NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8900.548

National Policy

Effective Date:
5/28/20

Cancellation Date:
5/28/21

SUBJ: Safety Assurance System Phase 3 Deployment and Transition Plan

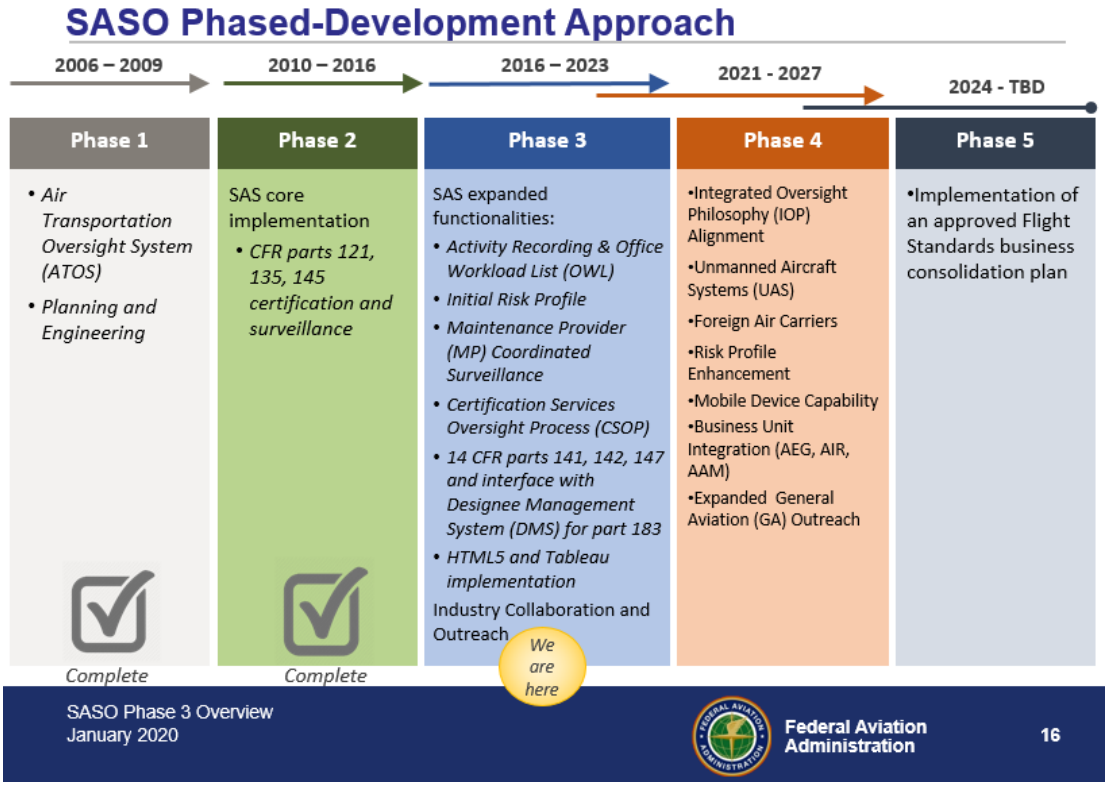
1. Purpose of This Notice. This notice provides background information on the development of Safety Assurance System (SAS) Phase 3 (i.e., what changed and why); the creation and focus of each of the integrated product teams (IPT), specifically IPTs 1, 2, and 6 (i.e., who was involved); and a high-level overview of each of those areas (i.e., what to expect). In addition, this notice provides information regarding what policy was impacted, the training involved, and the deployment process.

2. Audience. The primary audience for this notice is all SAS users, including the Flight Standards Safety Assurance offices' aviation safety inspectors (ASI). The secondary audience includes the Safety Standards and Foundational Business offices.

3. Where You Can Find This Notice. You can find this notice on the MyFAA employee website at https://employees.faa.gov/tools_resources/orders_notices. Inspectors can access this notice through the Flight Standards Information Management System (FSIMS) at http://fsims.avs.faa.gov. Operators can find this notice on the Federal Aviation Administration's (FAA) website at http://fsims.faa.gov. This notice is available to the public at http://www.faa.gov/regulations_policies/orders_notices.

4. Background. SAS Phase 3 started in 2016 with the creation of the IPTs (see Figure 1, The Phases of SAS). This was a collaborative effort that included interdependence between several divisions of the Flight Standards Service (FS): the Air Transportation Division (AFS-200), Aircraft Maintenance Division (AFS-300), Regulatory Support Division (AFS-600), General Aviation and Commercial Division (AFS-800), and Safety Analysis and Promotion Division (AFS-900). Each division provided representatives. In addition, the Offices of Air Carrier Safety Assurance (AFC) and General Aviation Safety Assurance (AFG) provided several subject matter experts (SME), SAS users who gave vital input to each team. Each IPT also had a Professional Aviation Safety Specialists (PASS) representative. The IPTs participated in the Business Process Reengineering workstream, Design Development, and initial and final testing of the new SAS functionalities developed in Phase 3. The results received from the IPTs helped develop and fine-tune the specific focus areas of Phase 3.

Figure 1. The Phases of SAS



a. Each IPT had a specific SAS Phase 3 focus area. The information in this notice will focus on Activity Recording and Office Workload List (OWL) (IPT 1), Initial Risk Profile (IPT 2), and 14 CFR Parts 141, 142, 147, and Interface with DMS for Part 183 (IPT 6).

(1) Activity Recording and Office Workload List (OWL) (IPT 1): Development of a single oversight system by incorporating the Program Tracking and Reporting Subsystem (PTRS), National Flight Standards Work Program Guidelines (NPG), office workload and Office/Divisional/National (ODN) Work Activity Summary into SAS.

(2) Initial Risk Profile (IPT 2): Development of a risk assessment model/tool that will assign a risk assessment value to enhance risk-based, data-supported decision making, and risk-based resource targeting.

(3) Maintenance Provider (MP) Coordinated Surveillance (IPT 3): Repair station consolidation to improve communication between ASIs through planning and improved information sharing and, through coordination, reduce the number of MP visits by the FAA.

(4) Industry Collaboration and Outreach (IPT 4): Increase of government and industry collaboration to develop educational materials and support systems to embark on an outreach effort to incorporate system safety principles. This IPT does not include any changes to the SAS automation.

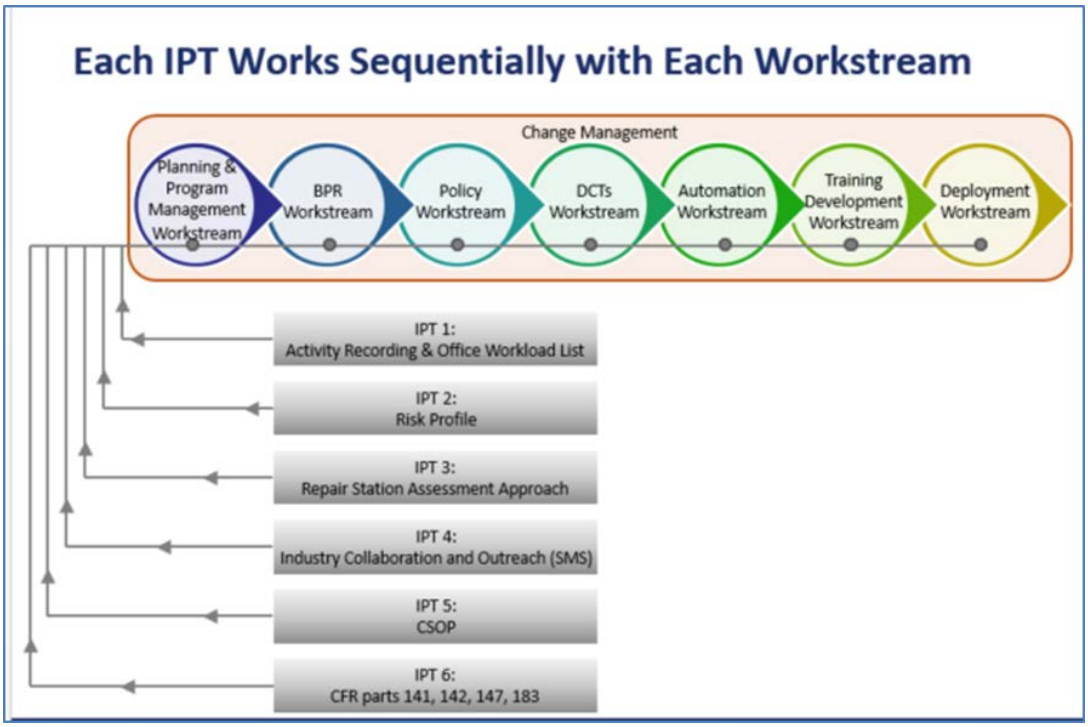
(5) Certification Services Oversight Process (CSOP) (IPT 5): Fully integrating CSOP with the current certification process in SAS to help reduce certificate backlog.

(6) 14 CFR Parts 141, 142, 147, and Interface with DMS for Part 183 (IPT 6): Incorporating additional Title 14 of the Code of Federal Regulations (14 CFR) parts into SAS beginning with parts 141 (pilot schools), 142 (training centers), and 147 (Aviation Maintenance Technician Schools (AMTS)).

b. MP Coordinated Surveillance (IPT 3) and Industry Collaboration and Outreach (IPT 4) will be deployed separately. CSOP (IPT 5) was deployed in October 2018. For more information on CSOP, refer to FAA Order 8900.1, Volume 10, Chapter 12, Section 1, Safety Assurance System: Certification Services Oversight Process.

c. In order to complete the products, services, and deliverables in the focus areas and to meet the business needs of our users, the IPTs worked separately and sequentially with the workstream representative to develop and design the products. Figure 2 demonstrates how that process worked. We are currently in the last phase of the workstream process where the deployment process is planned, developed, and executed.

Figure 2. IPT and Workstream Process



5. Activity Recording and Office Workload List (OWL) (IPT 1) Focus Area. The following information provides an overview of the SAS automation changes associated with the IPT 1 focus area, which include:

- Merging the PTRS into SAS,
- Merging on-the-job training (OJT) into SAS,

- Creating the OWL,
- Merging the NPG into SAS, and
- Creating an ODN Work Summary Report.

Table 1. Terms and Definitions (IPT 1)

Term	Definition
Activity	Work functions performed by employees as directed by FS policy or assigned by management. Each activity has a four-digit code related to the type of work. Activities may be triggered or linked to a task. There are four types of activities: • Ad hoc; • National Flight Standards Work Program Guidelines (NPG); • On-the-job training (OJT); and • Planned.
Activity Recording (AR)	A method for the collection, storage, retrieval, and analysis of data resulting from the activities performed by employees.
Ad Hoc Activity	A "self-assigned" unplanned activity added by an employee to AR in the Data Collection Module. These activities do not require resourcing and appear in the Individual Work Plan (IWP).
National Flight Standards Work Program Guidelines (NPG) Activity	A planned activity in accordance with FAA Order 1800.56, National Flight Standards Work Program Guidelines. These activities are populated to the Office Workload List (OWL) by SAS automation or added by an employee, and require resourcing before appearing in the IWP.
Office Workload List (OWL)	A list of specific office work activities and tasks.
Office/Divisional/National (ODN) Work Summary Report	A report that provides a snapshot of work items populated from the OWL, AR, and Comprehensive Assessment Plan (CAP).
On-the-Job Training (OJT) Activity	An activity added to the OWL in accordance with FAA Order 3140.20, Flight Standards Service National Training Program. These activities require resourcing before appearing in the IWP.
Planned Activity	An activity (other than NPG Activity) added to the OWL by an employee. These activities require resourcing before appearing in the IWP.
Task	A work item not associated with the CAP that is assigned by management or their delegate. When resourced, tasks appear in the IWP. Examples of a task include: accident/occurrence investigation, hotline complaint, revision of a policy document, etc.

a. Activity Recording (AR):

- Enhances and replaces the legacy PTRS;
- Uses the PTRS activity codes, primary area, and keyword codes;
- Will include four standard questions for surveillance activities (e.g., x6xx). The use of "YES," "NO," "N/A," and "N/O" will be available for all answers. These questions will drive the ASI to the comment and results sections of the AR record;
- Exists in Module 4, and surveillance questions are similar to the Data Collection Tools (DCT);
- May be subject to data review; and
- Has an option to create a "favorite list" of codes for easy selection.

b. The Office Workload List (OWL):

- Will be used to track all planned work not associated with the Comprehensive Assessment Plan (CAP) within your office;
- Contains tasks and NPG, OJT, planned (non-NPG), Designee Management System (DMS), and Integrated Airman Certification and Rating Application (IACRA) activities;
- Will be used by all FS offices including national and divisional offices;
- Enhances and replaces the legacy systems (e.g., Logbook, Knowledge Services Network (KSN), SharePoint, and ProTrack); and
- IACRA and DMS are external systems that interface with the OWL.

c. On-the-Job Training (OJT). Activities will be documented using AR.

d. National Flight Standards Work Program Guidelines (NPG).

(1) Beginning in Fiscal Year 2021 (FY21), planning and recording NPG surveillance will use SAS Phase 3 automation.

(2) New SAS terminology "NPG Activities" combines and replaces the legacy NPG/PTRS Required Surveillance Work Activities (R-item) and Planned Surveillance Work Activities (P-item).

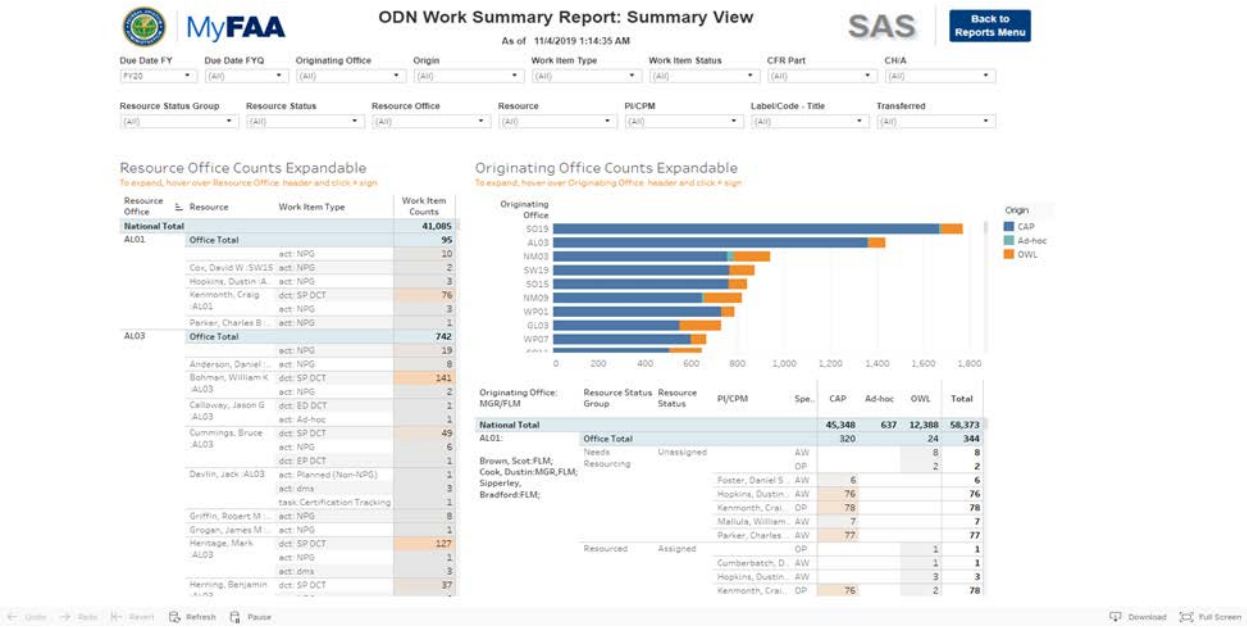
(3) AFS-900 will create, revise, and annually publish NPG automation rules per the requirements found in FAA Order 1800.56, National Flight Standards Work Program Guidelines. SAS automation will add NPG Activities to the appropriate FS OWLs.

(4) The OWL enhances and replaces the legacy Regional Automated Modular Planning System (RAMPS) and Assessment and Planning Tools (APT).

(5) Employees and management review, modify, and add additional NPG Activities to support their NPG work programs.

e. Office/Divisional/National (ODN) Work Summary Report. The ODN Work Summary Report is an on-demand report in Tableau that gathers information from CAP, OWL, and other ad hoc work to create a comprehensive work activity report for an office. Figure 3 is a sample of the ODN Work Summary Report. This report can be filtered to customize the information.

Figure 3. Sample ODN Work Summary Report



6. Initial Risk Profile (IPT 2) Focus Area. The following information provides an overview of the SAS automation changes associated with the IPT 2 focus area, which include:

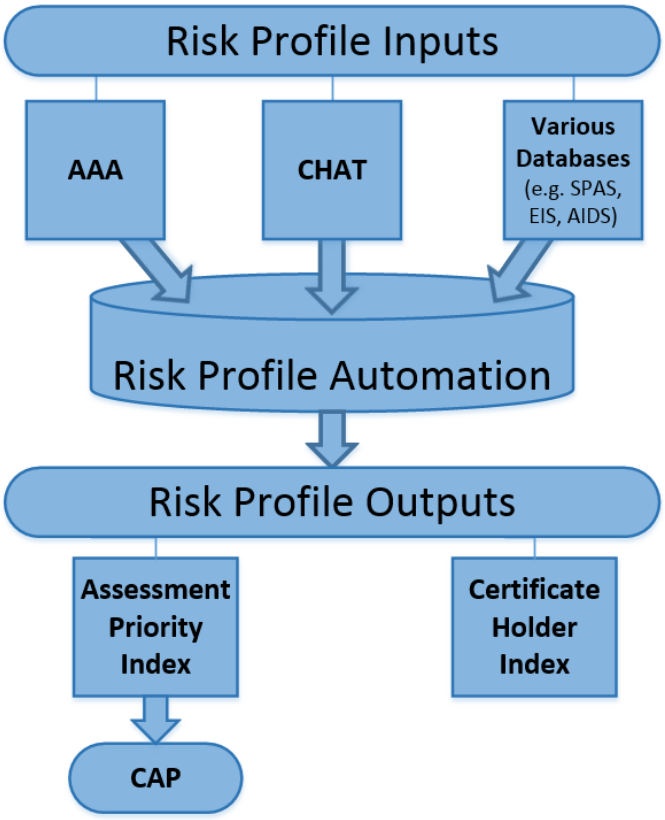
- Assessment Priority Index (API),
- Certificate Holder Index (CHI),
- Risk Profile Assessment Tool (RPAT),
- Certificate Holder Assessment Tool (CHAT),
- Analysis, Assessment, and Action (AAA), and
- CAP.

Table 2. Terms and Definitions (IPT 2)

Term	Definition
Assessment Priority Index (API)	A value assigned to an assessment that, along with the due date, determines the assessment's initial priority/resource order in a principal inspector's (PI) Comprehensive Assessment Plan (CAP).
Certificate Holder Index (CHI)	A value calculated for each certificate holder used to support Risk-Based Decision Making (RBDM) for the prioritization of work and the assignment of resources.
Risk Factors	Specific aspects of the risk components that contain numerical values that can be selected by the PI or are calculated by the automation. The combined values are processed by the automation to make up the risk component values. When a risk component's value is above zero, it is considered a risk indicator.
Risk Indicators	Risk factors in the Certificate Holder Assessment Tool (CHAT), which have a value above zero.
Risk Profile	Contains information about the certificate holder that pertains to risk and is used to prioritize and resource work.
Risk Profile Assessment Tool (RPAT)	A tool for analyzing the CHI and API in order to assist with RBDM for the prioritization of work in SAS.

a. Risk Profile Overview. The Risk Profile supports risk-based decisions for surveillance and certificate management. It uses a risk model, which incorporates data from multiple sources including assessment determination values, CHAT risk indicators, and other information from automated databases, such as the Enforcement Information System (EIS) and the Accident Incident Data System (AIDS). Figure 4 provides an overview of the Risk Profile and how the inputs produce the CHI and API and provide information to the RPAT and the CAP.

Figure 4. Overview of the Risk Profile



b. Enhancements to the CHAT:

- Selectable values that allow the principal inspector (PI) to document a level of concern;
- A streamlined process for documenting the presence of risk indicators; and
- An improved interface with the selection and actions associated with risk indicators.

c. Enhancements to AAA:

- An assessment determination matrix that provides additional values and an easy-to-use visual aid to assist the PI with Risk-Based Decision Making (RBDM); and
- An automation process that reduces the number of steps when an assessment has unfavorable or no findings.

d. Enhancements to the CAP:

- Assessments are sorted by automation according to the API value and assist the PI with use of RBDM in the planning process (manual PI adjustments are still available);

- Indicators inform the PI when the risk profile of a certificate holder has changed the priority/resource order of the assessments; and
- PIs can choose to allow the automation to change the priority/resource order of assessments on the CAP during the planning process.

e. Risk Profile Functionality.

(1) The RPAT. This tool is a series of reports located in the planning module, which allows the PI to analyze and understand the components and factors used to generate the CHI and API values. Additionally, managers may use this tool for risk-based resource assignment and as an input to strategic planning.

(2) The Risk Profile Administrative Tool. This tool is available to the Operations Research Analyst (ORA), and it allows the risk profile to be adjusted over time to produce more accurate results and to adapt to the continuous changes in the National Airspace System (NAS).

7. 14 CFR Parts 141, 142, 147, and Interface with DMS for Part 183 (IPT 6) Focus Area. The following information provides an overview of the SAS automation changes associated with the IPT 6 focus area, which include the addition of the following to SAS and the DCTs:

- Part 141 pilot schools,
- Part 142 training centers, and
- Part 147 AMTSs.

a. New Peer Groups. SAS will include three new peer groups (see Table 3).

Table 3. New Peer Groups and DCT Association

Part	Peer Group	Certificate Holder Peer Groups	MLF Level for DCTs		
			SP DCTs	EP DCTs	ED DCTs
141	I	Part 141 Pilot Schools	System	Element	Element
142	J	Part 142 Training Centers	Subsystem	Element	Element
147	K	Part 147 Aviation Maintenance Technician Schools	System	Element	Element

b. PI/Training Center Program Manager (TCPM). The PI and TCPM will be able to:

- Plan oversight using the CAP;
- Perform oversight and certification of certificate holders using DCTs instead of the PTRS;
- Perform risk management in the CHAT; and
- Analyze, assess, and determine action based on identified risk.

8. Changes Related to SAS Phase 3.

a. Policy. The following outlines the changes to Order 8900.1, Volume 10, Safety Assurance System Policy and Procedures, and other policy.

(1) Order 8900.1 Volume 10:

Volume 10	Title of Section	Notes
Chapter 1, Section 4	Safety Assurance System: Acronyms, Abbreviations, Terms, and Definitions	Revised
Chapter 1, Section 6	Safety Assurance System: Risk Profile Overview	New section
Chapter 3, Section 1	Safety Assurance System: Module 2 Planning	Revised. Original planning section; use until office deploys the Risk Profile.
Chapter 3, Section 2	Safety Assurance System: Module 2 Planning (Phase 3)	New planning section; use after office deploys the Risk Profile.
Chapter 3, Section 3	Safety Assurance System: Office Workload List (OWL) Activity and Task Planning	New section
Chapter 3, Appendix 10-1	Activity Recording	New appendix
Chapter 3, Section 4	Safety Assurance System: National Flight Standards Work Program Guidelines (NPG) Process	New section
Chapter 4, Section 1	Safety Assurance System: Module 3 Resource Management	Revised
Chapter 5, Section 3	Safety Assurance System: Module 4 Data Review	Revised
Chapter 6, Section 1	Safety Assurance System: Module 5 Analysis and Assessment	Revised
Chapter 6, Section 2	Safety Assurance System: Module 5 Action	Revised
Chapter 13, Section 1	Safety Assurance System: Parts 141, 142, 147, and 183	New section

(2) Other Policy:

- Policy for parts 141, 142, and 147 has been revised to support SAS Phase 3 changes.
- Other policy will be updated during the 3-year cycle to include new terminology, such as "Activity Recording (AR)," etc.
- Order 1800.56U for FY21 will include the NPG information that will be located in SAS.

b. Training. The following table outlines the training courses that are being revised or developed as a result of the SAS Phase 3 focus areas. Required courses will be assigned and accomplished prior to deployment.

New Courses		
	Course Name (Number, Hours/Days)	**Audience**
Web-Based Training	**AAA Assessment Determination Matrix** (27100298, 2 hours)	Office Manager (OM), Frontline Manager (FLM), PI, assistant PI, SAS Transition and Readiness Team (START), AFS-900
	Data Quality Reviewer (TBD)	Data evaluation program manager (DEPM), FLM, OM, START, AFS-900
	Foundation/Fundamentals of RBDM in SAS (TBD)	All FS
	Initial Certification (TBD, 3 hours)	ASI, aviation safety technician (AST), aviation safety assistant (ASA), ORA, Management and Program Analyst (MPA), START, AFS-900, other divisional personnel
	Maintenance Provider Coordinated Surveillance (27100270, 2 hours)	ASI, PI, FLM, OM
	Principles for the General Aviation Community (27100299)	All General Aviation (GA) Managers, ASI, PI, FLM, ORA, AST, FAA Safety Team (FAASTeam) Program Managers (FPM), Office of Hazardous Materials Safety (ADG)
	SAS Activity Recording (27100296)	All FS
	SAS Certification Services Oversight Process (27100278, 2 hours)	OM, FLM, DEPM, START, AFS-900
	SAS Management Tools (27100297, TBD)	ASA, AST, PI, FLM, OM, Division Manager (DM), Directors, personnel who enter data into Logbook, AFS-900

New Courses		
Instructor-Led Training	**Course Name (Number, Hours/Days)**	**Audience**
	SAS Data Schema (TBD, 3 days)	ORA, MPA, AFS-900
	Enhanced SAS Liaison Team (TBD)	START, FLM, OM
	Use of Risk Profile for Risk Based Decision Making (21000169, 3 days)	ASI, PI, FLM, OM, ASA, AST, ORA, AFS-900
Revised Courses		
Web-Based Training	**Course Name (Number, Hours/Days)**	**Audience**
	DCT Fundamentals for SAS (27100214, 1.5 hours)	PI, assistant PI, FLM, OM, AST, AFS-900, START
	Introduction to SAS (27100190, 2 hours)	All FS
	Safety Assurance System for Staff (27100191, TBD)	ORA, MPA, administrative personnel using SAS, START, AFS-900
	SAS User Administrator Functions (27100223, 3 hours)	Managers/designated personnel at all levels, SAS User Administrator, START, AFS-900
	Introduction to SAS External Portal for Certificate Holders/Applicants (27100205, 2.5 hours)	ASI, PI, Partial Program Manager (PPM), DEPM, AST, FLM, anyone working with External Portal, START, AFS-900
	Introduction to the SAS External Portal for Flight Standards (27100215, TBD)	ASI, PI, PPM, DEPM, AST, FLM, anyone working with External Portal, START, AFS-900
Instructor-Led Training	**14 CFR 121 SAS PI & Managers Interactive Training** (21000127)	PI, FLM, OM, DM, SAS Coordinator, START, AFS-900
	14 CFR 135/145 PI & Managers Interactive Training (21000126)	PI, FLM, OM, DM, SAS Coordinator, START, AFS-900
	SAS ASI Interactive Training (21000125)	New-Hire ASI, TCPM, FLM, OM, AFS-900
	Oversight of Contract Maintenance and Maintenance Providers (21400004)	ASI, PI, FLM, supervisors, OM

9. Deployment Information.

a. Key Sites. Deployment of AR, OWL, Risk Profile, and 14 CFR Parts 141, 142, and 147 will begin in 2020. The purpose of key site deployment is to verify the functionality of the focus areas in SAS production servers before deployment to all offices. Key site personnel will receive training prior to deployment. Order 8900.1 Volume 10 policy will be available on FSIMS.

(1) The key site offices are not expected to have completed all of their FY20 NPG R-items and P-items. They will continue to use the PTRS to document FY20 R-items and P-items until the end of FY20. The exception is parts 141, 142, and 147 R-items and P-items that are not complete at the time of transition. During transition, ASIs will terminate any remaining parts 141, 142, and 147 R-items and P-items in the PTRS.

(2) In order to terminate your office's remaining parts 141, 142, and 147 NPG work program items (R-items and P-items), enter "SAS" (without quotation marks) in the "National Use" field of the PTRS record. Use keyword code 971 to indicate terminated NPG surveillance and enter the following comment: "Surveillance of this certificate transferred to SAS on [date]." It is not necessary to include a statement that the RAMPS coordinator has concurred with this action for terminations performed per this subparagraph.

(3) All new activities will be created in SAS AR; the PTRS "Add" function will be disabled. In SAS, key site offices will receive limited test NPG Activities published to their OWL. ASIs should terminate those NPG Activity records. Enter "NPGTEST" (without quotation marks) in the "National Use" field. Use keyword 971 to indicate terminated NPG surveillance and enter the following comment: "Key Site Testing Only, NPG Activity Terminated."

b. Activity Recording and Office Workload List (OWL) (IPT 1) and 14 CFR Parts 141, 142, and 147 (IPT 6) Focus Areas. AR, NPG, OWL and 14 CFR Parts 141, 142, and 147 will be deployed in October 2020. Once deployed, the following will occur:

(1) Use of Logbook, KSN, SharePoint, ProTrack, and other office tracking methods must be replaced with the OWL.

(2) All NPG Activities will be located in the OWL.

(3) RAMPS/APT software will no longer be used and is anticipated to sunset at the end of the first quarter of FY21.

(4) Existing PTRS records can be updated or closed.

(5) The PTRS will no longer be available for new records.

Note: It is not expected that an office close all PTRS records prior to deployment. In-progress work may be completed in the PTRS. All new activities will be created in SAS AR; the PTRS "Add" function will be disabled.

c. Initial Risk Profile (IPT 2) Focus Area. The Risk Profile will be implemented office by office starting in January 2021 and continue through July 2022. Field Support Program Office (FSPO) personnel will contact your office to schedule deployment of the Risk Profile. The following describes which Order 8900.1 Volume 10 policy to use before and after your office deploys the Risk Profile:

(1) If your office has not been deployed to use the Risk Profile, then use the policy found in Volume 10, Chapter 3, Section 1, Safety Assurance System: Module 2 Planning.

(2) If your office has been deployed to use the Risk Profile, then use the policy found in Volume 10, Chapter 1, Section 6, Safety Assurance System: Risk Profile Overview; and Volume 10, Chapter 3, Section 2, Safety Assurance System: Module 2 Planning (Phase 3).

(3) The Risk Profile will provide enhancements to the CHAT risk indicators. Once implemented, the PI will no longer use the decision aids in Volume 6, Chapter 2, Section 18, Safety Assurance System: Evaluation of a Certificate Holder's Management of Significant Changes Parts 121, 135, 145, and 91 Subpart K.

10. Disposition. We will incorporate the information in this notice into Order 8900.1 before this notice expires. Direct questions concerning the information in this notice to the Safety Analysis and Promotion Division (AFS-900) at 9-AFS-900-SAFE@faa.gov.



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