

Pilot & Instructor's Guide to the Biennial Flight Review



Training Professional Pilots Since 1984





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Introduction

Use this guide to come up with a plan of action with your instructor to accomplish a biennial flight review. The BFR will be tailored to each pilot's skill, experience, aircraft, and personal flying goals. The purpose of the review is to satisfy the flight review requirements of 14 CFR 61.56 providing a regular evaluation of pilot skills and aeronautical knowledge. In addition, the BFR is also intended to offer pilots the opportunity to design a personal currency and proficiency program with a certified flight instructor (CFI).

- 1. Review this section and associated references
- 2. Complete the quiz at the end of the section
- 3. Bring the quiz, your logbooks, pilot certificates, medical certificate, and your unexpired U.S. PASSPORT with you to training

Feel free to contact your instructor at your training location or the training department at ATP if you have any questions about your BFR training or preparation.

We wish you the best of success in achieving your aviation objectives.

Sincerely,

ATP Training Department training@allatps.com



Step 1: Preparation



Managing Expectations: You have probably seen it, or perhaps even experienced it yourself: pilot and CFI check the clock, spend *exactly* one hour reviewing 14 CFR Part 91 operating rules, and then head out for a quick pass through the basic maneuvers generally known as "airwork." The pilot departs with a fresh flight review endorsement and, on the basis of the minimum two hours required in 14 CFR 61.56, can legally operate for the next two years. This kind of flight review may be adequate for some pilots, but for others – especially those who do not fly on a regular basis – it is not. To serve the aviation safety purpose for which it was intended, therefore, the flight review must be far more than an exercise in watching the clock and checking the box.

AC 61-98A states that the flight review is "an instructional service designed to assess a pilot's knowledge and skills." The regulations are even more specific: 14 CFR 61.56 states that the person giving the flight review has the discretion to determine the maneuvers and procedures necessary for the pilot to demonstrate "safe exercise of the privileges of the pilot certificate." It is thus a proficiency based exercise, and it is up to you, the instructional service provider, to determine how much time and what type of instruction is required to ensure that the pilot has the necessary knowledge and skills for safe operation.

Managing pilot expectations is key to ensuring that you don't later feel pressured to conduct a "minimum time" flight review for someone whose aeronautical skills are rusty. When a pilot schedules a flight review, use the form in Appendix 2 to find out not only about total time, but also about type of flying (e.g., local leisure flying, or cross-country flying for personal transportation) and recent flight experience. You also need to know if the pilot wants to combine the flight review with a new endorsement or aircraft checkout. Offer an initial estimate of how much time to plan for ground and flight training. How much time is "enough" will vary from pilot to pilot. Someone who flies the same airplane 200 hours every year may not need as much time as someone who has logged only 20 hours since the last flight review, or a pilot seeking a new endorsement in conjunction with the flight review. For pilots who have not flown at all for several years, a useful "rule of thumb" is to plan one hour of ground training and one hour of flight training for every year the pilot has been out of the cockpit. As appropriate, you can also suggest time in an aircraft training device (ATD), or a session of night flying for pilots whose activities include flying (especially VFR) after dark.



In preparation for the flight review session, give the pilot two assignments.



Review of Part 91: The regulations (14 CFR 61.56) state that the flight review must include a review of the current general operating and flight rules set out in Part 91. The Aeronautical Information Manual (AIM) also contains information that pilots need to know. Have the pilot complete the Flight Review Preparation Course now available in the Aviation Learning Center at www.faasafety.gov in advance of your session and bring a copy of the completion certificate to the flight review. The online course lets the pilot review material at his or her own pace and focus attention on areas of particular interest. Alternatively, provide a copy of the list in Appendix 3 as a self-study guide.



Cross-Country Flight Plan Assignment: Many people learn to fly for personal transportation, but the cross-country flight planning skills learned for practical test purposes can become rusty if they are not used on a regular basis. Structuring the flight review as a short cross-country (i.e., 30-50 miles from the home airport) is an excellent way to refresh the pilot's flight planning skills. Ask the pilot to plan a VFR cross-country to another airport, ideally one that he or she has not previously visited. Be sure to specify that the flight plan should include consideration of runway lengths, weather, expected aircraft performance, alternatives, length of runways to be used, traffic delays, fuel requirements, terrain avoidance strategies, and NOTAM/TFR information. The GA Pilot's Guide to Preflight Weather Planning, Weather Self-Briefings, and Weather Decision-Making may be of help to the pilot in this part of the exercise. Proficiency in weight and balance calculations is critical as well. If the pilot regularly flies with passengers, consider asking for calculations based on maximum gross weight.

It is within your discretion to require a "manual" flight plan created with a sectional chart, plotter, and E6B. In real-world flying, however, many pilots today use online flight planning software for basic information and calculations. Appropriate use of these tools can enhance safety in several ways: they provide precise course and heading information; the convenience may encourage more consistent use of a flight plan; and automating manual calculations leaves more time to consider weather, performance, terrain, alternatives, and other aspects of the flight. Encouraging the pilot to use his or her preferred online tool will give you a more realistic picture of real-world behavior, and the computer-generated plan will give you an excellent opportunity to point out both the advantages and the potential pitfalls of this method.



Step 2: Ground Review

The regulations (14 CFR 61.56) specify only that the ground portion of the flight review must include "a review of the current general operating and flight rules of Part 91." This section offers guidance on conducting that review. It also provides guidance on additional topics that you should address. These include:

- Review and discussion of the pre-assigned cross-country (XC) flight plan, with special emphasis on weather and weather decision-making; risk management and individual personal minimums; and
- General aviation security (TFRs, aircraft security, and airport security).

Regulatory Review. Since most GA pilots do not read rules on a regular basis, this review is an important way to refresh the pilot's knowledge of information critical to aviation safety, as well as to ensure that he or she stays up to date on changes since the last flight review or formal aviation training session. If the pilot has completed the online flight review course in advance, you will want to review the results and focus primarily on those questions the pilot answered incorrectly. If the pilot has done nothing to prepare, the chart in Appendix 3 is one way to guide your discussion. You might also organize the rules as they relate to the pre-assigned cross-country flight plan that you will discuss. The important thing is to put the rules and operating procedures into a context that is relevant and meaningful to the pilot, as opposed to the sequential approach that encourages rote memorization rather than higher levels of understanding.



XC Flight Plan Review: At the most basic level, you are reviewing the pre-assigned flight plan for accuracy and completeness (i.e., are the calculations correct? Did the pilot show understanding of the 14 CFR 91.103 requirement to become familiar with "all" available information?) You may want to use the Cross-Country Checklist in Appendix 4 as a guide for checking the completeness of the pre-assigned plan.

If the pilot used automated tools to develop the flight plan, here are some questions and issues that you should teach him or her to ask about the computer-generated package:

• How do I know that the computer-generated information is correct? (Not all online flight planning and flight information tools are the same. Some provide real-time updates; others may be as dangerous as an out-of-date chart.)

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- Does the computer-generated information pass the "common sense" test? (Garbage-in, garbage-out is a fundamental principle in any kind of automation. If a pilot headed for Augusta, Georgia (KAGS) mistakenly asks for KAUG, the resulting flight plan will go to Augusta, Maine instead.)
- Does this plan include all the information I am required to consider? (Some planning tools compute only course and distance, without regard to wind, terrain, performance, and other factors in a safety-focused flight plan).
- Does this plan keep me out of trouble? (What if the computer-proposed course takes you through high terrain in high density altitude conditions?)
- What will I do if I cannot complete the flight according to this plan? (Weather can always interfere, but pilots should also understand that flight planning software does not always generate ATC-preferred routes for IFR flying.)

Each of these questions is directed to a critical point that you should emphasize: automated flight planning tools can be enormously helpful, but the pilot must *always* review the information with a critical eye, *frequently* supplement the computer's plan with additional information, and *never* simply assume that the computer-generated package "must be" okay because the machine is smarter.

Asking these kinds of questions is key to critical thinking, which is in turn the secret to good aeronautical decision-making (ADM) and risk management. There are many models for ADM, including charts that provide quantitative assessment and generate a numerical "score" that pilots can use in evaluating the level of risk. Although these tools can be useful, you may want to present the "3-P" method developed by the FAA Aviation Safety Program. This model encourages the pilot to **Perceive** hazards, **Process** risk level, and **Perform** risk management by asking a series of questions about various aspects of the flight. The handout in Appendix 5 explains this method in detail.



Since statistics show that weather is still the factor most likely to result in accidents with fatalities, the XC flight plan assignment also provides an important opportunity to discuss weather and weather decision-making. The GA Pilot's Guide to Preflight Weather Planning, Weather Self- Briefings, and Weather Decision-Making, which uses the 3-P method as a framework for weather decision-making, might be helpful in this discussion. If the pilot flies VFR at night, be sure to talk about night flying considerations, especially in overcast or "no moon" conditions.

GA Security: In the post-September 11 security environment, any security incident involving general aviation pilots, aircraft, and airports can prompt calls for new restrictions. As a flight instructor, you have a special responsibility to

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ensure that your clients know and follow basic security procedures. These include not only respect for temporary flight restrictions (TFRs), but also for the importance of securing your aircraft against unauthorized use. Pilots should never leave the aircraft unlocked or, worse, unattended with the keys inside.



In addition, be sure that the pilot knows about the Airport Watch Program, which was developed by the Transportation Security Administration (TSA) and the Aircraft Owners and Pilots Association (AOPA). Airport Watch relies upon the nation's pilots to observe and report suspicious activity. The Airport Watch Program is supported by a government-provided toll free hotline (1-866-GA-SECURE) and system for reporting and acting on information provided by general aviation pilots. A checklist of what to look for is in Appendix 6. For detailed information on GA security, see TSA's GA security website and AOPA's online GA security resources page.

For specific information on flying in security-restricted airspace, including the Washington DC metropolitan area Air Defense Identification Zone (ADIZ), direct pilots to the FAA's new online ADIZ-TFR training course and to the Air Safety Foundation's online airspace training courses.



Step 3: Flight Activities

To operate safely in the modern flight environment, the pilot needs solid skills in three distinct, but interrelated, areas. These include:



• "Physical Airplane" Skills (i.e., basic stick-and-rudder proficiency);



• "Mental Airplane" Skills (i.e., knowledge and proficiency in aircraft systems);



• Aeronautical Decision-Making (ADM) Skills (i.e., higher-order thinking skills).

Many flight reviews consist almost exclusively of airwork followed by multiple takeoffs and landings. These maneuvers can give you a very good snapshot of the pilot's "physical airplane" skills. They are also good for the pilot, who gets a safe opportunity to practice proficiency maneuvers that he or she may not have performed since the last flight review. Airwork alone, however, will tell you little about the pilot's "mental airplane" knowledge of avionics and other aircraft systems, and even less about the pilot's ability to make safe and appropriate decisions in real-world flying (ADM). Therefore, you need to structure the exercise to give you a clear picture of the pilot's skills with respect to each area.

Having the pilot fly the cross-country trip you assigned and discussed in the ground review is a good way to achieve this goal. One leg will involve flying from departure to destination, during which you ensure that the pilot encounters scenarios that let you evaluate the pilot's systems knowledge ("mental airplane") and decision-making skills, including risk management. The other leg (which can come first, depending on how you choose to organize the exercise) will focus more on airwork, which allows you to evaluate "physical airplane" skills.

Be sure to include a diversion. Remember the computer-generated flight plan discussed during the ground review portion? While you are en route to the planned destination, give the pilot a scenario that requires an immediate diversion (e.g., mechanical problem, unexpected weather). Ask the pilot to





choose an alternate destination and, using all available and appropriate resources (e.g, chart, basic rules of thumb, "nearest" and "direct to" functions on the GPS) to calculate the approximate course, heading, distance, and time needed to reach the new destination. Proceed to that point and, if at all feasible, do some of the "physical airplane" pattern work at the unexpected alternate.

The diversion exercise has several benefits. First, it generates "teachable moments," which are defined as those times when the learner is most aware of the need for certain information or skills, and therefore most receptive to learning what you want to teach. Diverting to an airport surrounded by high terrain, for example, provides a "teachable moment" on the importance of obstacle awareness and terrain avoidance planning. Second, the diversion exercise quickly and efficiently reveals the pilot's level of skill in each of the three areas:

- "Physical Airplane" Skills: Does the pilot maintain control of the aircraft when faced with a major distraction? For a satisfactory flight review, the pilot should be able to perform all maneuvers in accordance with the Practical Test Standards (PTS) for the pilot certificate that he or she holds.
- "Mental Airplane" Skills: Does the pilot demonstrate knowledge and proficiency in using avionics, aircraft systems, and "bring your- own-panel" handheld devices? Since many GA pilots use handheld GPS navigators, you will want to see whether the pilot can safely and appropriately operate the devices that will be used when you are not on board to monitor and serve as the ultimate safety net. Appropriate and proficient use of the autopilot is another "mental airplane" skill to evaluate in this exercise.



• Aeronautical Decision-Making (ADM) Skills: Give the pilot multiple opportunities to make decisions. Asking questions about those decisions is an excellent way to get the information you need to evaluate ADM skills, including risk management. For example, ask the pilot to explain why the alternate airport selected for the diversion exercise is a safe and appropriate choice. What are the possible hazards, and what can the pilot do to mitigate them? Be alert to the pilot's information and automation management skills as well. For example, does the pilot perform regular "common sense cross-checks" of what the GPS and/or the autopilot are doing?

For more ideas on generating scenarios that teach risk management, see the four pamphlets available online at www.faa.gov/library/manuals/pilot_risk/.



Step 4: Post flight Debriefing

Most instructors have experienced the traditional "sage on the stage" model of training, in which the teacher does all the talking and hands out grades with little or no student input. There is a place for this kind of debriefing; however, a collaborative critique is one of the most effective ways to determine that the pilot has not only the physical and mental airplane skills, but also the self-awareness and judgment needed for sound aeronautical decision-making. Here is one way to structure a collaborative post flight critique:



Replay: Rather than starting the post flight briefing with a laundry list of areas for improvement, ask the pilot to verbally *replay* the flight for you. Listen for areas where your perceptions are different, and explore why they don't match. This approach gives the pilot a chance to validate his or her own perceptions, and it gives you critical insight into his or her judgment abilities.

Reconstruct: The reconstruct stage encourages the pilot to learn by identifying the "would'a could'a should'a" elements of the flight – that is, the key things that he or she would have, could have, or should have done differently.

Reflect: Insights come from investing perceptions and experiences with meaning, which in turn requires reflection on these events. For example:

- What was the most important thing you learned today?
- What part of the session was easiest for you? What part was hardest?
- Did anything make you uncomfortable? If so, when did it occur?
- How would you assess your performance and your decisions?
- Did you perform in accordance with the Practical Test Standards?

Redirect: The final step is to help the pilot relate lessons learned in this flight to other experiences, and consider how they might help in future flights. Questions:

- How does this experience relate to previous flights?
- What might you do to mitigate a similar risk in a future flight?
- · Which aspects of this experience might apply to future flights, and how?
- What personal minimums should you establish, and what additional proficiency flying and training might be useful?



Step 5: "Aeronautical Health" Maintenance & Improvement

If the pilot did not perform well enough for you to endorse him or her for satisfactory completion of the flight review, use the PTS as the objective standard to discuss areas needing improvement, as well as areas where the pilot performed well. Offer a practical course of action – ground training, flight training, or both – to help him or her get back up to standards. If possible, offer to schedule the next session before the pilot leaves the airport.

If the pilot's performance on both ground and flight portions was satisfactory, you can complete the flight review simply by endorsing the pilot's logbook. However, offer the pilot an opportunity to develop a personalized aeronautical health maintenance and improvement plan. Such a plan should include consideration of the following elements:

Personal Minimums Checklist: One of the most important concepts to convey in the flight review is that safe pilots understand the difference between what is "legal" in terms of the regulations, and what is "smart" in terms of pilot experience and proficiency. For this reason, assistance in completing a Personal Minimums Checklist tailored to the pilot's individual circumstances is perhaps the single most important "takeaway" item you can offer. Use the Personal Minimums Development Worksheets in Appendix 7 to help your client work through some of the questions that should be considered in establishing "hard" personal minimums, as well as in preflight and in-flight decision-making.

Personal Proficiency Practice Plan: Flying just for fun is one of the most wonderful benefits of being a pilot, but many pilots would appreciate your help in developing a plan for maintaining and improving basic aeronautical skills. You might use the suggested flight profile in Appendix 8 as a guide for developing a regular practice plan.

Training Plan: Discuss and schedule any additional training the pilot may need to achieve individual flying goals. For example, the pilot's goal might be to develop the competence and confidence needed to fly at night, or to lower personal minimums in one or more areas. Another goal might be completion of another phase in the FAA's Pilot Proficiency ("Wings") Program, or obtaining a complex, high performance, or tailwheel endorsement. Use the form in Appendix 9 to document the pilot's aeronautical goals and develop a specific training plan to help him or her achieve them.

The flight review is vital link in the general aviation safety chain. As a person authorized to conduct this review, you play a critical role in ensuring that it is a meaningful and effective tool for maintaining and enhancing GA safety.



FAR References

Selected portions of 14 CFR § 61.56

- (a) A flight review consists of a minimum of 1 hour of flight training and 1 hour of ground training. The review must include:
- (1) A review of the current general operating and flight rules of part 91 of this chapter; and
- (2) A review of those maneuvers and procedures that at the discretion of the person giving the review, are necessary for the pilot to demonstrate the safe exercise of the privileges of the pilot certificate.
- (c) Except as provided in paragraphs (d), (e), and (g) of this section, no person may act as pilot in command of an aircraft unless, since the beginning of the 24th calendar month before the month in which that pilot acts as pilot in command, that person has—
 - (1) Accomplished a flight review given in an aircraft for which that pilot is rated by an authorized instructor and
 - (2) A logbook endorsed from an authorized instructor who gave the review certifying that the person has satisfactorily completed the review.
- (d) A person who has, within the period specified in paragraph (c) of this section, passed a pilot proficiency check conducted by an examiner, an approved pilot check airman, or a U.S. Armed Force, for a pilot certificate, rating, or operating privilege need not accomplish the flight review required by this section.
- (e) A person who has, within the period specified in paragraph (c) of this section, satisfactorily accomplished one or more phases of an FAA-sponsored pilot proficiency award program need not accomplish the flight review required by this section.

AC-61-65E

Completion of a flight review: § 61.56(a) and (c) I certify that (First name, MI, Last name), (pilot certificate), (certificate number), has satisfactorily completed a flight review of § 61.56(a) on (date).

S/S [date] J. J. Jones 987654321CFI Exp. 12-31-07

NOTE: No logbook entry reflecting unsatisfactory performance on a flight review is required.



Flight Review Checklist

Step 1: Preparation

- Pilot's Aeronautical History
- Part 91 Review Assignment
- Cross-Country Flight Plan Assignment

Step 2: Ground Review

- · Regulatory Review
- Cross-Country Flight Plan Review
 - Weather & Weather Decision-Making
 - Risk Management & Personal Minimums
- GA Security Issues

Step 3: Flight Activities

- Physical Airplane (basic skills)
- Mental Airplane (systems knowledge)
- Aeronautical Decision-Making

Step 4: Postflight Discussion

- Replay, Reflect, Reconstruct, Redirect
- Questions

Step 5: Aeronautical Health Maintenance & Improvement Plan

- Personal Minimums Checklist
- Personal Proficiency Practice Plan
- Training Plan (if desired)



Ground Review

Experience: P Recent Flight Experience Responsibility: Authority (91.3) ATC Instructions (91.123) Preflight Action (91.103) Safety Belts (91.107) Flight crew at station (91.211) Fitness for flight (AIM Chapter 8, Section 1) Airworthiness: Α Basic (91.7) Flight manual, markings, placards (91.9) Certifications required (91.203) Instrument & equipment requirements (91.205) ELT (91.207) Position Lights (91.209) Transponder Requirements (91.215) Inoperative instruments & equipment (91.213) Maintenance: Responsibility (91.403) Maintenance required (91.405) Maintenance records (91.417) Operation after maintenance (91.407) Inspections: Annual, Airworthiness Directives, 100-Hour (91.409) Altimeter & Pitot Static System (91.411) VOR Check (91.171) Transponder (91.413) ELT (91.207)

V

Airports:

Markings (AIM Chapter 2, Section 3) Operations (AIM 4-3; 91.126, 91.125) Traffic Patterns (91.126)

Airspace:

Altimeter Settings (91.121; AIM 7-2) Minimum Safe Altitudes (91.119, 91.177)



Ground Review (continued)

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Cruising Altitudes (91.159)

Speed Limits (91.117)

Right of Way (91.113)

Formation (91.111)

Types of Airspace (AIM3)

Controlled Airspace (AIM 3-2, 91.135, 91.131, 91.130, 91.129)

Class G Airspace (AIM 3-3)

Special Use (AIM 3-4; 91.133, 91.137, 91.141, 91.143, 91.145)

Emergency Air Traffic Rules (91.139; AIM 5-6)

Air Traffic Control & Procedures

Services (4-1)

Radio Communications (4-2 & Pilot/Controller Glossary)

Clearances (4-4)

Procedures (AIM 5)

Weather

Meteorology (AIM 7-1)

Wake Turbulence (AIM 7-3)

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Personal Minimums Checklist

Risk Management (3-P model)

PTS Special Emphasis Items



Suggested Flight Activities

Note: Structure the flight portion as an out-and-back VFR XC, with one leg focused on X-C procedures (including diversion and lost procedures and the other leg focused on airwork ("physical airplane" skills). Suggested activities include:

AREA OF OPERATION (from Private Pilot PTS)

- I. PREFLIGHT PREPARATION
 - A. Weather Information
 - B. Cross-Country Flight Planning
 - C. Performance and Limitations
 - D. Operation of Systems
- II. PREFLIGHT PROCEDURES
 - A. Preflight Inspections
 - B. Cockpit Management
 - C. Before Takeoff Check
- III. AIRPORT OPERATIONS
 - A. Radio Communications
 - B. Airport, Runway, Taxiway Signs, Markings, & Lighting
- IV. TAKEOFFS, LANDINGS, AND GO-AROUNDS
 - A. Normal and Crosswind Takeoff/Climb
 - B. Normal and Crosswind Approach/landing
 - C. Soft-Field Takeoff and Climb
 - D. Soft-Field Approach and Landing
 - E. Short-Field Takeoff
 - F. Short-Field Approach
 - G. Go-Around/Rejected Landing
- V. PERFORMANCE MANEUVER
 - A. Steep Turns
- VI. NAVIGATION
 - A. Pilotage and Dead Reckoning
 - B. Navigation Systems & Radar Services
 - C. Diversion
 - D. Lost Procedures
- VII. SLOW FLIGHT AND STALLS
 - A. Maneuvering During Slow Flight
 - B. Power-Off Stalls
 - C. Power-On Stalls
 - D. Spin Awareness
- VIII. BASIC INSTRUMENT MANEUVERS



- A. Straight and Level Flight
- B. Turns to Headings
- C. Recovery from Unusual Flight Attitudes
- D. Radio Communications/NAV Systems
- IX. EMERGENCY OPERATIONS
 - A. Emergency Approach and Landing
 - B. Systems and Equipment Malfunctions
- X. POSTFLIGHT PROCEDURES
 - A. After Landing, Parking, Securing



Pilot's Aeronautical History for Flight Review

Pilot's Name: CFI:_	-
Address: e-ma	il:
Type of Pilot Certificate(s): Private Commercial ATP Flight	ght Instructor
Rating(s): Instrument Multiengine	
Experience (Pilot): Total time Last 6 months Avg	hours/month
Time logged since last flight review Sin	nce last IPC
Experience (Aircraft): Aircraft type(s) you fly	
Aircraft used most often	
For this aircraft. Total time Last 6 months Avg	hours/month
Experience (Flight environment): Since your last flight review, approximately how me	any hours have you logged in:
Day VFR Day IFR IMC_ Night VFR Night IFR	
Mountainous terrain Overwater flyin	9
Airport with control tower Airport w/o con	trol tower
Type of Flying (External factors):	
What percentage of your flying is for: Pleasure Business Local	_XC
Personal Skills Assessment: What are your strengths as a pilot? What do you most want to practice/improve? What are your aviation goals?	



Regulatory Review Guide

Experience: **PILOT** Recent flight experience (61.57) Responsibility: Authority (91.3) ATC Instructions (91.123) Preflight action (91.103) Safety belts (91.107) Flight crew at station (91.105) Cautions: Careless or reckless operation (91.13) Dropping objects (91.15) Alcohol or drugs (91.17 Supplemental oxygen (91.211) Fitness for flight (AIM Chapter 8, Section 1) Airworthiness: **AIRCRAFT** Basic (91.7) Flight manual, markings, placards (91.9) Certifications required (91.203) Instrument & equipment requirements (91.205) -ELT (91.207) -Position lights (91.209) -Transponder requirements (91.215) -Inoperative instruments and equipment (91.213) Maintenance: Responsibility (91.403) Maintenance required (91.405) Maintenance records (91.417) Operation after maintenance (91.407) Inspections: Annual, Airworthiness Directives, 100-Hour (91.409) Altimeter & Pitot Static System (91.411) VOR check (91.171) Transponder (91.413) ELT (91.207) **Airports** Environment Markings (AIM Chapter 2, Section 3) Operations (AIM 4-3; 91.126, 91.125) Traffic Patterns (91.126 Airspace Altimeter Settings (91.121; AIM 7-2) Minimum Safe Altitudes (91.119, 91.177) Cruising Altitudes (91.159, 91.179; AIM 3-1-5) Speed Limits (91.117) Right of Way (91.113) Formation (91.111) Types of Airspace (AIM 3) -Controlled Airspace (AIM 3-2; 91.135, 91.131, 91.130, 91.129) -Class G Airspace (AlM 3-3) -Special Use (AIM 3-4; 91.133, 91.137, 91.141. 91.143, 91.145) Emergency Air Traffic Rules (91.139; AIM 5-6) Air Traffic Control & Procedures Services (4-1) Radio Communications (4-2 & Pilot/Controller Glossary) Clearances (4-4) Procedures (AIM 5) Weather Meteorology (AIM 7-1) Wake Turbulence (AIM 7-3)

External Pressures

Personal Minimums Checklist Risk Management (3-P model) PTS Special Emphasis Items



Pilot's Cross-Country Checklist

PILOT	
	 □ Review Personal Minimums Checklist □ Recency (time/practice in last 30 days) □ Currency (takeoffs & landings, IFR currency if applicable) □ Terrain & airspace (familiarity?) □ Health & well-being
AIRCR	
	 □ Overall mechanical condition □ Avionics & systems □ Performance calculations □ Fuel requirements □ Other equipment
ENI/ID/	ONMENT
CINVIK	□ Weather
	□ Reports & forecasts □ Departure □ En route □ Destination □ Severe weather forecasts? □ Weather stability?
	☐ Alternate required?
	□ Night
	☐ Flashlights available☐ Terrain avoidance plan
	☐ Airspace
	 ☐ TFRs or other restrictions ☐ COM/NAV equipment requirements ☐ Cruising altitude(s)
	□ Terrain □ VFR & IFR charts with MSA / MEA altitudes □ AOPA/ASF Terrain Avoidance Planning
	 □ Airports □ COM/NAV requirements & frequencies □ Runway lengths □ Services available
EXTER	NAL PRESSURES
	 □ Family expectations? □ Passenger needs / expectations? □ Weather worries? □ Prepared for diversion (money, accommodations)? □ Time pressures (e.g., "must be at work" issues)?



3-P Risk Management Process

Good aeronautical decision-making includes risk management, a process that systematically identifies hazards, assesses the degree of risk, and determines the best course of action. There are many models for risk management, including charts that generate a numerical "score." Although these tools can be useful, numbers-based tools suggest a level of precision that may be misleading.

An alternative method is the Perceive – Process – Perform risk management and aeronautical decision-making model developed by the FAA Aviation Safety Program. There are three basic steps in this model:



PERCEIVE hazards **PROCESS** to evaluate level of risk **PERFORM** risk management

PERCEIVE: The goal is to identify hazards, which are events, objects, or circumstances that could contribute to an undesired event. You need to consider hazards associated with:

Pilot
Aircraft
enVironment
External Pressures.

PROCESS: Ask questions to determine what can hurt you. In short, why do you have to **CARE** about these hazards?

What are the Consequences?
What are the Alternatives available to me?
What is the Reality of the situation facing me?
What kind of External pressures may affect my thinking?

PERFORM: Change the situation in your favor. Your objective is to make sure the hazard does not hurt **ME** or my loved ones, so work to either

Mitigate the risk involved, or **E**liminate the risk involved.



General Aviation Security

The Transportation Security Administration (TSA) has partnered with the Aircraft Owners and Pilots Association (AOPA) to develop a nationwide Airport Watch Program that uses the more than 650,000 pilots as eyes and ears for observing and reporting suspicious activity. This partnership helps general aviation keep our airports secure without needless and expensive security requirements. AOPA Airport Watch is supported by a centralized government provided toll free hotline (1-866-GA-SECURE) and system for reporting and acting on information provided by general aviation pilots. The Airport Watch Program includes warning signs for airports, informational literature, and training videotape to educate pilots and airport employees as to how security of their airports and aircraft can be enhanced.

Here's what to look for:

- Pilots who appear under the control of someone else.
- Anyone trying to access an aircraft through force without keys, using a crowbar or screwdriver.
- Anyone who seems unfamiliar with aviation procedures trying to check out an airplane.
- Anyone who misuses aviation lingo or seems too eager to use all the lingo
- People or groups who seem determined to keep to themselves.
- Any members of your airport neighborhood who work to avoid contact with you or other airport tenants.
- Anyone who appears to be just loitering, with no specific reason for being there.
- Any out-of-the-ordinary videotaping of aircraft or hangars.
- Aircraft with unusual or obviously unauthorized modifications.
- Dangerous cargo or loads explosives, chemicals, openly displayed weapons being loaded into an airplane.
- Anything that strikes you as wrong listen to your gut instinct, and then follow through.
- Pay special attention to height, weight, and the individual's clothing or other identifiable traits.

Use common sense. Not all these items indicate terrorist activity.

When in doubt, check it out!

Check with airport staff or call the National Response Center

1-866-GA-SECURE!





Getting the Maximum from Personal Minimums

- **Step 1- Review Weather Minimums**
- **Step 2- Access Your Experience and Personal Comfort Level**
- **Step 3- Consider Other Conditions**
- **Step 4- Assemble and Evaluate**
- **Step 5- Adjust for Specific Conditions**
- Step 6- Stick to the Plan!

Category	Ceiling		Visibility
VFR	greater than 3,000 feet AGL	and	greater than 5 miles
Marginal VFR	1,000 to 3,000 feet AGL	and/or	3 to 5 miles
IFR	500 to below 1,000 feet AGL	and/or	1 mile to less than 3 miles
LIFR	below 500 feet AGL	and/or	less than 1 mile



Think of personal minimums as the human factors equivalent of reserve fuel. Personal minimums should be set so as to provide a solid safety buffer between the skills required for the specific flight you want to make, and the skills available to you through training, experience, currency, and proficiency.

Review and record your certification, training, and recent experience history on the chart below.

CERTIFICATION LEVEL
Certificate level
(e.g., private, commercial, ATP)
Ratings
(e.g., instrument, multiengine)
Endorsements
(e.g., complex, high performance, high altitude)
TRAINING SUMMARY
Flight review (e.g., certificate, rating, Wings)
Instrument Proficiency Check
Time since checkout in airplane 1
Time since checkout in airplane 2
Time since checkout in airplane 3
Variation in equipment
(e.g., GPS navigators, autopilot)
EXPERIENCE
Total flying time
Years of flying experience



RECENT EXPERIENCE (last 12 months)	
Hours	
Hours in this airplane (or identical model)	
Landings	
Night hours	
Night landings	
Hours flown in high density altitude	
Hours flown in mountainous terrain	
Crosswind landings	
IFR hours	
IMC hours (actual conditions)	

Summarize values for weather experience and "comfort level" in the chart below, and enter values for turbulence & performance.

Experience & "Comfort Level" Assessment Combined VFR & IFR						
Weather Condition		VFR	MVFR	IFR	LIFR	
Ceiling						
	Day					
	Night					
Visibility						
	Day					
	Night					



Experience & "Comfort Level" Assessment Wind & Turbulence					
	SE	ME	Make/ Model		
Turbulence					
Surface wind speed					
Surface wind gusts					
Crosswind component					

Experience & "Comfort Level" Assessment Performance Factors					
	SE	ME	Make/ Model		
Performance					
Shortest runway					
Highest terrain					
Highest density altitude					



	Baseline Personal Minimums					
Weat	her Conditio	n	VFR	MVFR	IFR	LIFR
	Ceiling					
		Day				
		Night				
	Visibility					
		Day				
		Night				
Turbulence		SE	ME	Mak	ce/Model	
	Surface Wind Speed					
	Surface Wind Gust					
	Crosswind Component					
Performance		SE	ME	Mak	ce/Model	
	Shortest runway					
	Highest terrain					
	Highest den altitude	sity				

	If you are facing:	Adjust baseline personal minimums to:		
Pilot	Illness, medication, stress, or fatigue; lack Pilot of currency (e.g.,			At least 500 feet to ceiling
	haven't flown for several weeks)	haven't flown for several weeks)		At least ½ mile to visibility
Aircraft	An unfamiliar airplane, or an aircraft with unfamiliar avionics/ equipment:		d	At least 500 ft to runway length
enVironment	Airports and airspace		S u b t	At least 5 knots
			r a c t	from winds



Personal Proficiency Practice Plan

Pilot's Name:	CFI:	
Date:	Review Date:	

VFR Flight Profile - Every 4-6 Weeks:

Preflight (include 3-P Risk Management Process)

Normal taxi, takeoff, departure to practice area.

CHAPS (before each maneuver):

Clear the area

Heading established & noted

Altitude established (at least 3,000 AGL)

Position near a suitable emergency landing area

Set power and aircraft configuration

Steep turns (both directions), maintaining altitude within 100' and airspeed within 10 knots.

Power-off stalls (approach to landing) & recovery.

Power-on stalls (takeoff/departure) & recovery.

Ground reference maneuvers.

Pattern practice:

Normal landing (full flaps)
Short-field takeoff and landing over a 50' obstacle
Soft-field takeoff and landing

Secure the aircraft.

Review your performance.

Schedule next proficiency flight.



Personal Aeronautical Goals

Pilot's N	lame:CFI: Review Date:
Date:	Review Date:
Trainin	g Goals
Other: _	Certificate Level (Private, Commercial, ATP) Ratings (Instrument, AMEL, ASES, AMES, etc) Endorsements (high performance, complex, tailwheel, high altitude) Phase in Pilot Proficiency (Wings) Program Instructor Qualifications (CFI, CFI-I, MEI, AGI, IGI)
Proficie	ency Goals
	_ Lower personal minimums to:
	Ceiling Visibility Winds Precision Approach Minimums Non-Precision Approach Minimums Fly at least: Times per month Hours per month Hours per year XC flights per year Night hours per month
	_ Make a XC trip to:
Other:	
Aerona	utical Training Plan



Resources

<u>Currency and Additional Qualification Requirements for Certificated Pilots</u> (AC 61-98A)

GA Pilot's Guide to Preflight Weather Planning, Weather Self-Briefings, and Weather Decision-Making

www.faa.gov/pilots/safety/media/ga weather decision making.pdf

Night Flying

www.aopa.org/asf/safety topics.html#night

Online Resources for CFIs

www.faasafety.gov

Personal Minimums Checklist

 $\underline{\text{http://www.faasafety.gov/ALC/libdata/live/632906278408067063/Developing\%20Personal\%20Minimums.pdf}$

Personal and Weather Risk Assessment Guide

http://www.faa.gov/education_research/training/fits/guidance/media/Pers%20Wx%20Risk%20Ass essment%20Guide-V1.0.pdf

Risk Management and System Safety Modules

www.faa.gov/education research/training/fits/training/flight instructor/

Risk Management Teaching Tips

www.faa.gov/library/manuals/pilot risk

Security for GA

http://www.tsa.gov/what we do/ga/editorial 1214.shtm

Security for GA (AOPA Airport Watch)

http://www.aopa.org/airportwatch/

Teaching Practical Risk Management

www.faa.gov/library/aviation_news/2005/media/MayJune2005lssue.pdf

Tools for CFIs (AOPA)

http://flighttraining.aopa.org/cfi_tools/



BFR Quiz

(This is an open book quiz to be completed prior to your arrival for your BFR. You and your instructor will review your answers in your ground training.)

- 1. (61.57) To carry passengers, a pilot must have made, within the preceding 90 days
 - a. Three takeoffs and landings
 - b. Six takeoffs and landings
 - c. At least hour of flight time
 - d. One takeoff and landing
- 2. (91.15) (True/False) No pilot in command of a civil aircraft may allow any object to be dropped from an aircraft in flight.
- 3. (91.3) Who is responsible for determining that the altimeter system and other required inspections have been completed and that they meet the FAR requirements for a particular flight?
 - a. Owner
 - b. Operator
 - c. Pilot in command
 - d. An FAA-certified mechanic
- 4. (91.123) When may ATC request a detailed report of an emergency, even though a rule has not been violated?
 - a. Anytime an emergency occurs.
 - b. When priority has been given.
 - c. When the incident occurs in controlled airspace.
 - d. Only when an accident results from the emergency.
- 5. (91.123) What action, if any, may be required if you deviate from an ATC instruction during an emergency and are given priority over other air traffic?
 - a. No action is required.
 - b. File a report with the FAA Administrator within 48 hours.
 - c. File a report with the chief of the ATC facility within 48 hours.
 - d. File a detailed report within 48 hours with the chief of the air traffic control facility if requested by ATC.



- 6. (91.103) Regulations require that, prior to each flight under VFR, the pilot in command must:
 - a. Preflight the airplane.
 - b. Check for any known traffic delays.
 - c. Become familiar with all available information concerning the flight.
 - d. Calculate the weight and balance to determine if the CG is within limits.
- 7. (91.103) The required preflight action relative to weather reports and fuel requirements is applicable to
 - a. Any flight conducted for compensation of hire.
 - b. Any flight not in the vicinity of an airport.
 - c. IFR flights only.
- 8. (91.103) Before beginning a flight, as pilot in command, you must
 - a. Check the accuracy of the ELT.
 - b. Check to see that each flight instrument is operational.
 - c. File a flight plan for all flights
 - d. Determine the runway lengths at the airports you intend to use and calculate the airplane's takeoff and landing distances.
- 9. (91.107) With U.S.-registered civil airplanes, the use of safety belts is required during movement on the surface, takeoffs, and landings for
 - a. Safe operating practice, but not required by regulations.
 - b. Each person over 2 years of age on board.
 - c. Commercial passenger operations only.
- 10. (91.105) As the pilot in command, when are you required to wear your seat belt?
 - a. During flight.
 - b. During takeoff and landing.
 - c. When flying through turbulent conditions.
- 11. (91.17) You may not act as pilot in command of an aircraft while under the influence of alcohol or while
 - a. Taking any prescription drug.
 - b. Under the care of a physician.
 - c. Using any drug that affects your faculties contrary to safety.
- 12. (91.211) Assume that you are planning to cruise at a cabin pressure altitude of 13,500 feet MSL for 1 hour and 45 minutes. For how long are you required to use supplemental oxygen?
 - a. 1 hour
 - b. 1 hour and 15 minutes
 - c. 1 hour and 30 minutes
 - d. 1 hour and 45 minutes



- 13. (91.211) All occupants of an aircraft must be provided with supplemental oxygen if the flight will be above a cabin pressure altitude of
 - a. 10,000 feet MSL.
 - b. 12,500 feet MSL.
 - c. 14,000 feet MSL.
 - d. 15,000 feet MSL.
- 14. (AIM 8-1-2) Hypoxia can best be defined as
 - a. A state of oxygen deficiency in the body sufficient to impair functions of the brain and other organs.
 - b. An ear block that produces severe ear pain and loss of hearing that can last from several hours to several days.
 - c. An abnormal increase in the volume of air breathed in and out of the lungs, can occur subconsciously when a stressful situation is encountered in flight.
- 15. (91.7) The ______ of an aircraft is responsible for determining whether that aircraft is in condition for safe flight.
- 16. (91.203, 91.9) What documents are required to be on board an aircraft prior to flight?
 - a. Airframe Logbooks
 - b. Operating Limitations
 - c. Registration Certificate
 - d. Aircraft Engine Logbooks
 - e. Airworthiness Certificate
- 17. Which is required equipment for powered aircraft during VFR night flights?
 - a. Anticollision light system
 - b. Gyroscopic direction indicator
 - c. Gyroscopic bank-and-pitch indicator
- 18. (91.207) The non-rechargeable batteries in an ELT are required to be replaced
 - a. Annually.
 - b. Every 24 months.
 - c. During each 100 or annual inspection.
 - d. After 1 hour of cumulative use or when 50% of the useful life has expired.
- 19. (91.209) Aircraft position lights must be illuminated from
 - a. Sunrise to sunset.
 - b. Sunset to sunrise.
 - c. One hour after sunset to one hour after sunrise.
 - d. One hour before sunset to one hour before sunrise.



20. (91.215)	(True, False) If an altitude-encoding transponder-equipped aircraft
is flown in uncontr	olled airspace, the Mode C function need not be turned on when the
aircraft is below th	e floor of a Class B airspace area.

- 21. (91.215) Excluding the airspace at and below 2,500 feet AGL, transponders with altitude encoding capability are required in controlled airspace above ______ feet.
- 22. (91.215) If you need to fly through Class B airspace, how far in advance must you contact the controlling ATC facility for permission to deviate from the transponder equipment requirement?
 - a. One hour before the proposed flight.
 - b. 8 hours before the proposed flight.
 - c. 24 hours before the proposed flight.
 - d. Aircraft without transponders are not allowed in Class B airspace areas.
- 23. (91.213) Can a pilot conduct flight operations in an aircraft with known inoperative equipment?
 - a. Yes, as long as the pilot in command is aware of the inoperative equipment.
 - b. Yes, under specific conditions to include operation of an aircraft with a Minimum Equipment List (MEL).
 - c. No, all equipment must be operating properly.
 - d. No, unless you feel you can safely complete the flight.
- 24. (91.403) Who is primarily responsible for maintaining an aircraft in an airworthy condition?
 - a. Mechanic
 - b. Pilot in command
 - c. Owner or operator of the aircraft
- 25. (91.405) Completion of annual inspection and the return of an aircraft to service should always be indicated by
 - a. Conducting a test flight and the appropriate logbook entry.
 - b. The appropriate entries in the aircraft maintenance records.
 - c. The relicensing date on the Registration Certificate.
- 26. (91.417) Aircraft maintenance records must include the current status of
 - a. All appropriate Airworthiness Certificates.
 - b. Life-limited parts of only the engine and airframe.
 - c. Life-limited parts of each airframe, engine, propeller, rotor, and appliance.



- 27. (91.407) If an aircraft's operation in flight was substantially affected by an alteration or repair, the aircraft documents must show that it was test flown and approved for return to service by an appropriately rated pilot prior to being flown
 - a. With passengers aboard.
 - b. For the compensation or hire.
 - c. By instructors and students.
- 28. (91.409) An aircraft's last annual inspection was performed on July 12, this year. The next annual inspection will be due no later than
 - a. July 13, next year.
 - b. July 31, next year.
 - c. 12 calendar months after the date shown on the Airworthiness Certificate.
- 29. (91.411) The altimeter must be checked within the preceding ____ calendar months to be legal for IFR flight. (24)
- 30. (91.411) The pitot/static system must be checked within the previous ____ months to be legal for IFR flight. (24)
- 31. (91.171) What type of entry must be make in the aircraft logbook or other permanent record by a pilot who has make a VOR operational check?
 - a. The date, place, bearing error, and signature.
 - b. The date, place, satisfactory or unsatisfactory check, and signature.
 - c. The date, frequency used, and bearing reading of VOR, or VOT, along with the tach reading and signature.
 - d. The date, frequency of VOR or VOT, number of flight hours since the last operational check, and signature.
- 32. (91.171) If you are making an airborne VOR operational check, what is the maximum allowable tolerance between the two indicators of a dual VOR system?
 - a. Four degrees between the indicated bearing to a VOR.
 - b. Six degrees between the indicated bearings to a VOR.
 - c. Plus or minus four degrees when set to identical radials of a VOR.
 - d. Plus or minus six degrees when set to identical radials of a VOR.

33.	. (91.413) In order for a transponder to be used in controlled airspace, it must be	e inspected
	by a certificated repair station within the previous	

- 34. (91.207) The maximum cumulative time that an emergency locator transmitter may be operated before the rechargeable battery must be recharged is
 - a. 30 minutes.
 - b. 45 minutes.
 - c. 60 minutes.



- 35. (AIM 2-3-10) When turning onto a taxiway from another taxiway, the "taxiway directional sign" indicates
 - a. Direction to the takeoff runway.
 - b. Designation and direction of taxiway leading out of an intersection.
 - c. Designation and direction of exit taxiway from runway.
- 36. (AIM 4-3-11) What is the minimum visibility and ceiling required for a pilot to receive a "land and hold short" clearance?
 - a. 3 statute miles and 1.000 feet.
 - b. 3 nautical miles and 1,000 feet.
 - c. 3 statute miles and 1,500 feet.
- 37. (91.125) While in flight, a steady red light directed at you from the control tower means
 - a. Continue flight; airport unsafe, do not land.
 - b. Give way to other aircraft; continue circling.
 - c. Return for landing; expect steady green light at proper time.
- 38. (91.126) When approaching to land at an airport without an operating control tower, in class G airspace, the pilot should
 - a. Make all turns to the left, unless otherwise indicated.
 - b. Fly a left-hand traffic pattern at 800 feet AGL.
 - c. Enter and fly a traffic pattern at 800 feet AGL.
- 39. (91.121) During a cross-country flight at an altitude below 18,000 feet, you should set the altimeter to
 - a. 29.92 when operating at an altitude of more than 10,000 feet AGL.
 - b. The setting of a station along the route and within 100 n.m. of the aircraft.
 - c. The departure airport elevation, and reset it to the destination airport setting at the midpoint of the flight.
 - d. The departure airport elevation, a station at the midpoint of the flight, and finally to the destination airport setting when you are within 10 n.m. of the airport.
- 40. (91.121) If you are departing from an airport where you cannot obtain an altimeter setting, you should set your altimeter to
 - a. Zero.
 - b. 29.92 in. Hg.
 - c. The airport elevation.
 - d. The current airport barometric pressure, if known.



- 41. (91.119) Except when necessary for takeoff and landing, when you are flying over congested areas you must maintain an altitude of at least
 - a. 1,000 feet from any obstacle.
 - b. 1,500 feet above any obstacle.
 - c. 1,000 feet vertically and 1,000 feet horizontally from the nearest obstacle.
 - d. 1,000 feet above the highest obstacle within a horizontal radius of 2.000 feet of the aircraft.
- 42. (91.159) Compliance with the VFR cruising altitudes is required
 - a. At any altitude.
 - b. Above 3,000 feet AGL.
 - c. Above 5.000 feet AGL.
 - d. Above 10,000 feet MSL.
- 43. (91.117) What is the maximum indicated airspeed for flights at or below 2,500 feet AGL within four nautical miles of the primary airport of a Class C or D airspace area?
 - a. 156 knots
 - b. 200 knots
 - c. 230 knots
 - d. 265 knots
- 44. (91.117) The maximum authorized airspeed for flight beneath the lateral limits of a Class B airspace area, or in a VFR corridor designated through a Class B airspace area is
 - a. 156 knots.
 - b. 180 knots.
 - c. 200 knots.
 - d. 250 knots.
- 45. (91.113) While on base leg in an airport traffic pattern, you sight another airplane on a two-mile final. The airplane that has the right-of-way is the one
 - a. That is the least maneuverable.
 - b. Whoever is closest to the landing threshold.
 - c. On final, regardless of altitude.
 - d. You are flying, provided you are at the lowest altitude.
- 46. (91.111) (True/False) Formation flight is allowed while carrying passengers for hire, as long as arrangement has been made by both pilots in command.
- 47. (AIM 3-2-6) Class E airspace within the contiguous United States extends upward from either 700 feet or 1,200 feet AGL to, but not including,
 - a. 3.000 feet MSL.
 - b. 14,500 feet MSL.
 - c. The base of the overlying controlled airspace.



- 48. (AIM 3-2-5) The vertical limit of Class D airspace will normally be designated at
 - a. The base of the Class E airspace.
 - b. Up to, and including, 2,500 feet AGL.
 - c. Up to, but not including, 3,000 feet AGL.
- 49. (AIM 3-3) (True/False) Class G airspace is uncontrolled and is the portion of airspace that has not been designated as Class A, Class B, Class C, Class D, or Class E airspace.
- 50. (AIM 3-4-3) Flight through a restricted area should not be accomplished unless the pilot has
 - a. Filed an IFR flight plan.
 - b. Received prior authorization from the controlling agency.
 - c. Received prior permission from the commanding officer of the nearest military base.
- 51. (AIM 3-4-5) When operating VFR in a military operations area (MOA), a pilot
 - a. Must operate only when military activity is not being conducted.
 - b. Should exercise extreme caution when military activity is being conducted.
 - c. Must obtain a clearance from the controlling agency prior to entering the MOA.
- 52. (AIM 5-1-3) When information is disseminated for a navigational facility, it will be located in
 - a. FDC NOTAM's.
 - b. NOTAM (L) distribution.
 - c. NOTAM (D) distribution.
- 53. (AIM 4-1-9) As standard operating practice, all inbound traffic to an airport without a control tower should continuously monitor the appropriate facility from a distance of
 - a. 25 miles
 - b. 20 miles
 - c. 10 miles
- 54. (AIM 4-1-14) When an air traffic controller issues radar traffic information in relation to the 12-hour clock, the reference the controller uses is the aircraft's
 - a. True course
 - b. Ground track
 - c. Magnetic heading



- 55. (AIM 4-2-14) ______ is the frequency for EFAS (Enroute Flight Advisory Service) which is specifically designed to provide enroute aircraft with timely and meaningful weather advisories.
- 56. (AIM 4-4-1) What action should a pilot take when a clearance is received from ATC that appears to be contrary to a regulation?
 - a. Read the clearance back in its entirety.
 - b. Request a clarification from ATC.
 - c. Do not accept the clearance.
- 57. (AIM 5-1-13) How much time do you have to close a VFR flight plan before search and rescue procedures are initiated?
 - a. One hour after your ATA.
 - b. One-half hour after landing.
 - c. One-half hour after your ETA.
- 58. (AIM 5-1-4) How long will a Flight Service Station hold a VFR flight plan past the proposed departure time?
 - a. 30 minutes
 - b. 1 hour
 - c. 2 hours
- 59. (AIM 7-1-9) To obtain a continuous transcribed weather briefing including winds aloft and route forecasts for a cross-country flight, a pilot could monitor
 - a. A TWEB on a low-frequency and/or VOR receiver.
 - b. The regularly scheduled weather broadcast on a VOR frequency.
 - c. A high-frequency radio receiver tuned to En Route Flight Advisory Service.
- 60. (AIM 7-1-31) Terminal Aerodrome Forecasts (TAF) are issued how many times a day and cover what period of time?
 - a. Four times daily and are usually valid for a 24 hour period.
 - b. Six times daily and are usually valid for a 24 hour period including a 4-hour categorical outlook.
 - c. Six times daily and are valid for 12 hours including a 6-hour categorical outlook.



- 61. (AIM 7-3-6) During a takeoff made behind a departing large jet airplane, the pilot can minimize the hazard of wingtip vortices by
 - a. Being airborne prior to reaching the jet's flight path until able to turn clear of its wake.
 - b. Maintaining extra speed on takeoff and climb out.
 - c. Extending the takeoff roll and rotating until well beyond the jet's rotation point.
- 62. (AIM 7-3-6) When landing behind a large aircraft, which procedure should be followed for vortex avoidance?
 - a. Stay above its final approach flight path all the way down to touchdown.
 - b. Stay below and to one side of its final approach flightpath.
 - c. Stay well below its final approach flightpath and land at least 2,000 feet behind.
- 63. (AIM 8-1-8) How can you determine if another aircraft is on a collision course with your aircraft?
 - a. The nose of each aircraft is pointed at the same point in space.
 - b. The other aircraft will always appear to get larger and closer at a rapid rate.
 - c. There will be no apparent relative motion between your aircraft and the other aircraft.
- 64. (AC 60-62) Risk management, as part of the Aeronautical Decision Making (ADM) process, relies on which features to reduce the risks associated with each flight?
 - a. The mental process of analyzing all information in a particular situation and making a timely decision on what action to take.
 - b. Application of stress management and risk element procedures.
 - c. Situational awareness, problem recognition, and good judgment.
- 65. (AC 60-62) Aeronautical Decision Making (ADM) is a
 - a. Systematic approach to the mental process used by pilots to consistently determine the best course of action for a given set of circumstances.
 - b. Decision making process which relies on good judgment to reduce risks associated with each flight.
 - c. Mental process of analyzing all information in a particular situation and making a timely decision on what action to take.