

SOAR+ AND SOAR APP

Combined, SOAR+ AND SOAR APP represent a breakthrough in safety of operations auditing, risk assessment, safety assurance, flight data monitoring, flight training and asset protection. To facilitate executive-friendly reporting, response and return on safety investment analysis, the risk-ranked safety assurance/auditing and flight data monitoring (FDM)-based risk management modules share identical resolution of safety issues processes. Combined, they optimize practical tactics for the art and best practice of aviation.

FOUNDATIONAL PRINCIPALS

Principal questions driving the creation of SOAR+ and SOAR AAP were,

- When evaluating and operation how best can we assess corresponding levels of risk as they relate to the standards under review.
- Having identified “Non-conformities” (“Findings:” process errors/opportunities for improvement), how best to prioritize action plans, next steps, and to communicate to executives, investors, and decision- makers?
- How do safety centric action plans correlate to the prioritization of production and operations activities?
- What is the best means to monitor the development, documentation and implementation of complete and permanent corrective actions?
- What other practical factors can be encompassed in the resolution of safety issues process?
- How do we render safety assurance a valuable, viable, practical and sustainable component of the enterprise optimization process?

NEXT GENERATION SMS

The SOAR+ Safety of Operations Audit, Risk Assessment and Resolution of Safety Issues (ROSI) utility supports any completion of any standards-based audit protocol including the International Air Transport Association’s (IATA’s) Operational Safety Audit (IOSA)...(ideal for demonstrating compliance with the new “Enhanced IOSA” requirements), Department of Defense (DoD) Flight Operations or Maintenance Standards, SAE International’s Aerospace Standard (AS), Coordinating Agency for Supplier Evaluation (CASE), or the Federal Aviation Administration (FAA) International Air Safety Audit (IASA), Safety Attribute Inspections (SAIs), Element Performance Inspections (EPIs), and the Code of Federal Regulations (CFRs: the CFR piece can accommodate a proprietary letter of compliance and interface matrix [LOCIM]); it can be customized for unique applications; or adapted to support our own Flight Data Monitoring (FDM)-

based Safety of Operations Assurance, Risk Management, Airmanship Enhancement and Asset Protection services (SOAR AAP).

SOAR+ distinguishing attributes-

- Each audit question is risk-ranked prior to the audit.
- Audit questions can be uniquely created, extracted from other audits, or combined from several existing audit formularies.
- Operators are given the opportunity to self-assess, before the actual audit, to make corrections if possible, and to attach documentation demonstrating conformity with audit standards.
- Reports depict scored results normalized to 100%. This supports -
 - An expedient frame of reference for non-technical personnel, and
 - Establishes an empirical means for quantifying return on investment: safety, financial, or otherwise.
- The prioritization, root-cause, risk assessment, and corrective actions validation/refinement processes constitute a best-practices ICAO-conforming means to close vital gaps in most SMS and quality assurance programs:
- SOAR+ includes mechanisms for verifying the creation and implementation of complete and permanent corrective actions...starting with prioritization and root-cause analyses and culminating with process-enhancement subroutines. And,
- Provides a means to assure that operators are not simply solving symptomatic impacts of deeply rooted systemic issues: that they are, in fact, addressing and correcting problems at their core: solving the causes, not merely their effects.

SOAR AAP

A unique application of flight data monitoring (FDM) technologies providing means for -

- Leadership to routinely confirm compliance with standard operations procedures (SOPs) on the ground and in the air, whenever the aircraft is operating.
 - Pilots to review and critique their own flights, and
 - Flight instructors to inform pilot training activities in support of airmanship assurance/enhancement programs as they relate to the specific attributes of individual pilots.
 - SOAR AAP includes pilot assessment and training subroutines as the foundation for the development of career-spanning training programs...and can even encompass pay-for-performance salary administration plans.
 - Effective implementation of SOAR APP could persuade underwriters to reduce air operator/lessor insurance premiums to minimum practicable rates.
-

ASSET PROTECTION

Equally as importantly for air operator, aircraft leasing companies, and investors, SOAR AAP can support operational surveillance to demonstrate compliance with lease obligations ... potentially saving millions of dollars in litigation expense encountered at lease termination, to counter claims to the DOT and to optimally inform a fully functioning FAA sponsored Air Safety Action Program (ASAP).

For example, instead of air operators submitting periodic engine condition monitoring (ECM) reports, SOAP APP can provide investors, lessors and airlines with chock-to-block operational data spanning each and every flight. Internally, airlines, investors and lessors could access computer analyzed data to identify potential issues ranked as Level 1, Level 2 and Level 3 “Events.” (Level 3 Events are evaluated by flight data analysis experts who confirm the severity of each event by assessing and highlighting corresponding information at the inception of the SOAR AAP resolution of safety issues process). SOAR AAP is FDM liberated from the constraints of flight operations quality assurance (FOQA) programs which deprive the operator, lessor and investors of information essential to flight safety and the mechanical well-being of company aircraft. SOAR AAP is an optimized application of FDM technology to promote the art and best-practice of commercial aviation.

AIRMANSHIP ASSURANCE

Through SOAR AAP, air operators capture empirically derived flight operations data shortly after the conclusion of each flight. Thereafter, it is used to identify, address and correct flight training and operational concerns, real-time, as opposed to correcting them only forensically, long after the fact, if ever.

FLEXIBILITY

SOAR+ and SOAR AAP works with fixed-wing and helicopter flight operations, AMOs, MROs and flight training centers, indeed, in any environment where quality, safety assurance, and return on investment is an important consideration including medical environments, railways, bus companies, metro-transport concerns, and more.

APPLICABILITY

Using this technology, SOAR+ has been developed into a proprietary sequential guide that can lead air operators through the succession of events required to meet the requirements of IOSA, to attain IATA registration, to satisfy the new requirements for “Enhanced IOSA,” and to satisfy airline operations requirements of the US Department of Defense, CASE, Specific Regulatory Requirements (SRRs), Safety Attribute Inspection Items (SAIs), Element Performance Inspection Items (EPIs), and more.

IASA Audit Solutions

- ✓ Total Control of Audit Process
- ✓ Encourages Audit Group Collaboration
- ✓ Quantitative Safety Risk Assessment
- ✓ Corrective Action Resolution
- ✓ Digital Signoff

The screenshot displays the 'IASA Audit Solutions' software interface. At the top, there's a 'IASA Question Number' field with '5.007' and a 'IASA Question Summary' field with the text 'Does the Inspector technical guidance contain policy, procedures and standards for...'. Below this, there are tabs for 'Auditor Assessment', 'Risk/Priority', 'Safety Risk Assessment', 'Process/Co. Acceptance', 'CAR Acceptance', and 'Impact of Changes'. The 'Auditor Assessment' tab is active, showing a 'TASA Question' section with a 'Standard' dropdown set to 'Standard'. The 'Assessment Status' section shows a date of 'April 22, 2014' and a list of options: 'Documented and Implemented' (selected), 'Documented, Not Implemented', 'Not Documented and Not Implemented', and 'NA'. The 'Self-Analysis Score' is '1' and the 'Assessment Risk Score' is '2'. The 'Auditor Notes' section has a date of 'April 4, 2014' and a text area for notes. At the bottom, there are buttons for 'Operator Sign', 'Save', 'Save & Exit', and 'Cancel'.

IASA Audit Solutions

- ✓ IASA Audit Compliance Tracking Solution
- ✓ Self and Auditor Assessment Tracking
- ✓ Quantitative Safety Risk Assessment
- ✓ Root Cause Analysis
- ✓ Corrective Actions Validation/Refinement
- ✓ Interlinking of Support Documentation and Records
- ✓ Digital Signoff at Different Levels
- ✓ Secure User Login

This screenshot is identical to the one above, showing the 'IASA Audit Solutions' software interface. It displays the 'IASA Question Number' as '5.007' and the 'IASA Question Summary' as 'Does the Inspector technical guidance contain policy, procedures and standards for...'. The 'Auditor Assessment' tab is active, showing the 'TASA Question' section with the 'Standard' dropdown set to 'Standard'. The 'Assessment Status' section shows a date of 'April 22, 2014' and a list of options: 'Documented and Implemented' (selected), 'Documented, Not Implemented', 'Not Documented and Not Implemented', and 'NA'. The 'Self-Analysis Score' is '1' and the 'Assessment Risk Score' is '2'. The 'Auditor Notes' section has a date of 'April 4, 2014' and a text area for notes. At the bottom, there are buttons for 'Operator Sign', 'Save', 'Save & Exit', and 'Cancel'.

ATTRIBUTES

Elements of the SOAR+/SOAR AAP resolution of safety issues process.

SOAR+ IASA Auditor Form

IASA Question Number
3.005
IASA Question Summary
Describe the roles and responsibilities of the operations and the airworthiness inspection
Standard-

Auditor Assessment
Risk/Priority
Safety Risk Assessment
Process/Co. Acceptance
CAR Acceptance
Impact of Changes

Audit Process Step 1

Probability
High
Medium High
Medium
Medium Low
Low
Severity
High
Medium High
Medium
Medium Low
Low
April 11, 2014
Potential Impact
20

Audit Process Step 2

Priority
High Priority
Medium Priority
Low Priority
Assigned Auditor
Patrick Major
Assigned Operator Member
John Doe
April 11, 2014
Auditor References
FAA IASA Audit Site
Root Cause Analysis for Aviation Safety
Risk Management
Bowie Risk Management
Add
Delete
Validate

Root Cause
No standard reporting, no anonymous reporting, no incentivized reporting, protecting license holders who disclose unsafe acts or errors; providing their where unintentional and there was no substance abuse or criminal activity involved. Additionally, xxx has no system for triaging and responding to safety issues by order of priority, assignment of responsibility, for identifying root cause, recommending a solutions, conducting a safety risk assessment on the proposed solution prior to implementation, inserting barriers to unacceptably high levels of risk and confirming adequate implementation. Advisory team has a solution for these. OPEN

Operator Form
Save
Save & Exit
Cancel

SOAR+ IASA Auditor Form

IASA Question Number
3.005
IASA Question Summary
Describe the roles and responsibilities of the operations and the airworthiness inspection
Standard-

Auditor Assessment
Risk/Priority
Safety Risk Assessment
Process/Co. Acceptance
CAR Acceptance
Impact of Changes

Proposed Corrective Action
April 18, 2014
Safety Risk Assessment
April 20, 2014

The MIPAT proposes a comprehensive ROSI system comprised of sequential steps in the corrective actions process to Guide xxx leadership and inspector cadre in quantifying a risk and prioritizing the order for addressing each finding as the NCAAA formulates its corrective action plans; Assigning accountability: department heads, inspectors and staff; Conducting root cause analyses in order to assure solutions address the foundational cause of findings, not merely the effects; Exploring and documenting alternatives for complete and permanent corrective solutions; and Subjecting proposed solutions to safety risk analyses during process development prior
Safety Deficiencies and Incident Analysis Unit (SDIAU) referenced throughout regulations as primary actor in ROSI, under DAWIS, but does not appear to be staffed. There is no process actively in place. No reporting form from field. No structure. No follow through. Consideration, based on reference 30 & 31 Sect 1.2 – change levels of categorization 0 being lowest risk, 3 being highest, also Answers need to be in order, such as the Act, regulations, guidance, A/C's, etc.

Final Action including Controls and Risk
April 24, 2014

Exploring and documenting alternatives for complete and permanent corrective solutions; and Subjecting proposed solutions to safety risk analyses during process development prior in order to assure the emplacement of effective barriers to risk (controls) that serve to prevent the intrusion of additional errors (risk) as a result of the corrective actions/ROSI process

Authorization
The corrective action now documented, implemented, and accepted by the company accountable authority, satisfies the intent of this corrective action.
Mike the Manager

Operator Form
Save
Save & Exit
Cancel

SOAR+ IASA Auditor Form

IASA Question Number 3.005 **IASA Question Summary** Describe the roles and responsibilities of the operations and the airworthiness inspection *Standard-*

Auditor Assessment **Risk/Priority** **Safety Risk Assessment** **Process/Co. Acceptance** **CAR Acceptance** **Impact of Changes**

☒ **Process Flow/Depiction** ☒ Section 2 Civil Aviation Act 2006
☒ Advisory circular
☐ CAA Book chapter 9

☒ **Description** ☐ Section 2 Civil Aviation Act 2006
☐ Advisory circular
☒ CAA Book chapter 9

☒ **Controls Mitigating Risk** ☐ Section 2 Civil Aviation Act 2006
☒ Advisory circular
☐ CAA Book chapter 9

☒ **Assignment of responsibility/authority** ☒ Section 2 Civil Aviation Act 2006
☐ Advisory circular
☐ CAA Book chapter 9

Authorizations
Accountable Manager
☒ The corrective action herein described meets company requirements for acceptable levels of risk.
Signature April 15, 2014
Director of Safety
☒ The accountable manager is authorized by the company to accept the process and level of risk described above.
Signature April 15, 2014

Process Documents
☒ FAA IASA Audit Site
☒ Root Cause Analysis for Aviation Safety
☒ Risk Management
☐ Bowtie Risk Management

Add Delete Validate

Operator Form Save Save & Exit Cancel

SOAR+ IASA Auditor Form

IASA Question Number 3.005 **IASA Question Summary** Describe the roles and responsibilities of the operations and the airworthiness inspection *Standard-*

Auditor Assessment **Risk/Priority** **Safety Risk Assessment** **Process/Co. Acceptance** **CAR Acceptance** **Impact of Changes**

☒ **Evidence of Documentation** ☐ **Evidence of Implementation**

We put documentation discussion verbage **We put implementation discussion verbage**

Documentation Evidence Items **Implementation Evidence Items**

Section 2 Civil Aviation Act 2006
Advisory circular
CAA Book chapter 9

Add Delete Modify

☐ **Evidence of Training**

We put training discussion verbage

Training Evidence Items

Section 2 Civil Aviation Act 2006
Advisory circular
CAA Book chapter 9

Add Delete Modify

Authorizations
☒ I have reviewed the evidence presented and find the standards have been met.
Mike the Manager April 15, 2014 **Auditor Signature** April 15, 2014

Operator Form Save Save & Exit Cancel

SOAR+ IASA Auditor Form

| IASA Question Number | IASA Question Summary | Standard |
|----------------------|--|----------|
| 3.003 | What type of State Civil Aviation System and Safety Oversight organizational structure | |

Auditor Assessment | Risk/Priority | Safety Risk Assessment | Process/Co. Acceptance | CAR Acceptance | **Impact of Changes**

| Impact of Change | Validation-Review/Follow-Through |
|--|----------------------------------|
| <p>April 25, 2014</p> <p>By adopting this approach, the xxx will - Become empowered to systematically formulate and to initiate implementation of a prioritized series of complete and permanent corrective actions which target issues at their root within the time-period required by the FAA IASA Program; While demonstrating the activation of a methodology emblematic of fully functioning leading edge safety management system. The successful implementation of an effective ROSI process within the xxx is essential to the development of a hazard and safety issues reporting process to serve the Nigerian civil aviation industry.</p> | <p>April 25, 2014</p> |

HOSTING

SOAR+ and SOAR APP is intended to be hosted on the cloud, licensed on enterprise platforms, or set up SOAR+ subject matter experts (SMEs) can manage the program on behalf of clients.

**Next-Gen SMS-Leading
Safety of Operations Audit & Resolution of
Safety Issues Process**

SOAR+

- **Password-Protected Secure Utility Supporting Safety Audits, Regulatory Evaluations and Conformance Assessments.**
- **Means to Ensure Regulatory Compliance**
 - **Standards Conformance**
- **Includes - Resolution of Safety Issues Process-**
 - **Captures Root Cause Analysis**
 - **Documents Safety Risk Assessment**
 - **Validates Implementation**
 - **Means to Monitor/Prevent Process Creep, and**
 - **Supports On-Going Continuing Enhancements in Safety and Regulatory Compliance**

Ensures Regulatory and/or Standards Conformance

Validates Implementation

Monitors Process Creep

Establishes Process for Continuing Enhancements in Safety and Regulatory Compliance

Variably Applicable/User-Friendly

Operator IEP Tool –

Safety Standard Assessment

Quality Assurance

Regulatory Compliance

Process Optimization

Next-Gen ROSI Process

Resolution of Safety Issues –

Audit Findings translate to Hazards

Hazards Assessed for Risks

Risks are ranked for Severity &
Probability.

Action prioritized on basis of assessed
risk and business import.

Assignment of Accountability

Root Cause Analyses

Corrective Action Development

Safety Risk Assessment

Interface Management

Impact of Changes

Implementation Validation

Imminently Practical

Validation - Evidence of Implementation -

Implementation Confirmation.

Identify & Correct Performance Creep.

Quantify Return on Investment in
Safety and Compliance.

Residual opportunities for
improvement, deficiencies, and/or
performance-creep ... reinitiate ROSI
process in a track subordinate to the
initial finding.

Key Attributes

- Captures Specific Regulatory Requirements and Audit/Assessment Standards
 - IASA
 - ICAO
 - AOC Certification Process
 - Regulatory Requirements
 - IOSA
 - Virtually any standards from any source.
- Standards/Requirements are Safety-Risk-Ranked.
 - Results are mathematically manipulated to present safety-risk-ranked prioritization of corrective actions.
 - Thereafter, to quantify returns on investment in safety, regulatory compliance, and standards conformance.

Key Attributes, Continued

- Intuitive, sequential process.
- Captures relevant assessment comments, evaluator insights and analyses.
- Hyperlinks process documents and implementation-validation records for rapid access, retrieval and presentation.
- Each edit is date-stamped for archival along-with corresponding user login.
- Digital Signatures attest to Risk and/or Compliance Acceptance & Authorization.
- Lifecycle support and trend analyses.

Initial Entry



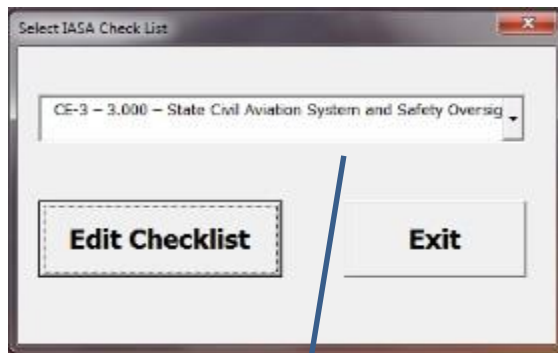
Operator/Auditor Login

Select User Name
Mike Manager

Type In Password

Login

USER
Dropdown
Selection



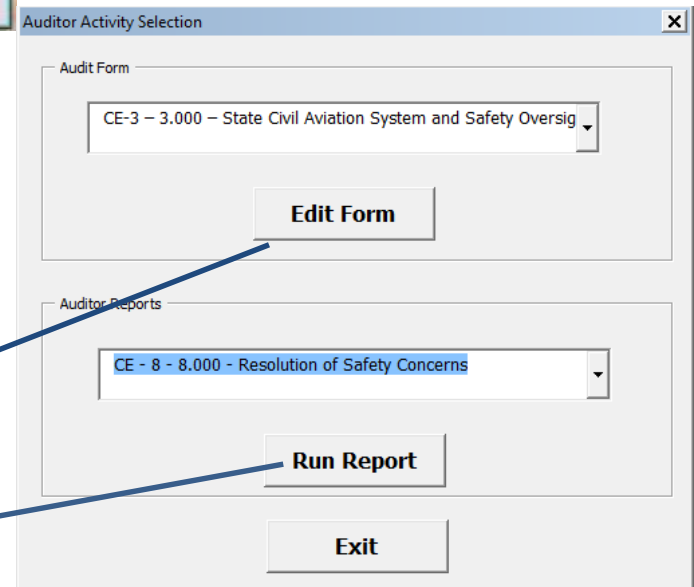
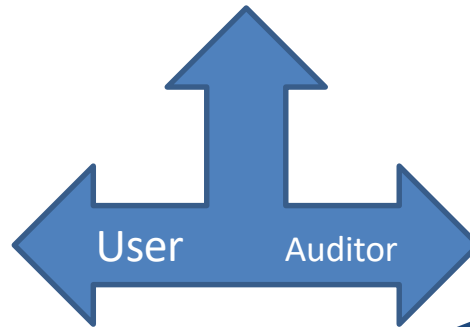
Select IASA Check List

CE-3 - 3.000 - State Civil Aviation System and Safety Oversight

Edit Checklist

Exit

Dropdown Selection of
Checklist To Edit



Auditor Activity Selection

Audit Form
CE-3 - 3.000 - State Civil Aviation System and Safety Oversight

Edit Form

Auditor Reports
CE - 8 - 8.000 - Resolution of Safety Concerns

Run Report

Exit

Audit Report
Generation
Selection

Audit Selection Menu

The screenshot shows a Windows-style dialog box titled "Auditor Activity Selection". It contains two dropdown menus. The first dropdown, labeled "Audit Form", has a list of three items: "SYSTEMS AUDIT" (which is highlighted with a blue background), "WORK PROCESS AUDIT", and "SUPPORT SYSTEMS AUDIT". The second dropdown, labeled "Audit", has one visible item: "Report all checklist". At the bottom of the dialog, there are two buttons: "Run Report" and "Exit".

Auditor Activity Selection

Audit Form

SYSTEMS AUDIT

SYSTEMS AUDIT

WORK PROCESS AUDIT

SUPPORT SYSTEMS AUDIT

Audit

Report all checklist

Run Report

Exit

Operator Self-Assessment – Optional (recommended)

Risk Ranked Audit “Standards” establish basis for scored-reports and for quantifying returns on investment in safety.

Operator internal evaluation.

• “Operator Self-Assessment” score can be compared to “Auditor’s Assessment” (next slides).

Operator Enters Manual & Document Location Designations.

Audit questions (standards) are sequenced in numerical order or selected by ID number: short description indicated for each.

Audit questions are differentiated as “Standards” (required) or “Recommended Practices” (Compliance-is-Recommended-but-Optional at the operator’s discretion).

Operator hyperlinks references to supporting records & documents.

Date of most-rest edit: user name is archived.

Save, Exit or Cancel updates

Operator Survey Form

IASA Number
4.002

IASA Question Summary
If the CAA does not have a training center, describe how and where training is provided

Operator Assessment **Guidance Material**

IASA Question
If the CAA does not have a training center, describe how and where training is provided to inspectors and technical personnel?

Standard

References

- ☐ Section 2 Civil Aviation Act 2006
- ☐ Advisory circular
- ☒ CAA Book chapter 9
- ☐

Add Delete Validate

Operator Self Assessment

Assessment Status April 15, 2014

- ☒ Documented and Implemented
- ☐ Implemented, Not Documented
- ☐ Documented, Not Implemented
- ☐ Not Documented and Not Implemented
- ☐ NA

Self Analysis Score
0

Operator Response April 2, 2014

(A,B & C.) - TGM Vol. 3 Operations Handbook PPM Chpt. 2.2,
TGM Vol. 4 Airworthiness Inspector Handbook PPM Chpt 2.1 & 2.2,
TGM Vol. 1 General Inspector Handbook Chpt. 3.
(D) - Regulation Committee established in accordance with Part
1.7 of the Nig. CARs.
(E) - Compliance and Enforcement Handbook,.

Save Save & Exit Cancel

Auditor Assessment

IASA Auditor Form

IASA Question Number
5.007

IASA Question Summary
Does the inspector technical guidance contain policy, procedures and standards for:

Standard-

Auditor Assessment | **Risk/Priority** | **Safety Risk Assessment** | **Process/Co. Acceptance** | **CAR Acceptance** | **Impact of Changes**

IASA Question *Standard-*
Does the inspector technical guidance contain policy, procedures and standards for:
certification
licensing
authorizations and approvals
surveillance/inspections
resolution of safety issues
Yes No
If yes, describe the specific technical guidance implemented by the CAA.

References
☐ Section 2 Civil Aviation Act 2006
☐ Advisory circular
☒ CAA Book chapter 9
☐
Add Delete Validate

Auditor Assessment
Assessment Status April 22, 2014
☐ Documented and Implemented
☒ Implemented, Not Documented
☐ Documented, Not Implemented
☐ Not Documented and Not Implemented
☐ NA
Self-Analysis Score
6
Assessment Risk Score
-2

Auditor Notes April 4, 2014
Space provided to insert notes, questions or other information desired by the auditor

Operator Form

Save Save & Exit Cancel

- Hazard/Risks Worksheet.
- Prioritization.
- ROSI Action Team assignments.

- Proposed Corrective Action
- Safety Risk Assessment
- SRA-Revised Intended Action.
- Responsible Manager acceptance/digital signature.

- References transfer to Auditor Assessment. Auditor can choose to view Operator "Self-Assessment" screen simultaneously.

- Complete & Permanent Corrective Action?
- Responsible Manager and Director of Safety digital Acceptance.

- Corrective Action**
 - Documentation
 - Implementation process description.
- Responsible Manager and Auditor digital signatures for CAR Acceptance/Comments.

- Implementation-Validation records.
- Impact of Changes review.
- Results may warrant sub-finding(s) and recommencement of the ROSI process at "Hazard/Risks" Risk/Priority screen.

Auditor Assessment, Continued...

The screenshot displays the 'CASE Auditor Form' interface. At the top, there are fields for 'CASE Question Number' (set to 'Certifications - 1') and 'CASE Question Summary' (containing the text 'Obtain and review a copy of the current FAA Air Agency or Transport Canada AMO'). Below these are several tabs: 'Auditor Assessment' (selected), 'Risk/Priority', 'Safety Risk Assessment', 'Process/Co. Acceptance', 'CAR Acceptance', and 'Impact of Changes'.

The 'Auditor Assessment' tab is divided into two main sections: 'Legacy System' and 'Best Practice System'.

Legacy System:

- CASE Question:** 'Obtain and review a copy of the current FAA Air Agency or Transport Canada AMO certificate, Operations Specifications (if applicable), and EASA/Canadian approval documents (if applicable). Are they accurate? [2A]'
- Answer:** Radio buttons for 'Yes' (selected), 'No', and 'NA'.
- References:** A dropdown menu with 'CASE Audit Site' selected and 'Root Cause Analysis for Aviation Safety' as an option. Buttons for 'Add', 'Delete', and 'Validate' are present.
- Best Practice Info:** A text box with the instruction: 'Please further refine your assessment below with best practice'.

Best Practice System:

- Assessment Status:** Radio buttons for 'Documented and Implemented' (selected), 'Implemented, Not Documented', 'Documented, Not Implemented', 'Not Documented and Not Implemented', and 'NA'. The date 'April 22, 2014' is shown.
- Self-Analysis Score:** A green bar with the number '6'.
- Assessment Risk Score:** A yellow bar with the number '-2'.
- Auditor Notes:** A text area with the date 'April 4, 2014' and the instruction: 'Space provided to insert notes, questions or other information desired by the auditor'.

At the bottom of the form are buttons for 'Operator Form', 'Save & Next', 'Save', 'Save & Exit', and 'Cancel'.

- Auditor evaluates operator self-assessment and documentation.
- Auditor Comments.

Operator documentation.

Comparison of

- Operator Assessment
- Auditor Assessment

Risk Assessment/Priority Analysis

CASE Auditor Form

CASE Question Number: Certifications - 1

CASE Question Summary: Obtain and review a copy of the current FAA Air Agency or Transport Canada AMO (

Auditor Assessment: Risk/Priority | Safety Risk Assessment | Process/Co. Acceptance | CAR Acceptance | Impact of Changes

Audit Process Step 1

Probability

☒ High
☐ Medium High
☐ Medium
☐ Medium Low
☐ Low

Severity

☐ High
☒ Medium High
☐ Medium
☐ Medium Low
☐ Low

April 11, 2014

Potential Impact

20

Audit Process Step 2

Priority

☐ High Priority
☒ Medium Priority
☐ Low Priority

Assigned Auditor

Mike Manager

Assigned Operator Member

John Doe

April 11, 2014

Auditor References

☐ CASE Audit Site
☒ Root Cause Analysis for Aviation Safety
☐ Risk Management
☐ Bowtie Risk Management

Add Delete Validate

Root Cause

An open entry block is provided for the Auditor to enter the Root Cause(s) for the failure of non-compliance. This block should be an open forum to be discussed with the Operator and additional notes added as needed. Even though the discussion may reveal options and answers to fulfilling the requirement of the answer, no deletions or adjustment to the findings should be made based on this block. All input is desired and required for full potential of the program to work properly.

Operator Form Save & Next Save Save & Exit Cancel

Date generated automatically and updated when a selection or input saved.

Root Cause(s) for the failure of non-compliance.

- Establish priority ranking
- Assigning team members for question
- Any supporting documents/regulations used in assessment

Risk Assessment/Priority Analysis

CASE Auditor Form

CASE Question Number
Certifications - 1

CASE Question Summary
Obtain and review a copy of the current FAA Air Agency or Transport Canada AMO (

Auditor Assessment | **Risk/Priority** | Safety Risk Assessment | Process/Co. Acceptance | CAR Acceptance | Impact of Changes

Audit Process Step 1

Probability

☒ High
☐ Medium High
☐ Medium
☐ Medium Low
☐ Low

Severity

☐ High
☒ Medium High
☐ Medium
☐ Medium Low
☐ Low

April 11, 2014

Potential Impact
20

Audit Process Step 2

Priority

☐ High Priority
☒ Medium Priority
☐ Low Priority

Assigned Auditor
Mike Manager

Assigned Operator Member
John Doe

April 11, 2014

Auditor References

☐ CASE Audit Site
☒ Root Cause Analysis for Aviation Safety
☐ Risk Management
☐ Bowtie Risk Management

Add Delete Validate

Root Cause

An open entry block is provided for the Auditor to enter the Root Cause(s) for the failure of non-compliance. This block should be an open forum to be discussed with the Operator and additional notes added as needed. Even though the discussion may reveal options and answers to fulfilling the requirement of the answer, no deletions or adjustment to the findings should be made based on this block. All input is desired and required for full potential of the program to work properly.

Operator Form Save & Next Save Save & Exit Cancel

Date generated automatically and updated with each input.

- Establish priority ranking.
- Assigned ROSI Action Team.
- Reference to supporting documents and/or regulations.

Root Cause(s) for the finding.

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Safety Risk Assessment Tab

Originated by the Operator ROSI Team.

Rating remaining level(s) of residual risk.

Itemize and organize Corrective Action(s).

- Controls.
- Accepted Risk(s).

Signifies that the Responsible Manager is in agreement with the intent of the corrective action and accepts residual risk.

The screenshot shows the 'CASE Auditor Form' with the 'Safety Risk Assessment' tab selected. The form is divided into several sections:

- CASE Question Number:** A dropdown menu showing 'Certifications - 1'.
- CASE Question Summary:** A text box containing 'Obtain and review a copy of the current FAA Air Agency or Transport Canada AMO'.
- Navigation Tabs:** Auditor Assessment, Risk/Priority, **Safety Risk Assessment** (selected), Process/Co. Acceptance, CAR Acceptance, Impact of Changes.
- Proposed Corrective Action:** A section dated April 18, 2014, with a text box for the corrective action and a description of the block's purpose.
- Safety Risk Assessment:** A section dated April 20, 2014, with a text box for the risk assessment and a description of the block's purpose, including a risk rating scale (a. Zero = lowest risk, b. One = low to moderate risk, c. Two = moderate to high risk, d. Three = highest risk).
- Final Action including Controls and Risk:** A section dated April 24, 2014, with a text box for the final action and a description of the block's purpose.
- Authorization:** A section at the bottom with a checkbox labeled 'The corrective action now documented, implemented, and accepted by the company accountable authority, satisfies the intent of this corrective action.' and a signature line for 'Mike the Manager' dated April 24, 2014.
- Buttons:** Operator Form, Save & Next, Save, Save & Exit, Cancel.

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Process Control

The screenshot shows the 'CASE Auditor Form' interface. At the top, there are two tabs: 'CASE Question Number' (set to 'Certifications - 1') and 'CASE Question Summary' (containing the text 'Obtain and review a copy of the current FAA Air Agency or Transport Canada AMO'). Below these are several tabs: 'Auditor Assessment', 'Risk/Priority', 'Safety Risk Assessment', 'Process/Co. Acceptance' (which is active), 'CAR Acceptance', and 'Impact of Changes'. The main content area under the active tab contains four sections, each with a checkbox and a list of items:

- Process Flow/Depiction**: A checkbox is checked, and a list contains one item, 'Process Flow/Depiction', which is highlighted in blue.
- Description**: A checkbox is checked, and the list is empty.
- Controls Mitigating Risk**: A checkbox is checked, and the list is empty.
- Assignment of Responsibility/Authority**: A checkbox is checked, and the list is empty.

Below these sections are two sub-forms:

- Authorizations**: Contains two sections. The first is 'Accountable Manager' with a checked box for 'The corrective action herein described meets company requirements for acceptable levels of risk.', a signature line, and the date 'April 15, 2014'. The second is 'Director of Safety' with a checked box for 'The accountable manager is authorized by the company to accept the process and level of risk described above.', a signature line, and the date 'April 15, 2014'.
- Process Documents**: A list of documents with checkboxes: 'CASE Audit Site' (checked), 'Root Cause Analysis for Aviation Safety' (unchecked), 'Risk Management' (checked), and 'Bowtie Risk Management' (unchecked). Below the list are 'Add', 'Delete', and 'Validate' buttons.

At the bottom of the form are buttons for 'Save & Next', 'Save', 'Save & Exit', and 'Cancel'. The bottom left corner has a tab labeled 'Operator Form'.

how the final action plan will take place

Description of corrective action.

Ensures that critical factors have been addressed to mitigate risks.

Names of those responsible for completion corrective action.

Responsible Manager Accountable for the corrective action.

Documents/text affected by the specific action.

Director of Safety Acknowledgement/Acceptance.

Corrective Action Acceptance Tab

CASE Auditor Form

CASE Question Number
Certifications - 1

CASE Question Summary
Obtain and review a copy of the current FAA Air Agency or Transport Canada AMO

Auditor Assessment | **Risk/Priority** | **Safety Risk Assessment** | **Process/Co. Acceptance** | **CAR Acceptance** | **Impact of Changes**

☒ **Evidence of Documentation** April 15, 2014

If a checkbox in the beginning of the audit (1st Screen Shot) was checked that the answer was Not Documented then this checkbox is required to be checked here. With the open entry box provided, an explanation of how the lack of documentation is being addressed. The standard needed is identified in #8 above. This item is provided by the Operator.

Documentation Evidence Items

Add Delete Modify

☒ **Evidence of Implementation** April 15, 2014

If a checkbox in the beginning of the audit (1st Screen Shot) was checked that the answer was Not Implemented then this checkbox is required to be checked here. With the open entry box provided, an explanation of how the lack of implementation is being addressed. The standard needed is identified in #8 above. This item is provided by the Operator.

Implementation Evidence Items

Add Delete Modify

☒ **Evidence of Training** April 15, 2014

Should training be required to accomplish Documentation or Implementation then the Evidence of Training checkbox should be checked. This will add substance and validation to the process, if required. A full description of the training is entered in the open entry box. This item is provided by the Operator.

Training Evidence Items

Add Delete Modify

Authorizations

☒ I have reviewed the evidence presented and find the standards have been met.

Mike the Manager April 15, 2014

☒ I have reviewed the evidence presented and find the standards have been met.

Auditor Signature April 15, 2014

Operator Form

Save & Next Save Save & Exit Cancel

Attached documentation pertaining to particular standard/corrective action.

Authorization that the Operator and the Auditor are in agreement the corrective action constitutes a complete solution to the finding.

Documentation attesting to the completion of required training (if applicable).

Impact of Changes, Implementation Validation, Performance Creep Identification & Response

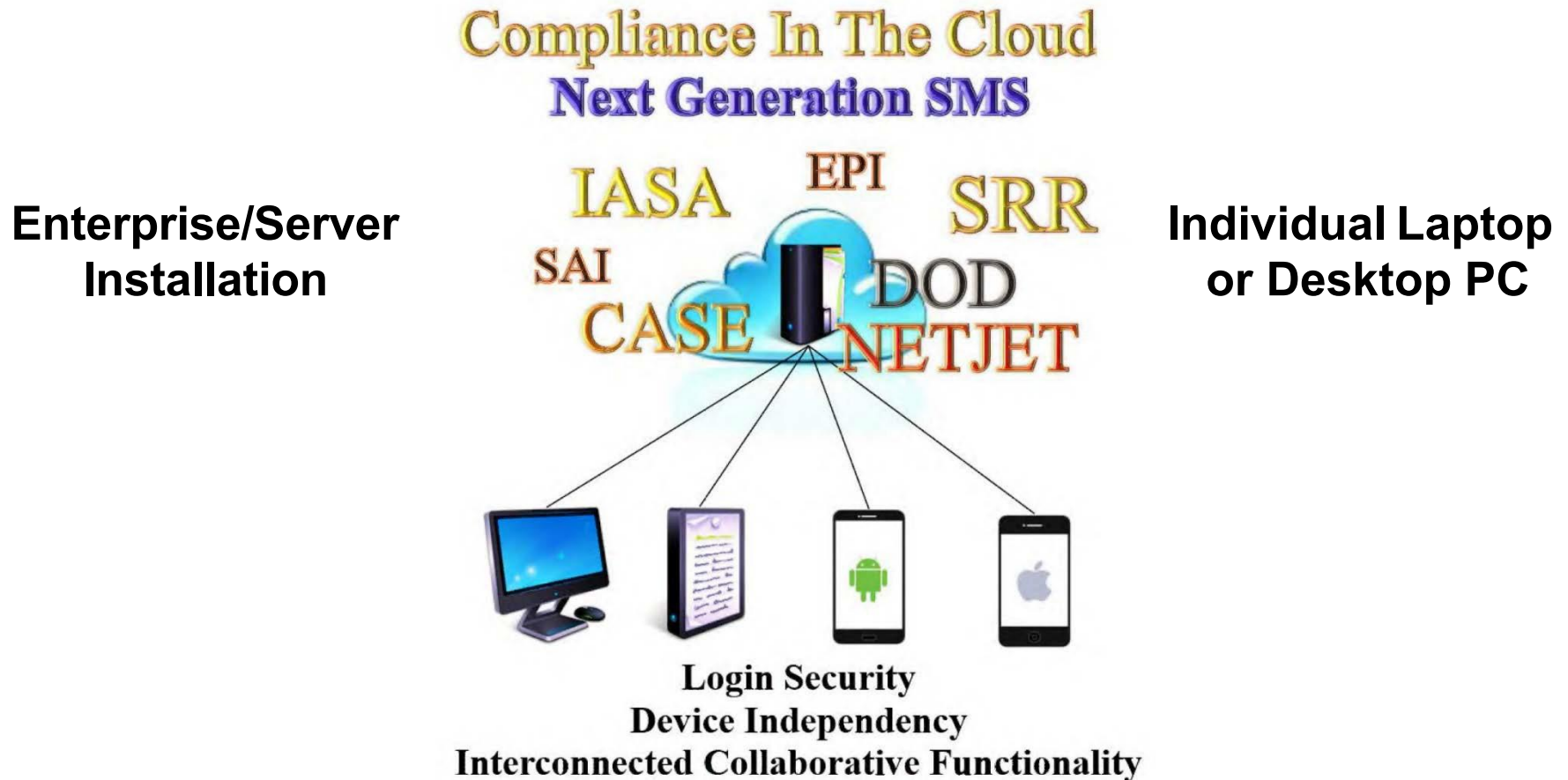
The screenshot displays the 'CASE Auditor Form' interface. At the top, there are two tabs: 'CASE Question Number' and 'CASE Question Summary'. The 'CASE Question Number' tab is active, showing a dropdown menu with 'Certifications - 1'. The 'CASE Question Summary' tab is also visible, showing the text 'Obtain and review a copy of the current FAA Air Agency or Transport Canada AMO'. Below these tabs are several sub-tabs: 'Auditor Assessment', 'Risk/Priority', 'Safety Risk Assessment', 'Process/Co. Acceptance', 'CAR Acceptance', and 'Impact of Changes'. The 'Impact of Changes' sub-tab is selected, showing two main sections: 'Impact of Change' and 'Validation-Review/Follow-Through', both dated 'April 25, 2014'. The 'Impact of Change' section contains a text box with instructions: 'Both the Operator and Auditor will complete this section. This is a thorough review of the final action plan, its process, and implementation. The open entry block allows the Auditor to describe in detail an overview of that thorough review with Operator input/collaboration.' The 'Validation-Review/Follow-Through' section contains a text box with instructions: 'This block is for the Validation of the final action plan instituted during the previous audit. The open entry block allows for comments, observations, findings, etc., when the Auditor comes back to audit the finding in question. The secondary audit that takes place in the future is agreed upon by the Operator and Auditor. Sufficient time should pass to allow the effectiveness of the changes originally made to be evaluated, but not so long as to negatively affect safety. The Operator is responsible for determining this length, not the Auditor. Once the Validation-Review is complete, a Follow-Through is also described here showing the results of the secondary audit. If any adjustments need to be made, they are described here and the process begins again from the beginning.' At the bottom of the form, there are buttons for 'Operator Form', 'Save & Next', 'Save', 'Save & Exit', and 'Cancel'.

Review to confirm effective impact of changes assessment.

Review to confirm implementation of the corrective action.

- Validation of the final action.
- Notes detailing any observed performance Creep.
- Serves as foundation for Sub-Finding to recommence at Risk/prioritization phase of the process.

Flexible Installation, Multi-Modal User Access, Enduring Support



Next-Gen SMS

Audit & Resolution of Safety Issues

SOAR+ Solution

Adaptive Information Technology

