



**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

National Policy

**ORDER
8000.72**

Effective Date:
06/28/17

SUBJ: FAA Integrated Oversight Philosophy

1-1. Purpose of This Order. This order sets forth the Federal Aviation Administration Integrated Oversight Philosophy as the core set of principles for evolving the FAA's safety oversight systems. Implementation of these principles is key to supporting the FAA Risk-Based Decision Making (RBDM) Strategic Initiative and ensuring that the FAA meets the challenges of a rapidly evolving U.S. aerospace system.

1-2. Audience. This order applies to the safety oversight programs and activities of all FAA organizations that have regulatory oversight responsibilities. These organizations include the Office of Aerospace Medicine (AAM), Flight Standards Service (AFS), Aircraft Certification Service (AIR), Air Traffic Safety Oversight Service (AOV), Office of Airports (ARP), Office of Security and Hazardous Materials Safety (ASH), and Office of Commercial Space Transportation (AST).

1-3. Where Can I Find This Order. You can find this order on the MyFAA Employee Web site: https://employees.faa.gov/tools_resources/orders_notices/. This order is available to the public at http://www.faa.gov/regulations_policies/orders_notices/.

1-4. Integrated Oversight Philosophy.

a. FAA Oversight and Safety Culture.

(1) The FAA defines oversight as assuring that aviation organizations and designees comply with and use safety-related standards, regulations, and associated procedures. FAA oversight is evolving to a risk management based approach that embraces many interdependent principles, including RBDM, safety management systems (SMS), Compliance Philosophy, and voluntary safety reporting programs. Oversight is an integral part of the FAA's safety culture. Evolving FAA oversight programs to better implement these principles supports the FAA's movement toward a safety management framework that collectively helps to define our safety culture.

(2) The FAA safety culture also influences how we conduct oversight. The FAA's safety culture expects that regulated persons appreciate the value of self-disclosing both regulatory and non-regulatory safety issues. It allows for consideration of unintentional errors and creates a non-punitive environment, where errors are reported without fear of reprisal. This also allows certificate and non-certificate holders, and the FAA to work together to ensure the corrective action is appropriate and will address the root cause(s) of safety issues. The FAA will continue to evolve its safety culture to support a transparent exchange of information, mutual cooperation, collaboration, critical thinking, and trust.

b. RBDM. The RBDM Strategic Initiative leverages the use of consistent, data-informed approaches to enable the FAA to make smarter, system-level, risk-based decisions. RBDM

emphasizes the review of safety data to integrate risk into a decision making processes; enabling informed decision making. The FAA is evolving its business processes to a risk-based model to better target oversight resources.

c. SMS Attributes. SMS is the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of safety risk controls. It includes systematic procedures, practices, and policies for the management of safety risk. Within SMS, Safety Risk Management and Safety Assurance processes work together to enable interoperability among SMSs. Safety Assurance includes oversight processes and provides a common approach for conducting oversight.

d. Compliance Philosophy. FAA Order 8000.373, *FAA Compliance Philosophy*, is an integral part of the FAA's philosophical approach to oversight and the first step in the FAA's culture shift to use safety management principles to proactively address emerging safety risks. The FAA's intent is to work with regulated persons to identify and correct underlying causes that led to a noncompliance and to ensure future compliance. Compliance Philosophy represents a focus on non-enforcement methods for correcting unintentional noncompliance, but will continue to use enforcement when needed.

e. Reduce Duplicative Activities and Ensure Integrated Oversight.

(1) Duplicative oversight activities have been recognized across the agency. With improved integration, coordination, and collaboration—both within and between oversight organizations—duplicative activities can be reduced to resolve unnecessary burden that may be imposed on FAA and industry resources.

(2) Duplicative activities are not limited to oversight. A number of information technology (IT) tools have been developed, or are being developed, along parallel tracks, providing opportunity for integration and/or collaborative use of IT tools. Increased integration and analysis of oversight IT tools would be beneficial in providing a holistic view of hazard trends and priorities, as well as in sharing data/information between IT tools.

f. Attributes of a Standardized Safety Oversight System. The FAA recognizes that no single oversight system can assure the effectiveness of risk controls for all the diverse operational environments; however, oversight systems do have core attributes that are universally applicable. All FAA oversight systems must incorporate the attributes listed below.

(1) Employ internal collaboration, coordination, and communication across FAA organizations to improve consistency and standardization and project an image as a single, unified agency;

(2) Be risk-based and support critical thinking and informed decision making;

(3) Employ International Civil Aviation Organization (ICAO) Standards and Recommended Practices, specifically Annex 19, Safety Management, as applicable;

(4) Be interoperable with the SMS of both internal and external stakeholders and facilitate process-oriented, data-driven management of risk, as applicable;

- (5) Establish interfaces between FAA Safety Assurance oversight processes and Safety Risk Management functions and the product/service provider's SMS, as applicable;
- (6) Employ oversight systems that incorporate the requirements of FAA Order 8000.369, *Safety Management Systems*;
- (7) Foster a proactive approach to safety management that allows for product/service providers to develop processes to identify and disclose safety risks, prevent regulatory noncompliance, and ensure systemic fixes are implemented when regulatory noncompliance exists;
- (8) Assure product/service providers comply with the regulations and manage risk at an acceptable level;
- (9) Where appropriate, use non-enforcement measures for correcting unintentional regulatory noncompliance while remaining mindful that some instances of unintentional regulatory noncompliance may be subject to enforcement action as prescribed in FAA Order 8000.373, *FAA Compliance Philosophy*, FAA Order 2150.3, *FAA Compliance and Enforcement Program*, and organizational policies and guidance;
- (10) Incorporate Voluntary Safety Programs to include voluntary safety reporting systems;
 - (a) Create and promote a non-punitive environment for internal and external stakeholders that nurtures their willingness to report hazards without fear of reprisal;
 - (b) Voluntary Safety Programs must be documented in directives and/or advisory circulars, as applicable;
 - (c) Voluntary Safety Programs must protect the confidentiality of reports submitted thereunder to the extent allowed by applicable law, including 49 U.S.C. § 40123, *Protection of voluntarily submitted information*, 49 U.S.C. § 44735, *Limitation on disclosure of safety information*, and 14 CFR Part 193, *Protection of Voluntarily submitted information*;
 - (d) A feature of Voluntary Safety Programs is FAA feedback, to persons who have reported on safety issues, regarding safety improvements achieved as a result of the reports;
- (11) Base the scope, frequency, and emphasis of safety oversight on the product/service provider's safety performance and risk profile;
- (12) Employ closed-loop processes to ensure tracking and full life-cycle management of all identified safety issues;
- (13) Identify, assess, manage, and communicate risk at a national level;
- (14) Reduce duplicative activities and ensure integrated oversight;

(a) To the greatest extent practical, oversight organizations must reduce duplicative oversight activities, both internal and external of the organization. This includes, but is not limited to, product/service providers possessing multiple certificate/approval types and single product/service providers overseen by multiple FAA offices;

(b) Oversight organizations must integrate oversight through communication, collaboration, and increased data sharing, as applicable;

(c) To the greatest extent practical, FAA organizations must use shared information technology support applications, databases, and toolsets;

(15) Evaluate designee oversight programs to ensure:

(a) Standardized designee/delegation oversight processes, as practicable;

(b) FAA oversight processes, resource allocation, and the scope, frequency, and emphasis of FAA oversight activities is appropriately aligned with the designee/delegated organization's safety performance and risk profile;

(16) Facilitate the sharing of oversight resources outside of specific areas of geographic responsibility;

(17) Improve oversight data collection and analysis by:

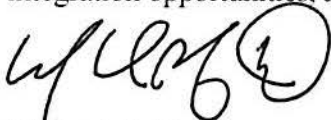
(a) Collecting data with sufficient detail to allow for identification and analysis of trends, and better target oversight activities;

(b) Evaluating the frequency of data input and analysis to ensure that oversight activities can be adjusted as risks change;

(c) Ensuring increased sharing of data, identify emerging risks, and enable a proactive approach to hazard identification;

(d) Evaluating data improvement programs for effectiveness, or if none exist, implement such programs;

(18) Use the standardized oversight terminology document, *FAA Standardized Safety Oversight Terminology* (Appendix A) to improve internal communication, increase interface and integration opportunities, and clarify processes for stakeholders.



Michael P. Huerta
Administrator

Appendix A: Standardized Terminology for FAA Safety Oversight

OVERVIEW

This appendix contains many of the terms and phrases used in various FAA oversight organizations. Terms that have specific statutory or regulatory definitions are noted by the applicable citation. Other definitions in this appendix do not alter statutory or regulatory definitions nor do they supersede statutory or regulatory requirement. There is no expectation or mandate that external stakeholders and/or the public adopt any of these terms or definitions. The use of these terms facilitates a common safety language and supports internal FAA communications and collaboration.

1. **Acceptable Risk** – The level of risk that individuals or groups are willing to accept given the benefits gained.
2. **Accident**
 - NTSB Definition. An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage. (49 CFR 830.2)
 - FAA Definition. An unplanned event or series of events resulting in death, injury, or damage to, or loss of, equipment or property.

Launch Accident

- a. An event that causes a fatality or serious injury (as defined in 49 CFR 830.2) to any person who is not associated with the flight;
- b. An event that causes damage estimated to exceed \$25,000 to property not associated with the flight that is not located at the launch site or designated recovery area;
- c. An unplanned event occurring during the flight of a launch vehicle resulting in the impact of a launch vehicle, its payload or any component thereof:
 1. For an expendable launch vehicle, outside designated impact limit lines; and
 2. For a reusable launch vehicle, outside a designated landing site.
- d. For a launch that takes place with a person on board, a fatality or serious injury to a space flight participant or crew member. (14 CFR 401.5.)

Reentry Accident

- a. Any unplanned event occurring during the reentry of a reentry vehicle resulting in the impact of the reentry vehicle, its payload, or any component thereof, outside a designated reentry site;
- b. An event that causes a fatality or serious injury (as defined in 49 CFR 830.2) to any person who is not associated with the reentry;
- c. An event that causes damage estimated to exceed \$25,000 to property not associated with the reentry and not located within a designated reentry site; and
- d. For a reentry that takes place with a person on board, a fatality or serious injury to a space flight participant or crew member. (14 CFR 401.5).

Unmanned Aircraft Accident Reportable Under Part 107- Any operation of the small unmanned aircraft involving at least:

- a. Serious injury to any person or any loss of consciousness; or
 - b. Damage to any property, other than the small unmanned aircraft, unless one of the following conditions is satisfied:
 1. The cost of repair (including materials and labor) does not exceed \$500; or
 2. The fair market value of the property does not exceed \$500 in the event of total loss.
3. **Administrative Action** – A means for disposing of violations or alleged violations that do not warrant the use of legal enforcement actions. The two types of administrative action are a warning notice and a letter of correction. (14 CFR 13.11.)
4. **Advisory Circular (AC)** – A document published by the Federal Aviation Administration (FAA) giving guidance on aviation issues.
5. **Aircraft** – A device that is used or intended to be used for flight in the air. (14 CFR 1.1.)
6. **Airport** – An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any. (14 CFR 1.1.)
7. **Analysis** – The process of identifying a question or issue to be addressed, examining the issue, investigating the results, interpreting the results, and possibly making a recommendation. Analysis typically involves using scientific or mathematical methods for evaluation.
8. **Assessment** – Process of measuring or judging the value or level of something.
9. **Audit** – A systematic and documented process for obtaining records, statements of fact or other information and evaluating it objectively to determine the extent to which policies, procedures or requirements are met.
10. **Compliance** – Conduct that conforms to the requirements of a statute, regulation, or order issued under a statute or regulation.
11. **Compliance Action** – A means for addressing noncompliance or alleged noncompliance when a person is willing and able to comply with regulatory standards, and when the noncompliance does not meet the criteria for enforcement action set forth in FAA Order 2150.3. Compliance actions are processed in accordance with the guidance of the program office exercising regulatory authority over the person that engaged in the noncompliance.
12. **Corrective Action** – Action to eliminate or mitigate the cause or reduce the effects of a detected nonconformity, noncompliance, or other undesirable situation.

- 13. Designee** – A private person (i.e., individual or entity) whom the Administrator has designated to act as the Administrator’s representative “in examining, inspecting, and testing persons and aircraft for the purpose of issuing airman, operating, and aircraft certificates.” (14 CFR 183.1)
- 14. Frequency** – An expression of how often a given effect occurs.
- 15. Gap Analysis** – A technique that assists in identifying the disparity between the current and the desired future state.
- 16. Hazard** – A condition that could foreseeably cause or contribute to an aircraft accident as defined in 49 CFR 830.2. (14 CFR 5.5)
- 17. Hazard Identification** – A process to establish a list of all hazards and corresponding outcomes relevant to an activity.
- 18. Incident.**
- NTSB Definition. An occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations. (49 CFR 830.2)
 - FAA Definition. An occurrence other than an accident that affects or could affect the safety of operations.
- Launch incident** – An unplanned event during the flight of a launch vehicle, other than a launch accident, involving a malfunction of a flight safety system or safety-critical system, or a failure of the licensee's or permittee's safety organization, design, or operations. (14 CFR 401.5.)
- Reentry incident** – Any unplanned event occurring during the reentry of a reentry vehicle, other than a reentry accident, involving a malfunction of a reentry safety-critical system or failure of the licensee's or permittee's safety organization, procedures, or operations. (14 CFR 401.5.)
- 19. Interoperability** – The ability for each organization’s SMS to be part of a larger SMS framework through interdependent processes and/or components with shared principles, information, and governance.
- 20. Just Culture** – An atmosphere in which regulated persons appreciate the value of self-disclosing both regulatory and non- regulatory safety issues. It allows for consideration of unintentional errors and creates a non-punitive environment, where errors are reported without fear of reprisal.
- 21. Launch Services** – Activities involved in the preparation of a launch vehicle and its payload for launch and the conduct of a launch.
- 22. Launch Site** – The location on Earth from which a launch takes place (as defined in a license the Secretary issues or transfers under this chapter) and necessary facilities at that location. (14 CFR 401.5.)

- 23. Launch Vehicle** – A vehicle built to operate in, or place a payload in, outer space or a suborbital rocket. (14 CFR 401.5.)
- 24. Legal Enforcement Action** – A means for addressing noncompliance when a person's conduct meets one or more of the criteria for legal enforcement action set forth in FAA Order 2150.3 or when compliance or administrative actions are not sufficient to address the noncompliance. Examples of legal enforcement action include certificate actions and assessment of civil penalties.
- 25. Letter of Correction** – A letter issued by the FAA in connection with an administrative action confirming its decision in a matter when legal enforcement action is not required and stating the necessary corrective action that the alleged violator has taken or agrees to take. If the agreed corrective action is not fully completed, legal enforcement action may be taken. (14 CFR 13.11(b)(2))
- 26. Letter of Investigation** – A document that serves the dual purpose of notifying an apparent violator that he/she/it is under investigation for a possible violation and providing an opportunity for the apparent violator to explain his or her version of the events.
- 27. Likelihood** – The estimated probability or frequency, in quantitative or qualitative terms, of a hazard's effect or outcome.
- 28. Mitigation** – A means to reduce the risk of a hazard. See *Safety Risk Control*. The terms *Control*, *Mitigation*, and *Safety Risk Control* are used synonymously. This definition does not apply to the term as used in the context of sanction mitigation in a legal enforcement action.
- 29. Monitoring** – Tracking and keeping hazard information under systematic review.
- 30. Noncompliance** – Conduct that is contrary to a statute, regulation, or order issued under a statute or regulation.
- 31. Nonconformance** – Non-fulfillment of an organization's requirements, policies, and procedures, as well as requirements of safety risk controls developed by the organization.
- 32. Oversight** – A function performed by the FAA (or other regulator i.e., in an international country) that assures that an aviation organization or designee complies with and uses safety-related standards, requirements, regulations, and associated procedures.
- 33. Performance** – The accomplishment of a given task measured against preset known standards of accuracy, completeness, and timeliness, which is then used to determine if the holder is managing risk and mitigating hazards.
- 34. Performance Assessment** – Used to determine if the certificate holder's or applicant's operating systems are producing the intended results, as well as to confirm the certificate holder's or applicant's risk assessment is occurring through its monitoring process and it is taking appropriate corrective action when needed. This includes mitigation or control of hazards and risks and the

ability to detect latent, systemic failures that may occur over time or due to subtle environmental changes.

- 35. **Performance-Based Standards** – Requirements expressed in terms of outcomes rather than specifying the means to those ends.
- 36. **Prescriptive Standards** – Standards that specify methods for complying with safety requirements.
- 37. **Preventive Action** – Preemptive action to eliminate or mitigate the potential cause or reduce the future effects of an identified unsafe condition or anticipated nonconformity or other undesirable situation.
- 38. **Procedure** – A specific way to perform an activity or function that is documented and usually contains the purposes and scope of the activity or function: what is to be done and by whom; when, where, and how the activity or function is to be done; the materials, equipment, and documents to be used; and how the activity or function is to be controlled and recorded.
- 39. **Process** – A set of interrelated or interacting activities that transforms inputs into outputs.
- 40. **Product/Service Provider** – An organization engaged in the delivery of aviation products or services.
- 41. **Quality Assurance** – The independent activity of providing the evidence needed to establish confidence, among all concerned, that the quality function is being performed effectively. This activity “assures quality” through independent evaluation of established processes, procedures, and documentation.
- 42. **Quality Control** – The determination of the quality of a product by inspection and testing to determine compliance with standards. This activity “controls quality” through establishment of effective controls, documentation, and procedures within specific functional areas.
- 43. **Reentry Site** – The location on Earth where a reentry vehicle is intended to return. It includes the area within three standard deviations of the intended landing point (the predicted three-sigma footprint). (14 CFR 401.5.)
- 44. **Reporting Culture** – An important aspect of a positive safety culture that cultivates the willingness of every member to contribute to the organization’s knowledge base.
- 45. **Requirement** – A mandatory attribute or characteristic of a system, directive, order, standard, regulation or procedure.
- 46. **Risk** – See Safety Risk. The terms *risk* and *safety risk* are used synonymously.
- 47. **Risk Based Decision Making (RBDM)** – The use of consistent, data-informed approaches to enable the FAA to make smarter, system-level, risk-based decisions. RBDM emphasizes the

review of safety data to integrate risk into decision making processes; enabling informed decision making.

48. **Risk Matrix** – A table that allows for the identification of the risk tolerance level through the combination of likelihood and severity.
49. **Root Cause** – The underlying cause of a systemic or recurring noncompliance, usually identified through structured analysis.
50. **Safety** – The state in which the risk of harm to persons or property damage is acceptable.
51. **Safety Assurance** – Processes within the SMS that function systematically to ensure the performance and effectiveness of safety risk controls and that the organization meets or exceeds its safety objectives through the collection, analysis, and assessment of information. (14 CFR 5.5.)
52. **Safety Critical** – Essential to safe performance or operation. A safety-critical system, subsystem, condition, event, operation, process, or item is one whose proper recognition, control, performance, or tolerance is essential to system operation such that it does not jeopardize public safety.
53. **Safety Culture** – The shared values, actions, and behaviors that demonstrate a commitment to safety over competing goals and demands.
54. **Safety Management System (SMS)** – The formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of safety risk controls. It includes systematic procedures, practices, and policies for the management of safety risk. (14 CFR 5.5.)
55. **Safety Objective** – A measurable goal or desirable outcome related to safety. (14 CFR 5.5.)
56. **Safety Oversight** – A function by which the FAA ensures effective implementation of the safety-related laws, regulations, policies, and procedures. Safety oversight also ensures the national aviation industry provides a safety level equal to or better than the acceptable level defined by the FAA.
57. **Safety Performance** – Realized or actual safety accomplishment relative to the organization's safety objectives. (14 CFR 5.5)
58. **Safety Performance Target** – A measurable goal used to verify the predicted residual safety risk of a hazard.
59. **Safety Policy.**
 - **CFR Definition.** The certificate holder's documented commitment to safety, which defines its safety objectives and the accountabilities and responsibilities of its employees in regards to safety. (14 CFR 5.5)

- **FAA Safety Policy Definition.** The documented commitment to safety of an FAA line of business or staff office, or an aviation service/product provider, organization, or certificate holder, which defines its safety objectives and the accountabilities and responsibilities of its employees with regard to safety.
- 60. Safety Promotion** – A combination of training and communication of safety information to support the implementation and operation of an SMS in an organization. (14 CFR 5.5.)
- 61. Safety Requirement** – A safety condition or capability that must be met or passed by a system to satisfy a contract, standard, specification or other formally imposed document or need.
- 62. Safety Risk** – The composite of predicted severity and likelihood of the potential effect of a hazard.
- 63. Safety Risk Assessment** – The first four steps of the SRM process (analyze the system, identify hazards, analyze safety risk, and assess safety risk).
- 64. Safety Risk Control** – A means to reduce or eliminate the effects of hazards. The terms *Control*, *Mitigation*, and *Safety Risk Control* are used synonymously.
- 65. Safety Risk Management** – A process within the SMS composed of describing the system, identifying the hazards, and analyzing, assessing, and controlling risk. (14 CFR 5.5)
- 66. Safety Target** – The concrete objectives of the level of safety, e.g., a) reduction in fatal airline accidents; b) reduction in serious incidents; c) reduction in runway excursion events; d) reduction in ground collision events; and e) the number of inspections completed quarterly.
- 67. Severity** – The consequence or impact of a hazard's effect or outcome in terms of degree of loss or harm.
- 68. Stakeholder** – A group or individual that is affected by or is in some way accountable for the outcome of an undertaking; an interested party having a right, share, or claim in a product or service, or in its success in possessing qualities that meet that party's needs and/or expectations.
- 69. State Safety Oversight** – A function by means of which States ensure effective implementation of the safety-related Standards and Recommended Practices and associated procedures contained in the Annexes to the Convention on International Civil Aviation and related ICAO documents.
- 70. State Safety Program (SSP)** – An integrated set of regulations and activities established by a State aimed at improving safety.
- 71. Surveillance** – The act of closely observing, evaluating, and assessing the effectiveness of an organization in a systematic way to verify compliance with regulations; and operation in accordance with its processes.

- 72. System** – An integrated set of constituent elements that are combined in an operational or support environment to accomplish a defined objective. These elements include people, hardware, software, firmware, information, procedures, facilities, services and other support facets.
- 73. System Safety** – The application of engineering and management principles, criteria, and techniques to optimize all aspects of safety within the constraints of operational effectiveness, time, and cost throughout all phases of the system lifecycle.
- 74. Taxonomy** – A standard industry language and set of definitions that improve the quality of information and communication within the aviation community.
- 75. Unmanned Aircraft** - An aircraft operated without the possibility of direct human intervention from within or on the aircraft.
- 76. Unmanned Aircraft System (UAS)** – An unmanned aircraft and associated elements (including communication links and the components that control the unmanned aircraft) that are required for the pilot in command to operate safely and efficiently in the national airspace system. (Public Law 112-95, § 331)
- 77. Unsafe Behavior** – Conduct that is more likely to lead to incidents or accidents.
- 78. Validation** – The process of proving the functions, procedures, controls, and safety standards are correct and the right system is being built (that is, the requirements are unambiguous, correct, complete, and verifiable).
- 79. Verification** – The process that ensures that the system requirements have been met by the design solution and the system is ready to be used in the operational environment for which it is intended.
- 80. Violation** – Conduct that is contrary to a statute, regulation or order issued under a statute or regulation.
- 81. Voluntary Safety Programs** – Program(s) that are documented in policy, Orders, and/or Advisory Circulars for which the FAA may issue an order designating voluntarily submitted safety information as protected from disclosure in accordance with 14 CFR Part 193. Under such programs, regulated persons voluntarily report apparent regulatory violations and safety concerns and generally implement corrective action to the satisfaction of the FAA.
- 82. Warning Notice** – A letter or form addressed to the apparent violator in connection with an administrative action that brings to that person's attention the facts and circumstances of the incident. The warning notice advises that, based on available information, the apparent violator's action or inaction appears to be contrary to the regulations, but does not warrant legal enforcement action. It also requests future immediate compliance with statutory and regulatory requirements.