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

Advisory Circular

Subject: Nationally Scheduled, FAA-Approved, Industry-Conducted Flight Instructor Refresher Course	**Date:** 9/13/18	**AC No:** 61-83J
	Initiated by: AFS-800	**Change:**

1 **PURPOSE OF THIS ADVISORY CIRCULAR (AC).** This AC provides guidance and recommendations for the preparation and approval of training course outlines (TCO) for Federal Aviation Administration (FAA)-approved, industry-conducted flight instructor refresher courses (FIRC) in accordance with Title 14 of the Code of Federal Regulations (14 CFR) part 61, § 61.197(a)(2)(iii). In so doing, this AC clarifies TCO development standards, training standards, and testing standards, and provides recommendations to assist applicants to meet and adhere to these standards.

1.1 **Program Intent.** The intent of the FIRC program is to keep flight instructors informed of the changing world of General Aviation (GA) flight training and to enhance aviation safety through continued up-to-date refresher training of the flight instructor cadre. Attending a FIRC is one of several methods by which a flight instructor may renew his or her flight instructor certificate in accordance with § 61.197.

2 **AUDIENCE.** The primary audience for this AC is applicants seeking authorization to become a FIRC provider and FIRC providers holding a current FAA authorization. The secondary audience includes flight instructors, flight schools, and stakeholders supporting flight instructor recurrent training.

Note: Effective August 4, 1997, the holder of a pilot school certificate issued under 14 CFR part 141 may also obtain approval to provide a FIRC program under the authority of part 141 appendix K, paragraph 11. Holders of a part 141 provisional pilot school or pilot school certificate that desire to offer a FIRC program under their Air Agency Certificate should also refer to this AC as guidance in developing a TCO for FAA approval (see paragraph 9.2).

3 **WHERE YOU CAN FIND THIS AC.** You can find this AC on the FAA's website at http://www.faa.gov/regulations_policies/advisory_circulars.

4 **WHAT THIS AC CANCELS.** AC 61-83H, Nationally Scheduled, FAA-Approved, Industry-Conducted Flight Instructor Refresher Course, dated August 4, 2015, is canceled.

5 **DEFINITIONS.**

5.1 **Airman Certification Representative (ACR).** An ACR is an individual representing a specific FIRC provider who is authorized under Title 49 of the United States Code

(49 U.S.C.) § 44702(d) to accept airmen applications for renewal of a valid flight instructor certificate from successful graduates of that provider's FIRC and to issue temporary flight instructor certificates.

5.2 **Attendee/Instructor/Instructor Attendee/Ground Instructor.** This AC uses all four terms throughout, and each term is defined in one of two ways:

1. "Instructor attendee(s), instructor(s), and ground instructor(s)" are individuals attending the FIRC who are currently either flight instructors and who are doing so to renew their flight instructor credentials or, for example, in the case of a ground instructor or a part 141 chief instructor, are attending the FIRC to meet some other regulatory requirement (such as meeting recent experience requirements).

2. The term "attendee(s)" includes instructor attendees, but it may also include any other individual who is attending the FIRC for reasons other than those specifically identified for an instructor attendee and who will not interact with the FAA as a result of attendance.

5.3 **Course (or Course of Training).** A course (or course of training) is a program of study of a range of closely related topics leading to a single outcome; in this case, the outcome is a graduation certificate that may serve as the basis for renewal of a qualified flight instructor's credentials.

5.4 **Credential(s).** In the context of this AC, credential(s) refers to the actual flight instructor certificate issued by the FAA to a qualified flight or ground instructor.

5.5 **Curriculum.** A curriculum is an organized sequence of topics or subject matter presented within a course of training.

5.6 **Distance Learning Curriculum.** A distance learning curriculum is a curriculum in which the study, completion, and testing for all applicable course materials in a training syllabus is satisfactorily accomplished through correspondence. For the purpose of this AC, distance learning does not include internet or web-based curriculum.

5.7 **Internet Curriculum/Web-Based Curriculum.** These two terms are used interchangeably and define a curriculum in which the study, completion, and testing for all applicable course materials in a training syllabus are satisfactorily accomplished through the internet.

5.8 **Lesson.** A lesson is an individual period of instruction that imparts subject matter to the attendee(s). A single lesson generally covers a single topic.

5.9 **Lesson Plan.** A lesson plan is the instructor's plan for teaching a given unit of learning. A series of lesson plans are components of the training syllabus.

5.10 **Module.** A module generally means a unit of training that includes a single topic. The term may also be used to mean a unit of training time (e.g., 1 hour) that may or may

not cover more than one topic. While the term will generally be limited in this AC to indicate a single topic, the alternative usage will be acceptable in the provider's documentation if clearly defined as such.

5.11   **Presenter.** A presenter is the individual who is actually presenting FIRC material. The presenter may or may not be the FIRC provider. In any case, all presenters should either be the provider, an employee or affiliate of the approved provider or organization, or be contracted to the approved provider or organization. Some exceptions may be made where the FIRC provider is including other government or industry speakers as guest presenters for individual modules.

5.12   **Provider.** A provider is a holder of an FAA authorization under this AC to conduct FIRC programs through meeting the requirements of § 61.197(a)(2)(iii). The terms FIRC, FIRC provider, operator, organization, and provider are used interchangeably in this AC.

5.13   **Sponsor.** A sponsor is a business or association that recruits and promotes an authorized FIRC provider to conduct its program to the sponsor's members for the purpose of providing continuing training to its member flight instructors and renewing their certificates through meeting the requirements of § 61.197(a)(2)(iii).

5.14   **Stage.** A stage is a portion of the course consisting of a group of lessons, similar subject matter, or a particular day of instruction (e.g., day 1, 2, or 3, versus stage 1, 2, or 3). A FIRC provider may or may not employ stages at their discretion.

5.15   **Student.** A student is an individual who will receive training to develop aeronautical knowledge and/or receive flight instruction from a flight instructor outside the venue of a FIRC. This AC does not use this term to refer to a flight instructor attendee.

5.16   **Training Course Outline (TCO).** A TCO is an overview document that details the content, methodology, and structure of a course of training.

5.17   **Training Syllabus.** A training syllabus is the structured listing and summary of all individual lesson plans representing the sequence and timing of the material taught. A training syllabus represents a kind of table of contents of the lesson plans and may be as short as a single page. Wherever possible, the syllabus will be structured as a step-by-step (building block) progression of learning with provisions for review, evaluation, and testing at prescribed stages of learning, such as identifying the time and location in the lesson sequence of each of the tests.

6   **BACKGROUND.**

6.1   **Flight Instructor Refresher Program.** The FAA's Flight Instructor Refresher Program was initiated in 1965 to provide standardization in updating flight instructors. FAA Aeronautical Center (FAAAC) instructors provided instruction until their participation terminated on October 1, 1977. Since that date, the FAA transferred the authority and responsibility for the conduct of the FIRC program to provide an authorized basis for renewal of a flight instructor certificate to certain qualified industry organizations. The FAA made this transfer in an agreement between industry

and the FAA. These industry-conducted courses of training now provide one acceptable means whereby the holders of valid and current flight instructor certificates may renew their flight instructor certificates.

6.2 Program Attendance.

6.2.1 Attendance at these training programs provides qualified instructors an opportunity to meet or maintain their qualifications as chief instructors or assistant chief instructors for pilot schools certificated under part 141.

6.2.2 Attendance at these training programs provides non-instructor pilots and other interested parties an opportunity to further their aeronautical knowledge.

6.2.3 Successful attendance at one of these training programs qualifies for the ground portion of any level of the Pilot Proficiency Program (WINGS) for both flight instructors and non-instructor pilots.

7 THE ROLE OF THE FIRC PROVIDER.

7.1 Role. The FIRC provider plays an extremely important role in maintaining the highest levels of safety, professionalism, and indepth expert aviation knowledge to help ensure a continued enhancement of aviation safety.

7.2 Communication. The FIRC program reduces GA accidents by communicating pertinent and up-to-date information to flight instructors through recurrent training.

7.2.1 <u>Responsibility</u>. The FIRC program ensures expert flight instructor knowledge through consistent communication. FIRC providers:

1. Communicate current information that is essential to ensuring extensive and indepth flight instructor knowledge.

2. Provide training of pertinent developments and new information that occurred since the attendee's last certificate renewal.

3. Have the responsibility to meet the recurrent training needs of their attendees.

    Note: Flight instructors are professionals that should maintain the highest level of aeronautical knowledge to do their job effectively. They carry out their responsibilities (see paragraph 7.4) on the front lines, where they directly influence the level of safety that exists throughout the GA community. Flight instructors mentor pilot safety practices as they reduce aviation accidents by providing pilot training, pilot evaluations, and by engaging in myriad other pilot-related activities that influence the GA safety culture. Therefore, the communication of current information to flight instructors is essential in ensuring expert flight instructor knowledge.

7.2.2 <u>Qualification</u>. The FAA has determined that certain organizations or individuals are qualified to act on behalf of the FAA in providing a basis upon which a flight instructor may renew his or her instructor credentials in accordance with § 61.197(a)(2)(iii). All approved FIRC providers together constitute a larger whole that, along with and interacting with the FAA, share the common purpose of ensuring that flight instructors receive the most up-to-date information through recurrent training. This is an important factor in maintaining the highest levels of safety, professionalism, and expert knowledge to help ensure a continued enhancement of aviation safety at all levels. Individual FIRC providers should recognize that they are part of this larger whole and attempt to communicate and share ideas and current information with other providers and with the FAA on a regular basis.

7.3 **Skill Building.** The spirit of a FIRC should parallel that of the professional conference. A live, in-person FIRC is a professional conference in every sense. Virtually all practicing professionals regularly attend conferences and receive recurrent training to improve their skill and ability to carry out their jobs more safely and efficiently. As professionals, flight instructors demonstrated certain basic skills and knowledge when they received their flight instructor credentials; thus, the FAA does not intend for a FIRC to rehash those basics. The FAA expects a FIRC to expose its attendees to the latest in flight training techniques, the newest technologies, and, most importantly, the latest operational safety procedures. Emphasis in the FIRC should always be on the blend of aviation safety and effective instruction; that is, it should be on developing and improving the instructor skills necessary to efficiently convey information to pilots in training and to build within them a foundational culture of safety.

7.4 **Flight Instructor Responsibility.** The only contact that many pilots may have with an aviation authority is through his or her flight instructor. Flight instructors are professionals who play a vital role in enhancing aviation safety. A flight instructor's responsibilities include effectively conveying critical information to pilots, effectively evaluating pilots' proficiency, and effectively developing pilots' skills to higher proficiency levels. Consequently, flight instructors play a leading role in reducing the GA accident rate. The FAA accorded serious responsibilities to flight instructors when the FAA issued their instructor credentials. Incumbent upon these responsibilities is the requirement that they stay knowledgeable and up to date on those issues critical to aviation safety. The FIRC plays an important role in this regard.

7.5 **Teaching Methodology.** Any single FIRC program should, as much as is practical, present a course of interrelated lessons that enhances the active flight instructor's ability to provide better training to GA pilots, rather than delivering a set of disconnected subjects offered one after another with no obvious connection or purpose. The provider should think of each topic as a chapter out of a larger book, with that "book" being the entire 16-hour program. The FIRC provider should present the topics in appropriate context. Always address the "why" of anything presented. Emphasize the concept of scenarios. The FIRC provider should develop an innovative overall course that compels and inspires its attendees.

7.5.1   An example of innovative thinking might be illustrated by developing a scenario with a fictitious pilot for the attendees to follow as the fictitious pilot moves through each (or some) of the course topics and experiences, learns, and reacts to each topic.

Note: For example, the FIRC provider could develop a scenario about Bob, the flight instructor who, while instructing a student on how to use advanced avionics, inadvertently flies into Special Use Airspace (SUA) because of excessive heads-down time in the cockpit while operating the avionics. After a military helicopter intercepted Bob's airplane and persons from the Transportation Security Administration (TSA) interviewed him, the TSA interviewers discovered that Bob was not in full compliance with TSA rules regarding how he was keeping records of his students. After this ordeal, he then uses the experience to effectively teach his students how to recognize and avoid SUA. Bob also discusses how keeping safety at the forefront of their minds is a broad-based cultural issue, and not one just related to the performance of a preflight or checking the weather.

7.5.2   In this example, a program provider would have touched on at least four of the core topics and would have given meaning and a sense of urgency (as well as personal immediacy) to those topics. It is likely that the subject matter would have retained the attendees' interest throughout the presentation(s). This is only one example where the FIRC provider can use creativity and ingenuity to build context and make the subject matter meaningful, all while retaining the attendees' interest. FIRC providers are in no way required to employ the particular approach given in this example. There are many other approaches.

7.5.3   The FAA considers a FIRC provider as a professional educator with particular skill at training the trainers; therefore, the FAA wishes to give the FIRC professional as much latitude as is practical in their development of their programs. The important thing is to teach the flight instructors practical, meaningful information that they can take to their students the next day that will contribute to an overall fostering of a culture of safety. This places many demands and very high expectations on the FIRC. The FAA expects FIRC providers to excel at this skill.

7.6   **Returning to Flight Instruction Training Module.** The FAA understands that many flight instructors who are renewing their instructor credentials are not currently instructing and, in some cases, may not have done so for many years. Time constraints within which the FIRC operates restrict the FIRC provider from providing all of the information necessary to bring an inactive flight instructor up to speed; the FIRC provider should not attempt to do so within the context of the FIRC. Nevertheless, the nonpracticing flight instructor in attendance is still an authority figure in aviation, and the FIRC provider should strongly remind all inactive instructors of the responsibilities that come with their FAA-issued authority to provide aviation training and endorsements, even if they are not actively doing so. Building and sustaining a safety mindset in non-active instructors will translate into a safety ethic that they will carry with them even in casual communications with others, even if they never return to formal instructing. With that said, the FIRC provider may (and is encouraged to) consider

developing and offering an elective module covering the topic of returning to flight instructing if they choose. Such a module may be of particular interest to those nonpracticing instructors in attendance and may offer the opportunity to them to learn the procedures and processes of safely returning to the profession after some period of absence. However, this topic should be limited to a single module and may not exceed 1 hour of the total 16 required hours. The principal purpose of the FIRC program is to provide new and useful information to the practicing instructor. With the exception of this single module, the FIRC provider should always direct their presentations toward that target audience.

7.7   **High Level of Training.** Learning new information and developing an internal culture of safety is every bit as valuable and important to the non-instructor airman as it is to the flight instructor. There is little that the FIRC provider teaches the active flight instructor at a FIRC that is not of value to the non-instructor. Therefore, FIRC providers should actively encourage and recruit pilots and instructors of all certificate types and levels to attend, including student pilots and ground instructors. However, the FIRC providers' target audience is the active instructor attending for credential renewing, and the level of instruction should, at all times, remain at that high level. Experience has shown that non-instructor pilots who voluntarily attend FIRCs appreciate being exposed to higher levels of training and are fully capable of benefiting from the advanced material presented.

7.8   **FIRC Provider as an FAA Representative.** An approved FIRC provider is granted the authority to provide a basis for renewal of FAA-issued flight instructor credentials in accordance with § 61.197(a)(2)(iii). In some cases, the FIRC provider is further authorized to employ a designated ACR and issue Temporary Airman Certificates on behalf of the FAA. In these respects, the FIRC provider acts as a representative of the FAA and should, at all times, act accordingly. FIRC providers should always be supportive of the FAA and constructive in its evaluation and presentation of FAA regulations and policies. FIRC providers may not present, nor allow the presenting, of any materials during the FIRC that are prejudicial or contrary to the FAA's Federal regulations or prescribed procedures. A FIRC program is not a forum for disagreement with FAA regulations, policies, or procedures; rather, it should engender appropriate respect for the role of the FAA and its efforts to enhance the safety of flight, and should demonstrate a proper compliance disposition toward Federal regulations. Comments or discussions that are derogatory to the FAA, its policies, or regulations will be grounds for immediate withdrawal by the General Aviation and Commercial Division of the provider's authorization to conduct any further FIRC programs.

7.9   **FAA Involvement.** Although the FAA's responsibility for the presentation of FIRCs was transferred to industry in 1977, the overall program remains an FAA initiative. Since the industry FIRC provider is authorized to carry out the FAA's FIRC initiative in the FAA's name, authorized FIRC providers may use the FAA logo in any of their documents, publications, or advertising that relate specifically to the presentation of authorized FIRC programs. In this case, the FIRC provider should clearly state somewhere in their public documentation that the FIRC provider is not the FAA, but that it is, instead, authorized to operate the program on the FAA's behalf. Providers should remove all FAA logos and

FAA representations from all of their publications immediately upon expiration or other loss of FAA authorization to conduct FIRCs, regardless of the reason.

7.10   **Course Conduct.** The FIRC provider is expected to conduct their programs and presentations in accordance with their approved TCO.

8   THE ROLE OF A FIRC SPONSOR.

8.1   **Role.** Expanding upon the definition found in paragraph 5.13, a pilot association or other aviation group that recruits an authorized FIRC provider to conduct a course to its members is considered a sponsor. A flight school, for example, may choose to enter into an agreement with a provider to conduct a FIRC for its flight instructors. In this case, the flight school assumes the role of sponsor by arranging the event for the benefit of its instructors. The sponsor may make arrangements with an authorized provider to conduct a FIRC for continuing training that satisfies the eligibility requirements of § 61.197(a)(2)(iii), in turn allowing their flight instructors to renew their credentials.

8.2   **Branding.** A sponsor's logo may appear in the promotion of a sponsored FIRC. For example, a sponsor's logo may appear on the FIRC provider's graduation certificate; however, the FAA requires a provider's graduation certificate to explicitly state that the FIRC provider is the authorized organization conducting the FIRC, not the sponsor. The sponsor may only present itself as the promoting association or group that arranged for the provider to conduct the FIRC for its members.

8.3   **Sponsorship Approval.** FIRC providers are required to request and receive prior approval from the FAA to conduct a FIRC on behalf of a sponsor's members. See paragraph 9.1 for FIRC contact information.

9   GENERAL PROCEDURES REGARDING FIRCs.

9.1   **Contact Information.** Individuals or organizations who desire to conduct FIRC programs approved under this AC should contact the General Aviation and Commercial Division with their preliminary inquiry. FIRC provider candidates may also include a copy of the TCO they plan to use if they have already developed one. A provisional pilot school or pilot school (under part 141) wishing to add a FIRC under part 141 appendix K should contact the appropriate Flight Standards District Office (FSDO). The prospective FIRC provider should submit any correspondence at least 120 days before any planned training under the course approval. This is to allow adequate time for the FAA's review and approval. A FIRC provider may not schedule a FIRC program before receipt of the approval letter from the General Aviation and Commercial Division, unless the provider receives prior approval from the General Aviation and Commercial Division to do so. The FAA requires individuals or organizations authorized to conduct FIRCs approved in accordance with this AC to maintain a current mailing address, email address, telephone and facsimile numbers, and a reliable point of contact (POC) with the General Aviation and Commercial Division. FIRC provider applicants may

submit inquiries or documentation to the General Aviation and Commercial Division via any of the following methods:

- The FAA FIRC email address at 9-AWA-AVS-AFS-FIRC@faa.gov (this is the preferred method).

- The General Aviation and Commercial Division fax at 202-267-1078.

- Direct emails to the FIRC program manager (requires prior communication).

- United States Postal Service (USPS) or other conventional physical document transfer service to:

> Federal Aviation Administration
> General Aviation and Commercial Division, AFS-800
> 800 Independence Avenue, SW
> Washington, DC 20591

9.2 **FIRC (Part 141 Appendix K).** Under part 141 appendix K, paragraph 11, a provisional pilot school or pilot school may develop a special preparation FIRC. Applicants wishing to add a FIRC under appendix K should refer to this AC to develop their FIRC TCOs. This AC provides guidance for the preparation and approval of a TCO for an FAA-approved, industry-conducted FIRC in accordance with § 61.197(a)(2)(iii). Graduates from an appendix K approved course who complete and pass the stage and end-of-course tests count towards the renewal requirements under part 141, § 141.5.

9.3 **Public Versus FAA Access to Provider TCOs.** Providers will provide any attendee at an approved FIRC an opportunity to review a copy of the FAA-approved TCO at the provider's presentation site if the attendee specifically requests it. The FAA understands that a TCO may be a proprietary document. An attendee, upon request, may review a copy in the presence of the provider or a representative of the provider. However, neither the provider nor its representative is required to allow an attendee to retain a copy or to allow an attendee to copy the TCO (although this is permitted at the election of the operator). In any event, the provider may not provide the attendees copies of any versions of the tests or test pools that the provider uses in its FIRC. Upon request of any FAA representative, the FIRC provider will provide a copy of the TCO to follow during the presentations. The TCO is required to include all of the test questions and the answers that the FIRC provider uses in any of its lessons, stages, or course completion evaluations. FAA personnel may retain the documents upon request only so long as to make copies, if desired, after which the FAA will return the original copy to the provider. FAA personnel other than the General Aviation and Commercial Division should return any documents to the provider within 1 week unless the appropriate FSDO and the FIRC provider make another arrangement. The FAA will not make any documents provided by the FIRC provider available to any person or organization outside the FAA without express written permission from the document developer or owner.

9.4 **FAA Participation.** Active FAA participation, either by forum or by presentation, is permitted and encouraged, but may not exceed 2 hours of any 16-hour program presentation and is authorized only by prior agreement between the FAA

representative(s) and the FIRC provider. The FIRC provider may request the appropriate FSDO to participate, or the FSDO may initiate a request. The amount of FIRC schedule time that the FAA participant will be permitted is generally at the discretion of the provider, but it may not exceed 2 hours. The decision to allow FAA participation is solely the prerogative of the provider unless required by a Flight Standards office supported by the General Aviation and Commercial Division. In some rare cases, typically as a result of a safety initiative, it may be necessary to mandate FAA participation. In such cases, the General Aviation and Commercial Division will coordinate between the appropriate Flight Standards office and the provider(s) to find the best solution to ensure that disruption to the provider's schedule is kept to a minimum.

Note: The provider may not restrict or forbid the FAA from observing any FIRC program at any time for any reason in a nonparticipatory capacity. FIRC surveillance is solely at the discretion of the FAA.

9.5 **Cross-Provider Presentation.** Except as noted below, no provider may teach a part of his or her own FAA-approved TCO in conjunction with a part of another provider's approved TCO. Inclusion of any topic not specifically approved in the provider's TCO, regardless of its source, is prohibited without prior approval.

Note: In some rare cases, two approved providers may wish to combine their programs for a special event. In such cases, all parties are required to coordinate with the General Aviation and Commercial Division to request specific, limited approval.

9.6 **Instructor Affiliation.** The principal instructor giving presentations at an FAA-approved FIRC will be an employee or affiliate of the approved FIRC provider or be contracted by the approved FIRC provider. In some rare cases, a provider may wish to allow a specialist or expert at a particular field, who is not affiliated with the FIRC provider, to teach some individual module or modules. In such cases, all parties will contact the General Aviation and Commercial Division to request and receive specific limited approval.

9.7 **Reference Source Requirement.** The FIRC training standards established by this AC require providers to make available to their attendees current and applicable parts of 14 CFR (i.e., those parts that are pertinent to pilots and flight instructors). In addition, the Aeronautical Information Manual (AIM) should also be available during each course. These references can provide answers to questions raised during the course which otherwise may be left unresolved. While electronic versions of these documents are suitable for use by all providers, the FAA encourages live classroom providers to consider printed versions (e.g., paperback) for ease of passing around the classroom.

9.8 **Training Aids Authorized for Use.**

9.8.1 Use of Training Aids. FIRC providers are encouraged to use a variety of visual, aural, and static training aids to enhance communication and understanding between instructors and participants. Good instructional aids assist instructors in achieving desired goals in

the teaching/learning processes by supporting or supplementing lesson material when used logically and intermittently.

9.8.2 <u>Operational Competency</u>. Presenters at the FIRC should be fully versed in the operation of all equipment used during the presentations. Spare parts, such as replacement bulbs for projectors, should be available at all times where appropriate, and presenters should know how to replace those parts quickly, if necessary. The presenter should test any training aids prior to their use to ensure that faulty equipment or a lack of understanding of the operation of that equipment does not disrupt the class.

9.8.3 <u>Clarity of Training Aids</u>. Visual aids used should be clearly visible to the entire class. Lettering, illustrations, and diagrams should be large enough to be seen clearly by attendees farthest from the aids. The provider should use colors that are clearly contrasted and easily visible. The provider should use eye-pleasing colors and should avoid harsh contrasts. The most common error in constructing visual presentations is to attempt to include too much information on each visual, making it difficult to read and comprehend while listening to the instructor or moderator. The best results are attained by using visuals that are simple and contain a single thought or message. For example, the reproduction of an entire sectional chart projected on a screen to emphasize the airport information block would contain too much clutter to be effective. A followup visual that highlights the airport data block only would be much more effective in presenting the message to the course attendees and should be visible from any place in the room.

9.8.4 <u>Innovative Techniques</u>. In recent years, an abundance of excellent new materials and instructional techniques in the field of training aids has been developed. These aids present many advantages for the FIRC programs. Each chief instructor should keep the teaching goals in mind. For example, presentations to flight instructor attendees should focus on how the flight instructor can better do his or her job as an instructor. For an instructor to be most effective, the instructor should thoroughly know the subject matter he or she is teaching. The provider should design the presentations around techniques that will help the attendees be more effective as instructors rather than solely as a review of the required subject matter. If they are not actually giving the instruction during a particular module of learning, the presenter should continuously monitor the instruction given and the participants' progress to ensure that the instructor is delivering a quality product and that the instructor meets the goals and objectives of the training syllabus.

9.8.5 <u>Use of Video Presentations</u>. FIRC providers are encouraged to use video and/or aural presentations as an aid to maintaining attendee interest and as a tool to better convey important information to the attendees. Except for distance-learning curricula or internet-based FIRCs, the FAA requires providers to limit video and aural presentation use to not more than 50 percent of the entire course hours. An instructor (well-versed in the subject matter and material) who provides introduction and closure will moderate each video and aural presentation. The information provided by distance learning or via the internet will constitute significantly more video and aural content, since the alternative is largely limited to simple onscreen text. However, the information provided

by video and/or aural presentations in distance or internet curricula should always be germane to the topic(s) presented.

9.9   **Inability of an Attendee to Complete the FIRC.** An applicant for renewal of a valid and current flight instructor certificate who, because of extenuating circumstances, fails to satisfactorily complete all of an approved FIRC program may, at the discretion of the provider, attend a later-scheduled FIRC program presented by that same provider or may receive personal training from that same provider on those topics that the attendee did not complete. Upon full and satisfactory cumulative completion of that provider's FIRC at a later date, the provider may issue a graduation certificate to the instructor attendee that reflects the date of the final completion of all required instruction. This procedure is not intended to permit an instructor attendee's intentional absence from any part of a FIRC provider's program for other than unforeseen (emergency) circumstances. The rationale for this is that each live, in-person FIRC program presentation has a certain "flow" that could be disrupted when an attendee takes one or more portions out of the designed and approved sequence. Those providers who are approved for course presentations over an extended period of time have somewhat more latitude in that they can conduct an individual makeup session within the span of time before the next scheduled module.

9.10   **Product Manufacturer Representatives.** A provider may utilize a product representative from the industry to present a module, or a portion of a module, in a FIRC program as a guest speaker, if invited by the provider. However, that representative may not use the FIRC as a venue to promote a particular product. The representative may discuss his or her product, but such discussion should be in the context of other, comparable products. If at any time the FAA determines that an industry representative is using a FIRC presentation as an opportunity to sell a product, the FAA may withdraw its authorization for the provider to present any additional FIRCs.

9.11   **Instructional Level.** The emphasis of a FIRC program is to teach the instructor how to teach students, rather than simply teaching the instructor. The target audience is the active flight instructor, who is expected to possess the basic knowledge that is implicit in his or her certification. The FAA understands that many FIRC attendees may not be active instructors. Even when nonpracticing flight instructors make up the bulk of the attending class, the target audience remains the active instructor. Active instructors will immediately carry the knowledge and skills gained from the FIRC and apply it to the aviation industry. The FAA expects FIRC providers to meet this high-level training standard to train the target audience effectively.

9.11.1 Advanced Training. Advanced training is not limited to rote learning (memorization) but rather promotes critical thinking. Effective critical thinking fosters aeronautical decision-making (ADM) and safe flight. FIRC programs should challenge, motivate, and inspire FIRC attendees.

9.11.2 FIRC Training Standards. The FAA requires FIRC programs to meet current FIRC training standards. A FIRC provider should not spend valuable instructional time reviewing basic pilot knowledge that flight instructors are expected to know. A FIRC should not teach the flight instructor at a private pilot level. FIRCs should present

challenging lessons designed to transfer meaningful information to attendees in order to help flight instructors carry out their role more effectively. FIRC providers should consider the following training standards when developing their TCO:

1. FIRC programs should conduct courses that present new, challenging, and pertinent information presented at an advanced knowledge level commensurate to the active flight instructor.

2. FIRC programs should conduct courses that effectively provide continuing training and education pertinent to flight and ground instructors.

3. FIRC programs should conduct courses that enhance the ability of active instructors to instruct effectively.

4. FIRC providers should conduct programs that enable the instructor attendees to promote a culture of safety aimed at reducing GA accidents.

9.11.3   FIRC Testing Standards. FIRC testing standards require FIRC providers to develop and present test questions for all lesson presentations. This helps ensure that FIRC attendees gain effective knowledge transfer from each lesson. Exams should align with the key topic points (subject matter elements) presented in each lesson plan of the provider's TCO. Test questions should also be reasonably challenging and plausible. See paragraph 11.11 for more information concerning test questions and paragraph 13 for testing procedures.

9.11.4   Course Authorization Standards. The FAA will not authorize or continue to authorize any FIRC program that does not meet FIRC training and testing standards.

9.12   **Records.** The FAA requires all FIRC providers to maintain a record of the complete name and address of all instructor attendees and whether the provider issued or denied a graduation certificate. If the provider denies a graduation certificate, the provider has the responsibility to record the reason for the denial. The provider is responsible for maintaining this record for a period of at least 24 months. Recordkeeping may be digital. The provider also has the responsibility to retain records for attendees who only receive a course completion certificate.

9.13   **Aircraft Category Specialization.** A FIRC may, at the operator's discretion, find it useful to focus their program on a particular category of aircraft flight instructor (e.g., rotorcraft or glider). The FAA may approve such a program as long as the provider meets general FIRC training standards and the associated core topic requirements outlined in Appendix A, Required Instructional Core Topics for FAA-Approved TCO Curricula. Attendance by any flight instructor at any approved FIRC, whether or not that FIRC specializes in a particular category of aircraft, is an acceptable basis for the renewal of any flight instructor certificate. This is acceptable even if the instructor does not hold a certificate or rating in the category of aircraft to which the FIRC is oriented. For example, a flight instructor who holds a commercial single-engine rating with instrument pilot certificate and a single-engine airplane instructor rating may attend an authorized helicopter-focused FIRC and may use a graduation certificate from that FIRC as a basis for renewal of his or her flight instructor credentials, even though he or she does not hold

a rotorcraft pilot certificate or a rotorcraft flight instructor rating. For this reason, the FAA requires that all FIRC providers meet all general FIRC training standards.

9.14 **FSDO Capacity to Process Renewals.** The capability of a FSDO to administratively process flight instructor certificate renewals is based upon that office's work priorities and available staff. Therefore, to avoid placing an undue workload on a particular FSDO, providers who do not have an ACR on their staff are encouraged to contact the appropriate FSDO well in advance to determine the capability of that office to handle the anticipated number of applicants for renewal. It may be advantageous to advise the FIRC graduates that they should present their certificates to the appropriate FSDO for renewal, and that they should do so at intervals rather than in large numbers at any one office on a given day. The instructor attendee must present their documents to a FSDO before the holder's flight instructor certificate has expired and before the FIRC graduation certificate has expired.

9.15 **Certificate Renewal by Mail.** Under certain limited circumstances, attendees may renew their flight instructor credentials by U.S. mail. FAA Order 8900.1, Volume 5, Chapter 2, Section 11, Conduct a Title 14 CFR Part 61 Flight Instructor Initial/Reinstatement/Renewal Certification and Additional Category/Class Ratings, outlines this procedure. Order 8900.1 is available to the public through the FAA's Flight Standards Information Management System (FSIMS) at http://fsims.faa.gov.

9.16 **Integrated Airman Certification and Rating Application (IACRA).** FIRC providers should utilize the IACRA internet-based program for processing applicants when practical. The provider should direct questions concerning how to utilize this program to the appropriate FSDOs.

10 TCO DOCUMENT DEVELOPMENT—GENERAL.

10.1 **TCO Length.** Many new providers inquire as to how long the TCO document should be. There is no set length. The FAA encourages providers to use as much detail as they feel appropriate to fully describe what they intend to do and how they intend to accomplish their goals. Adequate detail makes it easier for the FAA to grasp more fully the content and pattern of presentation, thereby often shortening the approval process. Each distinct unit of information presented in the TCO should be on a separate page or pages (e.g., table of contents, revision page, facilities description, and personnel descriptions). Each individual instructional unit should be on its own page. Separating distinct units of information by page will make revisions and revision tracking easier. At the same time, the FAA is not seeking a large number of pages for volume's sake. Providers should not include superfluous information in the TCO just to make it look bigger. Providers should exercise common sense to fully describe the program that they plan to present. Detailed information regarding specific TCO components is found in paragraph 11.

10.2 **Subject Matter Requirements.** All providers, at a minimum, will include all of the core topics identified in Appendix A.

10.2.1   Core Topics. Core subjects are those mandated by the Administrator. Providers should design core topic lessons to meet FIRC training standards by designing lessons that challenge the target audience and ultimately enhance safety of flight. The FIRC provider may incorporate or combine core topics with other topics in any logical manner. In this case, the provider should clearly identify the location of each core topic within the subject matter and ensure sufficient allocation of time to each of the core topics, regardless of its location. To ensure adequate coverage, each core topic should deliver robust lesson content. In all cases, the FAA will make the final determination of whether a provider's core topic lesson meets the training standards for a FIRC curriculum.

10.2.2   Elective Topics. The FAA encourages providers to develop and offer elective modules covering suitable aviation topics. Providers may choose and add as many elective topics as they wish. The provider may consider building a "library" of electives. To ensure adequate coverage of the material, each elective topic should deliver robust lesson content. In all cases, the FAA will make the final determination of whether a provider's elective lesson meets the training standards for a FIRC curriculum.

10.2.3   Course Content Consideration. Topics should be fully developed and designed at a level to challenge and stimulate critical thought from the target audience. For example:

10.2.3.1   An elective lesson on airspace corresponds to the sport pilot or private pilot training level, and is not worthy of a FIRC curriculum targeted to the active instructor. Instead of conducting an airspace lesson to instructors as a review, providers should recognize that this lesson offers the opportunity to deliver advanced instructional training that teaches the instructor to teach more effectively.

10.2.3.2   A FIRC provider should offer advanced training methods to the target audience, discuss common error in understanding airspace, and/or develop the attendees' scenario-based training skills by correlating the regulatory weather minimums with minimum safe altitudes to determine what ceiling is necessary when departing or approaching an airport. Teaching the target audience advanced instructional techniques ultimately affords greater knowledge transfer to their students and clients.

10.2.4   Approval of Electives. The FAA requires FIRC providers to receive approval of an elective topic before a provider may present it. The provider has the responsibility to inform the FAA of the change(s) and identify where in the program the change has taken place. This can be in the form of a simple email notification to the FIRC email address (9-AWA-AVS-AFS-FIRC@faa.gov). The FAA will receive the notification and grant approval before the provider presents the changed topic. The FAA will acknowledge receipt of the notification and approvals.

10.3   **Themes.** The provider should weave the following themes throughout the content of all lessons and discussions. Each is of such importance that they should be recurring themes seen throughout the entire FIRC experience.

10.3.1   Culture of Safety. The principal and most important theme that should be apparent throughout the entire FIRC program of training is the importance and degree of responsibility of the flight instructor toward furthering aviation safety. All of the lessons should contribute to the development of a safety culture mindset that attendees will take with them as they both fly and teach others to fly. The culture of safety and the flight instructor's role and responsibility in furthering that culture cannot be overemphasized. Instructors should be strongly reminded of the inherent duties and responsibilities that are imparted to them upon issuance of their instructor credentials, chief of which is promoting safety.

10.3.2   Aeronautical Decision-Making (ADM). ADM skills are an inherent component of a fully realized safety culture. ADM is simply the skill and ability to quickly make correct safety-related decisions in the aeronautical arena, be it in the air or on the ground. Risk assessment skills and risk mitigation skills are critical components of ADM. This may seem obvious, but the point is often overlooked when trying to discover some "higher meaning" in the ADM term. The fact is that every person, whether they are a pilot or not, makes many safety-related decisions every day. It may be as simple as whether to drive a car on an icy day. It is simply common sense based on acquired knowledge. When cast in this light, ADM becomes far less mysterious and esoteric; therefore, ADM becomes much easier to grasp as a concept and to incorporate into the overall safety culture. All pilots are taught ADM, but the concept can far more effectively be conveyed if it is presented in these simpler, everyday terms, and the provider should weave this topic throughout the entire FIRC program.

10.3.3   Professionalism. Professionalism is normally defined as receiving pay or compensation for expert knowledge or skill in a particular area or field. The flight instructor is, therefore, a professional by definition. Yet, many times, flight instructors do not recognize this in themselves or they simply forget that they are the holders of very specialized and unique knowledge and skill. They may forget the critically important role that they play in furthering aviation safety. Many flight instructors only give flight instruction to build the hours necessary to move on to the air carriers. This attitude belittles the profession of primary flight instruction. It is important that flight instructors be reminded that they are, in fact, aviation professionals and of the important role they play in aviation safety, regardless of their goals. Even though this topic is a FIRC core requirement, it should be a recurring theme throughout the entire FIRC program.

10.3.4   Ethics. Closely related to professionalism is the concept of professional ethics. It has often been said that ethics is what people do when others are not looking. The provider should remind instructors that their certificate conveys great authority. Instructors have the ability to make entries in pilots' logbooks, sign certificate applications, conduct flight reviews, etc. All of these actions can have a direct impact on their clients' ability to fly safely. An example of unethical behavior would be a flight instructor who signs a pilot's logbook when he or she has not actually given a flight review. Beyond simply being contrary to Federal regulation, it is important that the flight instructor is reminded that it is neither ethical nor professional and why. To be professional, flight and ground instructors should take seriously the duties and responsibilities that come with being an FAA-authorized instructor. The provider should emphasize a sense of professionalism

and value in doing the right thing when exercising the privileges and responsibilities that come with being a flight or ground instructor.

10.4 **Minimum Course Hours Requirements.** Curricula presented for FAA approval consideration should consist of no fewer than 16 hours of ground and/or flight instruction. Providers may offer more. Providers may distribute those hours any way they choose, in that they do not need to be contiguous, nor must the provider complete all 16 hours of training within a concurrent 2-day span. For example, providers may offer portions of the curriculum on a monthly basis. The key is ensuring that the attendee receives all of the authorized information. A flight instructor may use no portion of the approved FIRC program for renewal credit if the instructor has taken that portion before the applicant's last renewal. In other words, the applicant is required to have received all 16 hours of the approved TCO within his or her most current biennial certificate period. If the provider chooses to spread their program over an extended period (e.g., 2 years), they are solely responsible for ensuring any attendee is compliant. Failure to do so may result in an invalid application for renewal for an instructor. Because of the logistical difficulties, FIRC providers are strongly advised not to employ this option for periods exceeding 1 year; nevertheless, it remains the option of the operator. If the provider modifies their TCO in the middle of an extended program of training, the provider is responsible to ensure that attendees are provided all of the training in the TCO that is approved at the time of their graduation.

10.5 **Training Block Timeframes.** Reasonable variances in the timeframe to accommodate individual learning differences and other situations may arise from time to time during the FIRC presentations. The potential for these variances should be considered when determining the adequacy of the estimated timeframes of the overall course, the course stages, and the individual lessons. The FIRC provider should consider the following concepts when developing their TCO:

10.5.1 There are required minimum times to teach any particular topic, including core topics. Minimum instructional times apply to all FIRCs, including internet-based programs.

10.5.2 The minimum period authorized to present a core topic lesson is 45 minutes.

10.5.3 The minimum period authorized to present an elective lesson is 30 minutes; however, the FAA may approve an elective topic presentation designed for less than 30 minutes if the provider requests and provides sufficient justification.

10.5.4 The provider's TCO should specify the anticipated amount of time that the provider will spend on each lesson topic. It should specify the expected start and stop times of each lesson.

10.5.5 The overall FIRC program should consist of the minimum specified 16-hour course (ground and/or flight instruction, breaks, and testing) and comply with acceptable teaching standards and techniques appropriate to the TCO used.

10.5.6 For the purposes of the FIRC, a program hour consists of 60 minutes.

10.5.7 Each hour, except non-working lunches and dismissal hours, may include a 10-minute break after each 50-minute learning session without taking away from the total required 16 hours. A provider may credit up to 120 minutes (2 hours) toward the 16-hour course minimum timeframe for attendee rest breaks. The course provider will not receive credit for additional breaks offered. The provider may, for example, offer a 100-minute (1 hour, 40-minute) training block period of training followed by a 20-minute break. However, the provider may not continue training throughout an 8-hour day with no breaks and then end the day 1 hour and 20 minutes early. Unbroken spans of instruction should never exceed 2 hours in length.

10.5.8 Pre-course registration, lunch periods, dismissal hour, or graduation activities other than the distribution of graduation certificates may not be included as part of the hours of instruction creditable to § 61.197(a)(2)(iii).

10.5.9 Part of the required 16 hours may include testing, but may not exceed 30 minutes in any given 8-hour span of instruction.

10.5.10 Providers may use a lunch period as an approved instructional block if all attendees are present during the lunch period and the TCO identifies the topic of instruction that the provider is to cover. If the provider exercises this option, it needs to be identified in the TCO, as would any other instructional block of time.

10.5.11 The chief instructor is responsible for ensuring the full attention of the participants and that the attendees complete all lessons, achieve all lesson objectives, and do not abuse permitted break privileges.

10.6 **Instructional Techniques/Alternatives.** The provider should seek the most desirable and/or alternative instructional techniques available that a certificated instructor may find effective in learning during the FIRC. Although there are well-established traditional methods of training, the provider should explore any effective alternatives in developing their program. The goal is to transfer critical new and useful information to the attendee in an effective manner. How the presenter accomplishes the transfer is entirely up to the provider, who is expected to be an expert in the field of training trainers. The underlying premise should emphasize teaching ability and the skills necessary for flight instructors to convey new information to their students successfully. The course should be both challenging and thought-provoking. Construction of the TCO should follow the general guidance in this AC to ensure expeditious approval. The FAA seeks to ensure a certain level of FIRC program standardization and emphasizes the coverage of program areas believed essential to enhance the knowledge, skills, and instructional capability of attending flight instructors.

10.7 **Completion Standards.** The goal of the FIRC is to effectively transfer knowledge to the attendee. The only objective way to measure the degree to which the provider obtained this goal is to test the attendees in some manner. Paragraph 13 discusses the importance of testing in the FIRC program.

10.8   **Workshops.** The curriculum may contain workshops or discussion forums as part of the approved TCO to foster an open exchange of information among everyone in attendance. However, a workshop or discussion forum should not be conducted as a venue for attendees to simply share aimless past experiences or "war stories." Instead, a FIRC provider should develop a plan for the discussion forum or workshop. The FIRC provider's plan should include a forum objective, pertinent information, and critical new information as it applies to the exchange of information. Objectives define strategies or implementation steps to attain the identified goals. Unlike goals, objectives are specific, measurable, and have a defined completion standard. The FAA expects the FIRC provider to set objectives and goals for any discussion forum or workshop. The goal of a FIRC provider's discussion forum or workshop should enhance the attendee's ability, elevate their instructional skills, and enhance GA safety. The provider should structure any such forum to reflect the high standards of excellence expected of the FIRC program. The provider should carefully monitor and moderate these forums. All instructor attendees are required to be present in order for them to complete the course successfully. Any open forums/workshops, while encouraged, are limited to 1 hour of the 16 hours of course material.

10.9   **Topic Sequencing.** Topic sequencing identified in the TCO may be adjusted when the provider feels an adjustment to lesson sequencing is beneficial for a particular in-person FIRC presentation. If the sequencing is adjusted, the FIRC provider should provide an actual schedule of a particular in-person FIRC to the FAA when requested. This will allow aviation safety inspectors (ASI) to adjust their schedules if they wish to observe only particular topic(s) of the FIRC. Because of the inherent flexibility of the internet, providers of internet-based programs may optionally allow their online attendees to move more freely about the course, taking different modules in differing sequences. This is at the discretion of the internet FIRC provider; however, the provider should remain mindful of the building block method of learning and "fine tune" their attendee's ability to move through the subject matter topics accordingly.

10.10   **Flight Component.** Providers who wish to incorporate a flight component into their approved TCO are required to first contact the General Aviation and Commercial Division by any of the methods identified in paragraph 9 to discuss this aspect of their development plans.

10.11   **Graduation Certificates and Completion Certificates.**

10.11.1   Graduation Certificates as a Basis for Credential Renewal. A graduation certificate issued by an approved FIRC provider may serve as the sole basis for renewal of a flight instructor's credentials under the provisions of § 61.197(a)(2)(iii). Pursuant to this provision, the graduation certificate must show that the certificate renewal applicant has successfully completed an approved FIRC within the preceding 3 calendar-months of issuance. Further, the renewal applicant's flight instructor credentials must be current at the time he or she presents the renewal application (refer to § 61.197(a)). In no case will the FAA renew a pilot's flight instructor credentials if that pilot submits his or her application for renewal past the expiration date printed on his or her current flight instructor certificate.

10.11.2 <u>Contents of a FIRC Graduation Certificate</u>. A FIRC provider is required to issue a graduation certificate that contains all of the following information in order to be a valid basis for flight instructor certificate renewal:

1. The full name and address of the organization (or provider) holding FAA approval to conduct the course;

2. The full name and address of the graduate;

3. The date of issuance;

4. The signature of the chief instructor;

5. A statement that the graduation certificate expires 3 calendar-months from the month of issuance;

6. Provider contact information;

7. A sequential number; and

8. The expiration date of the provider's current authorization to conduct FIRCs.

Note: The provider may preprint the expiration date on the certificate or a FIRC representative may fill it in at the completion of each presentation. However, under no circumstances may a provider or representative issue a graduation certificate without the expiration date of the provider's current authorization clearly printed somewhere on the document. The verbiage may be placed anywhere on the front or back of the graduation certificate and should read:

"[PROVIDER'S NAME] is authorized by the Federal Aviation Administration to conduct FIRC programs that may serve as a basis for the renewal of a flight instructor certificate in accordance with 14 CFR part 61, § 61.197(a)(2)(iii). [PROVIDER'S NAME] current authorization expires on [DATE]."

10.11.3 <u>Renewal Information</u>. The provider should note that:

10.11.3.1 The applicant must submit a completed and signed FAA Form 8710-1, Airman Certificate and/or Rating Application, or FAA Form 8710-11, Airman Certificate and/or Rating Application – Sport Pilot, as applicable (or IACRA equivalent).

10.11.3.2 The applicant must submit a copy of the graduation certificate to a certifying official (ACR, ASI, or approved Designated Examiner (DE)) before their current instructor certificate expires and within the graduation certificate validity period if they wish to renew their instructor credentials based on attendance at that FIRC.

10.11.3.3 The provider may use any verbiage that they think most effectively transmits that critical information to the attendees and may place that information anywhere they choose on the front or back of the certificate.

10.11.3.4 Failure to inform the attendee of these requirements may result in the attendee's inability to renew their instructor credential.

10.11.4 <u>Graduation Certificates as Basis for Ground Instructor Recency</u>. A graduation certificate issued by an approved FIRC provider may serve as the sole basis for a ground instructor to meet the recent experience requirements under the provisions of § 61.217(c).

10.11.5 <u>Contents of a Ground Instructor Graduation Certificate</u>. A FIRC provider must issue a graduation certificate that contains all of the following information in order to be a valid basis for satisfying a ground instructor's recent experience requirement:

1. The full name and address of the organization (or provider) holding FAA approval to conduct the course;

2. The full name and address of the graduate;

3. The date of issuance;

4. The signature of the chief instructor;

5. A statement that the graduation certificate expires 12 calendar-months from the month of issuance;

6. Provider contact information;

7. A sequential number; and

8. The expiration date of the provider's current authorization to conduct FIRCs.

10.11.6 <u>Completion Certificates</u>. The provider, at their discretion, may issue a completion certificate to any attendee who will not need to use successful FIRC attendance as a basis for meeting any FAA regulatory or policy requirement. A renewal applicant may not use a completion certificate as a basis for a flight instructor certificate renewal or reinstatement. Additionally, a completion certificate does not meet the annual training requirements for the chief instructor of a part 141 pilot school. Testing as a prerequisite for receiving a completion certificate at the conclusion of the FIRC program is also at the discretion of the FIRC provider.

11 TCO STRUCTURE AND CONTENTS. This paragraph provides guidance regarding how the TCO should physically be structured and what the provider should include in the TCO. Providers may construct their TCOs in any manner they wish. The document should follow a logical sequence and be easy to read and reference. Each TCO submitted for approval should contain at least the following:

11.1 Page Numbering and Version Identification. Each page (including the cover page) should be sequentially numbered, dated as appropriate, and should identify the version number. This may be in the form of a footer or header, or otherwise placed in any obvious and consistent location on each of the pages.

11.2 **Cover Page.** The TCO should have a cover page containing the full name and address of the FIRC provider/organization. This should be the name and address that will appear on the letter of authorization (LOA) when issued. The cover page should also include the name, address, current telephone number, facsimile number (if available), and email address of a POC.

11.3 **Table of Contents.** The cover page should be followed by a table of contents with a list of all lesson plans intended to be taught during the course, as well as other constituent components of the TCO. The table of contents should clearly identify lesson plans that represent or include the required core topics (identified in Appendix A), as well as all additional elective subjects selected by the provider. The table of contents should present the lessons in a manner that allows the reader to easily recognize specific subjects and content. At the discretion of the provider, the larger topic framework may incorporate core topics; however, the table of contents should clearly identify each of the core topics by some obvious manner, such as an asterisk. The principal reason for this level of detail is primarily because an FAA inspector may wish to monitor only a specific topic or topics and should be able to easily determine where they occur during the program so as to synchronize his or her arrival time if necessary.

11.4 **Revision Page.** A revision summary page will follow the table of contents page.

11.5 **Facilities.** A description of the facilities will follow the revision page. The description of the facilities should include a depiction of physical classroom facilities, such as climate control (air conditioning/heating), lighting, seating, work areas, distraction avoidance, noise control, and any other pertinent physical environmental characteristics that may influence the learning experience (in-person FIRCs only).

11.6 **Training Aids.** The TCO should include a description of audiovisual aids that will be available for use including, but not limited to, chalk boards, slide and/or overhead projectors, video recorders/players, tape recorders, CD/DVD players, computer data/information presentation, and internet access. If the TCO program is internet-based, the TCO should describe the system requirements that the online attendee will meet to ensure that the program operates smoothly.

11.7 **Chief/Assistant Chief/Program Presenters.**

11.7.1 Chief Instructor. The TCO will list the name, airman certificate number, and qualifications of the chief instructor. The chief instructor will meet the requirements of § 141.35(d) and include a compliance statement in the TCO, addressing the certificate and experience requirements of a chief instructor required for a part 141 pilot school course of training leading to flight instructor certification.

11.7.2 Assistant Chief Instructor. Where requested by the provider, the TCO will list the name, airman certificate number, and qualifications of the assistant chief instructor. The assistant chief instructor will meet the requirements of § 141.36(d) and include a compliance statement in the TCO, addressing the certificate and experience requirements of an assistant chief instructor required for a part 141 pilot school course of training

leading to flight instructor certification. The chief instructor may delegate any of his or her responsibilities to an approved assistant chief instructor.

11.7.3   Serving Multiple Providers. A chief or assistant chief instructor may not serve more than one FIRC provider without requesting and receiving written authorization from the FAA.

11.7.4   Program Presenters. The TCO should list the qualifications of other instructors, lecturers, moderators, or panelists who will present the provider's program. These persons need not be limited to certificated ground or flight instructors; however, they should be recognized experts in the subjects of their presentations or specialty areas. The principal instructor who is giving presentations at any specific approved FIRC (in-person FIRCs only) should be an employee or affiliate of the approved FIRC provider, or be contracted to the approved provider.

11.8   **Prerequisites.** The TCO should state the enrollment prerequisites for flight instructors planning to attend a FIRC approved under this AC. Only flight instructors whose instructor credentials have not yet expired are eligible to renew their credentials predicated on full attendance and satisfactory completion of the FIRC program. This does not preclude instructors with expired certificates, or any other interested parties, from attending if they choose to do so for their own information. On the contrary, the provider should encourage such attendees to attend. Those who are attending for reasons other than credential renewal will not receive a FIRC graduation certificate. Instead, they may receive certificates of attendance/course completion. Once a flight instructor certificate has expired, the flight instructor must successfully accomplish a practical test for the reinstatement of that certificate as required by § 61.199.

11.9   **Daily Schedule.** The TCO will include a daily schedule, including the start and stop times for each lesson and the lesson title. The provider may choose any period of time they feel is appropriate to cover a particular topic or module adequately. The presenter should make every attempt to adhere to the topic duration established in the schedule. However, it is understood that particular interest or activity in a given module or topic may mean that the provider exceeds the duration established for that particular lesson. This is acceptable to a certain extent, although the provider should remain mindful to adequately cover subsequent topics and modules. Major changes that may result in the exclusion of another topic requires preapproval by the FAA.

11.10   **Syllabus.** A training syllabus will consist of a collection of lesson plans. Each individual lesson plan will include, at a minimum, a description of each lesson to be presented. Each lesson plan will describe all ground and/or flight components (where applicable), lesson objectives, completion standards, and the measurable unit of accomplishment or learning. The provider should identify appropriate reference materials that the presenter will use during the presentation. The provider should print an individual lesson plan for each core and elective topic, or unit of training, on its own page(s). The individual lesson plans will contain at least the following elements:

11.10.1   Lesson or Module Title. In a practical sense, the lesson or module title section will be the title of the lesson or module unit of training. If the module contains more than a single topic, this section should identify (in broad terms) the topic(s) covered in that module.

11.10.2   Lesson Objective. The "Lesson Objective" section of a FIRC provider's lesson plan should clearly specify the desired attendee learning outcomes and should be consistent with the objectives and subject matter elements of the particular module or unit of training. The FAA understands that in any session of training the presenter will offer a great deal of information, and that the attendee will not realistically be expected to memorize the material verbatim. The attendee should retain the bulk of the material and the key specific points presented. It is important to fully identify lesson objectives. Be specific. As examples, two lesson objective descriptions are shown below; one inadequate, followed by a more acceptable example:

    11.10.2.1   **Inadequate Example.** At the end of this lesson, the attendee will know about Crew Resource Management (CRM).

    11.10.2.2   **Adequate Example.** At the completion of this lesson, the attendee will:

- Be able to describe the basic tenets of CRM and its importance to flight safety, including its applicability to training in technically advanced aircraft (TAA);

- Understand how CRM differs between single-pilot and two-pilot environments, and the attendee will have learned effective methods to teach cockpit management skills to their clients/students in the classroom and in the cockpit; including chart placement, note/clearance taking, and accessibility to alternate charts and flight information in the event the pilot must deviate to another airport; and

- Understand the importance of being able to effectively communicate this information to their clients/students in a clear and concise manner.

11.10.3   Subject Matter. The subject matter portion of each lesson plan should offer an expanded discussion of the specific subject matter elements the presenter will teach in a particular module or unit of training, as identified in the "Module Objectives" section. This is not intended to be a comprehensive discussion. The subject matter elements presented in the FIRC provider's lesson plan should make clear to the reviewer what the intent of the provider is regarding the subject matter and identify the principal knowledge components of the topic(s) that the provider intends to transfer to the attendee. The FAA is interested in the major points of information that the provider is offering the attendees in the specific topics for which they are approved. FIRC providers are required to present all of the subject matter elements listed in its lesson plans during the delivery of its presentation and align those subject matter elements to its exam questions.

11.10.4   Completion Standards. The completion standards should state the observable or measurable level of knowledge and skills required of each attendee at the end of the course, module, or lesson. For example, the following statement, "The instructor attendee

must score a minimum of 70 percent on each written examination given," would combine both the observable and measurable levels of knowledge and skill. The provider may set the minimum standard higher if they wish; however, they may not reduce the standard below 70 percent. If the provider wishes to employ a nontraditional method of completion standard, they should contact the General Aviation and Commercial Division.

11.10.5   Testing Procedures. To meet TCO development standards, the provider must provide a description of the testing procedure used to measure the attendee's proficiency. This discussion should identify and describe the form of test (e.g., individual paper tests handed out, tests presented on a screen, etc.). For example, "The attendee will answer a series of multiple choice questions related to this topic at the end of the day in which the topic was presented, and again in the final test at the end of the program. The test will be in printed form and handed to the applicant for completion." This statement says that the provider will specifically test the applicant on this topic or module on two different occasions using a printed multiple choice format.

11.10.6   Testing Timeframe. Total testing time that may be credited toward the 16-hour FIRC minimum time requirement may not exceed a 1-hour cumulative period. The FIRC provider may allot additional testing time beyond the 16-hour minimum FIRC timeframe.

11.11   **Written Test Questions.** The FIRC provider will provide a comprehensive written test or test question pool with an answer key in the submitted TCO.

11.11.1   The provider should provide source materials (references) from which the answers to the questions were derived. References should be sufficiently detailed to allow FAA personnel to easily locate those references if FAA personnel feel it is necessary to verify or confirm specific information presented in the test. Inadequate references will result in denial of the approval.

11.11.2   Test questions need to be appropriate to the lesson plans and subject areas the provider will teach. Test questions should reflect the key points of each lesson. FIRC testing standards require all multiple choice test questions to offer at least three challenging (plausible—not giveaway) answer choices (a, b, or c choices). Standards for post-lesson testing do not allow true/false questions. The FAA encourages essay questions whenever feasible. The FAA expects all providers to administer closed-book exams for tests given at live, in-person FIRCs.

11.11.3   Since many courses present as many as 16 lessons, including electives, the provider should require each attendee to answer at least 60 unique test questions to ensure adequate testing in all subject areas. All 60 test questions do not have to be given at the same time; however, at least 30 of the questions will be given at the end of the entire FIRC program, and that final test will be comprehensive, rather than simply covering material presented subsequent to any possible earlier tests given during the FIRC. A participant's successful completion of the FIRC is dependent upon a minimum score of 70 percent on each written test administered. Individual providers may set higher standards.

11.11.4 The provider may provide the test questions, answers, and references as an appendix to the TCO to allow other non-FAA personnel to see the TCO without seeing the tests and their answers. However, the FAA requires the provider to submit it as a component part of the TCO when seeking FAA approval.

> **Note 1:** The FAA requires FIRC providers to update and revise the written test(s) question pool at least once during each biennial approval period. This does not necessarily mean replacement of each of the questions. The provider should update the questions to reflect any changes in the course content and any regulatory or policy changes that may have occurred during the previous approval period. In addition, the provider should alter multiple choice answer sequences (where used), and should reword or recast preexisting questions.

> **Note 2:** See paragraph 12 for additional information pertaining to internet-based FIRC testing.

11.12 **Graduation Certificate.** The provider should include a copy of the graduation certificate that it will issue to its attendee and a copy of a completion certificate (if one is to be used) in the TCO package presented for review. See paragraph 10.11 for the details outlining the specific information that is required on the graduation certificate.

11.13 **Remedial Training.** If the provider plans to offer remedial training for those attendees who fail to meet the minimum completion standards, the TCO should include a description of the method to accomplish such remedial training and subsequent retesting. The 16-hour minimum course timeframe requirement does not include remedial training or remedial testing. As with all FIRC exams, the provider will conduct remedial testing as a closed-book exam. Providers who elect not to provide remedial training and testing to instructor attendees who fail to meet the minimum testing standards should include a statement in their TCO to that effect. In this case, the TCO would reflect the fact that graduation certificates will not be issued to instructor attendees who fail to satisfactorily complete the full course requirements, including all tests administered.

12 INTERNET-BASED AND DISTANCE LEARNING PROGRAMS.

12.1 **Distance Learning Programs.** The FAA will accept distance learning FIRC curricula (which do not include internet-based programs) for review. Providers who wish to submit distance learning curricula should first present a clear and logical outline and description of the sequential elements of the training curriculum. Such providers should be prepared to provide an email address, toll-free telephone number, and facsimile number to ensure a rapid and effective means of communications between the provider and enrollees to aid the enrollees in completing all approved course materials. It may be advantageous for a group or individual that intends to submit a distance learning curriculum to meet with the General Aviation and Commercial Division in advance to discuss the proposed curriculum in detail.

12.2   **Internet/Web-Based Programs.** The FAA will evaluate all internet or web-based FIRC curricula on a case-by-case basis. Groups or individuals who wish to submit an internet-based FIRC program will contact the General Aviation and Commercial Division and notify them of their intent. Provider applicants are encouraged to provide graphical outline representations of their proposed training programs for review and consideration by the General Aviation and Commercial Division. The graphical representation of an internet-based FIRC should contain a step-by-step description of how participants will enroll and access the study and support material for each lesson in order to effectively navigate through the course to completion. An internet-based FIRC program should be prepared in accordance with applicable guidelines contained in this AC. The FAA neither requires nor expects the applicant to print every screenshot used in the FIRC presentation; online access for the FAA to review this material is sufficient. The FAA requires all FIRC applicants to submit a brief TCO that contains general information about the FIRC, as well as the items listed in paragraphs 12.2.1 through 12.2.10. Where a stated requirement is not considered applicable to an internet-based FIRC program, the provider should identify that requirement and provide a reason for its inapplicability. The provider is required to make available to the FAA free-form access to the completed FIRC training site, as well as the actual lesson mode used for the attendee. Free-form access means that the FAA is able to navigate freely throughout the program as desired, rather than being compelled to follow topics sequentially or meet course time requirements required for the attendee. This includes access to testing. The FAA strongly recommends that a provider or organization, intending to present an internet-based FIRC program, arrange to meet with the General Aviation and Commercial Division in advance to discuss the planned program outline before committing time and effort to its development. This will assist in ensuring that the program follows a standardized process to the extent possible and might help reduce the time needed for its development, review, and approval by the FAA. Outlines for internet-based FIRCs should contain, as a minimum, the following information considered specifically applicable to an online FIRC curriculum:

12.2.1   Minimum Hour Verification Statement. The FAA requires all providers to ensure that the FIRC provided, and the attendee completed, a minimum 16-hour FIRC. The FAA does not expect an online FIRC provider to require a minute-to-minute 16-hour minimum course timeframe. The FAA recognizes that an online course has different characteristics from a live FIRC. An online FIRC is an automated, web-based, one-on-one instructional process that should provide flexibility for the attendee's individual learning style. An online FIRC, however, is required to legitimately deliver a 16-hour course that is equivalent to a live FIRC. Online FIRC providers are required to include a minimum hour verification statement in their TCO. This statement should include a description of how the provider will ensure that the attendee completed the minimum 16 hours of course (see paragraph 10.5). The verification statement should explain the provider's method to ensure that each attendee will actively participate and complete all the lessons presented in the course. The FAA requires that a FIRC provider's planned method of assurance include the following procedures:

12.2.1.1   **Minimum Hour Assurance Plan Matrix.** All authorized online FIRCs will present a minimum of 16 hours of course material, as determined by each online provider's Minimum Hour Assurance Plan Matrix. Like the live FIRC, the 16-hour minimum course period includes provisions for attendees' breaks, lessons, graphics, and testing. The online FIRC provider is required to create a minimum hour assurance plan and include this plan in a matrix as a component of the organization's TCO (see the example provided in Appendix B, References and Job Aids, Table B-1, Minimum Hour Assurance Plan Matrix).

12.2.1.2   **Integrated Lesson Plans.** The sample matrix provided in Appendix B shows a breakdown of a sample TCO in terms of individual core topics. While some providers structure their TCO in this manner, this sample matrix is not meant to imply that this method is required. Rather, the sample matrix is designed to provide understanding of the FAA's intent for the minimum hour assurance. The FAA recognizes that some FIRC providers integrate various core topics in theme-based lessons that combine the topics over several segments. In that case, the FAA would expect the FIRC application to contain a Minimum Hour Assurance Plan Matrix that corresponds to the structure of the TCO.

12.2.1.3   **Lesson Presentation Period Integrity.** FIRC training standards require that all attendees open and view each lesson. To facilitate this training standard, the provider's online automation courseware (learning management system (LMS)) needs to ensure that the attendee views and completes each lesson in its entirety without skipping any portion. FIRC training standards require audio/video, aural, and text lesson presentations to contain and present a cumulative period of no less than 720 minutes (12 hours) of the FIRC's 16-hour minimum course content (see Appendix B). If the attendee exits the lesson anywhere before the end, he or she should return to the point of exit and complete the lesson. The provider's LMS (courseware) will determine the point of exit from an incomplete lesson.

12.2.2   Source Materials. The source of all study materials used to support the course elements that will appear on the internet, and a description of all drawings, mockups, demos, or links used by the provider in the course.

12.2.3   Identity Verification. The methodology proposed to determine the identity of course participants at logon and during navigation of the lessons, including intentional or unintentional disruption of the lesson flow. Additionally, the TCO should describe methodologies proposed to prevent multiple concurrent logons by a course participant for the purpose of viewing or printing material during inappropriate stages of the lesson.

12.2.4   Testing Materials Security. A FIRC provider should include a statement in its TCO stating that the provider will ensure that flight instructor renewal applicants are not given access to any completion test(s) until the course materials for which the test is applicable have been satisfactorily completed. This statement should include an explanation that the

provider's LMS will ensure that the test will remain inaccessible to the attendee until the attendee completes the prerequisite lesson(s).

12.2.5 <u>FAA Access</u>. The methodology proposed to allow the FAA access to course materials, tests, and test results for the express purpose of reviewing and monitoring the course as deemed appropriate by the FAA.

12.2.6 <u>Online Attendee List Availability</u>. A statement that the provider will, upon request, provide the FAA a listing of all internet FIRC program participants that contains, at a minimum, the provider's name and location, the instructor attendee's name, identification number or code, the date(s) the course was administered, and the completion status of all course participants.

12.2.7 <u>Data Security</u>. Methodologies proposed to ensure data availability, integrity, confidentiality, and accountability for course materials, participant information, and lesson plans.

12.2.8 <u>Certificate Renewal Methodology</u>. If appropriate, the manner in which the provider will process applications for flight instructor certificate renewal.

12.2.9 <u>Revisions</u>. The manner in which the provider will present future revisions to the approved TCO. The FAA has the responsibility to approve these revisions before they are included in the online program.

12.2.10 <u>Other Information</u>. Any other information the provider may consider necessary or appropriate by the FAA during development of the online program.

13 TESTING PROCEDURES.

13.1 Minimum Testing Standards. The most effective practical method for assessing the retention of material presented during the FIRC is a knowledge test. This is most frequently in the form of multiple choice questions, although some providers employ essay questions or a mixture of both. All are acceptable methods of providing quantitative data reflecting the flight instructor's current state of knowledge in specific areas. The expectation of a test at the conclusion of any course of study will motivate a student to increased levels of attention. It is no different at a FIRC. The mission of a FIRC is to ensure that the attendees take with them what the providers give them in terms of practical knowledge and a safe operational mindset. It is incumbent upon the FIRC providers to take this aspect of the FIRC very seriously and design their tests in light of this mission. Tests should be sufficiently demanding so the exam provides a true measurement of knowledge transfer from the course to the attendee. Tests should be reflective of the material presented. The provider should not ask any question that does not relate to the course material. A minimum passing score is 70 percent. Since the mission is knowledge transfer, providers may retrain deficient attendees to 100 percent if they choose to, provided that they give adequate retraining in the attendee's deficient knowledge areas. The provider needs to retest attendees who receive additional retraining only on the deficient areas; however, the questions used for the makeup test portions shall be different from the ones first answered incorrectly.

13.2   Test Questions. Written tests will consist of a minimum of 60 unique multiple choice questions relating to the material covered. Providers may, and are encouraged to, use more if they choose. FIRC exam questions should include at least four reasonably challenging and up-to-date questions, which align with (are derived from) the subject matter elements of each lesson plan. Providers may give a single final test of 60 questions, or they may break out 30 of those 60 questions into smaller units given at different times during the 16-hour program. Duplicated questions do not meet FIRC testing standards. The remaining minimum of 30 questions should be in the form of a comprehensive final test given at the conclusion of the training. This final test, or at least 20 of the questions if the provider uses all 60 questions in the final test, needs to be comprehensive and reflect all of the material presented throughout the entire 16-hour course.

13.3   Alternative Testing. Providers may use methods other than multiple choice questions for testing. An acceptable alternative would be essay questions. In such a case, the provider must conduct at least 50 percent of the total testing at the conclusion of the FIRC program. These tests must be comprehensive in nature, covering all of the material presented throughout the entire course. True/false questions do not meet FIRC testing standards and the FAA will not authorize them. Note that a provider may use true/false questions for lesson pretesting, as some providers use pretesting as a teaching technique. Providers may explore other methods of testing; however, they must coordinate with the General Aviation and Commercial Division and must provide sufficient justification for deviation from the standard methods.

Note: Because of the inherent flexibility in taking an internet-based FIRC, internet FIRC providers may employ testing at the end of each module as an alternative. No fewer than 5 questions per module will be acceptable, and the total of all questions need to meet or exceed the minimum of 60 questions. (See paragraph 13.7.)

13.4   Oral Testing. Providers may use oral testing to supplement retention assessment as an adjunct to written tests. However, oral testing may not supplant or replace written tests. Oral testing is optional on the part of the individual provider. Written testing, as described in this section, is mandatory for all providers.

13.5   Test Records Retention. Providers will retain all versions of each attendee's tests, to include any failing tests if applicable, in a secure location for a period of 2 years and will make them available to the FAA on demand. Test storage may be digital.

13.6   Conventional In-Person FIRC Testing. Providers should design exams to test the retention of a range of information provided during the FIRC program. Therefore, the provider should not give instructor attendees the written tests nor allow instructor attendees to complete them during class subject sessions presentations. Attendees should not be permitted to compare responses while the tests are being administered or to grade their own tests. Providers will retrieve and retain all copies of the tests in a secure location at the conclusion of the testing period. Attendees will not be allowed to take them with them when they leave. The chief instructor or assistant chief instructor is

responsible for ensuring compliance with these requirements and that test integrity is not compromised. Providers may retest attendees to 100 percent if they choose to, provided that they give adequate retraining for the attendee's deficient areas. Attendees who receive retraining on deficient areas need only be retested on those specific areas; however, the questions used for the makeup test portions must be different from the ones first answered incorrectly.

13.7 **Distance Learning or Internet FIRC Testing.** When a provider presents a distance or internet FIRC in a lesson-by-lesson manner (as opposed to stages found in a conventional in-person FIRC program), a written test consisting of at least five multiple choice questions relating to the material covered in each lesson should be administered following each lesson. The total number of questions for the course will meet or exceed 60. A minimum score of 70 percent is required for satisfactory completion of each test administered. A score of less than 70 percent will require the attendee to restudy the material and retake the test for that lesson. The programming may not allow the attendee to proceed until the attendee achieves that minimum score. Providers may retest online attendees to 100 percent if they choose to, provided that they give adequate retraining specific to the attendee's deficient areas. Attendees who receive retraining on deficient areas need only be retested on those specific areas; however, the questions used for the makeup test portions must be different from the ones first answered incorrectly. A second score of less than 70 percent on any specific lesson will require contact with the course provider for instructions on how to proceed. No two internet-based tests can be identical. The provider must randomize tests between attendees and with individual attendees taking FIRCs at a later date.

14 TCO REVISION, AMENDMENT, OR DELETION.

14.1 **Required and Optional Revisions.** Providers or organizations approved to present FIRC programs are required to revise their subject matter as necessary to reflect changes in policy or recommendations. Revisions in response to changing emphasis in subject matters currently listed in Appendix A and other subject matters selected for periodic emphasis by the FAA will usually be deferred until the provider renews their authorization. Additionally, the FAA requires providers to change exams at least once every 2-year renewal period. Providers may make any changes they wish to their TCOs throughout the approval period, provided that they include, at a minimum, the current core courses listed in Appendix A or any other changes that the Administrator has determined necessary. However, the General Aviation and Commercial Division must approve all proposed substantive changes to the TCO before the provider presents them in a FIRC.

14.2 **Submission of Revisions.** The provider should email a revised TCO with all proposed revisions to 9-AWA-AVS-AFS-FIRC@faa.gov or send them by any of the methods identified in paragraph 9.1. The provider should submit a single digital (i.e., Microsoft Word document) copy of the change(s), accompanied by a revised TCO, and a separate electronic letter requesting approval of the change(s). The provider may not include the revised material in the FAA-approved presentation until actual receipt of the letter of approval from the General Aviation and Commercial Division. Changes to the selection

of any preapproved electives (provided that lesson plans for each are on file with the FAA) do not need approval; only email notification to the same FAA email address identifying what the elective changes are and where and when the provider will present them. It is highly recommended that any submitted documents to the FAA email address require an electronic return receipt. A change of chief instructor or assistant chief instructor will require notification to the General Aviation and Commercial Division in accordance with the instructions contained in paragraph 16.

14.3 **Method.** The method for revising, amending, or deleting materials in the TCO should:

- Ensure approval chronology.

- Include the effective date of change or revision.

- Ensure ease in identifying changed or revised material.

- Include entry of change on a revision summary page.

- Include written guidance describing the revision procedure that the provider will use.

15 **SCHEDULING OF COURSES.** FIRC providers are required to keep the General Aviation and Commercial Division directly apprised of the dates, times, and locations of each course presentation. This is typically accomplished in the form of an email or physical mail.

15.1 **FAA Safety Team (FAASTeam) FIRC Scheduling Website.** The FAA intends to provide FIRC information at https://www.faasafety.gov to display upcoming FIRC events. The intent is for the public to be able to find general FIRC information, as well as specific information on participating FIRC providers. As such, FIRC providers will have a place to input basic information about their programs. Information will include provider name, website (if applicable), contact email, contact telephone, and the current schedule of presentations. Listings of FIRC presentations may include state, city, dates, and times. If, for any reason, a FIRC provider does not wish to have their information listed, they may select the option to disallow their information from being visible to the public. Any provider who chooses not to allow their information to be visible to the public must nevertheless maintain their schedule data for FAA personnel. The FAA will treat such data as proprietary and not permit access to it outside the FAA.

15.2 **Inability to Upload.** If the provider is unable to upload schedule information for any reason, they must notify the General Aviation and Commercial Division of their scheduling plans directly, preferably via the FAA's FIRC email address at 9-AWA-AVS-AFS-FIRC@faa.gov or through any of the methods identified in paragraph 9.1. The provider should notify the General Aviation and Commercial Division at least 2 weeks prior to the expected presentation to allow the FAA sufficient time to arrange for an ASI to observe if it wishes.

15.3 **Scheduling Website Versus Information Website.** The FAASTeam FIRC scheduling website should not be confused with the FAA's FIRC general information website located at https://www.faa.gov/pilots/training/firc.

16   CHANGE OF CHIEF INSTRUCTOR OR ASSISTANT CHIEF INSTRUCTOR.
The approved FIRC provider should notify the General Aviation and Commercial
Division when making a change in the provider's chief instructor (or assistant chief
instructor where designated). A FIRC provider may not conduct FIRCs without
an authorized FIRC chief instructor. The FIRC provider should notify the General
Aviation and Commercial Division at least 45 days before the change, but in no case later
than 10 days after the change. Notification should be in electronic form and include an
updated TCO with the new chief or assistant chief instructor's information
(i.e., Microsoft Word document or Portable Document Format (PDF)).

17   CHANGE OF PROVIDER. Should a change in provider occur due to sale or other
reason and no change in personnel or course content occurs, the providers (both old
and new) are required to notify the General Aviation and Commercial Division at least
15 days before the presentation of any FIRC programs conducted under the new
FIRC provider. If it is an internet-based program, the provider should notify the FAA
within 48 hours of transfer of the private rights to the program to the new owner by email
sent to the FAA FIRC email at 9-AWA-AVS-AFS-FIRC@faa.gov. If the change in
provider involves any change in personnel of the approved FIRC TCO, authorization to
conduct any further FIRCs is canceled until the new provider has obtained FAA approval.

18   FAILURE TO COMPLY WITH AN APPROVED TCO. The failure of a FIRC
provider or its representatives to comply with an approved course of training, or to effect
any required corrective action on a timely basis as deemed appropriate, is a basis for
denial or withdrawal of the FAA's approval and associated delegation of authority.
When the FAA determines that a revision to a previously approved TCO or related
corrective action is necessary, the provider will be given no more than 60 days to make
the necessary revision or corrective action, as appropriate. Should the provider not make
the necessary revision or corrective action within 60 days, FAA approval and
authorization to conduct FIRC programs will be withdrawn automatically.

19   FIRC APPROVAL PROCESS.

19.1   TCO Document Submission. Candidates requesting authorization to become a FIRC
provider should submit a written request and a TCO to the General Aviation and
Commercial Division for consideration. (See paragraph 9.1 for methods of contacting and
transferring documents to the General Aviation and Commercial Division.) A provisional
pilot school or pilot school (under part 141) wishing to include or add a FIRC under
part 141 appendix K should submit a written request and a TCO to the appropriate FSDO.
When the FAA receives an authorization request, the General Aviation and Commercial
Division, or the certificate-holding FSDO for a provisional pilot school or pilot school
under part 141, when applicable, will conduct a thorough review of the TCO. Candidates
should understand that they have full responsibility for developing and maintaining a
TCO that complies with the requirements for TCO approval and subsequent FIRC
program presentations. If the TCO meets all the guidelines of this AC, the FAA will issue
an approval. The FAA will not issue an approval when a TCO does not meet the
guidelines provided in this AC, so please verify that the TCO is in full compliance with

the guidelines provided in this AC before the General Aviation and Commercial Division receives it for review.

Note: The FAA will not approve an initial or renewal request without receiving a TCO from the organization requesting authorization. As such, all candidates and FIRC providers should develop, submit, and maintain an up-to-date TCO. Upon FAA consideration and authorization, the TCO serves as a record for the provider and the FAA.

19.2   **FAA LOA.** When the FAA finds that a FIRC TCO complies with this AC, they will forward a signed letter indicating approval of the submitted TCO to the provider electronically. The General Aviation and Commercial Division will retain the original signed letter at its offices in Washington, DC. The approval letter constitutes authority to conduct FIRCs at locations either within or outside the United States. The FAA may withdraw approval at any time for sufficient cause, but, in any case, will become invalid on the last day of the 24th month after original approval, unless the FAA grants a renewal or other form of continuation approval. FAA personnel will monitor one of the first FIRCs presented by a new provider. The FAA will approve an internet FIRC on a case-by-case basis, and the FAA will provide approval by the same method as for any other FIRC.

19.3   **Field Inspections.** The appropriate FSDOs are expected to monitor these programs to the extent possible. The appropriate FSDO, a representative of the General Aviation and Commercial Division, or any other representative of the FAA Administrator may monitor FIRC presentations at any time on a random basis.

   20   FIRC RENEWAL, WITHDRAWAL, OR CANCELLATION.

20.1   **Renewal Requests.** FIRC providers holding approval who desire to renew their authorization to conduct FIRC programs beyond the date of original expiration should send their request for renewal to the General Aviation and Commercial Division. (See paragraph 9.1 for methods of contacting and transferring documents to the General Aviation and Commercial Division.) It is the provider's responsibility to ensure that its FIRC approval has not expired. Should the FAA's approval of a FIRC expire, a graduation certificate issued by the provider after the expiration date is invalid. The FAA will not honor a graduation certificate issued by a provider that held an expired approval. Additionally, an ACR designation, if held, is no longer valid after the expiration of a FIRC LOA and, therefore, may not be used.

20.2   **Required Renewal Documents.** Approved providers who wish to renew an already existing FIRC TCO will submit a complete, new digital TCO with a new submission date and an updated revision page. The provider should clearly identify any changes from the previously approved TCO. The FIRC provider should convey the most up-to-date information possible. The FIRC provider has the responsibility to continually research and keep abreast of dynamic issues affecting the training needs of pilots. However, if there are no changes to the body of the TCO, then the cover letter will state that there have been no changes. In any event, each provider is still required to update the tests or

test question pool each renewal period as discussed in paragraph 11.11. If the provider has only changed the test(s) in the resubmitted documentation, the revision page will show a revision date with the notation "Updated test(s) only."

20.3   **Reissuance of LOAs.** Upon a finding by the General Aviation and Commercial Division that the submitted TCO is in compliance with current FIRC TCO development, training, and exam standards, as discussed in this AC, and is otherwise acceptable, the General Aviation and Commercial Division will issue a new LOA establishing a new expiration date. Failure to comply with the FAA-approved TCO or the FIRC standards discussed in this AC, or the failure to incorporate necessary changes to the existing TCO when so directed by the General Aviation and Commercial Division in writing, may be sufficient cause for withdrawal of the approval.

20.4   **Retention of Expired Documents by the FAA.** If the General Aviation and Commercial Division has not received a letter from the FIRC provider requesting renewal as described above, or if the provider requests to surrender its authorization, the FAA will not return the materials originally approved and presented by the applicant; in this case, the FAA may choose to destroy those materials. The provider may not present any courses from that point on. To reestablish approval, the applicant should then comply with the original application procedures as outlined in this AC.

Note: The FAA will not notify FIRC providers of an approaching expiration date. Monitoring a provider's approval period is the responsibility of the provider.

21   **APPLICATION AND APPROVAL OF AN ACR EMPLOYED SOLELY BY A FIRC PROVIDER.**

21.1   **Reissuance.** An ACR affords the FIRC provider the ability to process flight instructor certificate applications and forward them directly to the Airmen Certification Branch for flight instructor certificate reissuance without directly involving the FSDO.

21.2   **Requirements for Employing an ACR.** FAA-approved FIRC providers who have held their approval for a period of at least 12 calendar-months and presented at least one full FIRC program within that year may qualify to request designation of an ACR for their FIRC.

21.3   **ACR Appointment.** Appointment of an ACR is the responsibility of the appropriate FSDO. Qualified providers should contact their FSDO directly to make application to employ an ACR for their program. Approval or denial of a provider's application for an ACR is made at the discretion of the appropriate FSDO.

21.4 **ACR Designation or Renewal.** Procedures and requirements for the designation or renewal of an ACR are outlined in Order 8900.1, Volume 13, Chapter 6, Section 2, Appoint/Renew/Terminate an Airman Certification Representative for a Flight Instructor Refresher Clinic.

22 **AC FEEDBACK FORM.** For your convenience, the AC Feedback Form is the last page of this AC. Note any deficiencies found, clarifications needed, or suggested improvements regarding the contents of this AC on the Feedback Form.

/s/ Rick Domingo
Executive Director, Flight Standards Service

APPENDIX A. REQUIRED INSTRUCTIONAL CORE TOPICS FOR FAA-APPROVED TCO CURRICULA

1. The Federal Aviation Administration (FAA) may periodically revise subject matter listed herein to reflect the changing emphasis determined by the FAA for the renewal of flight instructor certificates under Title 14 of the Code of Federal Regulations (14 CFR) part 61, § 61.197(a)(2)(iii). Flight instructor refresher course (FIRC) providers should check the FIRC informational website at least once every 90 days for any updates or changes in FIRC policy, guidelines, or resources. The website is located at https://www.faa.gov/pilots/training/firc.

2. The subject areas described below are those that approved FIRC providers are required to present during any FAA-approved FIRC program presentation. The FAA does not require the FIRC provider to use verbatim titles for the required core topics; however, the FIRC provider will identify core topics in the training course outline (TCO) for FAA review (see paragraph 11.3). The provider may teach these subject areas individually or in combination when the subjects are such that teaching them together is appropriate. However, the provider should teach these subjects in logical succession and in cohesive units consistent with the instructor attendees' need to know, their ability to understand the subjects, and their application to the instructional process. Further discussion of these topics is located at the FAA's FIRC website identified above.

3. The instruction presented should be clearly identifiable as relating to the required subjects listed here. No fewer than 16 hours of instruction may be given in each FIRC program (including course material and additional time allowed for breaks, testing, etc.). The provider needs to incorporate all core topics listed below within those 16 hours. There are minimum time requirements for individual core and elective topics. This is because it is not likely that the presenter could cover any individual core topic comprehensively in less than 45 minutes or elective topic in less than 30 minutes. The provider should identify the expected time that a presenter will spend on a given topic in each of the TCO's lesson plans. The provider should also identify each topic's expected start and stop times in the TCO's schedule page. The provider, at their discretion, may present additional subject matters germane to flight instruction as elective topics in meeting the total 16-hour requirement. The General Aviation and Commercial Division or pilot school principal operations inspector (POI), as appropriate, will review and approve these subjects on a case-by-case basis. Once the FAA grants initial TCO approval, the provider can submit additional subject matter topics via email to the FAA's FIRC email address at 9-AWA-AVS-AFS-FIRC@faa.gov (or pilot school POI). Approval will typically take place within a few days via return email.

4. The FIRC provider should design each of its lessons in a manner that teaches its attendees how to teach their clients and students effectively. To meet this goal, the FIRC provider should convey the most pertinent and up-to-date information possible. This places the responsibility on the FIRC provider to continually research and keep abreast of dynamic issues affecting the training needs of pilots. Conveying timely information through the FIRC program promotes flight instructor awareness of dynamic issues that General Aviation (GA) pilots need to know.

REQUIRED CORE TOPICS

A.1 **Navigating in the 21st Century: Pilotage to Global Positioning System (GPS), Automation, and Technically Advanced Aircraft (TAA).** GPS is quickly becoming the principal means of navigation for many pilots. Additionally, pilots and aircraft owners are taking advantage of modern avionics and flight automation equipment. Glass cockpits are available for virtually every new aircraft, as well as for many legacy and experimental aircraft. GPS, positioning on a moving map, weather depiction, terrain/traffic awareness, and modern autopilots have made a significant presence to the GA fleet. While this represents a significant improvement in GA and navigation, overdependence on automated systems also introduces a number of new potential hazards. Instructors should be aware of what the systems can and cannot do, and be well versed in the potential hazards that pilots may encounter due to the use of automation, such as excessive heads-down time, automation fixation, automation dependency, database currency and limits, etc. Pilots should learn their airplane's limitation, systems limitations, and all manufacturer's recommended procedures for its use before a pilot can fly the aircraft safely. This is especially important for TAA equipped with automated avionics and flight automation systems (e.g., flight management system (FMS) or coupled autopilots). Instructors should be able to quickly recognize systems automation-based risky behavior in their students and how to correct it. Instructors should also ensure that their students do not become overdependent on these systems to the exclusion of the more traditional methods of navigation, such as pilotage, dead reckoning, and very high frequency omni-directional range (VOR). Pilots using advanced automation must remain proficient in manual aircraft control to fly safely and not allow the use of the aircraft's automation to degrade their primary skills. Advanced avionics and flight automation offer many levels of automation. Pilots need to understand that no one level of automation is appropriate for all flight situations. If an automation system failure occurs, in whole or in part, the pilot should possess the knowledge and skill to address the situation. The FAA strongly recommends that pilots and flight instructors strive for proficiency in every aspect of the aircraft flown, which includes maintaining the pilot's proficiency in manual aircraft control to mitigate the risk of loss of aircraft control. Pilots transitioning to TAA, or any unfamiliar aircraft, should receive specialized transition training from a qualified flight instructor with experience in the specific aircraft's make, model, and equipment.

A.2 **Security-Related Special Use Airspace (SUA): What's Going on Where; How to Stay Clear.** Several significant airspace changes have resulted from the events of 9/11. Pilots in training depend on their instructors to guide them through the intricacies of the new and changing airspace regulations and to make them aware of the consequences of violating those airspaces. "Floating" temporary flight restrictions (TFR), particularly common during election years, are a significant challenge for pilots. Regulations regarding powerplants and stadiums are now in place. Instructors should have thorough knowledge about concepts entirely new to many GA pilots, such as the Washington, DC Flight Restricted Zone (FRZ) and Special Flight Rules Area (SFRA), formally the Air Defense Identification Zone (ADIZ). In addition, all pilots should be made fully aware of intercept procedures. The consequences of violating airspaces have become much more severe and often allow little flexibility with respect to enforcement.

A.3 Transportation Security Administration (TSA): What Flight Instructors Need to Know to Stay Out of Trouble. The TSA now has a role in flight training. Consequently, flight instructors should know which airman certificates the TSA is interested in. Instructors should also be aware of the requirements for citizenship documentation, recordkeeping, foreign student processing, flight instructor and flight school security awareness training, and more. FIRC providers should deliver up-to-date training designed to assist and ensure that the flight instructor attendee is fully aware of the latest TSA requirements. The FIRC represents an ideal venue to update the instructor on the TSA's role and requirements in flight training. Not following the TSA guidelines properly can have serious consequences both for the student and for the flight instructor.

A.4 How to Teach Effectively and Build a Culture of Safety. Flight instructors are highly trained individuals. They hold vast amounts of knowledge gleaned during their own training and through their own experiences. Having a well-founded basis of knowledge is critical to being an effective instructor. However, if that highly trained and knowledgeable instructor is unable to convey their knowledge to a student, then he or she is ineffective as a flight instructor, regardless of knowledge and expertise. Teaching is an art. It requires not just an understanding of the topic, but an understanding of how people think and learn. It requires a certain amount of psychological understanding. Virtually all instructors took coursework in the fundamentals of instruction, which offers a basic theoretical framework for the teaching and learning processes. As presented in the FIRC setting, this topic is expected to build upon and extend farther those skills necessary to effectively transfer knowledge to pilots. Incumbent upon this is building the instructor's ability to instill a culture of safety in the minds of their students, and to spread and support the safety mindset throughout their aviation workplace on an everyday and ongoing basis.

A.5 Current Safety Trends in GA: How Flight Instructors Can Directly Contribute to Aviation Safety. The United States has the largest and most diverse GA community in the world, with more than 220,000 aircraft, including amateur-built aircraft, rotorcraft, balloons, and highly sophisticated turbojets. Over the last 20 years, GA accident rates have been continuing on a very slight downward trend, but there is still room for improvement. Even one fatality is too many. Although the fatal accident rate is declining, in fiscal year (FY) 2017, 347 people still died in 209 GA accidents. What are some of the causes of accidents? What types of accidents have declined? What types of accidents have increased and why? What are the things that flight instructors in particular can do to influence those trends? Seven of the 10 top causal factors in GA accidents involve low-altitude maneuvering and loss of control (LOC) of the aircraft. These include takeoffs and landings, stall/spin accidents, initial climb, and low-altitude maneuvering, among others. Instructors need to be aware of these safety trends and the causal factors behind these accidents, such as excessive angle of attack (AOA), aircraft Weight and Balance (W&B), bank-induced G loading, and many others, and how to avoid them. Risk management (RM) and risk intervention strategies are aeronautical decision-making (ADM) processes designed to systematically identify hazards, assess the degree of risk, and determine the best course of action. These processes begin with the identification of hazards, followed by assessments of the risks, analysis of the controls, making control decisions, using the controls, and monitoring the results. It is the responsibility of the

flight instructor to instill these skills in their students and other pilots with whom they fly. However, to do so effectively, they should have the ability to clarify and present this knowledge in such a way that their students absorb the knowledge at a fundamental level so that when faced with a RM or risk intervention opportunity, they can respond quickly and accurately to mitigate or eliminate the risk. At the same time, instructors must also be skilled in instilling those RM mechanisms in such a way as to make them integral parts of their students' safety mindsets, yet not instill unreasonable fear in those students who may still be developing their skill sets.

A.5.1   Contributing to GA Safety. The FAA's goal is to reduce the GA fatal accident rate by 10 percent over a 10-year period (2009-2018) and beyond. Flight instructors play a leading role in promoting GA safety. You can find more information concerning GA safety in the FAA Fact Sheet – General Aviation Safety at https://www.faa.gov/news/fact _sheets/news_story.cfm?newsId=21274.

A.5.2   FAA Industry Partnerships Identifying and Reducing Risks. Using data, the FAA and industry are working together to identify risk, pinpoint trends through Root Cause Analysis (RCA), and develop safety strategies. The FAA and the GA community carry out this work through their partnership with the General Aviation Joint Steering Committee (GAJSC) and other industry groups. Flight instructors can provide targeted training in response to findings and recommendations from these groups.

A.5.3   Helicopter Safety. The FAA partners with the International Helicopter Safety Team (IHST) and the U.S. Helicopter Safety Team (USHST) to promote safety and reduce civil helicopter accidents and fatalities worldwide.

A.5.4   Lesson Development. While the FAA requires FIRC providers to present a comprehensive overview of current GA safety trends as a core topic, they should also present the theme of the flight instructor's role in enhancing safety in this lesson and weave this theme throughout the entire FIRC program.

- You can find more information concerning the GAJSC at http://www.gajsc.org/.

- You can find more information concerning the USHST at http://www.ushst.org/.

A.6   **Pilot Deviations: Their Causes and How to Teach Pilots and Students to Avoid Them.** Flight instructors should understand that GA pilots are responsible for more than 80 percent of all pilot deviations and that pilot deviations were responsible for 63 percent of runway incursions in FY 2012. The FAA defines a pilot deviation as an action of a pilot that results in the violation of a Federal aviation regulation. Pilot deviations are broadly classified as either airborne deviations or surface deviations. Within each of these two broad classifications are a number of subclassifications. The principal areas of concern in the airborne classification include altitude deviations, course deviations, and airspace incursions. The principal area of concern within the surface deviation classification involves runway incursions, but surface deviations also include vehicle/pedestrian violations. While the outcomes of most pilot deviations are benign, any deviation has the potential to be catastrophic. Because of this potential for catastrophic outcome, pilot deviations are a major concern in both the aviation industry

and within the FAA. Since all pilot deviations involve pilots, and virtually all GA pilots receive training from flight instructors at some point, the flight instructor plays a critical role toward reducing the pilot deviation incident rate. This necessitates an intimate understanding on the part of the instructors of the causes of these incidents, and the development of tactics to recognize and avoid those situations that may have a potential to result in a pilot deviation. For example, flight instructors should understand that not meeting the FAA Aviation English Language Standard (AELS) directly affects a pilot's ability to avoid runway incursions and other potential pilot deviations. FAA AELS ensures efficient communications for receiving and understanding a clearance issued by air traffic control (ATC). Thus, a flight instructor should consider the pilot's ability to meet FAA AELS during any flight evaluation or training event that he or she conducts. (The core topic subject area addressed in paragraph A.9 below provides an expanded discussion on the FAA AELS.) The FIRC represents an ideal venue to update the instructor on pilot deviations, and to provide the attendee with the tools he or she needs to convey mitigation tactics to their students. While the FAA requires FIRC providers to present pilot deviations as a core topic, they should also weave the theme of the flight instructor's role in reducing pilot deviations throughout the entire FIRC program.

A.6.1 <u>Lesson Development</u>. FIRC providers should develop this lesson to promote the attendees' understanding of the common causes of pilot deviations and present strategies to avoid pilot deviations. This lesson should also include the common causal factors and avoidance procedures for specific pilot deviations such as runway incursions. For example, detailed investigations of runway incursions over the past decade have identified three major areas (pilot errors) contributing to runway incursions. The first major area leading to runway incursions is the failure of a pilot to comply with ATC instructions; the second major area is a pilot's lack of airport familiarity; and the third major area is a pilot's failure to adhere to standard operating procedures and industry best practices. FIRC providers should also teach attendees the common challenges to pilots that lead to runway incursions. Lack of pilot proficiency, inadequate preflight planning, poor taxi procedures, distractions in the cockpit, loss of situational awareness (SA), and the improper use of aircraft lights are all challenges that, if not properly managed, can lead to a pilot deviation. Adverse weather, technology limitation, and complex airport designs are additional challenges that contribute to pilot deviations such as runway incursions. Training and procedures developed in compliance with FAA policies and industry best practices reduce the likelihood of pilot deviations such as runway incursions.

A.6.2 <u>Teaching Strategies</u>. FIRC providers should present strategies that attendees can use to teach runway incursions avoidance. For example, consider the following steps:

    A.6.2.1 **Proficiency.** Training and continuing education lead to proficiency. Proficiency is an essential step that pilots can take to avoid runway incursion. Recurrent training, including a flight to a towered airport with an experienced flight instructor, is a good way to gain proficiency with airport operations and to develop the required skills to avoid runway incursions.

A.6.2.2   **Planning.** Pilots should plan each flight before it takes place, even when flying to a familiar airport. Conducting preflight planning for every flight places a pilot in a better position to avoid incidents, accidents, and runway incursions.

A.6.2.3   **Procedures.** GA pilots should use proper procedures to reduce the risk of an incident or accident. To do so, GA pilots should develop and adhere to set cockpit procedures based on regulatory requirements and industry best practices. Progressive taxi instructions are an excellent mitigation strategy to ensure compliance with taxi clearances, which is especially useful at unfamiliar controlled airports and receiving progressive taxi instructions is an effective strategy to prevent runway incursions.

A.6.2.4   **Sterile Cockpit.** A sterile cockpit is another procedural step that pilots should take to reduce the risk of a runway incursion. A sterile cockpit means avoiding all conversations and actions not related to flight during critical phases of aircraft operations such as taxi, takeoff, and landings. Proper taxi procedures should always include a distraction-free cockpit because distractions lead to unintended consequences. Failure of pilots to follow ATC taxi instructions is the number one cause of runway incursions.

A.6.2.5   **SA.** SA is another step that begins with preflight planning. Some pilots only think of SA in terms of flight operations. So, they may maintain this mindset when the aircraft is on the ground. Reframing SA to cover all phases of flight is one more step in reducing pilot errors. To maintain SA, pilots should adopt a heads-up attitude when taxiing. This industry best practice is also a step to reduce the risk of an inadvertent runway incursion.

A.6.2.6   **Aircraft Lights.** Proper use of aircraft lights is an additional procedure that GA pilots often overlook. Aircraft lights allow others to have some idea of the pilot's intentions. Proper use of the aircraft lights should be a defined element in every pilot's set procedures.

A.7   **How to Make the Best Use of the FAA Safety Team (FAASTeam) and the Pilot Proficiency Program (WINGS) in Your Program of Instruction.** Flight instructors have at their disposal a vast and totally free resource of personnel and tools to help them better do their jobs both on the ground when conducting ground instruction, as well as in the air during actual flight training. That resource is the FAASTeam. The FAASTeam is coordinated through the FAA's Safety Promotion Program Office (SPPO) and consists of a network of FAASTeam Program Managers (FPM) throughout the United States.

A.7.1   The FAASTeam has joined forces with individuals and the aviation industry to create a unified effort to reduce GA accidents and to foster and promote a positive safety culture in the GA community. These collaborative partners include:

1. FAASTeam Members: individuals who make a conscious effort to promote aviation safety and a positive safety culture;

2. FAASTeam Representatives (REP): aviation safety volunteers who wish to work closely with FPMs to actively promote safety; and

3. FAASTeam Industry Members (FIM): companies or associations of people that have a vested interest in aviation safety.

A.7.2   The FAASTeam's website, https://www.faasafety.gov/, is the prime FAASTeam education and communication tool. Flight instructors are highly encouraged to register for an account, which is free. Registered users automatically receive email announcements of local and national safety seminars and webinars held throughout the country, and they can specify topics of interest for safety notices.

A.7.3   One of the many FAASTeam tools available to the instructor is the WINGS program. The WINGS program is a structured, documented process. WINGS instructors are expected to provide evaluation and training necessary to ensure airmen are proficient in each element of each WINGS activity. WINGS instructors also seek to improve pilot performance to better than certification standards require. WINGS offers three levels of achievement: Basic, Advanced, and Master.

A.7.4   WINGS subjects are designed to target specific emphasis areas derived from accident data and are delivered through personal contact with flight instructors as well as through frequent live seminars and webinars given throughout the United States. Pilots attain and maintain WINGS phases on a rolling basis based on very simple and easy to understand requirements. Recordkeeping and verification are accomplished online; however, WINGS applicants do not need internet access to participate. As has been in the past, achievement of any level of the WINGS program will substitute for a flight review. Flight instructors need to be aware of and conversant in how this program works and how it and the many other resources available to them through the FAASTeam can benefit both their clients and themselves.

A.7.5   Flight instructors can earn WINGS credit for completing a FIRC, and those who instruct in the WINGS program can renew their instructor certificates based on WINGS instructional flight activities. Flight instructors can also increase their client pool through delivery of WINGS post-certification proficiency training. For complete details, please refer to Advisory Circular (AC) 61-91, WINGS—Pilot Proficiency Program. Also, see sample lesson plans in Appendix B, References and Job Aids, Figure B-2, Sample Lesson Plan: Safety Trends in GA, and Figure B-3, Sample Lesson Plan: How to Make Use of the FAA Safety Team.

A.8   **FAA Regulatory, Policy, and Publications Changes and Updates.** Regulations, policies, and aviation safety-related publications are continually changing, and part of the job of the flight instructor is to keep him or herself up to date to ensure that what they are teaching their students is current and accurate. This can be difficult for flight instructors, whether they are part-time weekend instructors with jobs elsewhere, or very busy full-time instructors at flight schools with high activity levels. Nevertheless,

this requirement remains critically important because effective recurrent flight instructor training directly relates to the quality of flight instruction provided to pilots and the furtherance of flight safety. The FIRC offers an ideal opportunity for the flight instructor to learn about what has been changing in the regulatory and policy areas that are so important in their conduct of their profession. Therefore, the FAA expects all FIRCs to provide training of pertinent developments that occurred since the attendee's last certificate renewal. This, in turn, places an expectation on the FIRC provider to diligently research and keep abreast of the dynamic regulatory and policy environment within which the flight instructor and their students must operate. This, clearly, will necessitate ongoing and often substantial revisions in their course materials. In many cases, providers will have to revise material "on the fly" as policies and regulations change. The FAA expects FIRC providers to immediately update their presentation materials to reflect relevant changes in FAA regulations, FAA policies, and FAA safety-related publications (e.g., FAA ACs and handbooks) to stay completely up to date at all times. The provider may make such changes to this topic content without prior approval at any time, provided such changes accurately reflect the current regulatory or policy state.

A.9   **How to Conduct an Effective Instrument Proficiency Check (IPC) and Flight Review.** Flight instructors perform one of the most vital and influential roles in aviation. Along with training applicants to become first-time pilots, these aviation educators provide essential pilot evaluations and continuing training to ensure safe flight operations. Flight instructors influence the entire GA safety culture. They are not only responsible for pilots to meet aviation proficiency standards, but also bear responsibilities for the safety of every passenger who entrusts his or her life to a pilot's knowledge, skill, and judgment. The FIRC provider's role of providing continuing training to instructors is crucial. For example, the continuing training provided by FIRCs to flight instructors enables the flight instructor to conduct meaningful IPCs and flight reviews.

A.9.1   The IPC. The instrument flight instructor who administers the IPC described in § 61.57(d) must know how to conduct an IPC effectively. Providers should ensure that flight instructors receive the level of continuing training necessary to meet this goal. Airman Certification Standards (ACS) or practical test standards (PTS), as applicable, for the instrument rating stipulates that the flight portion of an IPC must include certain aeronautical tasks (required maneuvers) specific to instrument flying. All flight instructors should know that the ACS or PTS guide (as applicable) contains this information. The maneuvers and procedures selected for the IPC must include those listed in the Rating Task Table in the current edition of the ACS or PTS guide, as applicable (e.g., FAA-S-8081-4, Instrument Rating Practical Test Standards for Airplane, Helicopter, and Powered Lift). The instrument instructor conducting the IPC should also know that he or she has the discretion to require any other maneuver(s) necessary to determine that the pilot can safely operate under instrument flight rules (IFR) in a broad range of conditions appropriate to the aircraft flown and the ATC environment selected. In any case, the flight instructor should pay particular attention to those areas within the PTS identified as "Special Emphasis." New ACS replacement guides do not label "Special Emphasis" areas, since all required tasks are emphasized. The FAA also provides additional guidance in its March 2010 publication entitled Instrument Proficiency Check (IPC) Guidance. This guide offers additional FAA

guidance, with special emphasis on conducting a thorough ground review and on administering IPCs in aircraft with advanced avionics. The goal is to help the instrument flight instructor determine that a pilot seeking an IPC endorsement has both the knowledge and skills to conduct safe flight operation in all aspects of instrument flying. FIRC providers should remind attendees that the Instrument Proficiency Check (IPC) Guidance is also designed as a companion to the FAA publication entitled Conducting an Effective Flight Review, which offers optional guidance to flight instructors on administering the flight review required by § 61.56.

A.9.2   The Flight Review. A flight review is a training event in which proficiency is evaluated. Thus, it is a proficiency-based exercise wherein the airman is required to demonstrate the safe exercise of the privileges of his or her pilot certificate. It can be considered an industry-managed recurrent training program. All active pilots must receive some level of recurrent training on a regular basis in order to continue to exercise their pilot privileges. At a minimum, pilots may meet that requirement through a flight review, which must be conducted at least every 24 calendar-months, as established in § 61.56. However, the FAA recommends that pilots complete a flight review as needed, not just once every 24 calendar-months. The flight instructor typically conducts flight reviews. Many pilots never encounter a flight instructor except for that every 24 calendar-month requirement. Some flight instructors consider the flight review a chore that they would rather not do and are often unclear as to how to properly conduct one when they do. The instructor should understand that the authority to conduct a flight review, and thereby allow a pilot to continue to exercise his or her privileges as pilot, is a major responsibility and offers them an opportunity to assess and enhance a pilot's aviation skills, and thus contribute directly to the safety of GA. Flight instructors should also understand that the flight review is not to be construed or conducted as a test, that there is no pass or fail, and that it is intended to be a learning experience. Flight reviews are not standalone programs of training that are the same for every pilot. Each flight review is unique to the skills and experience level of the pilot receiving the review. The instructor should be well versed in how to quickly assess a pilot's skills and experience and to fine-tune the review "on the fly" to effectively confer new knowledge or to refine skills already possessed. Most pilots know that a flight review requires a minimum of 1 hour of training on the ground and 1 hour of flight training as provided by § 61.56(a). This may create an unrealistic expectation of some pilots. Many pilots may not remember that § 61.56(a)(2) also requires that the review must include "[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." Each pilot has individual needs that may easily require more time to resolve to satisfactorily complete a flight review. To prevent unrealistic expectations, the instructor should address the minimum time requirement and pilot proficiency requirement for a flight review before conducting it. The flight instructor who conducts a flight review normally uses more than an hour on the ground and an hour in the air to accomplish this in a useful way.

A.9.3   IPC and Flight Review Considerations. Flight instructors should possess a thorough understanding of the requirements and process for conducting an IPC or flight review when they agree to conduct one. They should also understand that FAA AELS directly affects safety of flight. Instructors should know that regulations require pilots to meet and

maintain FAA AELS for all grades of pilot certificates issued under part 61. When a flight instructor conducts a flight evaluation and/or flight training event, the instructor should identify any pilot that does not demonstrate FAA AELS. In cases like this, the instructor should provide a logbook entry for training received, advise the pilot of the instructor's finding, and notify his or her appropriate Flight Standards District Office (FSDO) for further action. AC 60-28, FAA English Language Standard for an FAA Certificate Issued Under 14 CFR Parts 61, 63, 65, and 107, provides information and guidance regarding English language standards required by these 14 CFR parts. The 2018 revision of AC 61-98, Currency Requirements and Guidance for the Flight Review and Instrument Proficiency Check, presented a new section pertaining to the FAA AELS. Flight instructors should also know how to instantly formulate an effective plan of action that will make the difference between a pointless exercise that only meets the regulatory requirements, and a truly effective IPC or flight review. The pilot under review/evaluation should come away knowing something they did not know before, possess a degree of skill they did not have before, and meet proficiency standards required to conduct safe flight. While the FAA requires providers to present the IPC and flight review as a core topic, they should emphasize the importance of the IPC, flight review, and instructor's role in reducing GA accidents throughout the entire FIRC program.

A.10 Ethics and Professionalism in the Role of the Flight Instructor. A professional is a person who receives compensation for some unique knowledge or skill that he or she may possess. Ethics has been defined as what a person does when no one is watching. The mark of a quality professional is that he or she maintains the highest level of ethics in everything they do, but most particularly in their professional field. This very much applies to the flight instructor who, by virtue of the fact that he or she receives compensation for his or her skill and knowledge, is a professional. Professionals who hold their field of endeavor in high esteem and who take pride in their accomplishments in their chosen fields tend to maintain high ethical standards without even thinking about it. It becomes an inherent quality when one takes pride in their work. Unfortunately, many in the flight instructor community do not easily recognize their own accomplishments and the critical role they play as instructors in the global world of aviation. This can be particularly true of those instructors who see themselves as "only" instructing to build the hours necessary to move on to the air carriers where they plan on flying "real" airplanes. The typically poor wages often found in the field of flight instruction does not help the perception of instructors' professionalism. While not pervasive throughout the industry, flight instructors and others involved in aviation should guard against this mindset. Flight instructors represent the finest individuals in GA. They should be mindful of this fact and of the responsibility that it entails. Flight instructors have the duty of fostering and ensuring safety through careful and thoughtful training. For example, signing a flight review endorsement in a pilot's logbook, possibly for a friend, when not actually having conducted one or having conducted only a cursory check is unethical. However, the perception of the seriousness of such a poorly conceived event is largely dependent on those self-perceived factors of ethics and professionalism. If the flight instructor has the attitude that "it doesn't really matter because I am moving on to the airlines anyway," then that instructor's perception of this infraction will be very different than that of his or her colleagues. Most flight

instructors understand that flight instructing is an honorable profession, even if temporary, and they take pride in their ability and authority to conduct flight reviews. Instructors should always be mindful of their responsibility and duty to maintain the highest ethical standards (to always do the "right thing") and how those high standards directly contribute to safety in GA, regardless of their future personal goals. While providers are required to present ethics and professionalism as a core topic, they should also weave this theme throughout the entire FIRC program.

A.11 **How to Teach Pilots to Avoid LOC.** Instructors should know that the GAJSC cited aircraft LOC as the number one cause of GA fatalities from 2001 through 2016. The FAA Fact Sheet – General Aviation Safety reports that 219 fatal GA accidents and 413 GA fatalities occurred in the U.S. National Airspace System (NAS) during 2016. In-flight LOC, mainly stalls, accounted for the largest number of GA fatal accidents. LOC refers to aircraft accidents that result from situations in which a pilot should have maintained or regained aircraft control, but did not. The overwhelming majority of GA accidents are avoidable. Flight instructors can make a significant impact on reducing GA accidents by providing targeted mentoring and training to pilots and students. FIRC presentations should include the following information in their LOC lesson:

A.11.1 <u>Training Accidents</u>. Training accidents have occurred because the flight instructor and trainee were not in agreement regarding manipulation of the flight controls. A recommended three-step process of exchange includes a verbal handoff from the pilot flying, verbal acceptance by the pilot taking over, and a verbal and visual confirmation that the exchange has taken place by the pilot ceding control. The procedure to be used for exchange of flight controls should be briefed before flight. In addition, instructors need to maintain diligence while providing instruction. A flight instructor should always be ready and in a position to take over control of the aircraft when doubt exists as to the safe outcome of any flight operation or maneuver.

A.11.2 <u>Traffic Pattern Operations</u>. One area where pilots have experienced LOC accidents is while maneuvering in an airport traffic pattern. In response, the FAA is asking FIRC providers to focus on three traffic pattern issues. The first is the risk of a departure stall; the second is the risk of LOC if attempting to return to the field after an engine failure on takeoff; and the third is the risk of LOC on the base to final turn. The pilot's ability to avoid a stall is a factor in all three scenarios.

A.11.3 <u>Departure</u>. Flight instructors should provide training ensuring pilots of small, single-engine aircraft depart in coordinated flight at the best-rate-of-climb speed (V_Y) for normal takeoffs, and maintain this speed to the altitude necessary for a safe return to the airport in the event of an emergency. Instructors should emphasize that a departure at best-angle-of-climb speed (V_X) is used only for obstacle clearance and short-field takeoff procedures, and flight instructors should emphasize the risks and potential consequences of climbing out at speeds less or greater than what is required for a particular type of takeoff.

A.11.4 <u>Return to Field/Engine Failure on Takeoff</u>. Flight instructors should demonstrate and teach trainees when and how to make a safe 180-degree turnback to the field after an engine failure. Instructors should also train pilots of single-engine airplanes not to make an emergency 180-degree turnback to the field after a failure unless altitude, best glide requirements, and pilot skill allow for a safe return. This emergency procedure training should occur at a safe altitude and should only be taught as a simulated engine-out exercise. A critical part of conducting this training is for the flight instructor to be fully aware of the need for diligence, the need to perform this maneuver properly, and the need to avoid any potential for an accelerated stall in the turn. The flight instructor should demonstrate the proper use of pitch and bank control to reduce load factor and lower the stall speed during the turn. After completing this demonstration, the flight instructor should allow the trainee to practice this procedure under the flight instructor's supervision. Flight instructors should also teach the typical altitude loss for the given make and model flown during a 180-degree turn, while also teaching the pilot how to make a safe, coordinated turn with a sufficient bank. These elements should give the pilot the ability to determine quickly whether a turnback will have a successful outcome. During the before-takeoff check, the expected loss of altitude in a turnback, plus a sufficient safety factor, should be briefed and related to the altitude at which this maneuver can be conducted safely. In addition, the effect of existing winds on the preferred direction and the viability of a turnback should be considered as part of the briefing.

A.11.5 <u>LOC/Base to Landing</u>. Specialized flight training that emphasizes establishing and maintaining a stabilized approach and landing also reduces the risk of LOC in an airport traffic pattern. A properly executed base-to-final turn considers crosswinds and enables pilots to begin final approach lined up with the intended runway's extended centerline. Instructors should instruct the pilot to reject an approach and initiate a go-around when the pilot cannot maintain a stabilized approach.

A.11.6 <u>Instrument Meteorological Conditions (IMC)</u>. Another area where pilots have experienced LOC is while maneuvering in IMC. Vertigo or spatial disorientation has been a significant factor in many aircraft upset accidents. The common result when a non-instrument-rated pilot inadvertently continues flight into IMC is spatial disorientation of the pilot and LOC of the aircraft. Pilots who are instrument rated, but not instrument proficient, are also susceptible. Recovery from such a situation can be nearly impossible. Additionally, instrument-rated pilots maneuvering in IMC that fail to prioritize actions properly and utilize Crew Resource Management (CRM) may become inattentive or distracted, thus losing SA, which too often can lead to an LOC.

A.11.7 <u>Pilot Proficiency</u>. Studies have shown that LOC is most likely to occur when pilots lack proficiency. However, mitigation of this risk can be accomplished using personal currency programs and proficiency training. Proficiency is essential when an unforeseen, abnormal, or emergency situation presents itself. Conditions exceeding personal skill limitations can present themselves at any time and can occur unexpectedly. When this happens, the pilot needs to be able to avoid being startled, make appropriate decisions in a timely manner, and exercise skills at a proficiency level needed to meet the situation. Personal currency programs serve to develop and maintain pilot proficiency by

promoting attributes such as aeronautical knowledge, aeronautical skill, and ADM.
Pilot proficiency pays off because a highly proficient pilot is able to avoid or manage an
in-flight emergency in a routine, safe, and efficient manner. The GAJSC recommends
that pilots place emphasis focused on their specific proficiency needs by including
training that may exceed regulatory minimum currency requirements. FIRCs can use this
information to emphasize proficiency and training programs to reduce the risk of
GA accidents. FIRC providers should include awareness training for instructors to learn
that the GAJSC is the primary vehicle for government–industry cooperation,
communication, and coordination on GA accidents. A FIRC provider's LOC lesson
should emphasize that GAJSC findings reveal common pilot errors leading to LOC,
while GAJSC recommendations provide appropriate antidotal actions to reduce LOC and
GA accidents. This information includes personal skill limitations, distractions, and
spatial disorientation that lead to GA accidents. The flight instructor's awareness of this
information can directly benefit the effectiveness of student training. Trainees should
understand that poor ADM, poor weather conditions, runway incursions, and poor
aeronautical skills hold the potential to trigger LOC. The GAJSC is a vital contributor to
the goal of reducing GA accidents. Flight instructors should consider GAJSC findings
and recommendations when conducting flight reviews, IPCs, and instructing other pilots
on creating their personal currency action plans. AC 61-98 and the Airplane Flying
Handbook (FAA-H-8083-3) both include sections pertaining to LOC.

A.12   **ACS.** Since September 2011, the FAA has worked with aviation community stakeholders
to improve standards, guidance, and test development practices for airman certification.
The ACS framework integrates and aligns standards, guidance, and testing for airman
certification. The ACS is built on today's PTS, which establishes the skill performance
metrics for each flight proficiency element listed in the regulations for an airman
certificate or rating. The ACS replaces the PTS when it is published. The ACS does not
change or lengthen the check ride (practical test). Rather, its integrated approach will
provide better guidance to applicants, instructors, and evaluators during each phase of the
airman certification process. The ACS also enables the FAA to keep airman testing fully
aligned with regulations, performance standards for knowledge and skill, and guidance
materials such as handbooks. Additionally, the FAA is working with industry to refine
ACS and its implementation plan. The rollout date for releasing the initial ACSs for
Private Pilot-Airplane (PAR) and Instrument Rating Airplane (IRA) was June 15, 2016.
To ensure that the implementation of the ACS is successful, stakeholders need to
understand how to utilize the ACS for training and testing. Flight instructors play a
leading role in this regard. For this reason, FIRC providers also need to support the
introduction of ACS by providing ACS training to their attendees. Therefore, FIRC
providers should develop a comprehensive lesson that facilitates the understanding,
implementation, and utilization of ACS. You can find more information concerning ACS
at https://www.faa.gov/training_testing/testing/acs/.

A.13   **Flight Instructors: Accepting a Remote Pilot or Student Pilot Certificate
Application.** Flight instructors need to understand that significant changes in the process
of applying for and issuing student pilot certificates took effect on April 1, 2016, in
conjunction with a new rule adopted by the FAA. Since April 1, 2016, Aviation Medical
Examiners (AME) are no longer able to issue student pilot certificates. The FAA has

released a final rule that requires student pilots to apply for a plastic student pilot certificate from a FSDO, Designated Pilot Examiner (DPE), Airman Certification Representative (ACR), or a flight instructor. Under the authority of the FAA, the 14 CFR part 107 rules were enacted on August 29, 2016. Now, an aviation safety inspector (ASI), DPE, ACR, or a flight instructor accepts remote pilot applications. AC 61-65, Certification: Pilots and Flight and Ground Instructors, reflects these changes. This lesson provides flight instructors training for their review and acceptance of an application for a Student Pilot Certificate or an application for a Remote Pilot Certificate. This lesson should provide training for the submission of both the Integrated Airman Certification and Rating Application (IACRA) and the paper applications. This lesson should also provide training to flight instructors regarding their responsibility to evaluate the applicant's eligibility for meeting FAA AELS. FIRC providers should develop a comprehensive lesson to facilitate the flight instructor's full understanding and implementation of their new responsibilities regarding this topic.

- You can find more information concerning part 107 pilot certification at https://www.faa.gov/uas/getting_started/part_107/remote_pilot_cert/.

- You can find more information concerning student pilot certification at https://www.faa.gov/pilots/become/student_cert/.

APPENDIX B. REFERENCES AND JOB AIDS

B.1   **FAA Advisory Circulars (AC) (current editions):** https://www.faa.gov/regulations_policies/advisory_circulars/.

- AC 60-28, FAA English Language Standard for an FAA Certificate Issued Under 14 CFR Parts 61, 63, 65, and 107.

- AC 61-65, Certification: Pilots and Flight and Ground Instructors.

- AC 61-89, Pilot Certificates: Aircraft Type Ratings.

- AC 61-91, WINGS—Pilot Proficiency Program.

- AC 90-109, Transition to Unfamiliar Aircraft, provides additional information and guidance pertaining to transition to experimental or unfamiliar airplanes.

- AC 107-2, Small Unmanned Aircraft Systems (sUAS).

B.2   **FAA Handbooks and Manuals (current editions):** https://www.faa.gov/regulations_policies/handbooks_manuals/.

- FAA-H-8083-3, Airplane Flying Handbook.

- FAA-H-8083-9, Aviation Instructor's Handbook.

- Other handbooks and manuals, as applicable.

B.3   **FAA Web Resources:**

- Airman Certification Standards (ACS) (all current editions): https://www.faa.gov/training_testing/testing/acs/.

- Best Practices for Mentoring in Flight Instruction: https://www.faa.gov/training_testing/training/media/mentoring_best_practices.pdf.

- Beyond the Buttons: Mastering Our Marvelous Flying Machines: https://www.faasafety.gov/files/gslac/library/documents/2007/Mar/15239/7.1%20TAA%20Flying%20Skills%20MarApr07.pdf.

- Conducting an Effective Flight Review (current edition): https://www.faa.gov/pilots/training/media/flight_review.pdf.

- FAA/Industry Training Standards Personal and Weather Risk Assessment Guide: https://www.faa.gov/training_testing/training/fits/guidance/media/Pers%20Wx%20Risk%20Assessment%20Guide-V1.0.pdf.

- Flight Instructor Training Modules: https://www.faa.gov/training_testing/training/fits/training/flight_instructor.

- General Aviation Pilot's Guide to Preflight Weather Planning, Weather Self-Briefings, and Weather Decision Making (current edition): https://www.faasafety.gov/files/gslac/courses/content/25/185/GA%20Weather%20Decision-Making%20Dec05.pdf.

- Instrument Proficiency Check (IPC) Guidance (current edition): https://www.faa.gov/pilots/training/media/IPC_Guidance.pdf.

- Night Flying Safety, FAA Aviation News: https://www.faa.gov/news/safety_briefing/2008/media/novdec2008.pdf.

- Online Resources for Certificated Flight Instructors, FAA Safety Team (FAASTeam): https://www.faasafety.gov.

- Personal Minimums Checklist: https://www.faa.gov/training_testing/training/fits/guidance/media/personal%20minimums%20checklist.pdf.

- Practical Test Standards (PTS) (all current editions) (e.g., FAA-S-8081-4, Instrument Rating Practical Test Standards for Airplane, Helicopter, and Powered Lift): https://www.faa.gov/training_testing/testing/test_standards/.

- Risk Management Teaching Tips: https://www.faasafety.gov/gslac/ALC/libview_normal.aspx?id=6107.

B.4 Other Resources:

- Aircraft Owners and Pilots Association (AOPA): http://www.aopa.org/.

- AOPA Tools for Certificated Flight Instructors: https://www.aopa.org/training-and-safety/cfis.

- Aviation Digital Data Service (ADDS): https://www.aviationweather.gov/adds/.

- Experimental Aircraft Association (EAA): https://www.eaa.org/.

- Flight Service (Lockheed Martin): https://www.1800wxbrief.com/.

- General Aviation Manufacturers Association (GAMA): https://gama.aero/.

- National Association of Flight Instructors (NAFI): https://www.nafinet.org/.

- Society of Aviation and Flight Educators (SAFE): https://www.safepilots.org/.

Table B-1. Minimum Hour Assurance Plan Matrix

[Required to be included in an online training course outline (TCO)]

Example: 16-Hour Course Content
ASSURANCE PLAN MATRIX

CORE TOPICS	Lesson Presentation Actual Time (LMS[1])	Pretest Allotted Time (optional[2])	Lesson Support Graph/Data Allotted Time[3]	Allotted Break Time[4]	End of Lesson and/or Final Exam Allotted Time[5]
	Hours	Minutes	Minutes	Minutes	Minutes
Navigating the 21st Century: Aircraft Automation	1.0	0	0	Attendee Discretion	4
Security-Related SUA	1.0	0	0	"	4
TSA	1.0	0	0	"	4
Culture of Safety	1.0	0	0	"	4
Safety Trends in GA	1.0	0	.4	"	5
Pilot Deviations	.75	0	0	"	4
FAASTeam	.75	0	.3	"	4
Regulations	.75	0	0	"	4
Flight Review & IPC	.75	0	.3	"	5
Ethics & Professionalism	.75	0	0	"	4
Loss of Control (LOC)	.75	0	0	"	4
Airman Certification Standards (ACS)	.75	0	0	"	4
Accepting a Remote Pilot or Student Pilot Certificate Application	.75	0	0	"	4
ELECTIVE TOPICS[6]					
Who is GAJSC	.5	0	0	"	3
Teaching ADM	.5	0	0	"	3
Total Time (in Hours)	**Actual Hours (LMS): 12**	**Allotted Hours: 0**	**Allotted Hours: 1.0**	**Allotted Hours: 2.0**	**Allotted Hours: 1.0**

[1] The provider's learning management system (LMS) is required to ensure that each attendee actively engages each lesson in its entirety.

[2] A pretest is a learning tool that may count as part of a lesson, but should not constitute an excessive amount of the lesson time.

[3] This column is optional, as graphs/additional data may be included without a specified time for attendees to review.

[4] Credited break time may not exceed 2 hours of the 16-hour course content.

[5] Total testing time may not exceed 1 hour of the 16-hour course content minimum requirement (see paragraph 11.10.6).

[6] Elective topics are encouraged, not required.

Figure B-1. Sample Training Course Outline Cover Page

ORVILLE & WILBUR'S FIRC SCHOOL

Airplane Flight Instructor Refresher Course Training Course Outline

(Live Classroom)

Conducted By:

Orville & Wilbur's FIRC School
1234 Airport Road
Baltimore, MD 12345
Phone: (123) 456-7890
Fax: (123) 456-7891

Point of Contact:
John Smith, Chief Instructor
Phone: (123) 567-8901
Email: jsmith@yourfircschools.com

Figure B-2. Sample Lesson Plan: Safety Trends in GA

**Safety Trends in GA:
How Flight Instructors Can Directly Contribute to Aviation Safety**

Lesson presentation time: <u>45 minutes</u>

LESSON OBJECTIVE
At the completion of this lesson, the attendee will (desired learning outcome):
- Be familiar with the latest General Aviation (GA) safety information & trends;
- Understand methods to mentor students in a way to build a GA culture of safety;
- Be able to teach more effectively by learning new instructional methods to teach risk management (RM) principles that respond to current aviation safety trends in GA; and
- Know how to teach risk recognition, common pilot errors, and RM principles that will reduce GA accidents.

SUBJECT MATTER ELEMENTS (examples)
- Latest aviation safety info: Federal Aviation Administration (FAA), National Transportation Safety Board (NTSB), and Joseph T. Nall Report (include edition and/or dates of publication);
- All major trends including loss of control (LOC);
- Non-fatalities and fatalities trends by year;
- Analysis of trends and causes; and
- Takeaway from General Aviation Joint Steering Committee (GAJSC), NTSB findings, and recommendations.

EQUIPMENT (optional)
- PowerPoint.
- Handouts.
- Whiteboard.

COMPLETION STANDARDS
Attendees will complete this lesson when:
- The lesson content is presented to, and is completed by, the attendee in its entirety;
- The attendee understands the lesson content and its application; and
- The attendee receives a score of no less than 70% on each of his or her exams.

TESTING PROCEDURE
End of first day and second day final exams: essay and multiple choice closed book.

Figure B-3. Sample Lesson Plan: How to Make Use of the FAA Safety Team

How to Make Use of the FAA Safety Team

Lesson presentation time: <u>45 minutes</u>

LESSON OBJECTIVE

At the completion of this lesson, the attendee will:
- Be familiar with the FAA Safety Team (FAASTeam) mission, composition and philosophy;
- Understand how to register for an account on the FAASTeam website, https://www.faasafety.gov/;
- Understand how to access FAASTeam resources for General Aviation (GA) pilots and flight instructors;
- Be able to describe the Pilot Proficiency Program (WINGS), how to register for a WINGS account, and how to validate WINGS training for pilots; and
- Be able to request WINGS credit for flight instructor refresher course (FIRC) completion (Activity number A080530-01).

SUBJECT MATTER ELEMENTS
- FAASTeam composition:
  - FAASTeam Program Managers (FPM).
  - FAASTeam Representatives (REP).
  - FAASTeam Members and FAASTeam Industry Members (FIM).
- FAASTeam Resources for Flight Instructors:
  - FPMs and REPs.
    - How to contact.
- FAASafety.gov:
  - Account registration.
  - Notification preferences.
- Resources:
  - Notices.
  - Safety Program Airman Notification System (SPANS).
  - Activities and courses.
  - Flight Risk Assessment Tools.
- WINGS:
  - Program description and philosophy.
  - Getting started with WINGS.
- FAASTeam seminars and webinars.
- FAASTeam Flight Instructor Forum.
- The FAASTeam and FAA's Remedial Training Program:
  - FAA Compliance Philosophy.
  - Contact your FPM if you are interested in conducting remedial training.

EQUIPMENT (optional)
- PowerPoint.
- Handouts.
- Whiteboard.

COMPLETION STANDARDS

Attendees will complete this lesson when:
- The lesson content is presented to, and is completed by, the attendee in its entirety;
- The attendee understands the lesson content and its application; and
- The attendee receives a score of no less than 70% on each of his or her exams.

TESTING PROCEDURE

TBD by FIRC provider.

Advisory Circular Feedback Form

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by contacting the General Aviation and Commercial Division (AFS-800) at 9-AFS-800-Correspondence@faa.gov or the Flight Standards Directives Management Officer at 9-AWA-AFS-140-Directives@faa.gov.

Subject: AC 61-83J, Nationally Scheduled, FAA Approved, Industry Conducted Flight Instructor Refresher Course

Date: _____

Please check all appropriate line items:

An error (procedural or typographical) has been noted in paragraph _____ on page _____.

Recommend paragraph _____ on page _____ be changed as follows:

_____

_____

In a future change to this AC, please cover the following subject:
(Briefly describe what you want added.)

_____

_____

Other comments:

_____

_____

I would like to discuss the above. Please contact me.

Submitted by: _____   Date: _____