

U.S. Department of Energy
Washington, D.C.

ORDER

DOE O 440.2D

Approved: 08-05-2026

SUBJECT: AVIATION MANAGEMENT AND SAFETY

1. PURPOSE. To establish a policy framework that will ensure safety, efficiency, and effectiveness of government or contractor aviation operations and establish United States (U.S.) Department of Energy (DOE)/National Nuclear Security Administration (NNSA) Flight Program Standards and responsibilities.
2. CANCELS/SUPERSEDES. DOE O 440.2C, Chg. 3 (LtdChg), *Aviation Management and Safety*, dated March 21, 2023. Cancellation of a directive does not, by itself, modify or otherwise affect any contractual or regulatory obligation to comply with the directive. Contractor Requirements Documents (CRDs) incorporated into contracts remain in effect throughout the term of the contract unless and until the contract or regulatory commitment is modified to either eliminate requirements no longer applicable or substitute a new set of requirements.
3. APPLICABILITY.
 - a. Role Definitions.
 - (1) Accountable Executive. An individual with executive responsibility for a DOE/NNSA aviation program, who ensures aviation activities support mission objectives and comply with this Order. The Accountable Executive accepts operational risk but does not waive regulatory or safety requirements.
 - (2) Senior Aviation Management Official (SAMO). The agency-designated official responsible for DOE/NNSA aviation governance, interagency coordination, and representation on the Interagency Committee for Aviation Policy (ICAP).
 - (3) Senior Aviation Safety Officer (SASO). The official responsible for independent aviation safety oversight, regulatory compliance, and safety enforcement, including authority to ground operations when necessary.
 - (4) Director, Aviation Operations Division (AOD), Office of Secure Transportation (OST). The official providing aviation technical oversight and approval authority for Aviation Implementation Documents (AIDs), Commercial Aviation Service (CAS) audits, and operational readiness.

- (5) Field Aviation Program. A DOE or NNSA field organization, including Management and Operating (M&O) contractors, that manages or utilizes aviation assets or services in support of mission activities. Note: The term “written program” refers to an aviation program operating under a parent organization’s AID.
 - (6) Aviation Manager (AvM). The individual designated to manage a Field Aviation Program and implement DOE/NNSA aviation policy, including development and maintenance of the AID.
 - (7) Aviation Safety Officer (ASO). The individual responsible for aviation safety risk management, safety assessments, and development or review of Aviation Safety Reviews (ASR) and Aviation Safety Documentation (ASD).
 - (8) Director of Operations/Chief Pilot/Unmanned Aircraft Systems (UAS) Program Lead. The individual responsible for day-to-day operational control of aviation activities in accordance with the approved AID.
 - (9) Remote Pilot in Command (RPIC). For UAS operations, the FAA-certificated individual with final authority and responsibility for the safe conduct of the unmanned aircraft flight.
 - (10) Pilot in Command (PIC). For manned aircraft operations, the FAA-certificated pilot with final authority and responsibility for the operation and safety of the aircraft during flight.
 - (11) Commercial Aviation Service Provider. A commercial entity contracted to provide aviation services to DOE/NNSA in accordance with applicable regulations, contractual requirements, and this Order.
- b. Departmental Applicability. This Order applies to (1) any DOE and NNSA office (to include M&O contractors) that manages, operates, and/or maintains federal/government aircraft, or oversee related services, and to (2) DOE and NNSA offices (to include M&O contractors) that obtain CAS including:
- (1) Bonneville Power Administration except where Public Law (PL) No. 75-329, H.R. 7642, The Bonneville Project Act, or other federal agencies provide exemptions or equivalent requirements.
 - (2) Unless specified, all requirements in this document are applicable to both manned and unmanned flight operations.

- c. Contractors (M&O and CAS). The CRD outlined in Attachment 1 specifies the requirements applicable to contracts and must be incorporated into these agreements. The CRD must be included in all contracts for the M&O of DOE and NNSA-owned or leased facilities, as well as site/facility management contracts (specifically, this covers contracts that include the clause at 48 CFR (DEAR) 970.5204-2, Laws, Regulations, and DOE Directives) that require contractor management, operation, and/or maintenance of federal aircraft (41 CFR § 102-33.15, Definitions, defines federal aircraft) or require CAS, including but not limited to government aircraft (41 CFR § 102-33.15 defines government aircraft), to support programmatic needs. Additionally, this includes aviation activities conducted outside the physical boundaries of DOE or NNSA facilities.

For all other contracts requiring contractor management, operation, and/or maintenance of federal/government aircraft or requiring CAS to support programmatic needs, the contract's statement of work (SOW) must include the applicable requirements detailed in this Order's CRD. (See also: 41 CFR § 102-33 Subpart B, Acquiring Government Aircraft and Aircraft Parts.)

- d. Equivalencies/Exemptions for DOE O 440.2D. Requests for equivalencies or exemptions to this Order must be submitted in the form of a memorandum by the affected Field Aviation Program to the SASO within the NNSA Office of Environment, Safety, and Health (NA-ESH). The memorandum should explicitly identify the offices, localities, and specific requirements for which equivalency or exemption is being requested. Approval of such requests is contingent on written authorization provided by the Cognizant Secretarial Officer for Safety.

In accordance with the responsibilities and authorities assigned by Executive Order 12344, Naval Nuclear Propulsion Program, codified at 50 U.S.C. §§ 2406, Deputy Administrator for Naval Reactors, and 2511 and to ensure consistency through the joint Navy/DOE Naval Nuclear Propulsion Program, the Deputy Administrator for Naval Reactors (Director) will implement and oversee requirements and practices pertaining to this directive for activities under the Director's cognizance, as deemed appropriate.

4. REQUIREMENTS.

- a. Public Aircraft Operations (PAOs). PAOs are largely self-regulated, except for certain general operating rules applicable to all aircraft within the National Airspace System (NAS), as stipulated in PL 85-726, Federal Aviation Act of 1958, Title 49 U.S.C., Subtitle VII. (See also, FAA Advisory Circular (AC) 00-1.1B, Public Aircraft Operations, Manned and Unmanned, and AC 91-91, Maintaining Public Aircraft.)

- (1) Qualifying as PAO. To qualify as a PAO, the aircraft must be owned or exclusively leased by a government entity or operated under a government contract; the operation must be for a governmental function; the flight cannot be for commercial purposes or receive compensation for the operation; and all persons carried on board must be crewmembers or meet the statutory definition of qualified non-crewmember (see 49 U.S.C. § 40125[a][3]). The term qualified non-crewmember means an individual, other than a member of the crew, aboard an aircraft whose presence is required to perform, or is associated with the performance of, a governmental function. Warning: Carriage of a person other than a crewmember or a qualified non-crewmember makes the flight a civil operation under the terms of the statute.
 - (2) Determination of PAO Status. Determinations of PAO status are made by a federal official on a flight-by-flight basis, based on the operator, purpose, and persons on board.
 - (3) The FAA retains oversight regarding the airworthiness of any aircraft issued a Type Certificate Data Sheet accompanied by a Standard Certificate of Airworthiness (or Restricted, Experimental, and Research and Development Certificates accompanied by operating limitations), including DOE and NNSA federal/government aircraft. As a matter of policy, regardless of whether these aircraft are performing public or civil missions, DOE and NNSA aircraft shall adhere to the applicable FAA airworthiness regulations. Note: Large UASs require either a type certificate, a waiver, an exemption, or a Special Airworthiness Certificate.
 - (4) If a DOE or NNSA element determines that compliance with FAA regulations or policies would negatively impact its public operations due to an aircraft's mechanical irregularity, the negative impact and risk will be mitigated using an aircraft-specific minimum equipment list (MEL) and Minimum Equipment List Management Program for the aircraft being operated. Field Aviation Programs shall develop MELs for their specific aircraft with a Standard Certificate of Airworthiness (or Restricted, Experimental, and Research and Development Certificates accompanied by operating limitations).
- b. Hiring Commercial Aviation Service Providers. At a minimum, any CAS contracts and agreements with CAS providers must require compliance with:
- (1) Civil standards in 14 CFR, Aeronautics and Space, Chapter I, Federal Aviation Administration, Department of Transportation, which are applicable to the type of operations a Field Aviation Program is hiring the contractor to conduct.
 - (2) Applicable military standards; or
 - (3) Field Aviation Program flight program standards.

- (4) Unless CAS aircraft are operating under a 14 CFR Part 121, Operating Requirements: Domestic, Flag, and Supplemental Operations, Field Aviation Programs may not allow the selected CAS provider to begin flight operations until they successfully pass a safety audit by a qualified AvM or ASO. The AvM or ASO conducting the audit will require a pre-approval from the Director, AOD, OST, or SASO before conducting the audit. The audit subsequently approved by the Director AOD will then be posted to the DOE CAS Accepted Operators List (AOL).
 - (a) The selected CAS provider must have an active 14 CFR Part 5, Safety Management Systems, Safety Management System (SMS) in place that is appropriate for the size, scope, and complexity of the organization and shall be reviewed as part of the safety audit process. (See also, AC 120-92D, Safety Management Systems, for Aviation Service Providers.)
 - (b) The Director AOD may, at the Director's discretion, accept audits from other federal executive agencies, Department of War, or advanced SMS certifications from internationally recognized aviation specific SMS programs (e.g., International Standard for Business Aircraft Operations, Stage 3, ARGUS International, or WYVERN). (See requirements in paragraph 4.k.1.)
 - (c) A contract may not be awarded to a CAS provider until it passes an initial CAS audit (valid for 2 years.). Additionally, should a selected CAS provider fail a subsequent safety audit, their contract may be voided by that Field Aviation Program's contracting office in favor of an alternative provider that does successfully pass the required safety audits.
- c. Flight Program Standards/AID. Federal Management Regulations, Management of Government Aircraft, 41 CFR §102-33.90 and §102-33.105 through 102-33.135, Establishing Flight Program Standards, requires agencies to write, publish (as appropriate), implement, and comply with detailed, agency-specific standards that meet or exceed applicable civil and/or public standards.
 - (1) Each DOE/NNSA Field Aviation Program (manned or UAS) with management responsibility for assigned federal aircraft, government aircraft, and/or that hires and uses CAS, must develop and publish an AID detailing the standards and/or procedures implemented to manage, operate, conduct airworthiness and maintenance programs, training and minimum experience standards for aircrew members, reporting requirements, and safety systems of its planned or ongoing aviation operations.

- (2) As a minimum, the AID will address all applicable requirements of this Order and other related requirements established by DOE/NNSA policy; National Transportation Safety Board (NTSB); 14 CFR Chapter I; 41 CFR Part 102-33, Management of Government Aircraft; applicable 41 CFR Subtitle F, Federal Travel Regulation System regulations (e.g., 41 CFR Subtitle F Chapter 301, Temporary Duty (TDY) Travel Allowances), General Services Administration (GSA) Office of Aviation Policy, applicable 47 CFR § 87, Aviation Services, and § 88, Uncrewed Aircraft System Services requirements, 48 CFR Chapter I, Federal Acquisition Regulation; 49 CFR Chapter I, Subchapter C, Hazardous Materials Regulations; 49 CFR Chapter XII, Transportation Security Administration; Department of Homeland Security, and applicable Office of Management and Budget (OMB) Circulars and Memoranda, applicable to the scope and size of aircraft operations.
 - (3) Each DOE and NNSA program must submit its initial AID to the Director AOD for approval. Approval of the AID is required prior to beginning or conducting flight operations.
 - (4) Each DOE and NNSA program must review its AID biennially. If significant changes in management, operations, or maintenance standards occur, the program must obtain approval from the Director AOD. For minor changes, programs must provide a copy of revised AIDs to the Director AOD and the SASO.
- d. Management/Administration of DOE/NNSA Aviation Programs. Any Field Aviation Program that manages and oversees DOE/NNSA government aircraft to include CAS, must develop a Field Aviation Program management structure appropriate in size and scope, which is responsible for the administration, operation, safety, training, maintenance, security and financial needs of DOE and NNSA aircraft operations. The management structure must meet the published requirements of 41 CFR 102-33 and the applicable parts of 14 CFR Chapter I, including a 14 CFR § 5 required by 41 CFR §102-33.130, Aviation Safety Management.
- (1) All AvMs and ASOs, whether federal or contractor, must meet the qualifications established in the Federal Technical Qualification Program within 18 months of assignment (see DOE O 426.1, *Department of Energy Federal Technical Capabilities*, current version, for specific requirements. FTCP-PSQS-1165-2020, Aviation Safety Program Specific Qualification Standard, or latest revision, provides other acceptable methods). Note: For small programs, with limited complexity, a single individual may fulfill both the AvM and ASO roles.
 - (2) Clearly defined roles, responsibilities, and authorities of the assigned Accountable Executive, managers, pilots, maintenance personnel, flight crewmembers, flight safety personnel, and dispatchers, as applicable.

- (3) Procedures to track and record flight crewmember/applicable personnel duty time, flight time, training and medical requirements, and all other requirements in 41 CFR § 102-33.115, Flight Program Operations.
- (4) Procedures and cost accounting systems that record the costs of operations, utilization, and maintenance of aircraft program activities that comply with the 41 CFR § 102-33.140, Accountable Aircraft Operations and Ownership Costs, and 41 CFR § 102-33.145, Automated System for Accounting Aircraft Costs, report utilization to the United States GSA via Federal Aviation Interactive Reporting System (FAIRS) (41 CFR §102-33.235, Required Reporting on Government Aircraft).

Note: See GSA U.S. Government Aircraft Cost Accounting Guide (CAG), GSA Aircraft Capital Asset Planning Desk Guide, OMB Circulars (A-11, Preparation, Submission and Execution of the Budget, A-76, Performance of Commercial Activities; A-126, Improving the Management and Use of Government Aircraft), and 41 CFR § 102-33 successor regulation promulgated by GSA.

- e. Pilot in Command (PIC). For both civil and PAOs, the PIC or RPIC is directly responsible for and is the final authority for the operation of that aircraft.
- f. Operation Standards for DOE/NNSA Aviation Programs. Government aircraft, including CAS and UAS, in service to DOE/NNSA must be operated and maintained in accordance with the applicable parts of 14 CFR Chapter I appropriate for the mission, size and scope of the operation, type of aircraft in service, and will comply with 41 CFR § 102-33.115, Flight Program Operations, and applicable laws. Additionally, Field Aviation Programs must establish:
 - (1) Basic qualifications and currency requirements for pilots, crewmembers, maintenance personnel, and other mission-related personnel, meeting FAA regulatory requirements and documented in that Field Aviation Program's approved AID.
 - (2) A risk-based fatigue-management system, which includes education on fatigue awareness and mitigation, for all aviation personnel.
 - (3) Methods or processes for ensuring compliance with aircraft and aircraft part manufacturer safety-of-flight notices and operational bulletins.
 - (4) A comprehensive and documented mandatory mission briefing and debriefing policy that ensures all crew members are fully aware of mission objectives and parameters.

- (5) For manned flight, a process to provide passenger or qualified non-crewmember safety briefings equivalent to those required by FAA civil regulations and a process to inform personnel of their rights established in NTSB/SPC-99-04, Federal Plan for Aviation Accidents Involving Aircraft Operated by or Chartered by Federal Agencies, Appendix F, Federal Plan for Aviation Accidents Involving Aircraft Operated by or Chartered by Federal Agencies, and disclosure notices required in 41 CFR § 102-33.115(f) and 41 CFR §301-70.907, Disclosure Information for Government Aircraft Passengers.
- (6) A comprehensive and documented mandatory mission debriefing policy that ensures all crewmembers have the opportunity, at mission completion, to provide feedback on a non-retribution basis.
- (7) Procedures that include the core responsibilities of the AvM and/or ASO, immediate initiation of search and rescue operations in case of a lost or downed aircraft and immediate notification according to your organizational structure.
- (8) Manned aircraft emergency procedures will follow the Aircraft Flight Manual or Pilot Operating Handbook. Emergency equipment training will be established according to equipment manufacturer instructions.
- (9) If required for specific missions of manned flight operations, a program that ensures proper inspection of aviation life support equipment.
- (10) Written policies and procedures for the type of aircraft operations conducted.
- (11) An overall management tracking system appropriate to the size, scope of the operations and type of aircraft operated.
- (12) Policies to operate and maintain federal/government aircraft in accordance with the applicable parts of 14 CFR Chapter I, 49 CFR Chapter XII, Civil Aviation Security, 49 CFR Chapter I, Subchapter C, Hazardous Materials Regulations, or DOE/NNSA and/or Department of Transportation Special Permit(s) and exemptions, and/or equivalent international standards for dangerous goods appropriate for the size and scope of the operations and type of aircraft in service.
- (13) DOE/NNSA Field Aviation Programs with aircraft operations, including UAS and CAS, must develop an SMS for the size, scope, and complexity of the organization/aviation program, in accordance with paragraph 4.k of this Order. This involves developing a safety policy, performing safety risk management, implementing safety assurance processes, and conducting safety promotion activities that are applicable to the specific organization's aviation mission profile.

- g. Unmanned Aircraft Systems (UAS). UASs are defined as aircraft 49 U.S.C. § 44801(11)–(12), 14 CFR § 1, and 41 CFR § 102-33.15, and are subject to all applicable FAA requirements for certification, airworthiness, RPIC certification, and operations in the NAS, as well as all applicable parts of this Order.
 - (1) UAS flight operations may not begin until a Director, AOD approved written program, and/or AID, as applicable, is in place.
 - (2) As a minimum baseline qualification all UAS operations, small UAS (less than 55 pounds maximum gross takeoff weight) and large UAS (55 pounds or greater maximum gross takeoff weight) all UAS RPICs will hold a 14 CFR § 107, Small Unmanned Aircraft Systems, Remote Pilot certificate and maintain recency of aeronautical knowledge required in 14 CFR § 107.65, Aeronautical Knowledge Regency, regardless of aircraft weight (i.e., large or small UAS) and/or operational status (Civil/PAO).
 - (3) As a minimum baseline qualification for large UAS (greater than 55 pounds maximum gross takeoff weight), an approved written program/AID will require specific pilot and crewmember qualifications, certifications, and training as determined by the AvM.
- h. Part-time and Supplemental Pilots (Manned and UAS flight operations). Flight programs may require or benefit from the services of part-time or supplemental pilots. Regardless of whether they are contractors or federal employees, these pilots must meet the same standards as full-time pilots, including experience requirements, FAA certifications, currency compliance, flight performance standards, and flight-related training requirements. The AID, or written program, will designate individuals authorized to operate aircraft, such as the Director of Operations, AvM, ASO, or part-time/supplemental pilots.
- i. Aircraft Maintenance Standards.
 - (1) All DOE and NNSA aircraft operated in civil status will be maintained to 14 CFR Chapter I, Subchapter C, Aircraft, and manufacturer standards. For PAOs, the Field Aviation Program must establish aircraft maintenance and inspection programs that meet or exceed civil standards and comply with the requirements listed in 41 CFR §102-33.120 and 14 CFR Chapter I, Subchapter C, appropriate for the operation and type of aircraft in service. (See also: Advisory Circular (AC) 91-91, Maintaining Public Aircraft, and AC 120-16, Air Carrier Maintenance Programs.)
 - (a) All manned and large UAS (55 pounds and over) aircraft will be maintained to the standards of the FAA issued Certificate of Airworthiness (or have a waiver/exemption), governed by 14 CFR Chapter I, Subchapter C, and conform to its type design and be in a condition for safe operations.

- (b) UAS operations that are 55 pounds and over and/or will operate more than 400 feet above ground level, an additional safety review is required by a Flight Standards Service Aviation Safety Inspector. In either case, the applicant must submit a declaration of public aircraft status and a written statement of airworthiness certifying the UAS will be maintained in a condition for safe operation while conducting operations in the NAS.
- (2) Additionally, Field Aviation Programs must establish, as applicable to size and scope of operations and type of aircraft operated: (See 41 CFR § 102-33.120)
 - (a) Aircraft maintenance and inspection programs to ensure the safety of flights in accordance with either the applicable manufacturer's programs, FAA-approved inspection programs, or continuous maintenance programs (see 14 CFR Chapter I, Subchapter C).
 - (b) Tool control programs to mitigate potential foreign object damage.
 - (c) Incoming parts and receiving programs to mitigate risk associated with unapproved parts entering the supply system.
 - (d) Quality processes for the purchase and acquisition of replacement parts and ensuring parts purchased or acquired have the necessary documentation to determine airworthiness.
 - (e) Procedures or processes to ensure the integrity and quality control of maintenance actions by ensuring that maintenance performed by one qualified individual on critical areas of an aircraft are checked and documented by another qualified individual who did not perform the work. Procedures for the inspection of critical areas, depending upon their applicability to the aircraft being inspected, must include as a minimum the following:
 - 1 Removal, rigging, or installation of a component or part of flight control.
 - 2 Removal or installation of any component or part of a main drive or tail rotor drive system.
 - 3 Removal or installation of a component or part of a main or tail rotor hub assembly.
 - 4 Removal, disassembly, reassembly, or installation of a power turbine, compressor, gearbox, or combustion section, or removal and installation of a complete power-plant assembly.

- 5 Removal or installation of a fuel control or governor of a power plant.
 - 6 Removal or installation of a propeller governor or reduction gearbox.
 - 7 Removal or installation of a component or part of a fuel system.
 - 8 Removal or installation of a propeller assembly or blade.
 - 9 Removal, rigging, or installation of any component or part associated with the landing gear of a fixed-wing aircraft.
 - 10 Removal or installation of internal or external mission equipment by individuals properly trained to perform such tasks or under the supervision of a trained individual. In addition, a process for ensuring cockpit crew members is aware of all equipment changes prior to flight to ensure aircraft performance data and weight and balance calculations are correct.
- (f) Procedures for the maintenance of any of the identified critical systems when an aircraft is away from home base.
- (3) The Field Aviation Program must comply with FAA Airworthiness Directives, and mandatory manufacturers' bulletins applicable to the types of aircraft, engine(s), propeller(s), and appliances in their aircraft operations.
 - (4) The Field Aviation Program must implement a maintenance management tracking system that, along with other maintenance requirements, can submit required maintenance data into the FAIRS that are applicable and appropriate to the size and scope of operations and type of aircraft operated.
 - (5) Within 72 hours after discovering any serious defect in, or other recurring non-airworthy condition of an aircraft, power plant, or propeller, or any component of any of them, the Field Aviation Program must report the discovery to the FAA.
 - (a) The field element must file the report using the web-based, internet-accessible FAA Service Difficulty Reporting System or the FAA accepted Vertical Aviation International's (formerly Helicopter Association International) Maintenance Malfunction Information Report System for helicopters. (FAA Form 8010-4, Malfunction or Defect Report, and FAA Form 8070-1, Service Difficulty Report.)

- (b) The report must describe the defect or malfunction completely, without withholding any relevant information. If the defect or malfunction could result in an imminent hazard to flight, the Field Aviation Program must use the most expeditious method possible to inform the FAA and flight operations will immediately cease.
 - (c) Also, the field element will notify the SASO within 72 hours to ensure other DOE/NNSA Field Aviation Programs who may be operating the same, or similar aircraft, are informed in a timely manner.
- (6) For UAS programs, the Field Aviation Program will follow the suggested aircraft manufacturers' maintenance schedule. If a manufacturer's maintenance schedule is not published or provided, the Field Aviation Program AvM and/or ASO will develop, or approve if authored by a contractor, a UAS maintenance schedule that ensures detailed oversight of aircraft component life cycles and battery safety procedures/protocols.
- j. Training Standards for DOE/NNSA Aviation Programs. Flight crew members and maintenance personnel will comply with the training requirements as stated in 41 CFR §102-33.125, Training Requirements, applicable parts of 14 CFR Chapter I, and manufacturers' recommendations. At a minimum, Field Aviation Programs must establish standards and procedures in their AID or FAA-approved manuals:
 - (1) The flight crew and maintenance personnel will maintain appropriate certification and training for the type of aircraft and missions conducted by the Field Aviation Program.
 - (2) Mandatory Crew Resource Management training is for all flight crew personnel and will be documented and evaluated by the organization on an annual basis.
 - (3) Procedures will be maintained to correct identified deficiencies.
 - (4) Procedures to document compliance with Field Aviation Program's AID to satisfy DOE/NNSA departmental oversight.
 - (5) Demonstration of proficiency for applicable tasks relevant to the types of aircraft and operations/missions conducted that are not covered by 14 CFR Chapter I.
 - (6) A record keeping procedure that complies with 14 CFR Chapter I and 41 CFR § 102-33.115(c), Flight Program Operations.
 - (7) Qualified non-crew members and cabin safety personnel, if required, must complete initial/recurrent training appropriate to the type of aircraft and operations/missions conducted by the Field Aviation Program.

- k. Aviation SMS for DOE/NNSA Aviation Programs. Field Aviation Program's Accountable Executive (see 14 CFR, Chapter I, Subpart A, 14 CFR 5.25[a]) responsible for the management, oversight, operation, safety and/or maintenance of federal/government aircraft and related services, or who hire CAS aircraft must establish comprehensive, integrated aviation SMS based on the five Core Functions of DOE P 450.4A, *Integrated Safety Management Policy*, current version.

41 CFR §102-33.130 requires all federally funded aviation activities of executive branch agencies of the U.S. Government who use government aircraft to accomplish their official business to establish an SMS that complies with the FAA's current Advisory Circular (AC 120-92D, Safety Management Systems for Aviation Service Providers) that addresses SMS or an equivalent internationally recognized SMS standard. AC 120-92D or its successor provides the FAA's guidance on implementing 14 CFR § 5. If an equivalent SMS is implemented, a gap analysis will be accomplished to ensure all aspects of DOE Integrated SMS and 41 §CFR 102-33.130 have been met.

- l. Aviation Safety Documentation (ASD). Field Aviation Programs will identify an individual (federal employee or contractor) responsible for reviewing all flight operations and assigning appropriate risk levels for each mission. For those missions identified as having risks not normally accepted by the public (training, cross-country flights, flight crew currency are examples of risks normally accepted by the public), a Flight Readiness Review Board (FRRB) will be convened which will conduct an ASR using the core functions for integrated safety management in DOE P 450.4A. Situations where an FRRB may be required include, but are not limited to, aircraft operations that require waivers or deviations from FAA regulations, agency policies and procedures, new program requirements, medium or high-risk activities, or incidents arising from maintenance or flight operations. Other examples may be, when operating equipment and/or missions not defined in the Field Aviation Program's AID. Countermeasures to mitigate risks will be identified, applied, and reviewed for effectiveness on a regular basis but not less than annually. The documents produced in the ASR make up the ASD required for these missions.

- (1) The AvM/ASO or qualified designee, may elect to conduct an ASR and record an ASD for any aircraft operation they deem necessary as part of the Field Aviation Program's SMS.
- (2) The AvM or ASO must brief the Field Aviation Program's Accountable Executive, who has the overall responsibility of the organization's aviation program and appointed according to 14 CFR § 5.25(a), Designation and Responsibilities of Required Safety Management Personnel, regarding the contents of the ASD. The Accountable Executive must accept or reject the risks associated with the mission.

- (3) The AvM and/or ASO will review all ASDs on a periodic basis, not less than annually, to determine their relevancy to current operational conditions.
- m. Accounting and Reporting Requirements. The ownership, operation, sponsorship, and use of government aircraft is governed by federal regulations that require precise reporting of costs and utilization data associated with their aviation activities with government aircraft. 41 CFR § 102-33 Subpart C, Government Aircraft and Aircraft Parts, and 41 CFR § 102-33 Subpart E, Reporting Information on Government Aircraft, apply to these reporting requirements.
- (1) Each field element that owns, bails, borrows, loans, leases, rents, charters, or contracts for (or obtains by Interservice Support Agreement) government aircraft must report information to GSA through the FAIRS application using guidance published in the OMB Circular A-126 Attachments A and B, and GSA's U.S. Government Aircraft Cost Accounting Guide, as well as maintain records that comply with the following regulations:
 - (a) Federal Travel Regulations listed in 41 CFR Chapter 300, Glossary of Terms, and Chapter 301, Temporary Duty (TDY) Travel Allowances, or its successor.
 - (b) For all travel, including senior federal officials and non-federal travelers, on government aircraft as stated in 41 CFR § 301-70 Subpart H and Subpart I, or its successor.
 - (c) Senior Federal Officials: Government aircraft travel by senior federal officials must be approved in advance and in writing by the Department's senior legal official DOE General Counsel (GC) or the GC's principal deputy. Each occurrence of senior federal official travel must be reported to SAMO.
 - (d) The continuing need for government-owned aircraft will be established every 5 years, with a copy of the report provided to the SAMO. When a federal aircraft has been in possession for 5 years, the operator must:
 - 1 Justify owning and operating the aircraft by reviewing operations and establishing a continuing need for the aircraft, using the procedures required in OMB Circular A-76, Oversight and Implementation Issues, and OMB Circular A-11, Preparation, Submission, and Execution of the Budget, Part 7, Appendix B, Budgetary Treatment of Lease-Purchases and Leases of Capital Assets; and
 - 2 Review the continuing need for each aircraft and the cost-effectiveness of aircraft operations as directed by OMB Circulars A-11 and A-76, every 5 years.

- (e) UAS cost and utilization will be reported in accordance with thresholds set by the DOE Financial Management Handbook Chapter 10.1, Accounting for Property, Plant and Equipment.
- (f) All manned aircraft (and UAS that exceed the capitalization requirements) cost and utilization will be reported in FAIRS in accordance with 41 CFR §102-33.145, Automated System for Accounting Aircraft Costs.
 - 1 Owners and operators of federal aircraft or bailed aircraft must use an automated system to track aircraft costs by collecting FAIRS-required data (see 41 CFR § 102-33.145[a]).
 - 2 Agencies using only CAS aircraft and no federal aircraft must keep records sufficient for FAIRS reporting but are not required to have an automated system. (See 41 CFR §102-33.145[b]). See 41 CFR §102-33.260, Federal Aircraft Cost and Utilization Data, and 41 CFR §102-33.265, CAS Cost and Utilization Data, for reporting requirements.
- (g) Performance indicators to measure the degree to which key aviation program objectives are achieved must be developed. (See 41 CFR § 102-33.275, Development of Performance Indicators.) Each January, each organization that operates manned and large UAS aircraft must provide a report to the SAMO that includes the following information:
 - 1 Measurement of the aviation program's contribution to the agency's mission;
 - 2 Justification of aviation program budget requests; and
 - 3 Demonstration of the program's effectiveness and efficiency.
- (h) Additional information on the Capital Asset Plan is available from the SAMO.

n. Special Procedures That Apply to Official Travel.

- (1) Senior Federal Officials or non-Federal Travelers: All travel by senior federal officials or non-federal travelers, as defined in 41 CFR § 300-3.1, Federal Travel Regulation, aboard government aircraft must be approved in advance by the appropriate travel approving official (OMB Circular A-126, Improving the Management and Use of Government Aircraft; OMB Circular A-11, Preparation, Submission, and Execution of the Budget) and by DOE GC or the GC's principal deputy or primary designee. Requests must clearly identify the senior federal official and/or non-federal travelers by name, title, agency, itinerary, cost, and all other personnel to be manifested.
- (2) DOE employees planning foreign travel must comply with the processes and requirements found in DOE O 550.1, *Official Travel*, current version.

5. RESPONSIBILITIES.

a. Senior Aviation Management Official. In accordance with the requirements of 41 CFR §102-33.25, SAMO Duties.

- (1) Represent the agency's views to the ICAP and vote on behalf of the agency.
- (2) Contribute technical and operational policy expertise to ICAP deliberations and activities.
- (3) Serve as the designated approving official for FAIRS when the agency elects to have one person serve as both the SAMO and the designated official for FAIRS.
- (4) Appoint representatives of the agency as members of ICAP subcommittees and working groups.
- (5) Designate an official (by letter to the Deputy Associate Administrator, Office of Asset and Transportation Management, Office of Government-wide Policy, GSA) to certify the accuracy and completeness of information reported through FAIRS.
- (6) Ensure that the agency's internal policies and procedures are consistent with the requirements of OMB Circulars A-126, A-76, A-11, and AC 120-92D, Safety Management Systems for Aviation Service Providers, and this part; and

- (7) Ensure that safety and other critical aviation program requirements are satisfied. Executive agencies that only hire aircraft occasionally for specific flights, must either:
 - (a) Establish an aviation program that complies with the requirements of OMB Circular A-126; or
 - (b) Hire those aircraft through an agency with a policy-compliant aviation program.
- (8) The SAMO should have:
 - (a) Experience as a pilot or crew member; or
 - (b) Management experience within an aviation operations management/flight program.
- b. NA-ESH Senior Aviation Safety Officer (SASO).
 - (1) Ensure compliance with this Order; 14 CFR Chapter I; OMB Circulars A-126, A-76, and A-11; 41 CFR § 102-33; and aviation contractual matters.
 - (2) Serve as the coordinator for Office of Primary Responsibility for this Order (NNSA Associate Administrator for Environment, Safety and Health), including deviation/waiver requests.
 - (3) Provide safety oversight of all PAOs, including manned aircraft, UAS, and balloons. Ensures compliance with applicable 14 CFR, Chapter I, for civil operations.
 - (4) Conduct safety and compliance inspections. Consults with SAMO for guidance and assistance from other federal aviation programs and the GSA Aviation Management Policy Division.
 - (5) May issue a grounding order based on safety or regulatory concerns. If the Field Aviation Program desires to continue flight operations after a grounding order is issued, the Accountable Executive will submit a written request to the SASO for consideration in consultation with the SAMO. Final determination will be approved or disapproved by the Associate Administrator for Environment, Safety and Health.
 - (6) Participate in any aviation accident or incident investigation boards, as well as identifies and reports safety concerns via the Occurrence Reporting and Processing System (ORPS).

- c. Director, AOD, OST.
- (1) Provide aviation technical assistance and support to DOE/NNSA Headquarters staff, M&O program offices, and Field Aviation Programs.
 - (2) Provide guidance to DOE and NNSA Field Aviation Programs on DOE O 440.2D, *Aviation Management and Safety*; 14 CFR Chapter I; OMB Circulars A-126, A-76, and A-11; 41 CFR §102-33; and aviation contractual matters.
 - (3) Oversee the Technical Qualification Program training and certification for AvMs and ASOs.
 - (4) Use approval authority for all audits of CAS providers and maintains the AOL of approved vendors.
 - (5) Use approval authority for all Field Aviation Program (to include M&O contractor written programs) AIDs.
- d. DOE/NNSA Aviation Board of Directors. Convene on an as-needed basis and ensure it is composed of representatives from each major Field Aviation Program, specifically AvMs, ASOs, directors of Flight Operations, and other personnel who recommend broad policy and procedures for the operations and safety of federal/government aircraft and aviation services to the SAMO.
- e. DOE/NNSA Accountable Executives. Oversee, manage, operate, or maintain DOE/NNSA federal/government aircraft or acquire CAS within their programs:
- (1) Develop and implement effective aviation operations, airworthiness, and security and safety programs that meet the requirements of this Order.
 - (2) Identify the contracts to which the CRD applies and notify the contracting officers to incorporate the CRD into the affected contracts via the laws, regulations, and DOE/NNSA directives clauses included in those contracts. In the case of contracts requiring contractor performance of activities set forth in the CRD, but which do not contain the laws, regulations, and DOE/NNSA directives clause, notify the contracting officers of these requirements.
 - (3) Appoint a federal AvM or ASO or both, depending upon the size and scope of operations, number of aviation operations conducted, or aircraft assigned. Document the designation with an appointment letter and submit a copy to SAMO, Director AOD, and SASO.
 - (4) Should submit candidates for annual Aviation Safety Awards Programs to ensure that organizations and personnel are recognized for their contributions.

f. Aviation Manager (AvM).

- (1) Establish goals for the Field Aviation Program based on the anticipated requirements as applicable to DOE/NNSA, the Field Aviation Program, and other DOE/NNSA organizations that may require aviation services.
- (2) Implement DOE/NNSA aviation management and safety policy (this Order) and establish the Field Aviation Program's standards for the aviation program that will ensure an effective, safe, secure and cost-efficient operation in accordance with this Order.
- (3) Develop the Field Aviation Program's AIDs and provide biannual reviews of the AIDs to ensure the documents are current.
- (4) Provide direction to DOE/NNSA contractors performing aviation-related services (M&O and/or CAS), via the appropriate designated representative in accordance with the contract SOW and/or the CRD included in the contract. This includes the types of missions that are required and the regulations, policies, and standards that contractors are to follow. Provide revised AID to contracting officer or designated representative as necessary to ensure revisions to contractor written aviation programs as required by the SOW and/or CRD.
- (5) Review, evaluate, and monitor cost, performance, and technical competency of aviation contractors (M&O and/or CAS) as authorized by the contracting officer or their designated representative.
- (6) May be appointed, or have collateral duties, as an ASO for the Field Aviation Program or provide direction to the ASO based on the needs of the program.
- (7) Provide required reports and information as applicable to the DOE/NNSA regarding Field Aviation Program aviation activities, including reports required by OMB Circulars A-11 Section 300; A-76 (if necessary); A-126; and reports required by paragraph 4.m. of this Order.
- (8) Comply with all applicable laws, regulations and policy requirements concerning aviation activities.
- (9) Develop and implement an integrated SMS as required by paragraph 4.k. of this Order, appropriate to the scope of operations.
- (10) As needed, appoint and coordinate, or assign a designee who will appoint and coordinate, an FRRB of subject matter experts and ensure that all Board deliverables flow through the Field Aviation Program's ASO. As a minimum the Board will consist of a Board Chair and two members.

- (11) Perform audits of CAS providers and/or aviation support services to ensure the safety of aircraft operations. Submit these audits to the Director, AOD, for approval and inclusion on the Accepted Operator List. The AvM conducting the audit will require a pre-approval from the Director, AOD, OST, or SASO before conducting the audit.
- (12) Submit candidates for Aviation Safety Awards Program to ensure that organizations and personnel are recognized for their contributions.

g. Aviation Safety Officer (ASO).

- (1) Gather, trend, and analyze aviation safety performance data to ensure the safety of the Field Aviation Program.
- (2) Conduct periodic assessments of aviation activities to ensure that requirements, policies, and procedures are implemented and followed; prepare reports documenting assessment findings, concerns, and recommendations; and track corrective actions to help prevent similar occurrences or recurrence.
- (3) Participate, as directed, in aviation accident or incident investigations and provide assistance to accident investigation boards during their investigations.
- (4) Identify and report safety concerns to the AvM when the ASO believes that the Field Aviation Program Accountable Executive's intervention is required and work to eliminate potential hazards.
- (5) Develop ASR and/or ASD as required by this Order, or in the case of M&O or CAS, review and concur on ASRs and ASDs. ASDs will address potential hazards associated with the activity and methods to mitigate these hazards.
- (6) Ensure that aviation personnel report mishaps to the ORPS according to DOE O 232.2A, *Occurrence Reporting and Processing of Operations Information*, and as required by 49 CFR § 830, Notification and Reporting of Aircraft Accidents or Incidents.
- (7) Encourage participation in the National Aeronautics and Space Administration's Aviation Safety Reporting System (ASRS). ASRS is a confidential, voluntary, anonymous, non-punitive reporting system that receives safety reports from pilots, air traffic controllers, dispatchers, cabin crew, ground ops, maintenance technicians, and UAS operators. The ASRS aims to identify safety issues across aviation and provide data to address these issues while reducing the likelihood of an accident. The system is separate from the FAA, allowing pilots to submit safety concerns anonymously without fear of discipline.

- (8) Participate in the Aviation Safety Awards Programs to ensure that organizations and personnel are recognized for their contributions toward providing the Department with a safe aviation program.
- 6. INVOKED STANDARDS. This Order does not invoke any DOE technical standards or industry standards as required methods. Any technical standard or industry standard that is mentioned in or referenced by this Order is not invoked by this Order. Note: DOE O 251.1, *Departmental Directives Program*, current version, provides a definition for invoked technical standard.
- 7. DEFINITIONS. Definitions that pertain to federal management regulation, 41 CFR § 102-33, Management of Government Aircraft, are available in 41 CFR § 102-33.15, Definitions. Definitions that pertain to Federal Travel Regulations and use of government aircraft are available in 41 CFR § 300-3.1.
- 8. REFERENCES.
 - a. 14 CFR Chapter I, “Federal Aviation Administration, Department of Transportation.”
 - b. 41 CFR § 102-33, Management of Government Aircraft.
 - c. 41 CFR Subtitle F, “Federal Travel Regulation System.”
 - d. 47 CFR § 87, Aviation Services.
 - e. 47 CFR § 88, Uncrewed Aircraft Systems Services.
 - f. 48 CFR Chapter 1, “Federal Acquisition Regulation.”
 - g. 49 CFR Chapter I, Subchapter C, “Hazardous Materials Regulations.”
 - h. 49 CFR Chapter XII, “Transportation Security Administration, Department of Homeland Security.”
 - i. OMB Circulars: A-11, Preparation and Submission of Budget Estimates; A-76, Performance of Commercial Activities; and A-126, Improving the Management and Use of Government Aircraft; OMB Memorandum M-26-2, Ensuring Government Use of Secure Unmanned Aircraft Systems and Supporting United States Producers.
 - j. DOE P 450.4A, *Integrated Safety Management Policy*, current version.
 - k. DOE O 251.1E, *Departmental Directives Program*, current version.
 - l. DOE O 550.1, *Official Travel*, current version.
 - m. FTCP-PSQS-1165-2020, Aviation Safety Program Specific Qualification Standard, dated June 23, 2020.

- n. American Security Drone Act of 2023 (Subpart of National Defense Authorization Act for Fiscal Year 2024, §1821–1829).
- 9. CONTACT. Questions concerning this Order should be addressed to the NA-ESH SASO at (505) 846-6469.

BY ORDER OF THE SECRETARY OF ENERGY:



JAMES P. DANLY
Deputy Secretary

ATTACHMENT 1
CONTRACTOR REQUIREMENTS DOCUMENT
DOE O 440.2D, *AVIATION MANAGEMENT AND SAFETY*

1. This Contractor Requirements Document (CRD) must be incorporated into any United States Department of Energy (DOE)/National Nuclear Security Administration (NNSA) contract for management, operation, or maintenance of DOE and NNSA federal/government aircraft. Regardless of the entity or person performing the work, the contractor is responsible for complying with the requirements of this CRD. The contractor is responsible for flowing down the requirements of this CRD to subcontractors at any tier to the extent necessary to ensure the contractor's compliance with the requirements.
2. Contractor personnel occupying, or acting in, the position of Aviation Manager (AvM) or Aviation Safety Officer (ASO) are required to enroll in DOE's Federal Technical Qualification Program (TQP) FTCP-PSQS-1165-2020, Aviation Safety Program Specific Qualification Standard, or successor, for their respective position. In lieu of enrolling in TQP, the Director, Air Operations Division, Office of Secure Transportation, may accept an alternative qualification program developed by the contractor.
3. Management and Operating (M&O) contractors operating aviation programs that manage and operate federal/government aircraft, and any contractor, including M&O contractors, that hires, manages, oversees, or uses Commercial Aviation Services (CASs) in support of programmatic needs, must develop and follow a written program. This written program must include and implement the requirements set forth in the associated federal Field Aviation Program's Aviation Implementation Documents (AIDs) and the written program must be reviewed and accepted by the associated Field Aviation Program's federal AvM or ASO with responsibility for their program and the Director, Aviation Operations Division, Office of Secure Transportation.
 - a. Contractors must ensure that any changes to the associated federal Field Aviation Program AID that affects the contractor's written program (or AID) are reflected in a revised written program (or AID). When a revision is necessary, contractors shall submit a revised written program (or AID) to the associated federal Field Aviation Program AvM and/or ASO for acceptance within 90 days of receipt of a revised federal AID.
 - b. M&O contractors who manage aviation programs on behalf of DOE/NNSA, utilizing government aircraft, both manned and unmanned, are required to adhere to this Order. They must comply with the same standards and policies that govern federal DOE/NNSA-operated aviation programs.

- c. Additionally, the contractor's written program must develop procedures that comply with 49 CFR §120-33.55, Minimum Requirements for CAS Contracts, (see also paragraph 4.b. of this Order) to establish contracts or other acceptable procurement documents that require the CAS provider or subcontractors that provide CAS to comply with the civil standards of 14 CFR Chapter I, Federal Aviation Administration, Department of Transportation, 49 CFR Chapter I, Subchapter C, Hazardous Materials Regulations, and 49 CFR Chapter XII, Transportation Security Administration, Department of Homeland Security, conducted while in service to DOE/NNSA or its contractor, and any other laws and regulations that pertain to the type of operation conducted.
- d. A contract may not be awarded to a CAS provider until they pass an initial CAS audit. Additionally, should a selected CAS provider fail a subsequent safety audit, their contract may be voided by that Field Aviation Program's contracting office in favor of an alternative provider that does successfully pass the required safety audit.