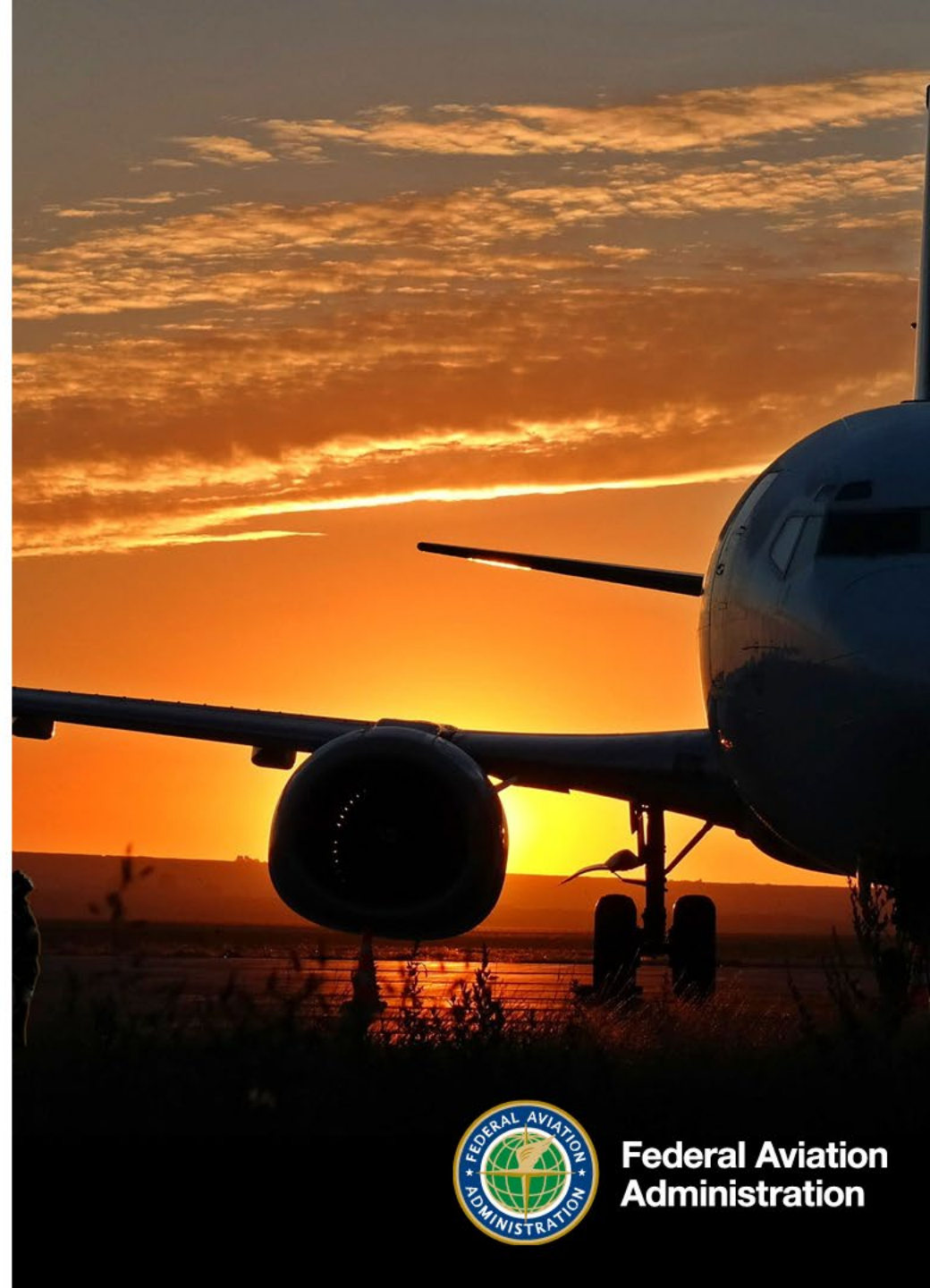


Safety Management System (SMS) Rule Overview

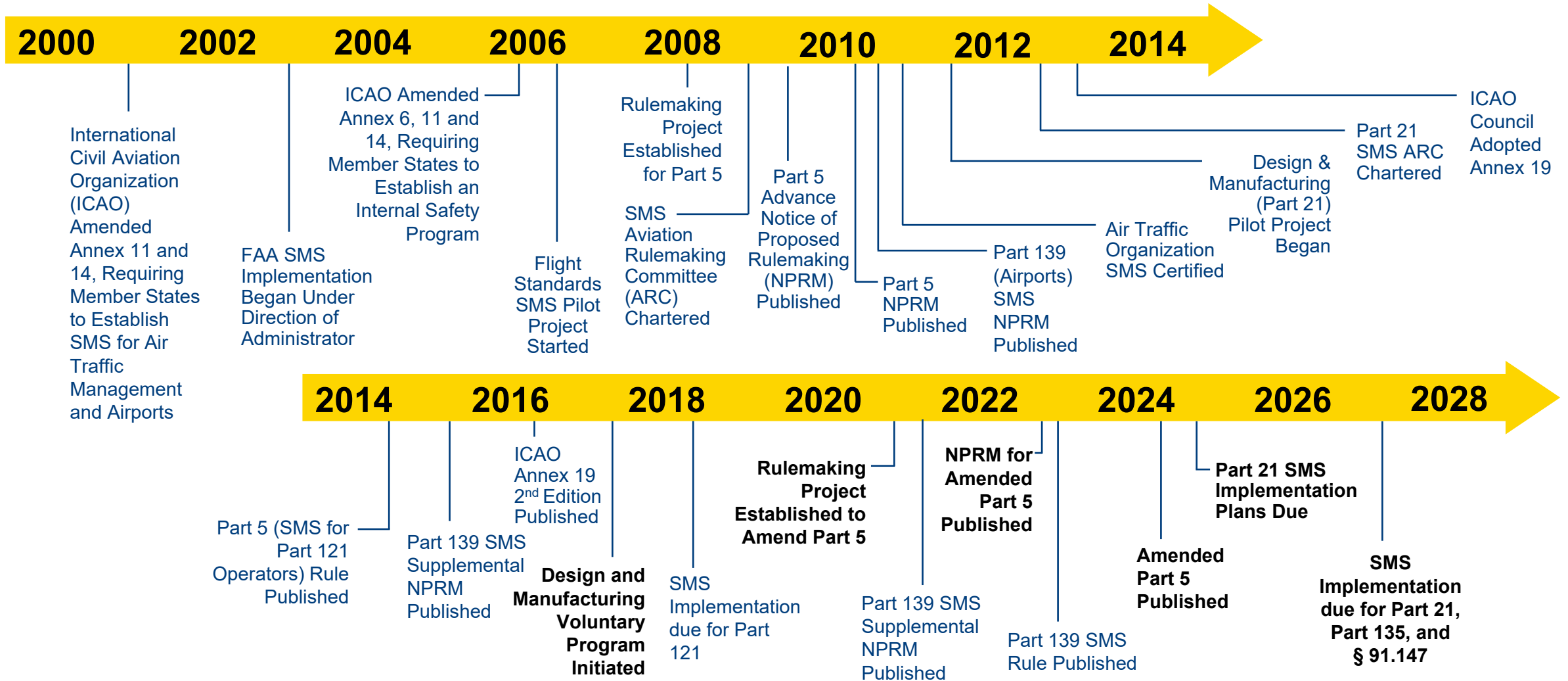
Presented to: NTSB Investigative Hearing
By: Chris Eick
Date: August 7, 2024



**Federal Aviation
Administration**



Safety Management Systems Historical Snapshot



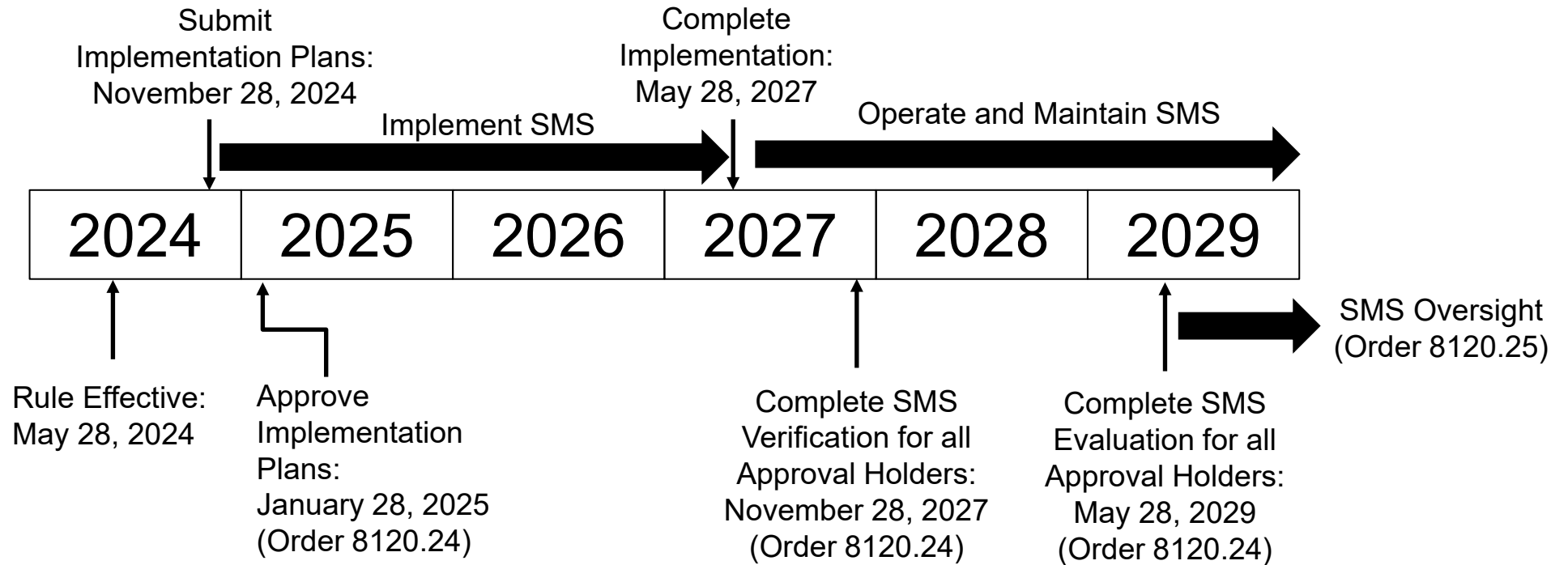
Part 5 SMS Rule Overview

- SMS rule published for part 121 operators: January 8, 2015; Effective: March 9, 2015
- Amendment Published: April 26, 2024. Effective: May 28, 2024
- Amends part 5 to meet Aircraft Certification, Safety, and Accountability Act (ACSAA) requirement & extends to:
 - Part 135 – on-demand and commuter operators
 - § 91.147 – commercial air tour operators
 - Part 21 – manufacturers that hold both Type Certificate (TC) and a Production Certificate (PC) for the same product [including licensees of a TC who also hold the PC for that product], and TC holders who license their TC for production
- Objective: Increase safety, be scalable and adaptable, and increase communication across the aviation system

Design and Manufacturing SMS Implementation Timeline

Approval
Holders

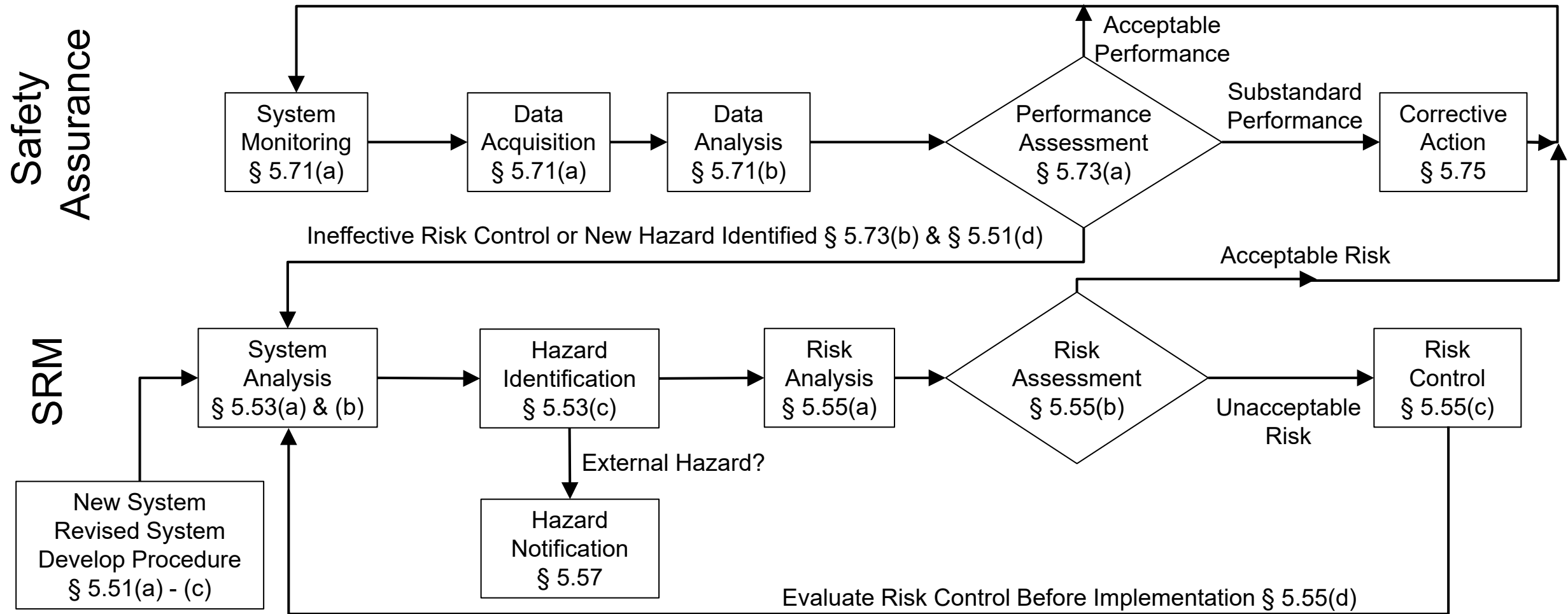
FAA



Design and Manufacturing Specific Requirements

- Develop an Organizational System Description [§ 5.17]
 - Describes:
 - Aviation-related processes, procedures, and activities
 - Function and purpose of the aviation products or services
 - Operating environment
 - Personnel, equipment, and facilities necessary for operation
 - Serves as the basis for the implementation plan
 - Enables the organization to identify when safety risk management (SRM) is required and where to perform safety assurance monitoring
- Submit an Implementation Plan based on the Organizational System Description by November 28, 2024 [§ 5.19]
- Submit a summary of employee reports every 6 months as required by the ACSAA [§ 5.71(c)]

14 CFR Part 5 Safety Assurance/SRM Interaction Loop



SMS and Quality System – Complementary with Different Objectives

- Quality System (§ 21.137)
 - Objective: Ensure that each product and article conforms to its approved design and is in a condition for safe operation.
- SMS (part 5)
 - Objective: Hazard identification, managing safety risk, and assuring the effectiveness of safety risk controls.
- Interactions between SMS and Quality System
 - Example: quality escape (non-conforming product delivery)
 - SMS identifies quality escape as a hazard and conducts SRM to manage safety risk
 - Quality System implements:
 - a) corrective action to eliminate cause of non-conformity
 - b) corrective action for non-conforming products released from quality system (typically this corrective action will be the risk control developed from SRM)

Part 21 Voluntary SMS (VSMS) Program

- Part 21 VSMS program initiated 2017
 - Utilizes National Aerospace Standard (NAS) 9927, *Safety Management System Practices for Design and Manufacturing*, as a means of compliance to part 5
- VSMS process steps
 - Applicant submits system description, safety policy, and gap analysis for FAA review
 - FAA VSMS program team completes kick off meeting with applicant
 - Applicant develops SMS, completes self assessment to NAS 9927 and submits request for compliance assessment
 - FAA completes compliance assessment to confirm applicant meets NAS 9927
 - FAA sends SMS Letter of Acceptance following successful completion of compliance assessment
 - FAA conducts a performance evaluation six months after completing the compliance assessment to confirm that the SMS is operational, and the Letter of Acceptance is still valid