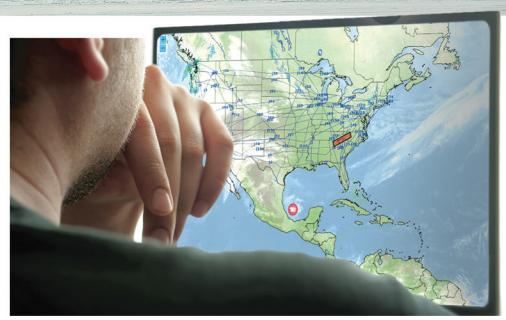
Aircraft Dispatcher

ORAL EXAM GUIDE



Prepare for the FAA oral and practical exam to earn your Aircraft Dispatcher certificate

Dr. David C. Ison

Third Edition

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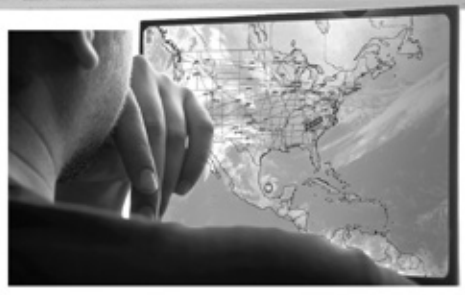

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AVIATION SUPPLIES & ACADEMICS
NEWCASTLE, WASHINGTON

Aircraft Dispatcher Oral Exam Guide
Third Edition
by David C. Ison

Based on the *Oral Exam Guide Series* by Michael D. Hayes,
with excerpts from the *Airline Transport Pilot Oral Exam Guide*.

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Introduction:
What to Expect for Your ADX Practical Test

The Aircraft Dispatcher Practical Test Process

As with any testing process, the more you know about it, the less stressful and overwhelming it is. The Aircraft Dispatcher (ADX) certification is not overly difficult to acquire. The information you must know prior to sitting for the ADX practical test is fairly straightforward; however, ADX certification does require knowledge in a wide range of subject areas which necessitates a tremendous amount of study and preparation. Applicants who put in ample study time and take advantage of available preparation tools, such as this book, should be well prepared for the test.

While this book is an excellent means of preparing for the ADX practical test and is based upon actual questions used on ADX practical tests, it should not be the only source of study. Applicants should first participate in a ground school course specific to dispatchers and/or read the books listed under "References" (below), then conclude their study with a comprehensive review of this book.

Practical Test Standards (PTS)

The Federal Aviation Administration (FAA) publishes guides to the practical tests for each certification that they issue, known as the Practical Test Standards (PTS) or Airman Certification Standards (ACS). The dispatcher certificate currently references the PTS. The PTS and ACS tell applicants exactly what to expect, what subject areas or tasks will be covered, and what they need to bring with them on test day. The PTS for the ADX is designated FAA-S-8081-10 and can be found on the FAA website or in print.

The PTS are broken into several parts: areas of operation, tasks, and references. Areas of operation form an outline of what general subjects will be covered. Although they are presented in a logical sequence according to the FAA, examiners do not necessarily follow this order. Tasks are the actual knowledge areas or procedures that will be covered under each area of operation. References are provided for each area of operation and task in order to provide applicants the source documents examiners will defer to for the correct responses. Applicants should study these documents in preparation for the exam. The list below includes these PTS references, as well as additional resources helpful in preparing for your ADX exam.

Examiners are required to use the PTS. They are also technically required to cover all areas of operation and their associated tasks. Some omissions are permissible if, for example, a certain technology or piece of equipment is not available at the testing site. It is advisable, though, to be prepared for all areas of operation and tasks. It is also possible that the examiner will venture outside the confines of the PTS to probe the applicant in subjective areas such as judgment, decision making, and ethics.

References

The following is a list of ADX references to source books, documents, handbooks, etc., that are useful in preparing for certification:

14 CFR Part 1 Definitions and Abbreviations

14 CFR Part 25 Airworthiness Standards: Transport Category Airplanes

14 CFR Part 65 Certification: Airmen Other than Flight Crewmembers

14 CFR Part 91 General Operating and Flight Rules

14 CFR Part 110 General Requirements

14 CFR Part 117 Flight and Duty Limitations and Rest Requirements: Flightcrew Members

14 CFR Part 119 Certification: Air Carriers and Commercial Operators

14 CFR Part 120 Drug and Alcohol Testing Program

14 CFR Part 121 Operating Requirements: Domestic, Flag, and Supplemental Operations

14 CFR Part 135 Commuter & On Demand Operations

14 CFR Part 139 Airport Certification

49 CFR Part 175 Carriage by Aircraft

49 CFR Part 830 Notification and Reporting of Aircraft Accidents or Incidents and Overdue Aircraft, and Preservation of Aircraft Wreckage, Mail, Cargo, and Records

49 CFR Part 1544 Aircraft Operator Security: Air Carriers and Commercial Operators

AC 00-6 *Aviation Weather*

AC 00-45 *Aviation Weather Services*

AC 60-22 *Aeronautical Decision Making*

AC 120-42 *Extended Operations (ETOPS and Polar Operations)*

AC 121-32 *Dispatch Resource Management Training*

Aeronautical Chart User's Guide

AIM *Aeronautical Information Manual*

QTP TW 1W0X1 Air Force Weather Qualification Training Package Analysis and Prognosis Trainee Workbook (https://www.weather.gov/media/zhu/ZHU_Training_Page/Met_Tutorials/AF-Trainee.pdf)

Air Traffic Control System Command Center (ATCSCC) website (www.fly.faa.gov)

Collins Aerospace ARINCDirect (https://rockwellcollins.com/Products_and_Services/Business_Aviation/Flight_Support_Services.aspx)

Chart Supplement U.S. (CS) legends (www.faa.gov/air_traffic/flight_info/)

Aviation Weather Center (aviationweather.gov)

Boeing (www.boeing.com)

Boeing 737 Flight Manual

Defense Internet NOTAM Service (https://www.notams.faa.gov)

Eurocontrol (eurocontrol.int)

European Space Agency (ESA) (www.esa.int)

FAA (www.faa.gov)

FAA-H-8083-2 *Risk Management Handbook*

FAA-H-8083-13 *Glider Flying Handbook*

FAA-H-8083-16 *Instrument Procedures Handbook*

FAA-H-8083-25 *Pilot's Handbook of Aeronautical Knowledge*

FAA-S-8081-10 *Aircraft Dispatcher Practical Test Standards*

Flight Standards Information Management System (FSIMS) website (fsims.faa.gov)

ICAO website (www.icao.int)

Jeppesen navigational charts, introductory section

National Weather Service (NWS) website (www.nws.noaa.gov)

North Atlantic MNPSA Operations Manual, V.2016-1

Turbulence: A New Perspective for Pilots, by Peter F. Lester

FAA Examiners

Each FAA practical test examiner is a unique individual. Some are laid back and amicable, while others are more formal and serious. Try to find out as much information as you can about your examiner prior to the practical experience. But do not let your guard down even if the rumor is that a particular examiner is "easy." The ADX practical test will still be an arduous process, no matter who your examiner is on test day. Get a feel for the personality of the examiner when you first meet, then try to mirror their general demeanor.

Here are few tips concerning examiners:

- Never argue with an examiner.
- Never be belligerent with an examiner.
- Most examiners will want to teach you something at some point during the testing process—let them do so.
- Answer questions thoroughly, but avoid saying too much. Let the examiner ask for more if they want more. Do not dig yourself into a hole.
- Be polite and courteous.
- Ask about how they got into dispatch, their experiences, and their career.
- Do not be afraid of saying "I don't know." An examiner will prefer that you say this rather than try to bluff your way out of a question. It is okay to not know *everything*; however, of course, if you say "I don't know" too much, you might fail the test.

Prerequisites for the ADX Practical Test

The most certain way to fail the ADX practical test is to not fulfill the required prerequisites. According to the PTS, in order to sit for the ADX practical test you must:

1. Be at least 23 years of age;
2. Have passed the required aircraft dispatcher knowledge test within the preceding 24 calendar months prior to completion of the practical test; and
3. Have obtained the applicable experience prescribed for the Aircraft Dispatcher Certificate under 14 CFR §65.57 and provide documentary evidence of such experience, or
4. Have successfully completed an FAA-approved aircraft dispatcher-training course within the past 90 days, or received revalidation in accordance with 14 CFR §65.70 (b).

To be eligible to take the Aircraft Dispatcher Knowledge Test, an applicant is required by 14 CFR Part 65 to be at least 21 years of age. If there are questions concerning English language requirements, refer to AC 60-28; English Language Skill Standards Required by 14 CFR Parts 61, 63, and 65; or your local FSDO. Determination that English language requirements have been met should be accomplished prior to beginning the practical test.

If you are at least 21 years old, but less than 23 years old, you can still sit for the ADX practical test, but you will not receive a certificate if you pass. Instead, you will get a letter that you can trade in for a certificate following your twenty-third birthday.

Although the examiner will decide the circumstances upon which you will plan a flight, it is up to the applicant to bring all necessary forms, charts, and other documents to the test. These include, but are not limited to, the following:

1. Aircraft Flight Manual
2. General Operating Manual and Operations Specifications
3. Enroute low/high altitude charts
4. Standard instrument departures
5. Standard terminal arrival routes
6. Standard instrument approach procedure charts
7. ATC flight plan form
8. Navigation log/flight log
9. Load manifest form
10. Weight and balance form
11. Dispatch release form
12. *Aeronautical Information Manual*
13. Computer and plotter
14. 14 CFR Parts 1, 25, 61, 65 Subpart C, 71, 91, 110, 117, 119, 120, 121, and 139
15. 49 CFR Parts 175, 830, and 1544
16. Completed FAA Form 8400-3, Application for an Airman Certificate and/or Rating*
17. Airman Knowledge Test Report
18. Pilot certificate (if applicable)
19. Statement of graduation certificate (if applicable)
20. Identification—photo/signature ID
21. Notice of Disapproval/Letter of Discontinuance (if applicable)
22. Examiner's fee (if applicable)

*(This can be downloaded from the Internet; check with the examiner to see if they would prefer the applicant use the Integrate Airman Certification and/or Rating Application [IACRA] system.)

A basic rule is that applicants should bring everything they would need to dispatch a flight in the real world. It is paramount that these items be in the possession of the applicant, particularly if they are not readily available at the facility where the test takes place. Not having the required forms, documents, charts, etc., could result in failing the practical test.

Test Day

On test day, the applicant should arrive early; *never* be late for an FAA practical test. He or she should be well dressed, which means a coat and tie for men and business attire for women. If the examiner wants to relax things a little, he or she will say, "you can take off your tie," or something of the sort. Applicants should also be well rested and have recently eaten a meal or snack to ensure they have ample energy to work through the test.

ADX practical tests typically last from four to eight hours (note: the PTS states that examiners should allot 4 to 6 hours for the practical exam). Usually, stronger applicants have shorter tests; on the other hand, some examiners push strong applicants further. Normally, the test begins with a review of the prerequisites, application, and other documents. Then the examiner will typically begin the oral portion of the test, which will cover all applicable subject areas listed in the PTS.

Upon successful completion of the oral portion, the examiner will assign a route for which the applicant must plan a flight. Examiners often assign a route that will be near the performance limits of the aircraft (in terms of fuel). Also, they generally will select a route with poor weather at the departure airport, en route, at the destination airport, or any combination thereof. It is not uncommon for examiners to include an inoperative item on the aircraft to be used for the flight that may affect the dispatchability of the flight.

For the flight planning portion of the test, it is best if the applicant has a set plan or checklist to follow to ensure that the process proceeds in a logical, organized manner and covers all of the required items. Many an applicant has failed the test due to poor organization or time management. While there normally is no set time limit to the flight planning portion of the test, examiners can get a feel for the applicant's flight planning fluency by how long the process takes. However, applicants should not rush through it as it is obvious that a concise, organized flight planning methodology can help you to efficiently complete the flight planning task in a reasonable period of time.

The end product of the flight planning exercise will be a route of flight, a cruise altitude, a fuel burn, weight and balance data, performance data, a dispatch release, a flight plan, and other applicable documents, forms, and items. Applicants should present the flight to the examiner as though they were briefing the pilots that would be operating the flight. This should begin with an overview of the weather and any applicable NOTAMs, and how each relates to the planned route. The examiner should be informed as to how each decision was made—such as how the weight and balance data affected the selection of the departure runway, why a particular departure procedure was selected, why the cruise altitude is the best choice, why the route was planned around adverse weather, and so on. The fewer questions the examiner has, the better.

As the applicant goes through their briefing, the examiner will probably ask several "what if" questions. For example, "What if the aircraft had an engine failure over XYZ VOR, what would you do?" Or perhaps, "What if the weather at the destination airport suddenly goes below the forecasted conditions?" The examiner will be looking more for good judgment, sound decision making, and adherence to regulations/policies rather than some particular "right answer." Upon completing the flight briefing, the examiner will probably ask some more hypothetical or situational questions. Following this line of questioning, the applicant will be informed of the decision about whether or not they passed.

Pass or Fail

If an applicant makes it through the flight briefing, it is likely that they have passed. Upon successfully passing the test, the examiner will issue either a letter (for individuals not yet 23 years old) or a temporary ADX certificate. If the applicant is unsuccessful, they will instead receive a letter of discontinuance. Normally, if things are not going well, the examiner will stop the test and inform the applicant that they will not pass but they can elect to continue the test. This allows the examiner to cover more areas of operation and tasks so that when the applicant returns to retake the test, the examiner can elect to only cover the items that they found to be deficient.

Summary

The ADX practical test is a strenuous and demanding event that will consume much of an applicant's day. However, it is not some insurmountable task at which only a few succeed. With the proper preparation, perseverance, and positive attitude, applicants will be successful at passing the test. Aircraft dispatching can be a very interesting and rewarding career, therefore the pursuit of the ADX certificate is certainly worth every minute of preparation and study. Good luck!

Note: Many of the definitions noted in this book are verbatim from the regulations. Quotation marks were omitted for simplicity of presentation.

Acknowledgments

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About the Author

Industry expert David C. Ison has been involved in aviation for over 32 years, during which he has flown as a flight instructor and as an ATP for both regional and major airlines flying domestic and international routes. He holds ATP multi-engine land, commercial single-engine land and sea, Gold Seal Certified Flight Instructor, instrument flight instructor, multi-engine flight instructor, ground instructor — instrument and advanced, remote pilot, and aircraft dispatcher certifications.

Dr. Ison has been in aviation higher education for more than 12 years and currently holds the position of Professor, Graduate School, at Northcentral University. He graduated with a Bachelor's of Science in Aviation Management from Auburn University, a Master's degree in Aeronautical Science—Operations Specialization from Embry-Riddle Aeronautical University, and a Ph.D. in Educational Studies/Higher Education Leadership with a Specialization in Aviation Education from the University of Nebraska—Lincoln.

1 Dispatch Resource Management

1. **What is "dispatch resource management" (DRM)?** (AC 121-32)

   DRM is described by the Federal Aviation Administration (FAA) as an operational philosophy meant to address "the challenge of optimizing communication between diverse groups within an airline and the related interpersonal issues while using available resources. This includes effective teambuilding, conflict resolution, situational awareness, information transfer and dissemination, problem solving, decisionmaking, and dealing with automated systems. DRM has evolved because of the joint responsibility for the preflight planning, delay, and dispatch release of a flight between the pilot in command (PIC) and aircraft dispatcher."

2. **What are the various interactions with the operational environment that dispatchers must make?** (AC 121-32)

   To successfully maximize the positive effects of DRM, dispatchers should effectively and openly interact with the following:
   - Pilots
   - Other dispatchers
   - Maintenance personnel
   - Load planners
   - Crew schedulers
   - Aircraft routers
   - Air traffic controllers
   - Managers
   - Station personnel
   - Communications systems and personnel
   - Flight planning systems and personnel
   - Meteorological systems, sources, and personnel
   - Written documents such as operations specifications, operations manuals, regulations, company procedures, etc.
   - Any other sources that may be helpful to the safe and efficient conduct of flights

3. **How does the FAA define "dispatcher situational awareness"?** (AC 121-32)

   The FAA defines this as "the ability to absorb information in a dynamic environment, to evaluate and refine that information, to anticipate contingencies, and to initiate appropriate actions as necessary."

4. **When dispatchers communicate with the various available resources, special emphasis should be made in what three areas?** (AC 121-32)
   - Inquiry — don't be afraid to ask questions.
   - Advocacy — try to work together in a positive manner.
   - Assertion — do not be afraid to bring up concerns or to be proactive.

5. Why is conflict resolution so important for dispatchers? (AC 121-32)

There will come a time when dispatchers encounter conflict when communicating with available resources. For example, pilots might want to carry more fuel, or maintenance personnel might want a flight dispatched even in light of an aircraft with an inoperative component that could negatively affect operations. Dispatchers often have to serve as negotiators and diplomats. While there is something to be said for being as tactful and non-abrasive as possible, this doesn't mean dispatchers have to be pushovers. Remember that as a dispatcher, you are legally responsible for safety of flight — it's your neck on the line. No matter how much a pilot wants to do something or how much a maintenance manager tries to convince you how things should be done, you must decide that it is safe and agree to "sign your name" to the result.

6. What types of briefings are dispatchers required to conduct? (AC 121-32)

Dispatchers are responsible for briefing flight crews on the applicable items associated with a flight, such as weather, route, and operational considerations. Dispatchers must also brief the other dispatchers replacing them concerning the flights for which they will be responsible. All normal and abnormal circumstances should be conveyed, including weather conditions, aircraft status, and air traffic control system status.

7. What should dispatchers consider regarding interpersonal relationships when dealing with available human resources? (AC 121-32)

Dispatchers should consider the following:

- Diversity among personality styles
- Diversity among operating styles
- Sensitivity to coworker personalities and styles
- Maintaining a relaxed, friendly, yet task-oriented workplace environment

8. How can dispatchers best prioritize tasks when workload is high? (AC 121-32)

Generally, safety oriented tasks should be first and foremost, followed by (in order of priority) regulatory tasks, operational tasks, and convenience. For example, assume a flight needs to be diverted because of an emergency. The safest course of action might be to land at the nearest airport, timewise; however, if the weather is extremely poor at this airport, it might be wise to go to a different airport. If a diversion is due to a non-emergency issue, it might be helpful to choose an airport that is a company station to ensure proper and inexpensive aircraft and passenger handling. Lastly, if the passengers will need to be disembarked, it would be convenient to land at an airport with services available to handle them.

9. Use the list of typical resources available to the dispatcher to work through the following example maximizing DRM: An aircraft you are responsible for dispatching must divert to an alternate airport following the inability to conduct an approach to the destination airport.

- *Pilots*
  The dispatcher will need to coordinate with the pilots to determine the current fuel status of the aircraft. Once this is verified, the best alternative destination should be determined and discussed. The closest suitable airports should be considered, not just the alternate listed on the flight plan. This will require the dispatcher to check the weather conditions at the alternate as well as enroute weather. This information should be passed on to the flight crew. Once a new destination is agreed upon, the release will need to be amended.

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Prepare for the FAA oral and practical exam to earn your Aircraft Dispatcher certificate

The information in this book will serve you well on your exciting career path as an Aircraft Dispatcher: a critical link in air safety and a viable career option for many aviators.

An Aircraft Dispatcher (ADX) is a licensed airman certificated by the Federal Aviation Administration (FAA), typically employed by airlines or companies operating large transport-category aircraft, who has joint responsibility with the captain for the safety and operational control of flights. Dispatchers legally authorize flight departures and have authority to delay or cancel flights if unsafe conditions exist. They disseminate flight information to the company and are the source of information provided to the traveling public.

The FAA Practical Exam for Aircraft Dispatcher is equivalent to the Airline Transport Pilot (ATP) oral exam that an airline captain must successfully complete. This *Aircraft Dispatcher Oral Exam Guide* prepares you for the exam with an explanation of the certification process, knowledge requirements in a question-and-answer format, and reference materials for further study. It covers the aircraft dispatcher Practical Test Standard subject areas such as route planning, regulations, training and currency requirements, certification, responsibilities and authority, aviation weather, manuals and documents, as well as practical applications of all topics. In addition, special emphasis is placed on common areas of focus for the exam: situational questions, and a generic guide to the proper systems and procedures you can apply to the specific aircraft used in your individual operations.

The *Aircraft Dispatcher Oral Exam Guide* provides current dispatchers with a thorough review for their annual proficiency checks, and is also beneficial to airmen and aspiring airline pilots seeking a better understanding of dispatch flight operations. Author Dr. David C. Ison has been involved in the aviation industry for over 32 years, as a flight instructor, a college professor, and as an ATP for both regional and major airlines flying domestic and international routes.

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