOR/EOR data – 2X/mo.	Facility QC plan/order
	RAP Data	1	Review RAP causal factor data	Request RAP data for review from SA QA – 1X/mo.	Facility QC plan/order
	ICV Data	1	Review completed ICV checklist items & compare to OSA & MOR/EOR Data	Review completed checklists items – 1X/mo.	Facility QC plan/order
	QC OSA Check	0	Review OSAs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	OJT Skill Check	0	Review OJT Skill Checks to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	Efficiency Check (TMR)	0	Review TMRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	System Performance Check (SYSIR)	0	Review SYSIRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
ANALYSIS	SSR	4+	• Conduct random/scheduled SSRs • Assess potential trends ID'd in Data Reviews • Conduct post-event for all red/yellow event (non-accident)	• Random/scheduled - 4Xmo. • Post-event and to assess potential trends - as necessary	Facility SSR plan and JO 7210.634
	CER	TBD	Conduct post-accident CERs	Conduct after ALL fatal accidents with ATC services	JO 1030.3 & JO 7210.634
	TMR	2+	• Conduct random/scheduled • Conduct after significant delay and special events	• Random/scheduled - 2X/mo. • After significant delay and special events - as necessary	Facility TMR plan & 7210.634
	SYSIR	TBD	Conduct SYSIR on all potential systemic issues through OSAs and Service Reviews	Conduct - as necessary	JO 7210.634
DATA INTEGRITY	OSA Validation	7	Validate min. # OSAs each month	Validate min. 7 OSAs/mo.	Facility QC plan & JO 7210.634
	Cert Skill Check Validation	7	Validate min. # Cert Skill Checks each month	Validate min. 7 cert. skill checks/mo.	Facility QC plan & JO 7210.634
	OJT Validation	5	Validate min. # OJT forms each month	Validate min. 5 OJT forms/mo.	Facility QC plan & JO 7210.634
AUDITS	Monthly Audit	1	2-hour Audit of Tower Ops Voice Data	Audit 2-hours of voice data 1X/mo.	JO 7210.633
CAPs	Review CAPs generated from service reviews and Compliance Verifications	1	NEW – ensure contains ALL elements/review monitoring plan	Review min. 1X/mo. or as CAPs are created	Facility QC plan
		1	OPEN – review monitoring data/assess mitigation performance	Review min. 1X/mo.	Facility QC plan
		1	CLOSED – ensure effectiveness target met	Review min. 1X/mo. or as CAPs are closed	Facility QC plan
REPORTS	Facility Safety Report	1	Produce monthly safety report	Publish facility safety report 1X/mo.	Facility QC plan

MARCH FACILITY QUALITY CONTROL ACTIVITY PLAN					
QC AREA	**ACTIVITY**	**#**	**WHAT**	**REQUIREMENT**	**REFERENCE**
DATA COLLECTION	QC OSA	20	Conduct min. # QC OSAs	61 per quarter	Facility OSA plan & JO 7210.634
	ICV	50%	Complete % of facility ICV	Complete 25% of ICV per quarter	Facility ICV plan and JO 7210.634
DATA REVIEWS	QC OSA Subtasks/Emphasis Items	2	Review OSA data to ID Trends	Review OSA data – 2X/mo.	Facility QC plan/order
	MOR/EOR Data	2	Review MOR/EOR groupings (by type/location) to ID Trends	Review MOR/EOR data – 2X/mo.	Facility QC plan/order
	RAP Data	1	Review RAP causal factor data	Request RAP data for review from SA QA – 1X/mo.	Facility QC plan/order
	ICV Data	1	Review completed ICV checklist items & compare to OSA & MOR/EOR Data	Review completed checklists items – 1X/mo.	Facility QC plan/order
	QC OSA Check	0	Review OSAs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	OJT Skill Check	0	Review OJT Skill Checks to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	Efficiency Check (TMR)	1	Review TMRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	System Performance Check (SYSIR)	0	Review SYSIRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
ANALYSIS	SSR	4+	• Conduct random/scheduled SSRs • Assess potential trends ID'd in Data Reviews • Conduct post-event for all red/yellow event (non-accident)	• Random/scheduled - 4Xmo. • Post-event and to assess potential trends - as necessary	Facility SSR plan and JO 7210.634
	CER	TBD	Conduct post-accident CERs	Conduct after ALL fatal accidents with ATC services	JO 1030.3 & JO 7210.634
	TMR	2+	• Conduct random/scheduled • Conduct after significant delay and special events	• Random/scheduled - 2X/mo. • After significant delay and special events - as necessary	Facility TMR plan & 7210.634
	SYSIR	TBD	Conduct SYSIR on all potential systemic issues through OSAs and Service Reviews	Conduct - as necessary	JO 7210.634
DATA INTEGRITY	OSA Validation	7	Validate min. # OSAs each month	Validate min. 7 OSAs/mo.	Facility QC plan & JO 7210.634
	Cert Skill Check Validation	7	Validate min. # Cert Skill Checks each month	Validate min. 7 cert. skill checks/mo.	Facility QC plan & JO 7210.634
	OJT Validation	5	Validate min. # OJT forms each month	Validate min. 5 OJT forms/mo.	Facility QC plan & JO 7210.634
AUDITS	Monthly Audit	1	2-hour Audit of Tower Ops Voice Data	Audit 2-hours of voice data 1X/mo.	JO 7210.633
CAPs	Review CAPs generated from service reviews and Compliance Verifications	1	NEW – ensure contains ALL elements/review monitoring plan	Review min. 1X/mo. or as CAPs are created	Facility QC plan
		1	OPEN – review monitoring data/assess mitigation performance	Review min. 1X/mo.	Facility QC plan
		1	CLOSED – ensure effectiveness target met	Review min. 1X/mo. or as CAPs are closed	Facility QC plan
REPORTS	Facility Safety Report	1	Produce monthly safety report	Publish facility safety report 1X/mo.	Facility QC plan

APRIL FACILITY QUALITY CONTROL ACTIVITY PLAN					
QC AREA	**ACTIVITY**	**#**	**WHAT**	**REQUIREMENT**	**REFERENCE**
DATA COLLECTION	QC OSA	20	Conduct min. # QC OSAs	61 per quarter	Facility OSA plan & JO 7210.634
	ICV	0	Complete % of facility ICV	Complete 25% of ICV per quarter	Facility ICV plan and JO 7210.634
DATA REVIEWS	QC OSA Subtasks/Emphasis Items	2	Review OSA data to ID Trends	Review OSA data – 2X/mo.	Facility QC plan/order
	MOR/EOR Data	2	Review MOR/EOR groupings (by type/location) to ID Trends	Review MOR/EOR data – 2X/mo.	Facility QC plan/order
	RAP Data	1	Review RAP causal factor data	Request RAP data for review from SA QA – 1X/mo.	Facility QC plan/order
	ICV Data	1	Review completed ICV checklist items & compare to OSA & MOR/EOR Data	Review completed checklists items – 1X/mo.	Facility QC plan/order
	QC OSA Check	0	Review OSAs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	OJT Skill Check	0	Review OJT Skill Checks to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	Efficiency Check (TMR)	0	Review TMRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	System Performance Check (SYSIR)	0	Review SYSIRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
ANALYSIS	SSR	4+	• Conduct random/scheduled SSRs • Assess potential trends ID'd in Data Reviews • Conduct post-event for all red/yellow event (non-accident)	• Random/scheduled - 4Xmo. • Post-event and to assess potential trends - as necessary	Facility SSR plan and JO 7210.634
	CER	TBD	Conduct post-accident CERs	Conduct after ALL fatal accidents with ATC services	JO 1030.3 & JO 7210.634
	TMR	2+	• Conduct random/scheduled • Conduct after significant delay and special events	• Random/scheduled - 2X/mo. • After significant delay and special events - as necessary	Facility TMR plan & 7210.634
	SYSIR	TBD	Conduct SYSIR on all potential systemic issues through OSAs and Service Reviews	Conduct - as necessary	JO 7210.634
DATA INTEGRITY	OSA Validation	7	Validate min. # OSAs each month	Validate min. 7 OSAs/mo.	Facility QC plan & JO 7210.634
	Cert Skill Check Validation	7	Validate min. # Cert Skill Checks each month	Validate min. 7 cert. skill checks/mo.	Facility QC plan & JO 7210.634
	OJT Validation	5	Validate min. # OJT forms each month	Validate min. 5 OJT forms/mo.	Facility QC plan & JO 7210.634
AUDITS	Monthly Audit	1	2-hour Audit of Tower Ops Voice Data	Audit 2-hours of voice data 1X/mo.	JO 7210.633
CAPs	Review CAPs generated from service reviews and Compliance Verifications	1	NEW – ensure contains ALL elements/review monitoring plan	Review min. 1X/mo. or as CAPs are created	Facility QC plan
		1	OPEN – review monitoring data/assess mitigation performance	Review min. 1X/mo.	Facility QC plan
		1	CLOSED – ensure effectiveness target met	Review min. 1X/mo. or as CAPs are closed	Facility QC plan
REPORTS	Facility Safety Report	1	Produce monthly safety report	Publish facility safety report 1X/mo.	Facility QC plan

MAY FACILITY QUALITY CONTROL ACTIVITY PLAN					
QC AREA	**ACTIVITY**	**#**	**WHAT**	**REQUIREMENT**	**REFERENCE**
DATA COLLECTION	QC OSA	21	Conduct min. # QC OSAs	61 per quarter	Facility OSA plan & JO 7210.634
	ICV	0	Complete % of facility ICV	Complete 25% of ICV per quarter	Facility ICV plan and JO 7210.634
DATA REVIEWS	QC OSA Subtasks/Emphasis Items	2	Review OSA data to ID Trends	Review OSA data – 2X/mo.	Facility QC plan/order
	MOR/EOR Data	2	Review MOR/EOR groupings (by type/location) to ID Trends	Review MOR/EOR data – 2X/mo.	Facility QC plan/order
	RAP Data	1	Review RAP causal factor data	Request RAP data for review from SA QA – 1X/mo.	Facility QC plan/order
	ICV Data	1	Review completed ICV checklist items & compare to OSA & MOR/EOR Data	Review completed checklists items – 1X/mo.	Facility QC plan/order
	QC OSA Check	0	Review OSAs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	OJT Skill Check	0	Review OJT Skill Checks to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	Efficiency Check (TMR)	0	Review TMRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	System Performance Check (SYSIR)	1	Review SYSIRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
ANALYSIS	SSR	4+	• Conduct random/scheduled SSRs • Assess potential trends ID'd in Data Reviews • Conduct post-event for all red/yellow event (non-accident)	• Random/scheduled - 4Xmo. • Post-event and to assess potential trends - as necessary	Facility SSR plan and JO 7210.634
	CER	TBD	Conduct post-accident CERs	Conduct after ALL fatal accidents with ATC services	JO 1030.3 & JO 7210.634
	TMR	2+	• Conduct random/scheduled • Conduct after significant delay and special events	• Random/scheduled - 2X/mo. • After significant delay and special events - as necessary	Facility TMR plan & 7210.634
	SYSIR	TBD	Conduct SYSIR on all potential systemic issues through OSAs and Service Reviews	Conduct - as necessary	JO 7210.634
DATA INTEGRITY	OSA Validation	7	Validate min. # OSAs each month	Validate min. 7 OSAs/mo.	Facility QC plan & JO 7210.634
	Cert Skill Check Validation	7	Validate min. # Cert Skill Checks each month	Validate min. 7 cert. skill checks/mo.	Facility QC plan & JO 7210.634
	OJT Validation	5	Validate min. # OJT forms each month	Validate min. 5 OJT forms/mo.	Facility QC plan & JO 7210.634
AUDITS	Monthly Audit	1	2-hour Audit of Tower Ops Voice Data	Audit 2-hours of voice data 1X/mo.	JO 7210.633
CAPs	Review CAPs generated from service reviews and Compliance Verifications	1	NEW – ensure contains ALL elements/review monitoring plan	Review min. 1X/mo. or as CAPs are created	Facility QC plan
		1	OPEN – review monitoring data/assess mitigation performance	Review min. 1X/mo.	Facility QC plan
		1	CLOSED – ensure effectiveness target met	Review min. 1X/mo. or as CAPs are closed	Facility QC plan
REPORTS	Facility Safety Report	1	Produce monthly safety report	Publish facility safety report 1X/mo.	Facility QC plan

JUNE **FACILITY QUALITY CONTROL ACTIVITY PLAN**					
QC AREA	**ACTIVITY**	**#**	**WHAT**	**REQUIREMENT**	**REFERENCE**
DATA COLLECTION	**QC OSA**	**20**	Conduct min. # QC OSAs	61 per quarter	Facility OSA plan & JO 7210.634
	ICV	**75%**	Complete % of facility ICV	Complete 25% of ICV per quarter	Facility ICV plan and JO 7210.634
DATA REVIEWS	**QC OSA** Subtasks/Emphasis Items	**2**	Review OSA data to ID Trends	Review OSA data – 2X/mo.	Facility QC plan/order
	MOR/EOR Data	**2**	Review MOR/EOR groupings (by type/location) to ID Trends	Review MOR/EOR data – 2X/mo.	Facility QC plan/order
	RAP Data	**1**	Review RAP causal factor data	Request RAP data for review from SA QA – 1X/mo.	Facility QC plan/order
	ICV Data	**1**	Review completed ICV checklist items & compare to OSA & MOR/EOR Data	Review completed checklists items – 1X/mo.	Facility QC plan/order
	QC OSA Check	**1**	Review OSAs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	OJT Skill Check	**0**	Review OJT Skill Checks to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	Efficiency Check (**TMR**)	**0**	Review TMRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	System Performance Check (**SYSIR**)	**0**	Review SYSIRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
ANALYSIS	**SSR**	**4+**	• Conduct random/scheduled SSRs • Assess potential trends ID'd in Data Reviews • Conduct post-event for all red/yellow event (non-accident)	• Random/scheduled - 4Xmo. • Post-event and to assess potential trends - as necessary	Facility SSR plan and JO 7210.634
	CER	**TBD**	Conduct post-accident CERs	Conduct after ALL fatal accidents with ATC services	JO 1030.3 & JO 7210.634
	TMR	**2+**	• Conduct random/scheduled • Conduct after significant delay and special events	• Random/scheduled - 2X/mo. • After significant delay and special events - as necessary	Facility TMR plan & 7210.634
	SYSIR	**TBD**	Conduct SYSIR on all potential systemic issues through OSAs and Service Reviews	Conduct - as necessary	JO 7210.634
DATA INTEGRITY	**OSA** Validation	**7**	Validate min. # OSAs each month	Validate min. 7 OSAs/mo.	Facility QC plan & JO 7210.634
	Cert Skill Check Validation	**7**	Validate min. # Cert Skill Checks each month	Validate min. 7 cert. skill checks/mo.	Facility QC plan & JO 7210.634
	OJT Validation	**5**	Validate min. # OJT forms each month	Validate min. 5 OJT forms/mo.	Facility QC plan & JO 7210.634
AUDITS	**Monthly Audit**	**1**	2-hour Audit of Tower Ops Voice Data	Audit 2-hours of voice data 1X/mo.	JO 7210.633
CAPs	Review **CAPs** generated from service reviews and Compliance Verifications	**1**	NEW – ensure contains ALL elements/review monitoring plan	Review min. 1X/mo. or as CAPs are created	Facility QC plan
		1	OPEN – review monitoring data/assess mitigation performance	Review min. 1X/mo.	Facility QC plan
		1	CLOSED – ensure effectiveness target met	Review min. 1X/mo. or as CAPs are closed	Facility QC plan
REPORTS	**Facility Safety Report**	**1**	Produce monthly safety report	Publish facility safety report 1X/mo.	Facility QC plan

JULY FACILITY QUALITY CONTROL ACTIVITY PLAN					
QC AREA	**ACTIVITY**	**#**	**WHAT**	**REQUIREMENT**	**REFERENCE**
DATA COLLECTION	QC OSA	21	Conduct min. # QC OSAs	61 per quarter	Facility OSA plan & JO 7210.634
	ICV	0	Complete % of facility ICV	Complete 25% of ICV per quarter	Facility ICV plan and JO 7210.634
DATA REVIEWS	QC OSA Subtasks/Emphasis Items	2	Review OSA data to ID Trends	Review OSA data – 2X/mo.	Facility QC plan/order
	MOR/EOR Data	2	Review MOR/EOR groupings (by type/location) to ID Trends	Review MOR/EOR data – 2X/mo.	Facility QC plan/order
	RAP Data	1	Review RAP causal factor data	Request RAP data for review from SA QA – 1X/mo.	Facility QC plan/order
	ICV Data	1	Review completed ICV checklist items & compare to OSA & MOR/EOR Data	Review completed checklists items – 1X/mo.	Facility QC plan/order
	QC OSA Check	0	Review OSAs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	OJT Skill Check	0	Review OJT Skill Checks to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	Efficiency Check (TMR)	0	Review TMRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	System Performance Check (SYSIR)	0	Review SYSIRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
ANALYSIS	SSR	4+	• Conduct random/scheduled SSRs • Assess potential trends ID'd in Data Reviews • Conduct post-event for all red/yellow event (non-accident)	• Random/scheduled - 4Xmo. • Post-event and to assess potential trends - as necessary	Facility SSR plan and JO 7210.634
	CER	TBD	Conduct post-accident CERs	Conduct after ALL fatal accidents with ATC services	JO 1030.3 & JO 7210.634
	TMR	2+	• Conduct random/scheduled • Conduct after significant delay and special events	• Random/scheduled - 2X/mo. • After significant delay and special events - as necessary	Facility TMR plan & 7210.634
	SYSIR	TBD	Conduct SYSIR on all potential systemic issues through OSAs and Service Reviews	Conduct - as necessary	JO 7210.634
DATA INTEGRITY	OSA Validation	7	Validate min. # OSAs each month	Validate min. 7 OSAs/mo.	Facility QC plan & JO 7210.634
	Cert Skill Check Validation	7	Validate min. # Cert Skill Checks each month	Validate min. 7 cert. skill checks/mo.	Facility QC plan & JO 7210.634
	OJT Validation	5	Validate min. # OJT forms each month	Validate min. 5 OJT forms/mo.	Facility QC plan & JO 7210.634
AUDITS	Monthly Audit	1	2-hour Audit of Tower Ops Voice Data	Audit 2-hours of voice data 1X/mo.	JO 7210.633
CAPs	Review CAPs generated from service reviews and Compliance Verifications	1	NEW – ensure contains ALL elements/review monitoring plan	Review min. 1X/mo. or as CAPs are created	Facility QC plan
		1	OPEN – review monitoring data/assess mitigation performance	Review min. 1X/mo.	Facility QC plan
		1	CLOSED – ensure effectiveness target met	Review min. 1X/mo. or as CAPs are closed	Facility QC plan
REPORTS	Facility Safety Report	1	Produce monthly safety report	Publish facility safety report 1X/mo.	Facility QC plan

SEPTEMBER FACILITY QUALITY CONTROL ACTIVITY PLAN					
QC AREA	**ACTIVITY**	**#**	**WHAT**	**REQUIREMENT**	**REFERENCE**
DATA COLLECTION	QC OSA	20	Conduct min. # QC OSAs	61 per quarter	Facility OSA plan & JO 7210.634
	ICV	100%	Complete % of facility ICV	Complete 25% of ICV per quarter	Facility ICV plan and JO 7210.634
DATA REVIEWS	QC OSA Subtasks/Emphasis Items	2	Review OSA data to ID Trends	Review OSA data – 2X/mo.	Facility QC plan/order
	MOR/EOR Data	2	Review MOR/EOR groupings (by type/location) to ID Trends	Review MOR/EOR data – 2X/mo.	Facility QC plan/order
	RAP Data	1	Review RAP causal factor data	Request RAP data for review from SA QA – 1X/mo.	Facility QC plan/order
	ICV Data	1	Review completed ICV checklist items & compare to OSA & MOR/EOR Data	Review completed checklists items – 1X/mo.	Facility QC plan/order
	QC OSA Check	0	Review OSAs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	OJT Skill Check	0	Review OJT Skill Checks to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	Efficiency Check (TMR)	0	Review TMRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
	System Performance Check (SYSIR)	0	Review SYSIRs to ID Trends	2X/FY (no closer than 180 days)	JO 7210.634
ANALYSIS	SSR	4+	• Conduct random/scheduled SSRs • Assess potential trends ID'd in Data Reviews • Conduct post-event for all red/yellow event (non-accident)	• Random/scheduled - 4Xmo. • Post-event and to assess potential trends - as necessary	Facility SSR plan and JO 7210.634
	CER	TBD	Conduct post-accident CERs	Conduct after ALL fatal accidents with ATC services	JO 1030.3 & JO 7210.634
	TMR	2+	• Conduct random/scheduled • Conduct after significant delay and special events	• Random/scheduled - 2X/mo. • After significant delay and special events - as necessary	Facility TMR plan & 7210.634
	SYSIR	TBD	Conduct SYSIR on all potential systemic issues through OSAs and Service Reviews	Conduct - as necessary	JO 7210.634
DATA INTEGRITY	OSA Validation	7	Validate min. # OSAs each month	Validate min. 7 OSAs/mo.	Facility QC plan & JO 7210.634
	Cert Skill Check Validation	7	Validate min. # Cert Skill Checks each month	Validate min. 7 cert. skill checks/mo.	Facility QC plan & JO 7210.634
	OJT Validation	5	Validate min. # OJT forms each month	Validate min. 5 OJT forms/mo.	Facility QC plan & JO 7210.634
AUDITS	Monthly Audit	1	2-hour Audit of Tower Ops Voice Data	Audit 2-hours of voice data 1X/mo.	JO 7210.633
CAPs	Review CAPs generated from service reviews and Compliance Verifications	1	NEW – ensure contains ALL elements/review monitoring plan	Review min. 1X/mo. or as CAPs are created	Facility QC plan
		1	OPEN – review monitoring data/assess mitigation performance	Review min. 1X/mo.	Facility QC plan
		1	CLOSED – ensure effectiveness target met	Review min. 1X/mo. or as CAPs are closed	Facility QC plan
REPORTS	Facility Safety Report	1	Produce monthly safety report	Publish facility safety report 1X/mo.	Facility QC plan

APPENDIX F: ACRONYMS

AJI	Safety and Technical Training
ATO	Air Traffic Organization
ATO-SG	Air Traffic Organization Safety Guidance
ATSAP	Air Traffic Safety Action Program
CAP	Corrective Action Plan
CAR	Corrective Action Request
CEDAR	Comprehensive Electronic Data Analysis and Reporting
CVT	Compliance Verification Tool
ECV	External Compliance Verification
EOR	Electronic Occurrence Report
FAA	Federal Aviation Administration
ICV	Internal Compliance Verification
IPM	Individual Performance Management
LSC	Local Safety Council
MOR	Mandatory Occurrence Report
MOU	Memorandum of Understanding
NAS	National Airspace System
NATCA	National Air Traffic Controllers Association
OJT	On-the-Job Training
OJTI	On-the-Job Training Instructor
PFS	Partnership for Safety
POC	Point of Contact
QA	Quality Assurance

QC	Quality Control
QC OSA	Quality Control Operational Skills Assessment
QCV	Quality Control Validations
RAE	Risk Analysis Event
RAP	Risk Analysis Process
SMS	Safety Management System
SSR	System Service Review
TMR	Traffic Management Review
TMU	Traffic Management Unit
TRACON	Terminal Radar Approach Control
VSRP	Voluntary Safety Reporting Program