

FTCP-PSQS-1165-2020

Approved: June 2020

# **Department of Energy FEDERAL TECHNICAL QUALIFICATION PROGRAM**

## **AVIATION SAFETY PROGRAM SPECIFIC QUALIFICATION STANDARD**



## **FTCP-PSQS-1165-2020**

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## APPROVAL

The Office of Aviation Management (MA-30) as the program sponsor, is responsible for developing and approving this Program Specific Qualification Standard (PSQS). Per DOE O 426.1B, the Federal Technical Capabilities Panel (FTCP) is responsible for concurring on Program Specific Qualification Standards (PSQS). The signatures below indicate approval and concurrence with this PSQS.

<b>Karen L. Boardman</b>	 Digitally signed by Karen L. Boardman Date: 2020.06.23 10:27:33 -06'00'	<b>June 23, 2020</b>
Karen L. Boardman, Chair Federal Technical Capabilities Panel		Date
<b>Glen F. Wattman</b>	 Digitally signed by Glen F. Wattman Date: 2020.06.23 11:18:45 -04'00'	<b>June 23, 2020</b>
Glen F. Wattman, Director Office of Aviation Management		Date

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## **ACKNOWLEDGMENT**

The Department of Energy (DOE) Office of Aviation Management (MA-30) developed this Aviation Safety PSQS with support from the National Training Center (EA-50) FTCP Support Office.

## **ACRONYMS**

AID	Aviation Implementation Document
AvM	Aviation Manager
ASD	Aviation Safety Document
ASR	Aviation Safety Review
ASO	Aviation Safety Officer
CAS	Commercial Aviation Service
CRD	Contract Requirements Document
FRRB	Flight Readiness Review Board
FTCP	Federal Technical Capabilities Panel
MPA	Mandatory Performance Activity
PC	Performance Competencies
PSQS	Program Specific Qualification Standard
OAM	Office of Aviation Management
QO	Qualifying Official
TQP	Technical Qualification Program
UAS	Unmanned Aircraft System

## **AVIATION SAFETY PROGRAM SPECIFIC QUALIFICATION STANDARD**

### **PURPOSE**

The DOE Office of Aviation Management (OAM) developed this PSQS to ensure designated personnel have the competency to perform the duties and responsibilities of an Aviation Manager (AvM) or Aviation Safety Officer (ASO). The content of the PSQS should be referenced and used as appropriate to develop vacancy announcements, crediting plans, interview questions, and other criteria associated with the recruitment, selection, and internal placement of personnel assigned this PSQS. The Performance Competencies (PC) listed in this PSQS are based on the current duties, activities, and functions in the DOE Aviation Program. Additionally, PC requirements are assigned by the participant's role as AvM or ASO and the type(s) of aviation operations in the DOE element: manned aircraft, unmanned aircraft system (UAS), and/or commercial aviation services (CAS).

### **APPLICABILITY**

DOE O 426.1B, *DOE Federal Technical Capabilities*, allows a PSQS to be developed and included in the DOE Technical Qualification Program (TQP) in areas where a defined and consistent qualification program is needed to ensure personnel have the technical competence commensurate with their job responsibilities. The DOE Office of Aviation Management (OAM), with concurrence from the DOE Federal Technical Capabilities Panel (FTCP), decided to use this PSQS to ensure designated personnel have the competency to perform the duties and responsibilities of an Aviation Manager (AvM) or Aviation Safety Officer (ASO). Satisfactory and documented attainment of the technical competencies in this PSQS ensures personnel possess the minimum requisite knowledge and skills to perform AvM and ASO duties and tasks common to the DOE enterprise.

There are two broad categories of personnel that could be assigned this PSQS. The first are personnel who are in organizations that have oversight responsibilities of DOE Defense Nuclear Facilities as described in DOE O 426.1B. These organizations will be referred to as TQP organizations in this PSQS. The qualification of personnel assigned this PSQS who are in TQP organizations will be completed per the requirements of DOE O 426.1B and the local organization TQP documentation. This includes using eTQP or successor system of record to document final qualification and continuing training requirements. It is expected that TQP organizations collaborate with OAM in carrying out the duties and responsibilities in DOE O 426.1B associated with the designation and qualification of personnel assigned this PSQS.

The second broad category is personnel who are in organizations that are not required to have a TQP per DOE O 426.1B, including personnel who work for a DOE Managing and Operating contractor or subcontractor. These organizations will be referred to as Non-TQP organizations in this PSQS. Personnel in Non-TQP organizations who are assigned this PSQS are expected to follow the process steps for qualification in DOE O 426.1B, including formal assignment of the PSQS, competency verification by a designated QO, and final qualification. The duties and responsibilities associated with these activities will be established by OAM, with collaboration

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with the individual's local organization. <sup>1</sup>Documentation of final qualification of the individual may be retained in the Non -TQP organization's qualification record system or separately by OAM.

### IMPLEMENTATION

This PSQS includes competencies that define the depth of breadth of knowledge required to perform the duties and responsibilities of AvM and ASO. Appendix A, *Performance Competency Assignment Matrix*, lists the performance competencies in this PSQS that personnel must complete based on the specific position (AvM or ASO) they are assigned and the type of Aviation Program (manned, UAS, and/or CAS) in their organization.

An evaluation guide has been developed that provides the expected level of knowledge that personnel assigned this PSQS must obtain for each related knowledge requirement and for designated qualifying officials (QO) who are responsible for verifying the attainment of these knowledge requirements. The evaluation guide for this PSQS is available on the OAM page in Powerpedia at: <https://powerpedia.energy.gov/wiki/OAM>.

In some cases the performance competencies in this PSQS apply to specific job tasks that are identified as mandatory performance activities (MPAs). The objective of the MPAs is to determine whether the personnel assigned this PSQS can apply the related knowledge to satisfactorily perform the associate job task.

Any MPAs listed in this PSQS are required to be satisfactorily performed only once. If during a performance of the MPA any of the evaluation criteria are not satisfactorily met, the designated QO may require the candidate to perform the MPA again. In these cases satisfactory completion of the MPA only needs to be documented once. Some of the MPAs in this PSQS may already be included in organization specific qualification standards. In these cases the designated QO only needs to sign verifying completion of the MPA once as part of this PSQS or during completion of the OSQS.

Personnel assigned this PSQS should perform the MPAs in their normal work environment, such as in assigned facilities or areas where the associated mission work is being accomplished. Supervisors may use other options to facilitate completion of the MPA requirements in cases where personnel cannot perform the MPAs exactly as written in their normal work environment within the required qualification timeframe. This could include performance of the MPA in a simulated environment or by making minor modifications to the MPA or MPA evaluation criteria to fit local conditions. For personnel assigned this PSQS who are in TQP organizations, the reason for any changes in the MPA or MPA evaluation criteria or changes in the method of performance (e.g., simulate or use of exercise materials instead of performing), must be documented by the designated QO with approval of the supervisor and local FTCP Agent.

Personnel assigned this PSQS are not required to complete Part A, *Knowledge Requirements*, of DOE-STD-1146-2017 *General Technical Base* (GTB) Qualification Standard (QS). However, supervisors of personnel assigned this PSQS who are in TQP organizations may require personnel to complete all or a subset of the competencies in GTB Part A, as part of another

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<sup>1</sup> The requirements for contractor personnel to be assigned and successfully complete this PSQS must be flowed down through appropriate contract mechanisms.



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assigned technical qualification standard or as part of the continuing training requirements.

Personnel assigned this PSQS who are in a TQP organization must complete the knowledge requirements in GTB Part B, *Oversight Performance*, prior to or in parallel with attaining the knowledge requirements in this PSQS. Completion of the MPAs in GTB Part B is intended to verify that the AvM and ASO have the competence to evaluate the contractor performance to the requirements in the sites applicable in the Aviation Implementation Document (AID). AvM and ASO personnel should use the applicable AID when completing the MPAs in GTB Part B.

### EVALUATION CRITERIA

Attainment of the knowledge requirements listed in this PSQS must be verified by a designated QO using one or a combination of the following methods:

- Satisfactory completion of a written examination
- Satisfactory completion of an oral evaluation
- Documented evaluation of equivalencies
- Completion of approved training courses that confirm attainment of specific knowledge requirements.

A designated QO must also verify successful completion of the MPAs in this PSQS. The QO must verify that the evaluation criteria, including any organization specific requirements, were satisfactorily met during observation of the MPA and/or review of the results of the MPA.

Personnel in TQP organizations must document satisfactory attainment of the performance competencies in this PSQS using the Electronic Technical Qualification Program (eTQP) at: <https://etqp.ntc.doe.gov>. Personnel in non TQP organizations must document satisfactory attainment of the performance competencies in this PSQS using their local qualification record system or report completion separately to OAM.

### INITIAL QUALIFICATION AND CONTINUING TRAINING

Due to the wide variety and the multiple certification requirements associated with a given aviation program, it is imperative to understand the type of aviation program, the type of aviation assets in the program, the operating environment and the duties and responsibilities of an aviation program position. As such, personnel being considered for the positions of AvM or ASO should have the preferred education and experience identified in this PSQS. Supervisors should collaborate with OAM in determining whether an individual has adequate education and experience to be designated as an AvM or ASO and assigned to complete this PSQS. This includes identification of training recommendations to eliminate any knowledge gaps.

Personnel must complete qualification of this PSQS within 18 months of being assigned, or for personnel in TQP organizations, within the timeframe specified in the organization specific TQP documentation.

After initial qualification to this PSQS personnel must complete a minimum of 80 hours of continuing training activities in a nominal 5-year continuing training cycle. Due to the wide variety of aviation training topics and the constantly changing worldwide aviation environment,

personnel should coordinate with OAM in determining training topics or courses that are appropriate and adequate to fulfill the continuing training requirements.

### DUTIES AND RESPONSIBILITIES

The following is list of the key duties and responsibilities for the AvM and ASO position identified in DOE O 440.2C Chg. 1, *Aviation Management and Safety*. Position-specific duties and responsibilities for AvM and ASO are contained in organization specific qualification standards and position descriptions.

#### 1. Aviation Manager (AvM)

- a. Establishes goals for the field aviation program based on the anticipated requirements as applicable to DOE/NNSA, the field element, and other DOE/NNSA organizations that may require aviation services.
- b. Implements DOE/NNSA aviation management and safety policy and establishes the field element's standards for the aviation program that will ensure an effective, safe, secure and cost-efficient operation in accordance with DOE O 440.2C Chg.1, *Aviation Management and Safety*.
- c. Develops the organization's Aviation Implementation Documents (AID) and annually reviews the AID to ensure that it is current.
- d. Provides direction to DOE/NNSA contractors performing aviation-related services via the appropriate designated representative, in accordance with the contract statement of work and/or the Contract Requirements Document (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. Provides revised AID to contracting officer or designated representative as necessary, to ensure revisions to contractor written aviation programs as required by the statement of work and/or CRD.
- e. Reviews, evaluates, and monitors cost, performance, and technical competency of aviation contractors as authorized by the contracting officer or his designated representative.
- f. May be appointed or has collateral duties as an ASO for the field element aviation program, or provides direction to the ASO based on the needs of the program.
- g. Provides required reports and information as applicable to the DOE/NNSA regarding field element aviation activities, including reports required by OMB Circulars A-11 Section 300, Preparation, Submission and Execution of the Budget; A-76, Performance of Commercial Activities (if necessary); OMB Circular A-126, Improving the Management and Use of Government Aircraft; and reports required by paragraph 11 in the Requirements section of DOE O 440.2C Chg.1, *Aviation Management and Safety*.
- h. Complies with all applicable Laws, Regulations and Policy requirements concerning aviation activities.
- i. Develops and implements an integrated safety management system as provided by DOE P 450.4A Chg. 1 (MinChg), *Integrated Safety Management Policy*, dated 1-18-

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2018, and as required by DOE O 440.2C Chg.1, paragraph 9, appropriate to the scope of operations.

- j. As needed, will appoint and coordinate, or assign a designee who will appoint and coordinate, a *Flight Readiness Review Board* of subject matter experts and ensure that all Board deliverables come through the field element's ASO. As a minimum, the Board will consist of a Board Chair and two members.
- k. Has authority to perform assessments of CAS providers and/or aviation support services to ensure the safety of aircraft operations. Assessment reports of CAS operators will be forwarded to OAM for inclusion to, or removal from, the Accepted Operator List.

### 2. Aviation Safety Officer (ASO)

- a. Gathers, trends, and analyzes aviation safety performance data to ensure the safety of the field aviation program.
- b. Conducts periodic assessments of aviation activities to ensure that requirements, policies, and procedures are implemented and followed and prepares reports documenting assessment findings, concerns, and recommendations and tracks corrective actions to help prevent similar occurrences.
- c. Participates as directed in aviation accident or incident investigations and provides assistance to accident investigation boards during their investigations.
- d. Identifies and reports safety concerns to the AvM when he/she believes that the field element manager's intervention is required and works to eliminate potential hazards.
- e. Develops Aviation Safety Review (ASR) and/or Aviation Safety Document (ASD) as required by paragraph 10 of DOE O 440.2C, Chg.1, or in the case of a contractor operated aviation element, reviews and concurs on ASRs and ASDs. ASDs will address potential hazards associated with the activity and methods to mitigate these hazards.
- f. Ensures that aviation personnel report mishaps, hazards, and concerns to the Occurrence Reporting and Processing System (ORPS).
- g. Participates 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.
- h. Flight Readiness Review Board (FRRB). The purpose of a Board is to evaluate the safety, design, operational planning, and functional adequacy of the aircraft operations that are not already regulated by other Federal regulations, or those that may deviate from DOE O 440.2C Chg.1, *Aviation Management and Safety* or other DOE/NNSA standards. Prior to the initiation of flight operations, conduct an independent review of the total project to assure that adequate planning and preparation have been accomplished to achieve the desired results under acceptable safety conditions.

## BACKGROUND AND EXPERIENCE

The knowledge requirements and associated MPAs identified in the PSQS were developed

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based on the assumption that candidates have the preferred education and experience levels identified below. Personnel assigned to complete this PSQS who do not meet these requirements may need additional developmental assignments and supporting training to satisfactorily complete this PSQS.

The preferred education and experience for AvM and ASO are:

### 1. Education

- a. A four-year college degree in aviation, systems safety, engineering, or a physical science.
- b. Personnel appointed as aviation safety managers (i.e. those individuals who are responsible for the management of a DOE Aviation Program, regardless of title) should also have graduated from an aviation safety course provided by a recognized training provider and authority in aviation safety, prior to appointment or within one year after appointment.

### 2. Experience

- a. Previous experience as pilots or crewmembers in aviation operations management/flight program management and/or former military, government, or commercial aviation experience.

## REQUIRED PERFORMANCE COMPETENCIES

Each performance competency (PC) defines the expected level of knowledge and performance an individual must attain to meet the intent of this standard. Each performance competency is further described by knowledge requirements and if necessary, MPAs that describe the task(s) that must be demonstrated to meet the intent of the related performance competency.

**Note 1:** When regulations, DOE directives or other industry standards are referenced in this PSQS, the most recent revision should be used. However, personnel assigned this PSQS and QOs should also refer to the versions of requirements included in the local contract during the attainment and verification of related knowledge requirements. Any applicable knowledge requirements in predecessor documents that are not included in this PSQS should be included in the organizational specific QS or continuing training program.

**Note 2:** If specific evaluation criteria are not identified for any of the MPAs in this PSQS the following generic evaluation criteria should be used together with any local expectations to verify acceptable completion of the particular MPA.

### Generic MPA Evaluation Criteria

- Identify expectations (i.e. criteria) for the specific activity
- Compare results to expectations (criteria) and document conclusions
- Document the basis for any identified issues or recommendations
- Discuss if applicable how you would communicate results to appropriate federal and/or contractor personnel.

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## PC # SECTION A – DOE AVIATION HISTORY

1. **Applicant must demonstrate knowledge of the Department's aviation history, organization, and missions.**
  - a. Discuss the history of the department's aviation program.
  - b. Discuss the organization of the department's aviation program.
  - c. Describe the missions that the department's aviation program supports.
2. **Applicant must demonstrate knowledge with the Department's aviation accident/fatality history and its impact on the DOE Aviation Program**
  - a. Describe the Department's aviation accident history identifying the most significant occurrences including the following: Department-owned aircraft accidents; CAS (chartered, rented, or leased) aircraft accidents; Most predominate cause for these accidents
  - b. Describe some of the immediate and long-range impacts of these accidents on the program.

## SECTION B – DOE MISSIONS

3. **Applicants must demonstrate knowledge of the Department's aviation organization, and missions.**
  - a. Describe the department's aviation program and missions.
  - b. List the various aviation missions within the Department and explain their relevancy to your field element.
  - c. Describe the aviation program's current organizational structure including those of Headquarters and field elements.
  - d. Discuss the roles and responsibilities of the field aviation manager (AvM) and the aviation safety officer (ASO).

## SECTION C – REGULATORY

4. **Applicant must demonstrate knowledge of the organization of the Code of Federal Regulations (CFR) and how to locate information in it.**
  - a. Given a reference in the CFR, identify the following: Title; Chapter; Part; Subpart; Section
  - b. Perform a keyword search for a specific topic in the CFR.
  - c. Retrieve a specific CFR section by its citation.

**MPA 1:** Given a possible scenario, locate the applicable CFR guidance and apply it to the situation.
5. **Applicants must demonstrate knowledge of Federal Aviation Administration's (FAA's) role in DOE aviation.**
  - a. Describe the Air Commerce Act of 1926 and the precedent that it set that continues to impact DOE aviation today.
  - b. Describe how the FAA maintains oversight of Department operations including the frequency of this oversight.

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6. **Applicant must demonstrate knowledge of Public Aircraft Operations (PAO), when PAO is appropriate, and what the regulatory qualifications are for PAO status.**
  - a. Describe the legal definition of a Public Aircraft and when a federal aircraft does and does not qualify for PAO status.
  - b. Discuss FAA's authority regarding Public Aircraft Operations.
  - c. Describe what happens if you violate the public aircraft statute.
  - d. Describe what a Public Declaration is and when it should be used.
  
7. **Applicants must demonstrate knowledge of the requirements contained in 14 CFR 107, Parts 91, *General Operating and Flight Rules*; 133, *Rotorcraft External-Load Operations*; 135, *Operating Requirements: Commuter and On-Demand Operations and Rules Governing Persons On Board Such Aircraft*; and 137, *Agricultural Aircraft Operations*, and any other Federal Aviation Regulation applicable to their specific aviation program.**
  - a. Describe which Parts of the Federal Aviation Regulations govern certificated operators versus non-certificated operators.
  - b. Describe some of the differences in FAA operations and maintenance requirements for certificated operators versus non-certificated operators including the following: Crewmember qualification; crewmember training requirements; flight and duty time limitations, and; airworthiness inspection differences.
  - c. Discuss the types of missions that require a Part 135 operator versus those that may be performed by a Part 91 operator.
  - d. Identify the regulations that the Department would be primarily concerned with when procuring the services of a CAS operator to conduct various missions including the following: transporting nine or less passengers; transporting ten or more passengers; conducting pipeline or power line patrol; taking aerial photographs over DOE facilities; spraying an area for controlling insect populations; putting a large air conditioner on top of a facility, and; taking a facility manager over a site to view new construction.
  
8. **Applicants must demonstrate knowledge of OMB Circular A-126, "Improving the Management and Use of Government Aircraft."**
  - a. Describe the purposes of OMB Circular A-126.
  - b. Discuss the meaning of "mission requirements" and "mission travel" and give some examples of the types of travel that meet each definition.
  - c. Discuss the definition of Required Use Travel
  - d. Explain the term Senior Federal Official.
  - e. Describe the types of travel on government aircraft that would require reimbursement to the government.
  - f. Identify who is responsible for approving the use of government aircraft.
  
9. **Applicant must prepare and submit to OAM, the OMB Circular A-126 semi-annual report for Senior Federal Travelers and Non-Federal Travelers who use government aircraft.**
  - a. Describe the information and data fields required in the OMB Circular A-126 semi-annual Senior Federal travelers and Non-Federal Travelers who use government aircraft report.

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**MPA 2:** Prepare and submit to OAM the OMB Circular A-126 semi-annual Senior Federal Traveler and Non-Federal Traveler report.

- 10. Applicants must demonstrate knowledge of Office of Management and Budget (OMB) Circular A-76, “Performance of Commercial Activities.”**
  - a. Describe the purpose of OMB Circular A-76.
  - b. Discuss the purpose of terms “inherently governmental” and “governmental function” and describe how each term pertains to government aircraft.
  - c. Identify when an organization must conduct a cost comparison when securing aviation services.
  - d. Describe some of the factors and cost components that are included in an aviation cost comparison.
- 11. Applicant must demonstrate knowledge of 41 CFR 102-33, Management of Government Aircraft.**
  - a. State the purpose of 41 CFR 102-33.
  - b. Describe which organizations are required to comply with this regulation.
  - c. Describe some of the program elements outlined in 41 CFR 102-33 Subpart B that must be incorporated into every DOE aviation program that uses government aircraft.
- 12. Applicants must apply knowledge of aircraft acquisition and cradle-to-grave asset management and budgeting to locate, review, and use the applicable Business Case Summary (BCS) and the Capital Asset Plan (CAP).**
  - a. Describe the circumstances when to acquire government aircraft.
  - b. Describe the process to acquire federal aircraft.
  - c. Describe the Capital Asset Planning (CAP) tool and the information contained in the CAP.
  - d. Discuss Base-lining and how the Business Case Summary (BCS) is used to capture baseline information.
  - e. Identify how often the BCS needs to be reviewed.

**MPA 3:** Locate the site’s Business Case Summary (BCS) and discuss the content, or if the BCS doesn’t exist, properly fill out the Capital Asset Plan (CAP) tool.

- 13. Applicant must be able to prepare and submit the quarterly report on aircraft information data, cost data, and hours data into the General Services Administration (GSA) Federal Aircraft Interactive Reporting System (FAIRS).**
  - a. Identify what is FAIRS, why it exists, and what agency is responsible to maintain it.
  - b. Describe the data required to be submitted to FAIRS.
  - c. Describe what purpose FAIRS can be used for by each aviation program that reports data.
  - d. Discuss who should have and how to get access to FAIRS.

**MPA 4:** Prepare and submit the quarterly GSA FAIRS report.

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- 14. Applicant must demonstrate knowledge of the National Transportation Safety Board's (NTSB's) role in investigating DOE aviation accidents.**
  - a. Identify the organization that has the primary responsibility for investigating DOE aviation accidents and its ability to designate this authority to third parties.
  - b. Describe some of the major differences between the NTSB investigating a DOE aviation accident and the Department conducting an accident investigation including the following: determination of probable cause; determination of contributing causal factors, and; management's role in the aviation program.
  - c. Describe the time frame for the NTSB to issue an accident investigation final report.
- 15. Applicant must demonstrate knowledge of how to notify the NTSB if an accident occurs and the information that is required in the notification.**
  - a. Identify the Federal regulation that requires aviation mishaps to be reported to the NTSB.
  - b. Distinguish examples of accidents from incidents.
  - c. Describe the time limitations for notifying the NTSB of a mishap.
  - d. Given possible accidents and incidents, distinguish those that would require NTSB notification.
  - e. Discuss how and where the NTSB should be notified of a mishap.
  - f. Describe who is responsible for notifying the NTSB in the event of a DOE-owned aircraft mishap versus DOE-chartered, leased, bailed, or rented aircraft.
  - g. Identify who is responsible for preserving the wreckage at an accident site.
  - h. List the information required in an NTSB notification and how soon it should be filed with the NTSB.
- 16. Applicant must demonstrate knowledge of 14 CFR 91.17, 14 CFR 91.19 specifically, and the portions of 14 CFR 90 and 14 CFR Part 107 that apply to their aircraft operations.**
  - a. Discuss the training and qualification of each UAS crew member to include the Remote Pilot in Command (RPIC), Person Manipulating the Controls (PMC), Visual Observer (VO), Maintenance Technician (MT) and Airframe and Power Plant (A&P) Mechanic.
  - b. Discuss the duties and responsibilities of each UAS crew member, to include remote Pilot in Command (RPIC), Person Manipulating the Controls (PMC), Visual Observer (VO), Maintenance Technician and Airframe & Powerplant Mechanic.
  - c. Discuss the process to obtain a UAS Certificates of Waiver or Authorization (COA).
  - d. Discuss the applicability of the DOE UAS blanket COA to your UAS operations, including limitations and reporting requirements.
  - e. Applicant must demonstrate a working level knowledge of Temporary Flight Restrictions (TFRs), Special Use Airspace, and Notice to Airmen (NOTAMs) and how to obtain a NOTAM.

**MPA 5: Achieve and maintain a 14 CFR Part 107 Remote Pilot certificate. NOTE: Completion of this MPA is only required for personnel who operate UAS. Completion of this MPA is optional as determined by the supervisor for personnel who provide oversight of federal UAS operations.**



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17. **Applicant must demonstrate knowledge of the Privacy Act of 1974 (4 USC 552a), the 15 February 2015 Presidential Memorandum, and privacy issue concerning Unmanned Aircraft System (UAS) operations.**
- a. Describe a major concern that is impacted by the use of UAS.
  - b. Describe the requirements of the Privacy Act of 1974 for data obtained by UAS.
  - c. Describe the responsibilities a UAS operator has as UAS technology advances.
  - d. Describe the requirements of privacy protections in the following: collection and use; retention; dissemination, and; civil right and civil liberties protections.
  - e. Describe the Best Practices guidelines for UAS operations.
18. **Applicant must demonstrate knowledge of safeguards and security as it relates to aviation operations.**
- a. Describe the purpose of the Safeguards and Security Program described in DOE O 470.4B.
  - b. Explain how S&S requirements and program performance may impact aviation operations.

### SECTION D – MANAGEMENT

19. **Applicants must demonstrate knowledge of DOE O 440.2C, Chg. 1, *Aviation Management and Safety*.**
- a. Describe the basic intent of the Order.
  - b. Identify what DOE elements must comply with DOE O 440.2C, Chg. 1.
  - c. Discuss the requirements in DOE O 440.2C, Chg. 1 that must be established and included in a DOE aviation program.
  - d. Discuss the primary requirements that apply to commercial aviation service (charter, rental, or lease) aircraft operations.
20. **Applicants must demonstrate knowledge of the roles of the Senior Aviation Management Official (SAMO), and the Office of Aviation Management (OAM).**
- a. Describe the roles and responsibilities the SAMO, and the OAM within the aviation program.
21. **Applicant must demonstrate knowledge of their site-specific Aviation Implementation Document (AID).**
- a. Describe the purpose of the AID and how it pertains to your local organization.
  - b. Discuss the process for developing and approving an AID.
  - c. Identify the major program areas addressed in your AID.
22. **Applicant must demonstrate knowledge of their site-specific pre-accident plan.**
- a. Describe the pre-accident plan at your site and whether it is aviation specific or not.
  - b. Describe the review process for your pre-accident plan and how often this occurs.
23. **Applicants must demonstrate knowledge of DOE O 225.1B, *Accident Investigations*.**
- a. Describe the purpose of accident investigations currently performed within the Department.

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- b. Discuss any exemptions to DOE O 225.1B.
- c. Identify the criteria for convening a DOE Accident Investigation Board (AIB).
- d. Discuss the process in DOE O 225.1B following an accident.
- e. Discuss the process in conducting the investigation.
- f. Discuss the closeout of an investigation.

**24. Applicant must demonstrate knowledge of the capabilities of the aircraft used in their program.**

- a. Describe the basic capabilities and operating limitations for your aircraft
- b. Given a possible mission, explain how you might determine whether or not you could perform a mission that the department requests with your aircraft.

**25. Applicant must demonstrate knowledge of a typical commercial (civil) aviation organization.**

- a. Describe the typical management structure and associated positions in a commercial aviation organization.
- b. Explain how the top management structure and the operating rules of a commercial organization may differ from the Department's organization.
- c. Describe similarities between the Department's aviation organization and that of a commercial operator including the following: aviation manuals; training programs, and; maintenance and inspection requirements.

**26. Applicant must demonstrate knowledge of DOE O 232.2A, Chg. 1 (MinChg), *Occurrence Reporting and Processing of Operations Information*.**

- a. Discuss the purpose of the Occurrence Reporting and Processing System (ORPS).
- b. Identify where the Occurrence Reporting Criteria are located in DOE O 232.2A.

**27. Applicant must demonstrate knowledge of the Aviation Safety and Management Awards Program.**

- a. Describe the purpose of the Department's Aviation Safety Awards Program.
- b. Describe the purpose of the Department's Management Awards Program
- c. Identify the various award categories that are available to organizations and individuals and the frequency of which they may be awarded.
- d. Discuss the process for nominating organizations and individuals for awards.
- e. Identify the various types of award items that are presented to organizations and individuals for each award.

### SECTION E – SAFETY

**28. Applicant must demonstrate knowledge of the Department's philosophy and approach to implementing an Integrated Safety Management System (ISMS).**

- a. State the objective of Integrated Safety Management (ISM).
- b. Describe how the seven Guiding Principles in the ISM Policy are used to implement an ISM philosophy.

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- c. Describe the five Core Safety Management Functions in the ISM Policy and discuss how they provide the necessary structure for work activities.
- d. Discuss the purpose, content, and application of DOE Policy 450.4, Safety Management Systems Policy.
- e. Explain why the implementation of ISM could differ from facility to facility.

**29. Applicant must demonstrate knowledge of a Quality Assurance Program (QAP) to ensure the efficiency, effectiveness, and safety of the field aviation program.**

- a. Discuss the key elements of a QAP.
- b. Discuss the purpose and importance of quality feedback.
- c. Discuss the purpose and importance of an effective corrective action/resolution process.

### SECTION F – COMMERCIAL AVIATION SERVICES

**30. Applicant must be able to conduct evaluations of Commercial Aviation Service (CAS) operators using the DOE CAS Checklist.**

- a. Discuss methods used to verify the CAS operators are following the proper regulations, policies, and requirements when performing various missions for DOE including the following: FAA regulations; DOE requirements; NTSB requirements; insurance requirements; state and local requirements, and; OSHA requirements.
- b. Identify the method that DOE uses to place specific requirements on CAS operators while they are operating for DOE.
- c. Discuss why the FAA has regulatory oversight of some DOE aircraft missions and not others and identify those that your field element conducts for which the FAA has no responsibility.
- d. Briefly describe the FAA's level of oversight of CAS operators including the regularity of this oversight.
- e. Describe your field elements' methods for conducting oversight of CAS operators including the following: Identifying when an assessment needs to be performed; identifying the individuals that may be qualified to perform the assessment, and; determining the regulations, policies, and procedures that the operator will be assessed by.
- f. Identify the major areas addressed in the DOE CAS Checklist that should be included in all CAS operator assessments.

**MPA 6: Lead or participate in an assessment of the CAS operations using the approved CAS checklist.**

APPENDIX A

Performance Competency Assignment Matrix

PERFORMANCE COMPETENCY		PERFORMANCE COMPETENCY ASSIGNMENT					
		MANNED		UNMANNED		CAS	
		AvM	ASO	AvM	ASO	AvM	ASO
<b>TQ#</b>	<b>SECTION A – DOE AVIATION HISTORY</b>						
1.	Applicant must demonstrate a working level knowledge of the Department’s aviation history, organization, and missions.	X	X	X	X	X	X
2.	Applicant must demonstrate a familiarity level of knowledge with the Department’s aviation accident/fatality history and its impact on the DOE Aviation Program.	X	X	X	X	X	X
	<b>SECTION B – DOE MISSIONS</b>						
3.	Applicants must demonstrate a working level knowledge of the Department’s aviation organization, and missions.	X	X	X	X	X	X
	<b>SECTION C – REGULATORY</b>						
4.	Applicant must demonstrate a working level knowledge of the organization of the Code of Federal Regulations (CFR) and how to locate information in it.	X	X	X	X	X	X
5.	Applicants must demonstrate a working level knowledge of Federal Aviation Administration’s (FAA’s) role in DOE aviation.	X	X	X	X	X	X
6.	Applicant must have a working level knowledge of Public Aircraft Operations (PAO), when PAO is appropriate, and what the regulatory qualifications are for PAO status.	X	X	X	X	X	X

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7.	Applicants must demonstrate a working level knowledge of the requirements contained in 14 CFR 107, Parts 91, <i>General Operating and Flight Rules</i> ; 133, <i>Rotorcraft External-Load Operations</i> ; 135, <i>Operating Requirements: Commuter and On-Demand Operations and Rules Governing Persons On Board Such Aircraft</i> ; and 137, <i>Agricultural Aircraft Operations, and any other Federal Aviation Regulation applicable to their specific aviation program.</i>	X	X			X	X
8.	Applicants must demonstrate a working level knowledge of OMB Circular A-126, "Improving the Management and Use of Government Aircraft."	X				X	
9.	Applicant must demonstrate a working level knowledge of the routine reports required to be submitted semi-annually to Headquarters concerning Senior Federal Travelers and Non-Federal Travelers who use government aircraft.	X				X	
10.	Applicants must demonstrate a familiarity level knowledge of Office of Management and Budget (OMB) Circular A-76, "Performance of Commercial Activities."	X		X		X	
11.	Applicant must demonstrate a familiarity level knowledge of 41 CFR 102-33, Management of Government Aircraft.	X	X	X	X	X	X
12.	Applicants must have a working level knowledge of aircraft acquisition, and cradle-to-grave asset management and budgeting.	X					
13.	Applicant must demonstrate a working level knowledge of entering aircraft information data, cost data, and hours data and into the GSA Federal Aircraft Interactive Reporting System (FAIRS).	X		X		X	
14.	Applicant must demonstrate a working knowledge of the National Transportation Safety Board's (NTSB's) role in investigating DOE aviation accidents.	X	X	X	X	X	X

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15.	Applicant must demonstrate a working level knowledge of how to notify the NTSB if an accident occurs and the information that is required in the notification.	X	X	X	X	X	X
16.	Applicant must demonstrate a working level knowledge of 14 CFR 91.17, 14 CFR 91.19 specifically, and the portions of 14 CFR 90 and 14 CFR Part 107 that apply to their aircraft operations.			X	X		
17.	Applicant must demonstrate a working level knowledge of the Privacy Act of 1974 (4 USC 552a), the 15 February 2015 Presidential Memorandum, and privacy issue concerning UAS operations.	X		X	X	X	
18.	Applicant must demonstrate a working level knowledge of safeguards and security as it relates to aviation operations.	X	X	X	X	X	X
	<b>SECTION D – MANAGEMENT</b>						
19.	19. Applicants must demonstrate a working level knowledge of DOE O 440.2C Chg. 1, <i>Aviation Management and Safety</i> .	X	X	X	X	X	X
20.	Applicants must demonstrate a working level knowledge of the roles of the Senior Aviation Management Official (SAMO), and the Office of Aviation Management (OAM).	X	X	X	X	X	X
21.	Applicant must demonstrate a working level knowledge of their site-specific AID.	X	X	X	X	X	X
22.	Applicant must demonstrate a working level knowledge of their site-specific pre-accident plan.	X	X	X	X	X	X
23.	Applicants must demonstrate a familiarity level knowledge of DOE O 225.1B, <i>Accident Investigations</i> .	X	X	X	X	X	X
24.	Applicant must demonstrate a working level knowledge of the capabilities of the aircraft used in their program.	X	X	X	X	X	X

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25.	Applicant must demonstrate a familiarity level knowledge of a typical commercial (civil) aviation organization.	X				X	
26.	Applicant must demonstrate a familiarity level knowledge of DOE M 232.2A, Occurrence Reporting and Processing of Operations Information.	X	X	X	X	X	X
27.	Applicant must demonstrate a familiarity level knowledge of the Aviation Safety and Management Awards Program.	X	X	X	X	X	X
	<b>SECTION E – SAFETY</b>						
28.	Applicant must demonstrate a working level knowledge of the Department’s philosophy and approach to implementing an Integrated Safety Management System (ISMS).	X	X	X	X	X	X
29.	Applicant must have a working level knowledge of a Quality Assurance Program (QAP) to ensure the efficiency, effectiveness, and safety of the field aviation program.	X	X	X	X	X	X
	<b>SECTION F – COMMERCIAL AVIATION SERVICES</b>						
30.	Applicant must demonstrate the ability to conduct evaluations of Commercial Aviation Service (CAS) operators using the DOE CAS Checklist.	X	X			X	X