

Aviation Instructor's Handbook (FAA-H-8083-9)

Appendix B: Developing a Test Item Bank

Developing a bank of test questions is difficult and time consuming. This task demands a mastery of the subject, an ability to write clearly, and an ability to visualize realistic situations for use in developing problems. Because it is so difficult to develop good test items, many instructors rely on commercially-prepared test materials. However, there are a few instructors who write their own questions and maintain them in a database or a system of folders. [Figure B-1]

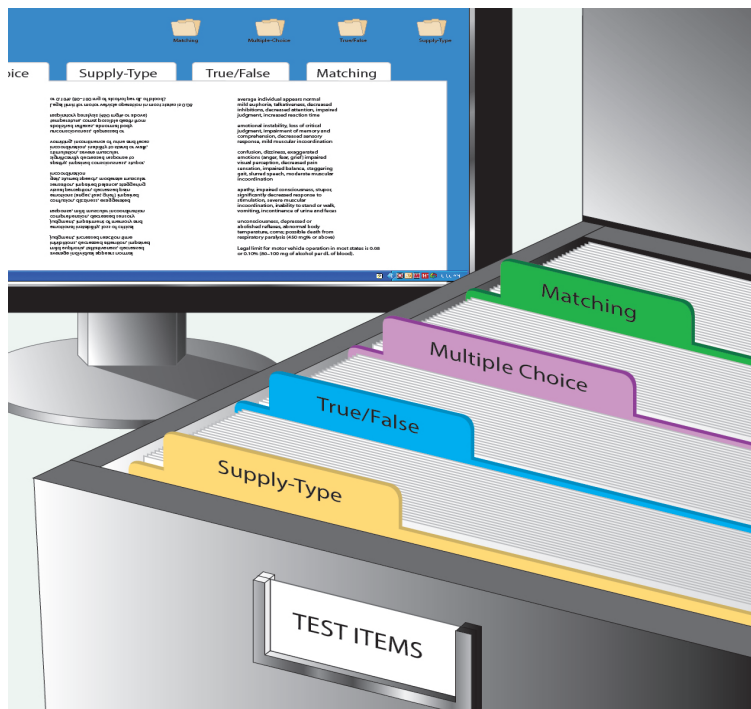


Figure B-1. A bank of test items makes it easier to construct new tests.

Written Test Items

Supply Type

Supply type test items ask the learner to furnish a response in the form of a word, sentence, or paragraph. The supply-type item allows the learner to organize knowledge. It shows an ability to express ideas and measures the learner's generalized understanding of a subject. For example, the supply type item on a pre-solo knowledge test can be very helpful in determining whether the pilot-in-training has adequate knowledge of procedures.

There are several disadvantages of supply-type items. First, they cannot be graded with reliability. The same test graded by different instructors could be assigned different scores. Even the same test graded by the same instructor on consecutive days might be assigned a different score. Second, supply-type items require more time for the learner to complete and more time for the instructor to grade.

Selection Type

Selection type test items require the learner to select from two or more alternatives. There is a single correct response for each item. It assumes all learners should learn the same thing, and relies on rote memorization of facts. Written tests made up of selection type items are highly reliable, meaning that the results would be graded the same regardless of the learner taking the test or the person grading it. In fact, this type of test item lends itself very well to machine scoring.

Also, selection type items make it possible to directly compare learner accomplishment. For example, it is possible to compare the performance of learners within one class to learners in a different class, or learners under one instructor with those under another instructor. By using selection type items, the instructor can test on many more areas of knowledge in a given time than could be done by requiring the learner to supply written responses. This increase in comprehensiveness can be expected to increase validity and discrimination. Selection type tests are well adapted to statistical item analysis.

True-False

The true-false test item consists of a statement followed by an opportunity for the learner to choose whether the statement is true or false. This item type has a wide range of usage. It is well adapted for testing knowledge of facts and details, especially when there are only two possible answers.

The chief disadvantage is that true-false questions create the greatest probability of guessing. Also, true-false questions are more likely to utilize rote memory than knowledge of the subject. In general, therefore, true-false questions are not considered valid (i.e., they do not measure what they are intended to measure).

To use true-false questions, consider the following guidelines for effective test items:

- Include only one idea in each statement.
- Use original statements rather than verbatim text.
- Make the statement entirely true or entirely false.
- Avoid the unnecessary use of negatives, which tend to confuse the reader.
- Underline or otherwise emphasize the negative word(s) if they must be used.
- Keep wording and sentence structure as simple as possible.
- Make statements both definite and clear.
- Avoid the use of ambiguous words and terms (some, any, generally, most times, etc.)
- Use terms which mean the same thing to all learners whenever possible.
- Avoid absolutes (all, every, only, no, never, etc.). These words are known as determiners because they provide clues to the correct answer.
- Avoid patterns in the sequence of correct responses because learners can often identify the patterns.
- Make statements brief and approximately same length.
- State the source of a statement if it is controversial (sources have differing information).

Multiple Choice

A multiple choice test item consists of two parts: the stem, which includes the question, statement, or problem; and a list of possible responses. Incorrect answers are called distractors. When properly devised and constructed, multiple choice items offer several advantages that make this type more widely used and versatile than either the matching or the true-false items. [Figure B-2]

Multiple choice test questions can help determine learner achievement, ranging from acquisition of facts to understanding, reasoning, and ability to apply what has been learned. It is appropriate to use multiple choice when the question, statement, or problem has the following characteristics:

- Built-in and unique solution, such as a specific application of laws or principles.
- Wording of the item is clearly limiting, so that the learner must choose the best of several offered solutions rather than a universal solution.
- Several options that are plausible or even scientifically accurate.
- Several pertinent solutions, with the learner asked to identify the most appropriate solution.

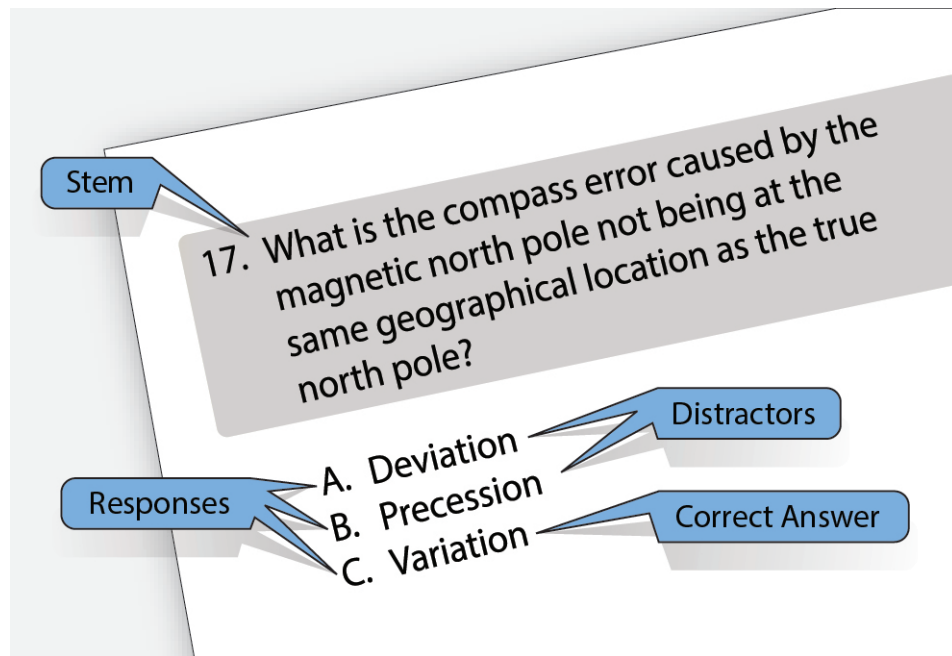


Figure B-2. *Sample multiple choice test item.*

Three major challenges are common in the construction of multiple choice test items. One is the development of a question or an item stem that must be expressed clearly and without ambiguity. A second is that the statement of an answer or correct response cannot be refuted. Finally, the distractors must be written in such a way that they are attractive to those learners who do not possess the knowledge or understanding necessary to recognize the keyed response.

A multiple choice item stem may take one of several basic forms:

- A direct question followed by several possible answers.
- An incomplete sentence followed by several possible phrases that complete the sentence.
- A stated problem based on an accompanying graph, diagram, or other artwork followed by the correct response and the distractors.

The learner may be asked to select the one correct choice or completion, the one choice that is an incorrect answer or completion, or the one choice that is the best answer option presented in the test item.

Beginning test writers find it easier to write items in the question form. In general, the form with the options as answers to a question is preferable to the form that uses an incomplete statement as the stem. It is more easily phrased and is more natural for the learner to read. Less likely to contain ambiguities, it usually results in more similarity between the options and gives fewer clues to the correct response.

When multiple choice questions are used, three or four alternatives are generally provided. It is usually difficult to construct more than four convincing responses; that is, responses which appear to be correct to a person who has not mastered the subject matter. Learners are not supposed to guess the correct option; they should select an alternative only if they know it is correct. An effective means of diverting the learner from the correct response is to use common learner errors as distractors. For example, if writing a question on the conversion of degrees Celsius to degrees Fahrenheit, providing alternatives derived by using incorrect formulas would be logical, since using the wrong formula is a common learner error.

Items intended to measure the rote level of learning should have only one correct alternative; all other alternatives should be clearly incorrect. When items are to measure achievement at a higher level of learning, some or all of the alternatives should be acceptable responses—but one should be clearly better than the others. In either case, the instructions given should direct the learner to select the best alternative.

To use multiple choice questions, consider the following guidelines for construction of effective test items:

- Make each item independent of every other item in the test. Do not permit one question to reveal, or depend on, the correct answer to another question.
- Design questions that call for essential knowledge rather than for abstract background knowledge or unimportant facts.
- State each question in language appropriate to the learners.
- Include sketches, diagrams, or pictures when they can present a situation more vividly than words. They generally speed the testing process, add interest, and help to avoid reading difficulties and technical language.
- When a negative is used, emphasize the negative word or phrase by underlining, bold facing, italicizing, or printing in a different color.
- Avoid questions containing double negatives, which invariably cause confusion.
- Avoid trick questions, unimportant details, ambiguities, and leading questions that confuse and antagonize the learner. If attention to detail is an objective, detailed construction of alternatives is preferable to trick questions.

Stems

When developing the stem of a multiple choice item, the following general principles should be utilized. [Figure B-3]

- The stem should clearly present the central problem or idea. The function of the stem is to set the stage for the alternatives that follow.
- The stem should contain only material relevant to its solution, unless the selection of what is relevant is part of the problem.
- The stem should be worded in such a way that it does not give away the correct response. Avoid the use of determiners, such as clue words or phrases.
- Put everything that pertains to all alternatives in the stem of the item. This helps to avoid repetitious alternatives and saves time.
- Generally avoid using “a” or “an” at the end of the stem. They may give away the correct choice. Every alternative should grammatically fit with the stem of the item.

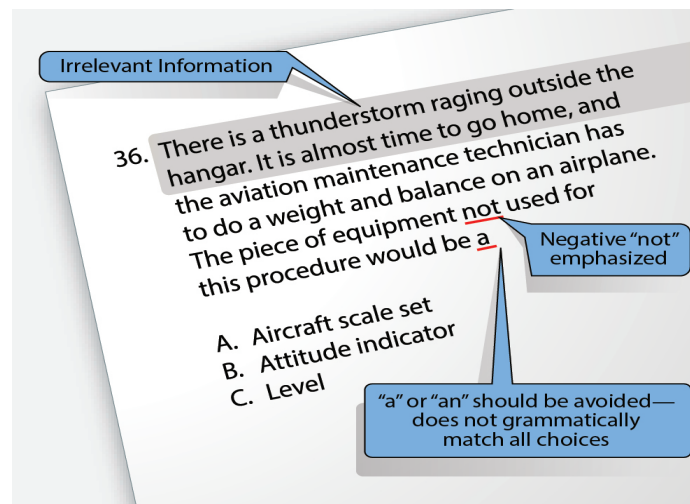


Figure B-3. This is an example of a multiple choice question with a poorly written stem.

Alternatives

The alternatives in a multiple choice test item are as important as the stem. They should be formulated with care; simply being incorrect should not be the only criterion for the distracting alternatives.

Popular distractors are:

- An incorrect response related to the situation and which sounds convincing.
- A common misconception.
- A statement which is true, but which does not satisfy the requirements of the problem.
- A statement that is either too broad or too narrow for the requirements of the problem.

Research of instructor-made tests reveals that, in general, correct alternatives are longer than incorrect ones. When alternatives are numbers, they should generally be listed in ascending or descending order of magnitude or length.

Matching

A matching test item consists of two lists, which may include a combination of words, terms, illustrations, phrases, or sentences. The learner matches alternatives in one list with related alternatives in a second list.

In reality, a matching exercise is a collection of related multiple choice items. In a given period of time, more samples of a learner's knowledge usually can be measured with matching rather than multiple choice items. The matching item is particularly good for measuring a learner's ability to recognize relationships and to make associations between terms, parts, words, phrases, clauses, or symbols listed in one column with related items in another column. Matching reduces the probability of guessing correct responses, especially if alternatives may be used more than once. The testing time can also be used more efficiently.

The following guidelines help in the construction of effective matching test items:

- Give specific and complete instructions. Do not make the learner guess what is required.
- Test only essential information; never test unimportant details.
- Use closely related materials throughout an item. If learners can divide the alternatives into distinct groups, the item is reduced to several multiple choice items with few alternatives, and the possibility of guessing is distinctly increased.
- Make all alternatives credible responses to each element in the first column, wherever possible, to minimize guessing by elimination.
- Use language the learner can understand. By reducing language barriers, both the validity and reliability of the test is improved.
- Arrange the alternatives in some sensible order. An alphabetical arrangement is common.

Matching-type test items are either equal column or unequal column. An equal column test item has the same number of alternatives in each column. When using this form, always provide for some items in the response column to be used more than once, or not at all, to preclude guessing by elimination. Unequal column type test items have more alternatives in the second column than in the first and are generally preferable to equal columns.

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Appendix C: Certificates, Ratings, and Endorsements

Flight Instructor Endorsements

The authority and responsibility for flight instructors to endorse initial learner certificates, logbooks for solo and solo cross-country, additional aircraft ratings, and flight privileges are outlined in Title 14 of the Code of Federal Regulations (14 CFR) part 61. In addition, Advisory Circular (AC) 61-65, *Certification: Pilots and Flight and Ground Instructors*, provides guidance for pilots, flight instructors, ground instructors, and examiners on the certification standards, knowledge test procedures, and other requirements of 14 CFR part 61. By utilizing AC 61-65, the flight instructor does not omit any required endorsement for the rating sought, which ensures standardization. It is important for the flight instructor to understand and use AC 61-65 in the certification process.

Instructors should note that evaluations include an English language component. If the instructor doubts that a learner meets the FAA English Language Standard (AELS), the instructor should not endorse the review or check as complete. The instructor may also reach out to their local FSDO for assistance if the learner's continued operation could affect safety of the NAS. For further guidance on this subject refer to FAA AC 60-28, *FAA English Language Standard for an FAA Certificate Issued Under 14 CFR parts 61, 63, 65, and 107*.

The regulatory requirements for recording and logging time come from several different regulations that should be viewed together.

- 14 CFR part 61, section 61.189 requires flight instructors to sign the logbook of each person to whom that instructor has given flight training or ground training. That section also contains instructor requirements for maintaining a record of endorsements given to the applicant.
- 14 CFR part 61, section 61.193 authorizes instructors to make endorsements applicants need for various certificates or ratings.
- Subparts of 14 CFR part 61 detail the training an applicant needs to log in order to qualify for a rating or privilege. For example, 14 CFR part 61, subpart C, section 61.87(c)(1) requires a student pilot to receive and log flight training in specific maneuvers and procedures.
- 14 CFR part 61, section 61.51 details the information required for logbook entries.

Flight instructors may also provide training and make logbook endorsements for pilots who are already certificated such as sport, recreational, private, commercial, and instrument rated pilots, as well as for other flight instructors. Typical endorsements include but are not limited to flight reviews, instrument proficiency checks, the additional training required for high performance, high altitude, and tail wheel aircraft, and types of glider launches.

Additional rating applicants (e.g., multiengine add-on, seaplane add-on, glider add-on, helicopter add-on) are rated pilots and not considered student pilots nor do they need a student pilot certificate.

- In accordance with 14 CFR part 61, section 61.31(d)(2), applicants without the appropriate rating require an instructor's logbook endorsement prior to solo flight.
- 14 CFR part 61, section 61.63 contains the requirement for an endorsement for an applicant prior to testing for an added rating.

Sample practical test endorsements are listed in AC 61-65. Any requirement for an applicant to receive and log a practical test endorsement is cited in the relevant 14 CFR subpart for each rating. For example, 14 CFR part 61, subpart F, section 61.123(c) requires an endorsement from an authorized instructor for an applicant for a commercial pilot certificate. Note that when giving an endorsement, there is no rule that prevents an instructor from adding a requirement.

The flight instructor may need to customize the endorsement due to an applicant's special circumstances or changes in regulatory requirements, but it is recommended all endorsements be worded as closely as possible to those in AC 61-65. At a minimum, the flight instructor needs to cite the appropriate 14 CFR part 61 section that has been completed. *[Figure C-1]*

Federal Aviation Administration (FAA) inspectors and designated pilot examiners (DPEs) rely on flight instructor recommendations for learner or pilot applicant testing. These recommendations are accepted as evidence of qualification for certification and proof that a review of the subject areas found to be deficient on the appropriate knowledge test has been given by the flight instructor. Recommendations also provide assurance the applicant has had a thorough briefing on the Practical Test Standards (PTS), Airman Certification Standards (ACS), and the associated knowledge areas, maneuvers, and procedures. If the flight instructor has trained and prepared the applicant competently, the applicant should have no difficulty in passing the written and practical tests.

1. PP.	REMARKS AND ENDORSEMENTS	1. T/P
	I certify that (First name, MI, Last name) has satisfactorily completed the presolo knowledge exam of §61.87(b) for the (make and model aircraft), S/S [date] J.J. Jones 987654321 CFI Exp. 12-31-2007	

Figure C-1. This is a sample logbook endorsement for pre-solo aeronautical knowledge.

Sport Pilot

Many consider the advent of the sport pilot certification to be one of the most significant changes to the airman certification structure to have occurred in over 50 years. Because of the growing cost to acquire the private pilot certification, more and more aviation enthusiasts are considering the sport pilot as an alternative. Many aircraft already meet the light sport aircraft criteria, and many manufacturers are now producing modern light sport aircraft. Flight instructors should review 14 CFR part 61, subparts J and K, for the requirements for, and privileges and limitations of, the sport pilot certifications.

14 CFR part 61, subparts J and K, also describe the process for sport pilots and flight instructors with a sport pilot rating to add additional category/class privileges. Light sport aircraft meet certain criteria, and a well-informed flight instructor should be acquainted with the basic requirements.

FAA Forms 8710-1, 8610-2, and 8710-11

Forms 8710-1, 8610-2, and 8710-11 are versions of the Airman Certificate and/or Rating Application. The instructor should ensure the applicant is prepared for the test and has met all the regulatory requirements, including knowledge, proficiency, required endorsements, and experience requirements before the application process. The applicant then either completes the 8710 or 8610 paper form by hand or uses the Integrated Airman Certification and Rating Application (IACRA) electronic application system available at iacra.faa.gov/IACRA/Default.aspx.

Whenever possible, applicants should use the IACRA system to make their application. The system provides internal checking, and reduces the error rate. Any mistake or omission on a paper application form may cause a significant delay in the issuance of an FAA certificate.

Instructor Records

14 CFR part 61, section 61.189 requires the flight instructor to maintain a record that includes information on the type of endorsement, the name of the person receiving the endorsement, and the date of the endorsement. This information may be kept in a logbook or a separate document. For a knowledge or practical test endorsement, the record must include the kind of test, the date, and the results. Records of endorsements must be maintained for at least 3 years.

Knowledge Tests

14 CFR part 61, section 61.39(a)(1) requires that the applicant pass a knowledge test. When preparing an applicant for certification (e.g., recreational, private, commercial or instrument), the flight instructor may provide the learner with an endorsement to certify he or she has the required knowledge in accordance with 14 CFR part 61, section 61.35. Bear in mind that some additional ratings do not require a knowledge test. For information concerning additional aircraft certifications not requiring knowledge tests, refer to AC 61-65. Flight instructors (not including sport pilot instructors) take an FOI knowledge test or an aircraft subject matter test as required by 14 CFR part 61, sections 61.183(e) and 61.183(f). Added flight instructor ratings require a knowledge test on subject matter (part 61, section 61.183(f)), but the current added rating tests are shorter than the original flight instructor certification test under part 61, section 61.183(f).

Sport pilot applicants take a knowledge test required by 14 CFR part 61, section 61.307(a). The regulation requires a logbook endorsement from an authorized instructor in order to be able to take the knowledge test. 14 CFR part 61, section 61.405(a) requires a logbook endorsement from an authorized instructor for sport pilot instructor applicants. A Fundamentals of Instructing test may also apply in accordance with part 61, section 61.405(a)(1).

If the applicant fails a knowledge test, the applicant needs an endorsement from an authorized instructor who gave additional training in accordance with 14 CFR part 61, section 61.49(a) in order to retake the test. There is an unsigned endorsement provided on the knowledge test report that may be utilized by the instructor.

Additional Training and Endorsements

Flight instructors may provide training and endorsements for certificated pilots. AC 61-98, Currency Requirement and Guidance for the Flight Review and Instrument Proficiency Check, contains relevant information for certificated pilots and flight instructors for flight review required by 14 CFR part 61, section 61.56 or meeting recent flight experience requirements of section 61.57.

The AC includes general guidance in each of these areas, references to other related documents, and sample training plans that are pertinent to this type of training.

Flight Reviews

The requirements for a flight review are contained in 14 CFR part 61, section 61.56. The flight review is the aeronautical equivalent of a regular medical checkup and ongoing health improvement program.

Effective pilot refresher training should be based on specific objectives and standards. The objectives should include a thorough checkout appropriate to the pilot certificate and aircraft ratings held, and the standards should be at least those required for the issuance of that pilot certificate. Before beginning any training, the pilot and the instructor should agree fully on these objectives and standards, and, as training progresses, the pilot should be kept appraised of progress toward achieving those goals.

A flight review is an excellent opportunity for a flight instructor to review pilot decision-making (ADM) skills. To get the information needed to evaluate ADM skills, including risk management, give the pilot multiple opportunities to make decisions and ask questions about those decisions. For example, ask the pilot to explain why the alternate airport selected for a 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 crosschecks?” For more ideas on generating scenarios that teach risk management, visit www.faa.gov/regulations_policies/handbooks_manuals/aviation/pilot_risk/.

AC 61-98, *Currency Requirement and Guidance for the Flight Review and Instrument Proficiency Check*, provides guidance for conducting a flight review. An appendix in the AC includes a sample flight review checklist, which contains portions of 14 CFR part 61, section 61.56 and a sample endorsement. At the conclusion of a successful flight review, the logbook of the pilot should be endorsed, as recommended. [Figure C-2]

I. PP.	Remarks and Endorsements	INSTR. T/C
	I certify that [First name, MI, Last name], [grade of pilot certificate], [certificate number], has satisfactorily completed a flight review of § 61.56 (a) and (c) on [date]. J.J. Jones 7654321 CFI Exp. 12-31-2022	

Figure C-2. This sample logbook endorsement is for completion of a flight review.

Instrument Proficiency Checks

Instrument rated pilots who fail to meet instrument currency requirements of 14 CFR part 61, section 61.57(c) for more than 6 calendar months are required by 14 CFR part 61, section 61.57(d) to complete an instrument proficiency check (IPC) in order to regain their instrument flying privileges. This does not apply to pilots meeting certain exceptions outlined in section 61.57(e).

14 CFR part 61, section 61.57(d) contains the requirements for an IPC. AC 61-98 contains guidance for the conduct of an (IPC). The Instrument Rating Airman Certification Standards (ACS) provides additional IPC information.

Aircraft and instrument ratings appropriate to the aircraft being flown need to be listed on the flight instructor's instructor certificate as indicated in 14 CFR part 61, section 61.57(d)(2).

Instructors as Certifying Officials for Student and Remote Certificates

14 CFR part 61, section 61.85(b) and part 107, section 107.63(b)(1) allow instructors to accept a Student Pilot or Remote Pilot Application. AC 61-141, *Flight Instructors as Certifying Officials for Student Pilot and Remote Pilot Applicants*, has process details for instructors and applicants.

Aircraft Checkouts/Transitions

Certificated pilots depend on flight instructors for aircraft checkouts and transition training including high performance airplanes, tail wheel airplanes, motor gliders, and aircraft capable of flight at high altitudes. The flight instructor who checks out and certifies the competency of a pilot in an aircraft for which a type rating is not required by regulation accepts major responsibility for the safety of future passengers. Many newer light airplanes are comparable in performance and complexity to transport airplanes. For these, the flight instructor's checkout should be at least as thorough as an official type rating practical test. Other considerations include:

- AC 90-109, Transition to Unfamiliar Aircraft, contains information help plan the transition to any unfamiliar fixed-wing airplanes, including type-certificated (TC) and/or experimental airplanes.

For the conduct of an aircraft checkout, it is essential the flight instructor is fully qualified in the aircraft used and thoroughly familiar with its operating procedures, AFM, and operating limitations. An instructor who does not meet the recent flight experience prescribed by regulations for the aircraft concerned should not attempt to check out another pilot.

The flight instructor should utilize a plan of action and a written training syllabus based on the appropriate ACS/PTS, and record in the pilot's logbook the exact extent of any checkout conducted. This record serves a twofold purpose: it benefits the pilot concerned and it protects the flight instructor if questions arise later. In the event the instructor finds a pilot's performance to be insufficient to allow sign-off, the pilot should be thoroughly debriefed on all problem areas and further instruction scheduled. In some cases, a referral to another instructor may be appropriate.

Pilot Proficiency

Professional flight instructors maintain knowledge and skill as instructors and as pilots. The flight instructor is at the leading edge of the aviation industry's efforts to improve aviation safety through additional training.

Instructors planning to take the ATP multiengine airplane knowledge test may refer to AC 61-138, *Airline Transport Pilot Certification Training Program*, for further guidance.

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Appendix D: Personal Minimums Checklist

Pilot: _____

Date Revised: _____

Reviewed with: _____, (if applicable)

Your Personal Minimums Checklist—

- Is an easy-to-use, personal tool tailored to your level of skill, knowledge, and ability.
- Helps you control and manage risk by identifying even subtle risk factors.
- Allows you to fly with less stress and less risk. Practice “Conservatism Without Guilt.”

Each item provides you with either a space to complete a personal minimum or a checklist item to think about. Spend some quiet time completing each blank and consider other items that apply to your personal minimums. Give yourself permission to choose higher minimums than those specified in the regulations, aircraft flight manuals, or other rules.

How To Use Your Checklist

Use this checklist just as you would use one for your aircraft. Carry the checklist in your flight kit. Use it at home as you start planning a flight and again just before you make your final decision to fly. Be wary if you have an item that’s marginal in any single risk factor category. But if you have items in more than one category, you may be headed for trouble. If you have marginal items in two or more risk factors/categories, do not go!

Periodically review and revise your checklist as your personal circumstances change, such as your proficiency, recency, or training. You should never make your minimums less restrictive unless a significant positive event has occurred. However, it is okay to make your minimums more restrictive at any time. And never make your minimums less restrictive when you are planning a specific flight, or else external pressures will influence you.

Have a fun and safe flight!

Pilot

Takeoffs/landings	_____ in the last _____ days
Hours in make/model	_____ in the last _____ days
Instrument approaches	_____ (simulated or actual) in the last _____ days
Instrument flight hours	_____ (simulated or actual) in the last _____ days
Terrain and airspace	familiar

Physical Condition

Sleep	_____ hours in the last 24 hours
Food and water	in the last _____ hours
Alcohol	None in the last _____ hours
Drugs or medication	None in the last _____ hours
Stressful events	None in the last _____ days
Illnesses	None in the last _____ days

Aircraft

Fuel Reserves (Cross-Country)

VFR day _____ hours

VFR Night _____ hours

IFR day _____ hours

IFR Night _____ hours

Experience in Type

Takeoffs/landings _____ in the last _____ days

Takeoffs/landings _____ in aircraft type

Aircraft Performance

Establish that you have additional performance available over that required. Consider the following:

- Gross weight
- Load distribution
- Density altitude
- Performance charts

Aircraft Equipment

Avionics _____ familiar with equipment (including autopilot and GPS systems)

COM/NAV _____ equipment appropriate to flight

Charts _____ current

Clothing _____ suitable for preflight and flight

Survival gear _____ appropriate for flight/terrain

Environment

Airport Conditions

Crosswind _____ % of max POH

Runway length _____ % more than POH

Weather

Reports and forecasts _____ not more than _____ hours old

Icing conditions _____ within aircraft/pilot capabilities

Weather for VFR

Ceiling day _____ feet

Ceiling Night _____ feet

Visibility day _____ miles

Visibility Night _____ miles

Weather for IFR

Precision Approaches

Ceiling _____ feet above min.

Visibility _____ mile(s) above min.

Non-Precision Approaches

Ceiling _____ feet above min.

Visibility _____ mile(s) above min.

Missed Approaches

No more than _____ before diverting

Takeoff Minimums

Ceiling _____ feet

Visibility _____ mile(s)

External Pressures

Trip Planning

Allowance for delays _____ minutes

Alternate Plans for Diversion or Cancellation

- Notification of person(s) you are meeting
- Passengers briefed on diversion or cancellation plans and alternatives
- Modification or cancellation of car rental, restaurant, or hotel reservations
- Arrangement of alternative transportation (airline, car, etc.)

Personal Equipment

- Credit card and telephone numbers available for alternate plans
- Appropriate clothing or personal needs (eyewear, medication, etc.) in the event of unexpected stay

Importance of Trip

The more important the trip, the more tendency there is to compromise personal minimums, and the more important it becomes to have alternate plans.