U.S. Department
of Transportation
**Federal Aviation
Administration**

Advisory Circular

Subject: **CURRENCY AND ADDITIONAL QUALIFICATION REQUIREMENTS FOR CERTIFICATED PILOTS**
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1. PURPOSE. This advisory circular (AC) provides information for certificated pilots and flight instructors to use in complying with the flight review required by Federal Aviation Regulations (FAR) § 61.56, the recent flight experience requirements of FAR § 61.57, and the general limitations contained in FAR § 61.31(d), (e), and (g). It also provides guidance regarding transition to other makes and models of aircraft.

2. FOCUS. This AC is particularly directed to general aviation pilots holding recreational or higher grades of pilot certificates who wish to maintain currency or to transition to other makes and models of aircraft for which they are rated, and to certificated flight instructors (CFI's) who will be giving flight instruction to support such activities.

3. CANCELLATION. AC 61-98, Scope and Content of Biennial Flight Reviews, dated September 1, 1987, is cancelled. AC 60-12, Availability of Industry Developed Guidelines for the Conduct of the Biennial Flight Review, dated February 11, 1976, is also cancelled.

4. RELATED FAR SECTIONS. FAR § 61.193 (flight instructor authorizations), FAR § 61.195 (flight instructor limitations), FAR § 61.189 (flight instructor records).

5. RELATED READING MATERIAL. Information regarding original pilot certification and addition of category, class, and type ratings can be found in AC 61-65, current edition, Certification: Pilots and Flight Instructors. Information on pilot transition courses and pilot refresher courses is covered in AC 61-9, current edition, Pilot Transition Courses for Complex Single-Engine and Light Twin-Engine Airplanes, and AC 61-10, current edition, Private and Commercial Pilots Refresher Courses, respectively. Additional information on operation of high altitude aircraft is provided by AC 61-107, Operations of Aircraft at Altitudes Above 25,000 Feet MSL and/or Mach Numbers (Mmo) Greater than .75. Guidance on advanced training criteria is located in AC 61-89, current edition, Pilot Certificates: Aircraft Type Ratings. Many excellent publications on pilot currency and qualification are available from commercial sources and industry trade associations, e.g., the Aircraft Owners and Pilots Association, the General Aviation Manufacturers Association, and the National Association of Flight Instructors. One such publication is announced in AC 61-103, Announcement of Availability: Industry-Developed Transition Training Guidelines for High Performance Aircraft.

6. BACKGROUND.

a. The Federal Aviation Administration (FAA) initiated a regulatory review covering FAR Parts 61, 141, and 143 in order to ensure that these regulations conform to the current technological and operational environment and address future pilot certification needs. The last major review of

all of these regulations took place in 1973, although major individual revisions, the most recent of which established the recreational pilot certificate, have been made since then.

(1) The initial phases of the regulatory review addressed regulations requiring priority action by the FAA as a result of National Transportation Safety Board recommendations and other factors. These recommendations addressed requirements such as the flight review required by FAR § 61.56. In a notice of proposed rulemaking the FAA proposed requiring pilots to satisfactorily complete a biennial flight review in each category and class of aircraft for which they were rated and for which they desired to exercise privileges.

(2) During public hearings conducted in the initial phases of the regulatory review, comments submitted were generally unfavorable with respect to the category and class requirement proposed for the flight review. Many comments cited a need for additional FAA guidance material regarding pilot certification and currency that would better enable the general aviation public to comply with present currency regulations and to tailor currency programs to individual pilot needs. The comments also cited a need for increased uniformity in the conduct of currency programs.

b. In 1987, the FAA issued AC 61-98, Scope and Content of Biennial Flight Reviews. That AC provided additional information for pilots and flight instructors to use in accomplishing flight reviews, but did not address specific maneuvers and procedures which should be considered for various categories and classes of aircraft. In addition, AC 61-98 was not originally intended to cover other currency regulations or transition training requirements for pilots who were already certificated. The material previously contained in AC 61-98 is found in Chapter 1 of this AC.

c. New topics covered in this AC not previously contained in AC 61-98 include: Recent Flight Experience, Instrument Competency Check, and Transition to other Makes and Models of Aircraft.

d. As a result of initiatives designed to encourage voluntary compliance with existing regulations and to maintain and further improve the general aviation safety record with a minimum of new regulations, the FAA has determined that additional advisory guidance is needed with respect to the currency and qualification needs of general aviation pilots. The guidance contained in this expanded version of AC 61-98 is designed to provide such information and accomplish the goals of the regulatory review with respect to the flight review and other currency requirements.

7. PERSONAL CURRENCY PROGRAM.

a. Pilots should consider designing a currency program tailored to their operating environments and needs. In some cases, currency criteria may be integrated with normal operations to reduce the need for separate currency flights. For example, additional takeoffs and landings or specialized takeoffs and landings (such as short or soft field) could be incorporated into a previously scheduled flight. In most cases, pilots should consider the need for currency beyond that specified by the FAR.

b. Pilots may wish to participate in the FAA's Pilot Proficiency Program and to attend pilot safety seminars conducted through the FAA Accident Prevention Program. There are also many excellent pamphlets and other presentations, including slide programs and video tapes, available through the Accident Prevention Program.

*c. **Pilots should explore*** the wide range of publications and other commercially-developed materials which are available for use in personal currency programs. To ensure staying up to date in regulatory changes and flying techniques, pilots should also regularly read aviation periodicals of their choice.

*d. **To obtain assistance in developing*** a personal currency program, pilots may consult a wide variety of sources. These sources include pilot examiners, pilot schools, individual CFI's, Accident Prevention Program Managers, and FAA-appointed Accident Prevention Counselors. For information regarding local sources, pilots should contact the FAA Accident Prevention Program Manager at the nearest FAA Flight Standards District Office (FSDO).

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CHAPTER 1. FLIGHT REVIEW

1. STRUCTURE AND INTENT OF THE FLIGHT REVIEW. With the increasing complexity of the aviation operating environment, CFI's may want more specific guidance on how to structure and plan a flight review and develop contents which are tailored to the needs of the pilot being reviewed. The flight review is intended to be an industry-managed, FAA-monitored currency program. The CFI must be aware that the flight review is not a test or check ride, but an instructional service designed to assess a pilot's knowledge and skills.

a. Under FAR § 61.56(b) no person may act as pilot in command (PIC) of an aircraft unless within the preceding 24 calendar months that person has accomplished a successful flight review in an aircraft for which that pilot is rated, given by an appropriately rated instructor or other designated person. The objective of the flight review is to ensure that pilots who intend to act as PIC have the opportunity to ride with a flight instructor of their own choice within a specified period for an appraisal of their pilot proficiency and to seek assistance or guidance if any deficiency is identified.

b. Pilots and CFI's are reminded that, under FAR § 61.56(f), a person who has satisfactorily completed one or more phases of the FAA-sponsored Pilot Proficiency Award Program within the preceding 24 calendar months need not accomplish the flight review requirements of this section. CFI's should encourage pilots to participate in the FAA Pilot Proficiency Award Program (also known as the Wings Program), which is described in the current issue of AC 61-91, Pilot Proficiency Award Program.

c. Also, pilots and CFI's should be aware that, under FAR § 61.56(e), pilots who have completed certain proficiency checks and ratings within the 24-month review period are not required to accomplish a separate flight review. These accomplishments include satisfactory completion of pilot proficiency checks conducted by the FAA, an approved pilot check airman, or a U.S. Armed Force for a pilot certificate, rating, or operating privilege. However, the FAA recommends that pilots consider also accomplishing a review under some of these circumstances. For example, a pilot with an airplane single-engine land rating may have recently obtained a glider rating, but may still wish to consider obtaining a flight review in a single-engine airplane if the appropriate 24-month period has nearly expired. When approached by pilots seeking advice on such matters, CFI's should consider the factors described in the following paragraphs.

2. PREREVIEW CONSIDERATIONS. Before undertaking the review the CFI should interview the pilot to determine the nature of his or her flying and operating requirements. Elements to consider should include, but not be limited to, the following areas:

a. Type of Equipment Flown. The maneuvers and procedures reviewed will vary depending on the category, class, and make and model of aircraft used. For example, a review in a light twin-engine aircraft should be different from one conducted in a small, two-seat tailwheel aircraft without radio or extra instrumentation. The CFI may wish to recommend that the pilot take the review in the aircraft usually flown, or in the most complex make and model used if several aircraft

are flown regularly. The CFI may also wish to recommend that the pilot take a review in more than one category/class of aircraft under certain circumstances. For example, a pilot with airplane single-engine land and glider ratings may have flown only gliders in the last 2 years but is also contemplating flying single-engine airplanes in the near future. If a CFI is approached by a pilot who requests a review only in the glider, the CFI may wish to recommend an additional review by a qualified person in a single-engine airplane before the pilot acts as PIC of a single-engine airplane.

b. Nature of Flight Operations. The CFI should consider the type of flying usually done by the pilot before establishing the review plan for conducting his or her review. For example, a pilot conducting long-distance flights between busy terminal areas may need a different review than a pilot who usually flies in the local area from the same airport. The CFI should consider the need for an indepth review of certain subjects or procedures if the type of flight operations is likely to change or if other extenuating circumstances exist. For example, a pilot who normally conducts only local flight operations may be planning to begin flying to a location with a Terminal Control Area (TCA). Another pilot may only operate a two-seat aircraft without radio but will operate in close proximity to a TCA. In both cases, the CFI should include TCA requirements and operating procedures in the flight review.

c. Amount and Recency of Flight Experience. The CFI should review the pilot's logbook to determine total flight time and type and recency of experience in order to evaluate the need for particular maneuvers and procedures in the review. For example, a pilot who has not flown in several years may require an extensive review of basic maneuvers from the Practical Test Standards (PTS) appropriate to that pilot's grade of certificate. This same pilot may also require a more extensive review of FAR Part 91, including recent changes in airspace and other requirements. Another pilot who is upgrading to a newer or faster airplane should receive more emphasis on knowledge of aircraft systems and performance or in cross-country procedures appropriate to a faster airplane. Regardless of flight experience, the CFI should ensure that the review plan includes all areas in which he or she determines that the pilot should receive training in order to operate safely. In some cases, the CFI may wish to recommend that the pilot undertake a complete refresher program such as those included in the current issue of AC 61-10, Private and Commercial Pilots Refresher Courses.

d. Agreement on Conduct of Review. After completing the above analysis, the CFI should review these considerations with the pilot and reach an understanding regarding how the review will be conducted. The CFI may wish to provide the pilot with reading materials or recommend publications for study before actually undertaking the flight review. The CFI should also review the criteria for satisfactory completion of the review with the pilot.

e. Instructor Qualifications. Instructors should also consider their own experience and qualifications in a given make and model aircraft prior to giving a review in that model. The CFI conducting a flight review must hold a category, class, and, if appropriate, type rating on his or her pilot certificate. Also, the instructor must have a category and class rating on his or her flight instructor certificate appropriate to the aircraft in which the review is to be conducted. Flight reviews conducted in multiengine airplanes must be conducted by flight instructors who hold an airplane multiengine rating on their pilot and flight instructor certificates. For aircraft in which the CFI is not current or with which he or she is not familiar, recent flight experience or sufficient knowledge of aircraft limitations, characteristics, and performance should be obtained before giving

the review. In any case, the rating limitations of FAR § 61.195(b) should be observed.

3. PLANNING AND RECORDING THE REVIEW. After reaching agreement on how the review will be conducted, the CFI should prepare a plan for completing the review. The plan should include a list of regulatory subjects to be covered, the maneuvers and procedures to be accomplished, the anticipated sequence in which the segments will occur, and the location where the review will be performed. A suggested plan format can be found in Appendix 1. Although not required by FAR § 61.189, the CFI may wish to retain this plan for an appropriate time period as a record of the scope and content of the review.

a. Review of FAR Part 91 Operating and Flight Rules. The CFI should tailor the review of general operating and flight rules to the needs of the pilot being reviewed. The objective is to ensure that the pilot can comply with all regulatory requirements and operate safely in various types of airspace under an appropriate range of weather conditions. As a result, the instructor should conduct a review that is broad enough to meet this objective, yet provide more comprehensive review in those areas in which the pilot's knowledge is weaker. In the latter instance, the instructor may wish to employ a variety of reference sources, such as the Airman's Information Manual, to ensure that the pilot's knowledge meets current standards.

b. The occurrence of incidents and pilot deviations in controlled airspace has emphasized the need to ensure that all pilots are familiar with TCA's, Airport Radar Service Areas, and other types of airspace. The flight review may be the only regular proficiency and recurrency training experienced by some pilots. Therefore, instructors should place appropriate emphasis on this part of the review.

c. Pilots and CFI's should note that a total revision and reorganization of FAR Part 91 became effective on August 18, 1990. Figure 1, page 5, may provide a useful format for organizing the FAR Part 91 review and ensuring that essential areas are covered. The review should be expanded in those areas where the pilot's knowledge is less extensive.

d. Review of Maneuvers and Procedures.

(1) The maneuvers and procedures covered during the review are those which, in the opinion of the CFI conducting the review, are necessary for the pilot to perform in order to demonstrate that he or she can safely exercise the privileges of his or her pilot certificate. Accordingly, the instructor should evaluate the pilot's skills and knowledge to the extent necessary to ensure that he or she can safely operate within regulatory requirements throughout a wide range of conditions.

(2) The instructor may wish to prepare a preliminary plan for the flight review based on an interview or other assessment of the pilot's qualifications and skills. A sequence of maneuvers should be outlined to the pilot taking the review. For example, this may include a flight to the practice area or to another airport with maneuvers accomplished while en route. It could also include a period of simulated instrument flight time. The instructor should request that the pilot conduct whatever preflight preparation is necessary to complete the planned flight. This could include checking weather, calculating required runway lengths, calculating weight and balance, completing a flight log, filing a flight plan, and conducting the preflight inspection.

(3) Before commencing the flight portion of the review, the instructor should discuss various

operational areas with the pilot. This oral review should include, but not be limited to, areas such as aircraft systems, speeds, and performance; meteorological and other hazards (e.g., windshear and wake turbulence); and operations in controlled airspace (e.g., TCA's). The emphasis during the discussion should be on practical knowledge of recommended procedures and regulatory requirements.

(4) Regardless of the pilot's experience, the instructor may wish to review at least those maneuvers considered critical to safe flight, such as stalls, slow flight, and takeoffs and landings. Based on his or her in-flight assessment of the pilot's skills, the instructor may wish to add other maneuvers from the PTS appropriate to the pilot's grade of certificate.

(5) The in-flight review need not be limited to evaluation purposes. The instructor may provide additional instruction in weak areas or, based on mutual agreement with the pilot, defer this instruction to a followup flight.

(6) To assist CFI's in selecting maneuvers and procedures critical to safe flight, a list of maneuvers for various categories and classes of aircraft is included in Appendix 2. It must be emphasized that this list should not be considered all-inclusive or intended to limit a CFI's discretion in selecting appropriate maneuvers and procedures.

(7) Consistent with the need to include critical maneuvers, the CFI should construct a review sequence which closely duplicates a typical profile for the pilot who will receive the review.

4. POSTREVIEW CONSIDERATIONS. Upon completion of the review, the instructor should complete the Flight Review Plan and Checklist (if used) and debrief the pilot. Whether or not the review was satisfactory, the instructor should provide the pilot with a comprehensive analysis of his or her performance, including suggestions for improving any weak areas.

a. Unsatisfactory Completion of the Review. The instructor should not endorse the pilot's logbook to note an unsatisfactory review, but should sign the logbook to record the instruction given. The CFI should then recommend additional training in the areas of the review that were unsatisfactory. A pilot who is denied an endorsement for a flight review may continue to exercise the privileges of his or her certificate, provided a period of 24 calendar months has not elapsed since the pilot's last successful flight review or pilot proficiency check. If a pilot has performed a flight review and, in the pilot's opinion the flight instructor has unfairly judged that he or she was unable to successfully complete the review, the pilot may request a flight review from another CFI.

b. Satisfactory Completion of the Review. When the applicant has successfully completed the review, the pilot's logbook must be endorsed by the person who gave the review, certifying that the pilot has satisfactorily accomplished the flight review. The endorsement for a satisfactory review should be in accordance with the current issue of AC 61-65.

Subpart	Description	Remarks
A	General	All pilots
B	Flight Rules (General)	All pilots
	Visual Flight Rules	All pilots
	Instrument Flight Rules	If applicable (example - Instrument rated pilot)
C	Equipment, Instrument, and Certificate Requirements	All pilots
D	Special Flight Operations	If applicable (example - pilot involved in glider towing operations)
E	Maintenance, Preventive Maintenance, and Alterations	All pilots
F	Large and Turbine-Powered Multiengine Airplanes	If applicable (note - pilot may be subject to requirements of FAR § 61.58)
G	Additional Equipment and Operating Requirements for Large and Transport Category Aircraft	If applicable (see note - Subpart F)
H	Foreign Aircraft Operations and Operations of U.S. Registered Civil Aircraft Outside of the United States	If applicable (example - flights to Canada or Mexico)
I	Operating Noise Limits	If applicable (example - agricultural aircraft pilot)
J	Waivers	If applicable (example - pilot involved in airshows)

Figure 1. Sample Format for Organizing the FAR Part 91 Review

CHAPTER 2. RECENT FLIGHT EXPERIENCE

5. RECENT GENERAL EXPERIENCE. The minimum requirements for recent flight experience, specifically takeoffs and landings, in each category and class of aircraft in order to act as PIC of an aircraft carrying passengers are specified in FAR § 61.57(c) and (d).

a. The requirements specified in FAR § 61.57(c) and (d) should be regarded as minimums which need to be adjusted for various factors such as overall pilot experience, different operating environments, complexity of the facilities used, and variations in makes and models of aircraft within specific categories and classes. For example, a pilot may meet recent flight experience in a given make and model of aircraft but may have operated only in light or moderate wind conditions from airports with long runways. The pilot should consider acquiring additional takeoff and landing experience in stronger wind conditions or at airports with short runways before acting as PIC of an aircraft carrying passengers in similar conditions. Under some circumstances the change in the customary operating environment may be great enough that the pilot should seek flight instruction or refresher training before attempting even solo operations.

b. With regard to basic currency and recent flight experience, there are many excellent sources of information available to pilots who wish to enhance currency under a variety of conditions. For example, the FAA's Back-to-Basics program provides excellent written and video materials on takeoffs, landings, and other critical flight maneuvers. Attendance at FAA-sponsored seminars will effectively aid pilots in maintaining currency.

c. Night currency requirements deserve additional consideration. For example, the night experience of most pilots is only a small portion of their total flight experience. The impact of marginal weather conditions on night operations is so significant that pilots should anticipate the need for both increased currency and additional planning when contemplating flights under unfavorable conditions at night.

d. Special considerations apply to the operation of aircraft makes and models other than those customarily flown by a pilot. Analysis of accident data has shown that accident rates increase for pilots with little or no time-in-type in the aircraft flown. Additional experience requirements for operating high performance aircraft are specified in FAR § 61.31(e) and are discussed in Chapter 4 of this AC. For non-high performance small aircraft, basic currency requirements of FAR § 61.57(c) and (d) apply only to category and class. For example, a pilot who meets the requirement in a Cessna 152 would also meet the requirement in a Cessna 172. The FAA recommends that pilots obtain currency in each separate make and model before conducting passenger-carrying operations. For experienced pilots, this currency should include familiarity with the Pilot's Operating Handbook (POH), the Aircraft Flight Manual (AFM), and/or any other available information on that aircraft. The FAA recommends that all pilots obtain a comprehensive checkout in each make and model aircraft from an appropriately rated CFI.

e. Considerations regarding basic currency apply not only to single-engine land airplanes but to other categories and classes of aircraft, including seaplanes, gliders, helicopters, gyroplanes, and free balloons.

6. RECENT IFR EXPERIENCE. The minimum currency requirements to act as PIC under Instrument Flight Rules (IFR), or in weather conditions less than the minimums prescribed for Visual Flight Rules (VFR), are specified in FAR § 61.57(e)(1). These requirements must have been accomplished within the preceding 6 calendar months.

a. If a pilot has not accomplished the minimum IFR currency requirements within the preceding 6 calendar months, he or she may not act as PIC under IFR, nor in weather conditions less than prescribed for VFR. The pilot may, however, reacquire currency if he or she completes the minimum number of hours and instrument approaches, under simulated IFR conditions only, within the next 6 months. Three of the 6 required hours and the six required approaches may be done under the supervision of an authorized instructor in a simulator or ground trainer that meets the requirements of FAR § 141.41(a)(2).

b. Additionally if a pilot has not accomplished minimum IFR currency requirements within the preceding 12 calendar months, FAR § 61.57(e)(2) states that he or she may not serve as PIC under IFR, nor in weather conditions less than the minimums prescribed for VFR, until he or she passes an instrument competency check in the category of aircraft involved (see Chapter 3).

c. Pilots should consider the minimum currency requirements of FAR § 61.57(e)(1) to be the foundation for a comprehensive currency program that will enable them to safely operate under IFR in the National Airspace System with weather, air traffic activity, and operating conditions appropriate to their experience levels.

CHAPTER 3. INSTRUMENT COMPETENCY CHECK

7. STRUCTURING A COMPETENCY CHECK. FAR § 61.57(e)(2) notes the conditions under which an instrument competency check must be obtained, but does not define the meaning of this check or suggest its content. Accordingly, pilots and CFI's may wish to use the following guidance in complying with this requirement.

a. FAR § 61.57(e)(2) states that the competency check must be given by an FAA inspector, a member of the armed forces of the United States authorized to conduct flight tests, an FAA-approved check pilot, or a certificated instrument flight instructor. If given by a CFI in a single-engine airplane, the CFI should hold an instrument airplane rating on his or her instructor certificate. If given in a multiengine airplane, the CFI should hold both instrument airplane and airplane multiengine ratings on his or her instructor certificate. A check in a helicopter should be given by a CFI holding an instrument helicopter rating on his or her instructor certificate. These prerequisites are necessary to conform to the requirements of FAR §§ 61.193 (a) and 61.195(b), and to ensure that the CFI has qualifications appropriate to the category and class of aircraft. For example, a comprehensive instrument competency check in a multiengine airplane should require demonstration of engine-out procedures, which would necessitate a CFI with both multiengine and instrument ratings on his or her instructor certificate.

b. In addition to having the appropriate instructor ratings, the CFI should consider other factors relating to his or her ability to conduct an instrument competency check. These include the factors discussed for the flight review as well as the instructor's own instrument currency.

c. Part or all of the check may be conducted in a simulator or an approved ground trainer that meets the requirements of FAR § 141.41(a)(2). If given in a ground trainer, that trainer must be specifically approved for such use, in writing, by the FAA Flight Standards District Office (FSDO) having jurisdiction over the geographic area where the ground trainer is used. Pilots or CFI's contemplating use of such a device for an instrument competency check should contact their local FSDO's.

d. Precheck Considerations. The CFI should structure an instrument competency check in a manner similar to that of the flight review, tailoring the check to the needs of the pilot, reaching mutual agreement on the scope of the check, and developing a plan for accomplishing it.

(1) The CFI and pilot should discuss the operating conditions under which the check will be conducted. If the check is conducted in an airplane, the check may be under VFR or IFR in simulated instrument conditions, or it may be under IFR in actual instrument conditions. If the check is conducted under IFR, whether conditions are simulated or actual, the CFI should ensure that the aircraft meets all FAR Part 91 requirements for operating under IFR. Additionally, if the pilot receiving the check is no longer current under IFR, the CFI should be aware that he or she will be the pilot in command during the flight and must meet IFR currency requirements. The CFI should also discuss crewmember roles and responsibilities with the pilot.

(2) Since no standards have been established for satisfactory completion of an instrument competency check, the CFI and the pilot should discuss the standards under which successful completion will be measured. The

primary reference for this discussion should be the instrument rating PTS.

(3) Following completion of the discussion, the CFI should prepare a plan for conducting the check. The plan should list the anticipated sequence in which the procedures will occur and the location where they will be performed. A sample plan for conducting the competency check is contained in Appendix 3.

8. INSTRUMENT COMPETENCY CHECK - KNOWLEDGE PORTION.

a. The CFI should determine that the pilot has adequate knowledge and understanding of FAR Part 91, especially Subpart B, Instrument Flight Rules; Subpart C, Equipment, Instrument, and Certificate Requirements; and Subpart E, Maintenance, Preventive Maintenance, and Alterations.

b. Additionally, the CFI should determine that the pilot has adequate knowledge and understanding of the following areas:

(1) Instrument en route and approach chart interpretation, including Standard Instrument Departures (SID) and Standard Terminal Arrival Routes (STAR).

(2) Obtaining and analyzing weather information, including knowledge of hazardous weather phenomena.

(3) Preflight planning, including aircraft performance data, application of Notices to Airmen (NOTAM) information, fuel requirements, alternate requirements, and use of appropriate FAA publications such as the Airport/Facility Directory.

(4) Aircraft systems related to IFR operations, including appropriate operating methods, limitations, and emergency procedures due to equipment failure.

(5) Aircraft flight instruments and navigation equipment, including characteristics, limitations, operating techniques, and emergency procedures due to malfunction or failure, such as lost communications procedures.

(6) Determining the airworthiness status of the aircraft for instrument flight, including required inspections and documents.

(7) Air Traffic Control (ATC) procedures pertinent to flight under IFR with emphasis on elements of ATC clearances and pilot/controller responsibilities.

c. Following discussion of the above subjects, the CFI should ask the pilot to prepare for the skill portion of the competency check by completing the necessary flight planning, obtaining current weather data, filing a flight plan, and conducting the preflight inspection. In order to more fully evaluate the pilot's skills under normal operating conditions, the CFI may wish to have the pilot conduct a short IFR cross-country flight in conjunction with the rest of the competency check.

9. INSTRUMENT COMPETENCY CHECK - SKILL PORTION.

a. The maneuvers and procedures selected for the instrument competency check should be comprehensive enough to enable the CFI to determine that the pilot can safely operate under IFR in a broad range of conditions appropriate to the aircraft flown and the ATC environment selected. Proper adherence to ATC clearances should be especially emphasized.

b. Regardless of the maneuvers and procedures selected, the CFI should ensure that the pilot demonstrates satisfactory basic attitude instrument flying skills.

c. For checks conducted in an airplane but not under actual instrument weather conditions, an appropriate view-limiting device should be employed to simulate instrument conditions.

d. As an aid in selecting maneuvers and procedures for the competency check, the CFI may wish to review the list contained in Appendix 3. It must be emphasized that this list should not be considered all-inclusive and is not intended to limit a CFI's discretion in selecting appropriate maneuvers and procedures.

10. POSTCHECK CONSIDERATIONS AND RECORDKEEPING. Upon completion of the competency check, the CFI should complete the plan and checklist (if used) and debrief the pilot on the results of the check (satisfactory or unsatisfactory). Regardless of the determination, the CFI should provide the pilot with a comprehensive analysis of his or her performance, including suggestions for improving any weak areas.

a. Unsatisfactory Performance. The CFI should not endorse the pilot's logbook to reflect an unsatisfactory competency check, but should sign the logbook to record the instruction given.

b. Satisfactory Performance. The endorsement for a satisfactory competency check should be in accordance with the current issue of AC 61-65. If the sample plan and checklist in Appendix 3 is used, the CFI may wish to retain the plan as a record of the scope and content of the competency check, even though not required by FAR § 61.189.

CHAPTER 4. TRANSITION TO OTHER MAKES AND MODELS OF AIRPLANES

11. GENERAL LIMITATIONS - HIGH PERFORMANCE AIRCRAFT. Under FAR § 61.31(e), a private or commercial pilot may not act as PIC of a high performance airplane [one that has more than 200 horsepower (or the equivalent thrust from a turbine engine), or that has a retractable landing gear, flaps, and a controllable pitch propeller] unless he or she has received flight instruction in such an airplane from an authorized flight instructor, and that flight instructor has certified in the pilot's logbook that he or she is competent to pilot a high performance airplane. However, this instruction is not required if the pilot has logged flight time as PIC in high performance airplanes before November 1, 1973.

a. To assist pilots in transitioning to individual makes and models of high performance airplanes, the General Aviation Manufacturers Association (GAMA) has developed a Transition Training Master Syllabus (GAMA Specification No. 5). This publication is intended to assist CFI's and other training providers in developing transition training guides for individual makes and models of high performance airplanes, and to provide structured differences training for transition between similar makes and models of a given manufacturer. Information on obtaining this publication may be found in the current issue of AC 61-103, or by contacting GAMA directly at the following address:

General Aviation Manufacturers Association
1400 K Street, NW., Suite 801
Washington, DC 20005
(202) 393-1500

b. In order to properly structure and record transition training in a high performance airplane, the CFI should plan a transition program tailored to the needs of the pilot requesting the training. A suggested format for developing such a plan is contained in Appendix 4. The format is designed to incorporate the elements suggested in the GAMA publication, and yet still provide the CFI with flexibility in developing an individual transition guide tailored to a specific pilot's needs. The CFI may wish to retain the completed guide as a record of the scope and content of the transition training given, even though the record is not required by FAR § 61.189.

c. CFI's and pilots should note that a recreational pilot may not act as PIC of an aircraft that is certificated for more than four occupants, that has more than 180 horsepower, or that has retractable landing gear.

d. Pilots should be aware that significant variations may exist within a basic make and model series of aircraft, even for non-high performance aircraft. For example, there are significant powerplant, systems, performance, and other differences between a Cessna 172D and a Cessna 172Q. At a minimum, pilots should conduct their own differences training and familiarization by studying the POH, AFM and/or other information sources before operating a significant variant of a specific make and model aircraft. The FAA recommends that pilots obtain such training from an appropriately rated and qualified CFI. Pilots should also be aware that FAR § 91.103 requires that each PIC should, before beginning a flight, become familiar with all available information concerning that flight.

12. TRAINING REQUIREMENTS - HIGH ALTITUDE AIRCRAFT. The requirements applicable to transition training in pressurized high altitude airplanes are specified in FAR § 61.31(f). The rule states that no person may act as PIC of a pressurized airplane that has a service ceiling or maximum operating altitude, whichever is lower, above 25,000 feet MSL unless that person has

completed ground and flight training in high altitude operations and has received a logbook or training record endorsement from an authorized instructor certifying satisfactory completion of the training. However, the rule does not apply to pilots who have completed certain proficiency checks or who have served as PIC of a high altitude airplane before March 15, 1991.

a. Recommended training to meet the high altitude training requirement may be found in the current issue of AC 61-107.

b. The instruction and endorsements specified in FAR § 61.31(e) and (f) are one-time only requirements and need not be met for each make and model of high performance and high altitude airplane in which a person plans to act as PIC.

c. Before conducting transition training in a high performance and/or high altitude airplane, a CFI should consider his or her own qualifications and currency in that particular aircraft. Guidelines for making such an assessment are contained in the GAMA publication cited in paragraph 11a.

d. The guidance in this chapter is not intended to apply to transition to an aircraft requiring a type rating. Type rating training requirements are specified in FAR § 61.63, § 61.157, and FAR Part 141, Appendices F and H. A generic curriculum for such training is contained in the current issue of AC 61-89.

13. SOLO OPERATIONS IN AN AIRCRAFT FOR WHICH THE PILOT DOES NOT HOLD A CATEGORY AND CLASS RATING. A person may not act as PIC of an aircraft that is carrying another person or is operated for compensation or hire, unless that person holds a category and class rating for that aircraft; however, subject to the previous restrictions, a person may act as PIC of an aircraft in solo flight without holding a category and class rating appropriate to that aircraft if he or she has received the flight instruction and endorsement required by FAR § 61.31(d), or has soloed and logged PIC time in that category and class of aircraft before November 1, 1973.

a. The instruction required by FAR § 61.31(d)(2) must be in the pilot operations required by FAR Part 61, appropriate to that category and class of aircraft for first solo, and must be given to the pilot by an appropriately rated CFI who, upon finding the pilot competent to solo that category and class of aircraft, so endorses the pilot's logbook. The format for the required endorsement is contained in the current issue of AC 61-65.

b. CFI's should be aware that the provisions of FAR § 61.31(d) were intended to facilitate a pilot's need to acquire solo flight time in the pursuit of a category and class rating in that aircraft. This FAR section was not intended to encourage unlimited or unrestricted solo operations for an indefinite time period. Accordingly, the CFI should determine the intentions of any pilot seeking such an endorsement and should consider such requests only in cases where pilots are seeking to acquire additional category and/or class ratings. In any case, CFI's should consult FAR § 61.87 to determine the criteria for first solo, and may also wish to consult the appropriate PTS before advising pilots on what will be required to obtain a solo category and class endorsement. After providing the required instruction, a CFI may want to consider the need for an endorsement which restricts the pilot's operations to whatever extent the CFI considers necessary in the interest of safety. For example, the endorsement might limit the pilot to local operations only, or to flight in day-VFR conditions only. Finally, the CFI may want to include an expiration date on the endorsement which coincides with the date by which the applicant is expected to have completed

the practical test. Before undertaking the instruction leading to such an endorsement, the CFI should explain to the pilot the instructor's prerogative to issue an endorsement containing restrictions.

14. EXCEPTION OF EXPERIMENTAL AIRCRAFT FROM CATEGORY AND CLASS RATING REQUIREMENTS. Under FAR § 61.31(f)(3), the category and class rating limitations of FAR § 61.31 do not apply to operation of aircraft certificated as experimental. This includes aircraft originally certificated as other than experimental, but subsequently modified, as well as amateur-built experimental aircraft.

a. Pilots should approach transition to an experimental aircraft in a manner similar to that used for any new aircraft make and model. The objective in conducting a transition training program should be to ensure that the pilot has accomplished the most comprehensive preparation possible under the circumstances, appropriate to the aircraft and type of operation planned.

b. Pilots should be aware that transition to an experimental make and model aircraft may present unusual considerations and difficulties. For example, a qualified CFI or other person may not be available to conduct instruction, the aircraft may be single-place only, or there may be a lack of comprehensive operating information.

15. AMATEUR-BUILT AIRCRAFT AND SURPLUS MILITARY AIRCRAFT. Both amateur-built aircraft and surplus military aircraft present unique requirements for CFI's and owner-operators. CFI's should carefully consider their own qualifications in such highly individual aircraft before agreeing to provide instruction in them.

a. Special considerations apply to initial operation and flight testing of newly constructed amateur-built aircraft. For guidance in such situations, pilots should consult the latest issue of AC 90-89, Amateur-Built Aircraft Flight Testing Handbook.

b. Additional considerations apply to operation of surplus military aircraft which may require pilots to hold a Letter of Authorization issued by the FAA. Individuals contemplating operation of such aircraft should inquire about the required procedures at an FAA FSDO.

16. TAILWHEEL AIRCRAFT. The general flight experience requirements specified in FAR § 61.57(c) state that pilots who act as PIC of a tailwheel aircraft carrying passengers or certificated for more than one required pilot flight crewmember must have made three landings to a full stop within the preceding 90 days to maintain currency.

a. Under FAR § 61.31(g), no person may act as PIC of a tailwheel airplane unless that pilot has received flight instruction from an authorized flight instructor who has found the pilot competent to operate a tailwheel airplane and has made a one-time endorsement so stating in the pilot's logbook. The endorsement must certify that the pilot is competent in normal and crosswind takeoffs and landings, wheel landings (unless the manufacturer has recommended against wheel landings), and go-around procedures. The endorsement is not required if a pilot has logged flight time as PIC of tailwheel airplanes before March 15, 1991.

b. In addition to the requirements specified in FAR § 61.31(g), the FAA recommends that pilots obtain a thorough checkout and transition training for each make and model of tailwheel airplane to be flown due to significant differences in operating characteristics of individual tailwheel airplanes. For example, many older types of tailwheel airplanes have pronounced or unusual stall and spin characteristics which differ greatly from those of more recently certificated tailwheel airplanes. In addition, many older airplanes may lack the comprehensive operating data and information typically found in pilot operating handbooks for comparable newer airplanes. Also, systems taken for granted in newer model airplanes may not exist in older aircraft, requiring a pilot to be familiar with unusual or seldom-used procedures. For example, the absence of electrical systems on many older aircraft compels the pilot to be familiar with hand propping procedures. The absence of attitude and heading gyroscopic instruments requires the pilot to depend more heavily on visual and other cues for basic aircraft control. Finally, the lack of radio equipment in many tailwheel airplanes obligates the pilot to be current in navigation by pilotage and no-radio traffic pattern procedures.

c. Additional factors may affect the instructional environment in tailwheel airplanes equipped with tandem seating. These factors may include reduced visibility from the rear seat, difficulty in communicating with the student due to seating position and higher noise levels, and lack of complete instrumentation or aircraft controls for the pilot in the rear seat.

d. Before conducting checkouts or other training in tailwheel airplanes, CFI's should carefully review their own qualifications. Most newly-certificated CFI's will have had little or no experience in tailwheel aircraft and will need comprehensive checkouts and transition training in tailwheel airplanes before giving instruction in them.

APPENDIX 1. SAMPLE FLIGHT REVIEW PLAN AND CHECKLIST

Name _____ Date _____

Grade of Certificate _____ Certificate No. _____

Ratings and Limitations _____

Class of Medical _____ Date of Medical _____

Total Flight Time _____ Time in Type _____

Aircraft to be Used: Make and Model _____ N# _____

Location of Review _____

I. REVIEW OF FAR PART 91

Ground Instruction Hours: _____

Remarks: _____

II. REVIEW OF MANEUVERS AND PROCEDURES (list in order of anticipated performance)

A. _____
B. _____
C. _____
D. _____
E. _____
F. _____
G. _____
H. _____
I. _____
J. _____

Flight Instruction Hours: _____

Remarks: _____

III. OVERALL COMPLETION OF REVIEW

Remarks: _____

Signature of CFI _____ Date _____

Certificate No. _____ Expiration Date _____

I have received a flight review which consisted of the ground instruction and flight maneuvers and procedures noted above.

Signature of the Pilot_____ Date _____

APPENDIX 2. SAMPLE LIST OF FLIGHT REVIEW KNOWLEDGE, MANEUVERS, AND PROCEDURES

All Categories and Classes of Aircraft

Pilot certificates and other FAR Part 61 requirements
Aircraft performance and limitations
Aircraft loading, weight and balance
Aircraft systems and operating procedures
Abnormal and emergency procedures
Flight planning and obtaining weather information
Aircraft documents and records
Avoidance of hazardous weather
Air traffic control and airspace
Preflight inspection
Use of checklist
Radio communication and navigation (if aircraft equipped)
Collision avoidance, traffic pattern operations, ground operations
Navigation by pilotage

Airplane, Single-Engine Land (ASEL)

Takeoffs and landings (normal, crosswind, short and soft-field)
Go-arounds
Maneuvering during slow flight
Stalls
Constant altitude turns
Simulated forced landings and other emergency operations
Flight by reference to instruments (except recreational pilots)

Airplane, Multiengine Land (AMEL)

Same as ASEL plus:
Simulated engine-out procedures and performance

Airplane, Single-Engine Sea (ASES)

Same as ASEL (except soft-field takeoffs and landings) plus:
Glassy and rough water landings

Airplane, Multiengine Sea (AMES)

Same as ASEL, AMEL, and ASES, as applicable

Glider

Takeoff and tow procedures (appropriate to type of tow used)
Simulated rope break procedures
Stall recognition and recovery
Flight at minimum controllable airspeed
Gliding spirals
Accuracy landings

APPENDIX 2. SAMPLE LIST OF FLIGHT REVIEW KNOWLEDGE, MANEUVERS, AND PROCEDURES (CON'T)

Rotorcraft - Helicopter

Normal takeoffs and landings to a hover and to the ground
Confined area operations
Maximum performance takeoffs
Pinnacle operations
Slope operations
Quick stops
Running landings
Autorotative approaches from altitude
Hovering autorotations
Forced landings
Settling with power (demonstration)
Loss of tail rotor effectiveness
System failures; e.g., anti-ice, hydraulics, electrical, etc.

Rotorcraft, Gyroplane

Takeoff and landings (normal, crosswind, short and soft-field)
Go-arounds
Maneuvering during slow flight
Simulated emergency approach and landing
Systems and equipment malfunctions

Lighter-Than-Air, Free Balloon

Lift-offs and ascents
Descents and landings (normal and high-wind)
Level flight and contour flying
Emergency

Note: CFI's should review the applicable PTS to determine which maneuvers and procedures are associated with original pilot certification in that category and class.

APPENDIX 3. SAMPLE INSTRUMENT COMPETENCY CHECK PLAN AND CHECKLIST

Name _____ Pilot Certificate No. _____

Certificate and Ratings_____
Date of Last Check _____
Class of Medical _____ Date of Medical _____
Total Time _____ Time in Type Aircraft _____
Total Instrument Time: _____ Simulated _____ Actual _____ Simulator/Ground Trainer _____
In Last 180 Days: Simulated _____ Actual _____ Simulator/Ground Trainer _____
Approaches/Last 180 Days: Precision _____ Nonprecision _____
Aircraft to be Used _____ Registration No. _____
Location of Check _____

I. KNOWLEDGE PORTION OF COMPETENCY CHECK

A. FAR Part 91 Review
   1. Subpart B (Instrument Flight Rules)
   2. Subpart C (Equipment, Instrument, and Certificate Requirements)
   3. Subpart E (Maintenance)

B. Instrument en route and approach charts, including SID's and STAR's

C. Weather analysis and knowledge

D. Preflight planning, including performance data, fuel, alternate, NOTAMS and appropriate FAA publications

E. Aircraft systems as related to IFR operations

F. Aircraft flight instruments and navigation equipment, including emergency procedures such as lost communications

G. Airworthiness status of aircraft and avionics for IFR flight

H. ATC procedures, clearances, and pilot/controller responsibilities

I. Other areas:

_____
_____
_____

APPENDIX 3. SAMPLE INSTRUMENT COMPETENCY CHECK PLAN (CON'T)

II. SKILL PORTION OF COMPETENCY CHECK (include location)

A. Instrument cockpit check_____
B. Intercepting/tracking VOR/NDB_____
C. Steep turns_____
D. Recovery from unusual attitudes_____
E. Basic attitude instrument flying_____
F. VOR approach_____
G. NDB approach_____
H. ILS approach_____
I. Holding procedures_____
J. Missed approach procedures_____
K. Circling approach procedures_____
L. Simulated engine-out (multiengine only)_____
M. Other areas:_____

III. OVERALL COMPLETION OF COMPETENCY CHECK

Remarks:_____

_____

_____ _____
Signature of CFI Date

_____ _____
Certificate No. Expiration Date:

I have received an instrument competency check which consisted of the knowledge review and skill demonstration of the procedures noted.

_____ _____
Signature of the Pilot Date

APPENDIX 4. SAMPLE TRAINING PLAN FOR TRANSITION TO HIGH PERFORMANCE AIRPLANES

Name: _____ Date: _____

Grade of Certificate: _____ Certificate No.: _____

Ratings and Limitations: _____

Class of Medical: _____ Date of Medical: _____

Total Flight Time: _____

Aircraft to be Used (Make & Model): _____ N#: _____

Location of Training: _____

GROUND INSTRUCTION:

Subjects covered should include, but are not limited to:

I. AIRPLANE POH/AFM REVIEW

A. General Description and Safety Features
B. Limitations

II. AIRPLANE SYSTEMS INCLUDING NORMAL, ABNORMAL, AND EMERGENCY PROCEDURES

zx

A. Flight Instruments, Avionics, and Autopilot (if appropriate)
B. Controls and Trim Controls
C. Powerplant(s)/Propeller(s)
D. Fuel
E. Landing Gear
F. Flaps
G. Electrical
H. Hydraulic
I. Environmental
J. Pressurization
K. Ice Protection
L. Oxygen

III. FLIGHT PLANNING CONSIDERATIONS SPECIFIC TO AIRPLANE TO BE USED

A. Performance Data
B. Weight and Balance
C. Review of Instrument Procedures Appropriate to Avionics Capability of the Aircraft (if the pilot is instrument rated)
D. Minimum Equipment List (if applicable)
E. Servicing Requirements

IV. CHECKLIST AND OPERATIONAL PROCEDURES

A. Review of Operational Considerations for High Performance Airplanes in Airport Traffic Patterns
B. Review Local Departure and Arrival Procedures
C. Review Procedures for Each Maneuver to be Accomplished

Hours of Ground Instruction Completed: _____

APPENDIX 4. SAMPLE TRAINING PLAN FOR TRANSITION TO HIGH PERFORMANCE AIRPLANES (CON'T)

FLIGHT INSTRUCTION: (refer to the applicable PTS)

Maneuvers and procedures accomplished should include, but are not limited to:

I. PREFLIGHT INSPECTION

II. CHECKLIST AND PRESTART PROCEDURES

III. STARTING ENGINE(S)

A. Battery Starts
B. External Power Starts (may be by accomplished by simulated demonstration)

IV. NORMAL DEPARTURE OPERATIONS

A. Taxiing - Emphasis on Directional Control Procedures Which May Require the Use of Techniques Unfamiliar to the Pilot
B. Pretakeoff Checks
C. Normal Takeoff
D. Climb - Emphasis on Collision Avoidance and Appropriate Power Settings
E. Cruise - Checklist Completion and Cockpit Resource Management

V. AIR WORK

A. Constant Altitude Turns
B. Flight at Critically Slow Airspeeds
C. Stall Recognition and Recovery in all Applicable Configurations
D. Emergency Operations of All Systems (in accordance with manufacturer's recommendations)
E. Engine-out Procedures (if in a multiengine airplane)
F. Recovery from Unusual Attitudes by Reference to Instruments
G. Simulated Emergency Descent

VI. NORMAL ARRIVAL OPERATIONS

A. Descent and In-Range Checklist Procedures
B. Normal Landings

VII. PATTERN WORK

A. Crosswind, Short, and Soft-Field Takeoffs and Landings (if appropriate to aircraft)
B. Go-Arounds
C. Aborted Takeoff
D. Zero Flap Landing
E. Engine-out Procedures (if in a multiengine airplane)

VIII. INSTRUMENT APPROACH, DEPARTURE, AND EN ROUTE PROCEDURES (if instrument rated)

IX. AFTER LANDING AND POSTFLIGHT PROCEDURES

Hours of Flight Instruction Completed: _____

APPENDIX 4. SAMPLE TRAINING PLAN FOR TRANSITION TO HIGH PERFORMANCE AIRPLANES (CON'T)

OVERALL COMPLETION OF TRANSITION TRAINING:

Remarks:_____

_____ _____
Signature of CFI Date

Certificate No. _____ Expiration Date: _____

I have received transition training to high performance airplanes and completed the ground and flight training noted above.

_____ _____
Signature of the Pilot Date