

AAAE Certified Member Body of Knowledge Errata and Study Guide, 2022

Although we have taken every care to ensure the accuracy of our content, mistakes do happen, occasionally spellcheck fails and typos or redundant information does occur. If you have found a mistake, we would be grateful if you would report it to us. Please email amy.calliari@aaae.org.

IMPORTANT NOTE: the information contained in the modules and the workbook is for **overview and reference only** and does not supersede any regulatory or government advisory information, nor constitute official approval of any particular process or procedure. The reader is encouraged to reference the applicable, government-published regulations and guidance for the creation or interpretation of any process or procedure related to the information in these modules.

Errata

Module 1

Page 43, the Cincinnati/Northern Kentucky is operated by an Authority, not a State agency.

Page 75, The fifth bullet point should be “non,” not ‘no.’

Page 102 paragraph 1, cyberattacks/cyberattacks should be one word.

Module 2

Page 30, bullet point related to precheck and known crewmember, the word *program* is misspelled.

Page 36, second paragraph: ADD: AAC is the Aircraft Approach Category (approach speed of the aircraft), and Aircraft Design Group (ADG) represents the approximate size of the aircraft.

Page 42, Runway Safe purchased the ESCO/Zodiac EMASMAX product in February 2020. Runway Safe is still in operation.

Page 44, ADD: TDG is Taxiway Design Group.

Page 66, para 2 underneath Elements of the Terminal System, should be ... ticketing and bag check, not bag claim...”

Page 70, just before the section on restroom design, there should be a Title, or it should be moved to before the International process.

The passenger touchpoint process appears twice in the workbook.

Module 3

Page 20, ASR should be its own bullet point.

Page 51, the bird fatality rate is nearly 100%, not 10% as it says in the module.

Page 59, duplicate paragraph (AEP should address emergencies...).

Page ____, Washington Executive/Hyde Field has since closed its operation.

Module 4,

Page 26, the term “privatization,” in this context refers to international airlines previously owned by the nation-state, switching to a private business model – there is not a test question on this concept – it is provided for context.

Page 31, the definition of **bounce rate**: the percentage of visitors to a particular website who navigate away from the site after viewing only one page.

Page 46, the FAA recently made numerous changes to its Air Carrier Incentive Program policies and clarified previously questionable issues. Both incentives, *Start-Up Costs*, and *Airport Provided Ground Handling*, would be considered subsidies under the new policy. In neither case was there a test question related to these two concepts due to their controversial nature, which the FAA has now cleared up under new rulemaking.

Page 64, top paragraph should be “Part 150 Airport Noise Compatibility Planning”

Page 73, soundproofing is the most common form of noise abatement active measure from a Part 150 study.

Page 87 is the ILS graphic. It should be the air traffic pattern graphic from page 91.

Page 91 is the traffic pattern graphic which should be on page 87.

Page 93-94, ASOS, and AWOS can’t observe a distant weather phenomenon.

Page 100, JFK airport is also considered high-density.

Page 106, Correction: “(...operational categories refer to: recreation or modeler, certificated remote pilot or commercial operator, or public safety or government user or educational user).” Operational categories refer to the nature of the operation and kinetic energy of the drone, and it’s capability to injure or harm a person on the ground if the drone falls out of the sky and strikes an individual).

Page 111, The Safety Review determines if operations can be safely conducted, and hazards reasonably mitigated. ADD: *For example, what would be the consequences to individuals and property on the ground, of a commercial space vehicle breaking up while upon reentry.*

Study Guide

Module 1, Objective 1

1. Understand the difference between the roles of the Airport Sponsor and the airport manager/executive.
2. Describe the various legislative acts in terms of what impact they had on airports.
3. Describe the various aeronautical tenants and their desires.
4. Describe the charter industry and its characteristics.
5. What does the NPIAS do and what are the qualifiers?
6. What are the qualifiers for commercial service airports, primary commercial service, and GA reliever airports?
7. What are the key characteristics of GA airport categories?
8. What is the difference between a joint use and shared-use airport?

Module 1, Objective 2

1. What are the regulations related to flight operations?
2. What document connects the airport condition with the Chart Supplements?
3. What is the difference between pilotage and dead reckoning?
4. Describe the difference between VFR and IFR flight.
5. What are Terminal Instrument Procedures (TERPS)?
6. Distinguish the three different types of approaches to a runway.

Module 1, Objective 3

1. Understand the reporting structure.
2. What are the key types of Airport Sponsor structures, their advantages, and disadvantages.
3. What is the role of the airport executive versus out of the sponsor?
4. Memorize the regulations on page 43 of the workbook, by number.
5. What is Part 139 and how is it updated?
6. Explain the rulemaking process.
7. Explain the structure and function of the FAA and ICAO.
8. What are the key documents in Airport Management?
9. What is the difference between an Advisory Circular and an FAA Order?
10. What are sponsor assurances and why do they exist?
11. What is the key, fundamental, grant assurances and what do they relate too?
12. Explain the difference between a part 13 and a part 16 complaint.

Module 1, Objective 4

1. Explain the various types of land uses and their descriptions.
2. What are methods to reduce or eliminate incompatible land uses and what will the FAA not do related to incompatible land use?
3. What documents are used to control the operations of an airport?
4. Explain the benefits of minimum standards related to each stakeholder group, i.e., the user, the airport operator, and the airport tenant.
5. Explain the concept of exclusive rights and the exceptions to the grant assurance.
6. Explain the concept of self-fueling.
7. How does Grant assurance five, preserving rights and powers relate to through-the-fence agreements?

Module 1, Objective 5

1. Explain the accounting functions on page 63 of the workbook.
2. What is the difference between a capital and an operating budget?
3. Explain the four different types of common budgets and their key characteristics.
4. Identify the key financial statements and their purpose.
5. Explain the purpose and contents of the CAFR.
6. Know the types of primary revenue sources (landing fees, fuel flowage fees, hangar leasing), the common non-aeronautical revenue sources, and the common non-operating revenue sources.
7. Understand the VALE – Voluntary Airport Low Emissions program grant.
8. Explain airport revenue diversion and identify examples.
9. Explain how PILOTs work (Payment in Lieu of Taxes).
10. Explain the difference between rates and charges for aeronautical land versus non-movement and non-aeronautical use land.
11. Explain the residual method of rate setting.
12. What are the five general principles of airport rates in charge of setting, and their purpose?

Module 1, Objective 6

1. What is the purpose of an airport strategic plan, the elements, and characteristics of the plan?
2. When are airports subject to federal procurement requirements?
3. Identify the key steps in the procurement process on page 81 of the workbook.
4. Explain the procurement contract types and terms along with alternate delivery methods.
5. Explain the key components of the disadvantage business enterprise requirements.
6. Identify the common airport information technology systems and their key characteristics.
7. Explain the role of the chief information officer.
8. Identify the various types of cyber security attacks and their characteristics.
9. Explain the three types of Airport insurance.
10. Explain the three basic approaches to leasing space.
11. What is the leasehold agreement and what are its key elements and their characteristics?
12. What are the various types of leases and their characteristics, including concession leasing and aeronautical use agreements?

Module 1, Objective 7

1. Explain the Airport Improvement Program, the types of AIP monies and how they are dispersed.
2. What is the federal share for AIP projects: large, medium, small, nonhub and general aviation?

3. How much total AIP money is apportioned to nonhub and general aviation airports?
4. What are the allowable costs?
5. Explain the sequence of the AIP grant application process.
6. Explain how Passenger Facility Charges work, and their restrictions.
7. Explain the various types of bonds and how they are secured.

Module 2, Objective 1

1. Summarize the documents on page 5 of the workbook (module two).
2. Explain the function of the Airport Layout Plan and its key documents.
3. How are ALPs approved?
4. Explain the function of the airport master record and how it relates to the chart supplements.
5. What are the guiding principles of federal involvement in airports (in the NPIAS)?
6. How does the FAA determine whether certain airport projects are included in the NPIAS?

Module 2, Objective 2

1. What are the key products of a master plan.
2. Explain the master plan process and identify the details in each step.
3. Know the forecast sources, factors affecting the sources and statistical modeling within the Airport Master Plan.
4. Explain the differences between the Facility Requirements of the Facility Implementation Plan.
5. What is the function of the Financial Feasibility Analysis? How does it relate to the CPE?
6. What is the final product of the master plan and how does it connect to the FAA Airport Capital Improvement Plan?

Module 2, Objective 3

1. Identify the areas and characteristics of the airport.
2. Explain the Runway Design Code (how is it determined), the Design Aircraft (how is it determined), and the Airport Reference Code (ARC).
3. Explain the various runway configurations. Identify which runways are capable of simultaneous instrument approaches.
4. Explain display thresholds and why they occur.
5. Identify the protected areas around a runway and taxiway, their characteristics and function.
6. Identify how to determine the Taxiway Design Group and overall taxiway design principles.
7. Explain the various types of apron design, aircraft parking procedures and stand guidance systems.
8. Identify the heliport design elements.

9. Identify the key characteristics of seaplane bases and aircraft types.
10. What are the various meetings involved in airport construction and their key characteristics?
11. Identify the five imaginary surfaces and their characteristics.

Module 2, Objective 4

1. What are the basic elements of Airport terminal design? Explain the term, Average Day of the Peak Month, and the various types of Levels of Service.
2. What are the elements of the terminal system and their function?
3. What are the elements of the security screening checkpoint?
4. Explain the departure process from the screening checkpoint to the gate (page 77 of the workbook).
5. Identify the various types of baggage claim processes.
6. What are the various methods used in the international arrivals process?
7. Identify the principles and characteristics of wayfinding.
8. What are the key planning elements and associated metrics in landside space planning?
9. What are the key planning elements and associated metrics in parking space planning?
10. What are the desires of various stakeholders in terminal siting and location?
11. Explain the different terminal configurations.
12. Identify the passenger touch points.
13. What are the desires of the various types of passengers in terminal design?
14. Explain what Common Use consists of and its advantages and disadvantages.
15. Explain the core principles of design of snow removal equipment and aircraft rescue in firefighting facilities.
16. Explain the key requirements of the Americans with Disabilities Act.
17. What are the key elements of general aviation terminal design and hangar designs?

Module 2, Objective 5

1. Explain the environmental review process including the definitions of Categorical Exclusion, extraordinary circumstances, Environmental Assessment, and Environmental Impact Statements.
2. Explain the environmental process related to the Airport Layout Plan approval.
3. Identify the terms and characteristics of the environmental category subsections.
4. You do not have to memorize the list of environmental categories, but you should be able to, based on the category given, explain that elements environmental impact (i.e., Visual Effects relate to whether the project would produce light emissions that detract from the existing environment).

5. Explain the key elements of the Environmental Management System.
6. What are the key elements related to airport stormwater management?
7. Explain the function of the Superfund.
8. What is the environmental enforcement process?
9. What are elements of environmental sustainability, sustainability measures, and what are the associated definitions and characteristics?
10. What is the Global Biorisk Advisory Council?

Module 3, Objective 1

1. Describe the key elements of a safety management system.
2. What is FAR Part 139 and to which airports does it apply?
3. What is in the Airport Certification Manual and what is its purpose?
4. What are the four different types of Part 139 Airport classes?
5. Explain limitations, exemptions and deviations related to Part 139.
6. What are the requirements for an individual to conduct the airport self-inspection?
7. What are the four components of a successful self-inspection?
8. What does the FAA require in terms of recordkeeping?

Module 3, Objective 2

1. Identify the various types of airport pavement and other characteristics.
2. Identify the various types of asphalt and concrete defects.
3. What is the definition of a hole under Part 139 and what are the other pavement tolerance standards?
4. Explain the ACN/PCN system.
5. Identify the lighting systems and configurations at a visual, non-precision and precision instrument runway.
6. Identify the elements of the approach light system along with VASIs and PAPIs, REILs, ODALs and LDIN.
7. Identify the proper runway markings, the holding position marking, the ILS critical area marking, and the nonmovement boundary marking.
8. Identify the various airfield signs.
9. What is the function of the Segmented Circle and the wind cone?
10. What is the impact of jet and propeller blast?
11. What color is obstruction lighting and which obstruction is very difficult spot from the air?
12. Explain the various types of NOTAMS.

Module 3, Objective 3

1. What is the effect of snow and ice on airports?
2. What are standard aircraft tolerances related to slush and standing water on the runway?
3. What are the key outcomes during snow removal?
4. Identify the types of snow removal apparatus and their functions.
5. Explain the aircraft and rescue and firefighting requirements, including response requirements and availability.
6. What are the personal requirements related to ARFF?
7. What is HSEEP?
8. What is the definition of a Surface Incident, a Runway Excursion, and a Runway Incursion?
9. Who is responsible for runway incidents?
10. What is a hotspot?
11. On an airport which entity always has the right of way?
12. Explain the Runway Safety Action Teams and related elements.
13. What is the economic cost of bird strikes?
14. What is Part 139 airports required to have, related to wildlife and the Airport Certification Manual?
15. What events trigger a Wildlife Hazard Assessment or a review of the existing Wildlife Hazard Management Plan?
16. What are the methods of wildlife mitigation?
17. What are the key elements of the continuous inspection related to Airport construction safety programs?

Module 3, Objective 4

1. What makes airport emergencies different than other community incidents?
2. Explain the function of the Stafford act.
3. Explain the concept of comprehensive emergency management, its 4 key phases and elements of each phase.
4. What is the purpose of the Airport Emergency Plan?
5. What are the contents of the Airport Emergency Plan?
6. Explain the core elements of NIMS.
7. Explain the functions related to the Incident Command System.
8. What are the phases of an emergency and what occurs during each phase?
9. What are the alert levels and what is the airport operator required to do at each level?
10. Explain the four types of irregular operations and the requirements of the tarmac rule.
11. Explain the six roles of airport communication dispatchers.

Module 3, Objective 5

1. What are the various forms of ground transportation to an airport and their characteristics?
2. What are the five stages of Airport Management landside goals and their characteristics?
3. Explain the impact of transportation network companies.
4. What are the stakeholder expectations in ground transportation?
5. Explain the characteristics of parking lot operations and parking lot revenue.
6. Identify the various categories of parking strategy and technology and their key characteristics.
7. What is the importance of the passenger experience?
8. What measures have the airport and airlines taken related to the passenger experience?
9. What are the various types of passenger touch points and they're related characteristics?
10. Explain the basic functions of terminal operations in the Terminal Response Plan.

Module 3, Objective 6

1. Prior to 9/11 what was the most devastating attack on the US aviation industry?
2. On average how many bombings and hijackings have taken place in aviation?
3. What impacts did the Aviation and Transportation Security Act have on the industry?
4. What were the three pilot programs created because of the Aviation and Transportation Security Act and their characteristics?
5. What are the roles and responsibilities of individuals within the aviation security system?
6. What are the key elements of the Airport Security Program?
7. Identify the characteristics of the air operations area, the security identification display area, the secured area/SIDA, and the Sterile Area, along with their access control requirements.
8. Describe the requirements of the credentialing process.
9. Understand the difference between contingency plans and incident management plans.
10. Explain the actions to trade associations and TSA related to general aviation airport security.
11. Identify the "Maryland 3", and the requirements for general aviation operations in to Reagan National Airport.

Module 4, Objective 1

1. Explain the roles and responsibilities of the airport executive.
2. What are the differences between an airport executive the reports to municipality versus an airport authority?
3. What are the steps in the public process to get resolutions approved?
4. What are the desires of each stakeholder (page 7 of the workbook)?

5. What are the trade organizations and who do they represent? (NOTE: you do not need to remember the list of trade associations but given the associations name you should be able to identify their constituency).

Module 4, Objective 2

1. Explain the need for public relations and the primary reason public relations can fail?
2. What are the key characteristics related to media relations? What is the key to working with Reporter's?
3. What is the impact of citizen journalists on Airport operators?
4. What is publicity, what is the content of a news release, and what are other methods of generating publicity at the airport?
5. What attracts the media?
6. Explain the elements of benefits of the economic impact study.
7. Describe the airport marketing audience and the marketing communications strategy.
8. What are the four types of marketing budget? (Page 19 in the workbook).
9. What is content marketing?
10. What should an airport have related to digital marketing? Explain the terms bounce rate, time spent on a page, and click-throughs.
11. Define branding and its benefits.
12. Explain what is meant by "non-passenger marketing."
13. Explain the concept of industrial park design, the aerotropolis and a foreign trade zone.
14. What encompasses air service development?
15. What expectations and issues are involved in ASD?
16. What do air carriers look for when selecting Airports?
17. What are the airports considerations in ASD goal setting?
18. Identify the steps in selling to the airlines and their characteristics.
19. What are the restrictions of an air carrier incentive program and what are permissible incentives?
20. Identify which air carrier programs and methods are subsidies?
21. Identify what incentive programs can be airport money being spent on?
22. Explain the characteristics of Essential Air Service and the Small Community Air Service Development Grant Program.

Module 4, Objective 3

1. What are the key elements of a crisis communications plan?
2. What is the role of the public information officer under the National Incident Management System?
3. When should the airport have a response, and what is the PIO's primary objective when the airport gets bad press?
4. Explain the different types of crises and the number one goal of the PIO during a crisis.

5. Understand the Don't of talking to the media.
6. Understand what the media wants (various formats).
7. What is the key messaging when facing the media?
8. What exists to assist family members of victims of an aircraft incident?
9. What should a PIO do after a crisis?

Module 4, Objective 4

1. Why do obvious arguments against noise complaints, fail?
2. Identify the key Acts, and what they required related to noise abatement.
3. Explain the factors in noise mitigation.
4. Explain the products of a noise abatement study, i.e., Part 150 study.
5. What is the function of the Noise Exposure Map?
6. What is the function of the Noise Compatibility Program?
7. Explain the concept of constructive knowledge.
8. What is the FAA's standard of review for a noise compatibility program?
9. What are the common noise compatibility measures?
10. What is a Part 161 study and how does it differ from the Part 150 study?

Module 4, Objective 5

1. Have a general understanding of how a pilot moves through their certificates and ratings.
2. Explain the different categories and types of airspace.
3. Explain the functions at Tower and radar controlled facilities.
4. How do operations work at non-towered airports?
5. What is the Contract Tower Association program?
6. What is the Remote Tower Program?
7. Describe the legs of the air traffic control pattern.
8. Describe the various types of radar, navigational aids and services provided by air traffic control.
9. What are the major elements of NextGen?
10. Explain the terms related to capacity and delay.
11. Explain traffic flow management and the various traffic management initiatives.
12. What are the demand management strategies on how to slot allocation work?

Module 4, Objective 6

1. What are the basic rules for operating unmanned aerial vehicles and Airport response to UAV intrusions?
2. What are the requirements for a spaceport certificate?
3. Describe the trends in the future of aviation including sustainable fuel, FBO management, urban and advanced air mobility, and Very Light Jets.

END