



U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Nationally Scheduled
FAA-Approved, Industry Conducted
Flight Instructor Refresher Course

Date: 09/30/11

AC No: 61-83G

Initiated by: AFS-800

Change:

1. PURPOSE. This advisory circular (AC) provides information 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). The FIRC is intended to keep flight instructors informed of the changing world of General Aviation (GA) flight training, and to enhance aviation safety through continued refresher training of the flight instructor cadre. It is one of several methods by which a flight instructor may renew his or her flight instructor certificate. Adherence to this AC provides one acceptable method by which the FAA may approve the FIRC program. 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. The holder of a part 141 pilot school certificate that desires to offer a FIRC program under their Air Agency Certificate should refer to this AC, which may be helpful as guidance in developing the TCO for FAA approval.

2. CANCELLATION. This AC cancels AC 61-83F, Nationally Scheduled FAA-Approved, Industry Conducted Flight Instructor Refresher Clinics, dated November 7, 2007. This revision of this AC (revision G), and any subsequent versions, will use the term “course” in place of the previously used term “clinic” in order to bring this document into alignment with terminology and verbiage used within 14 CFR.

3. DEFINITIONS.

a. Airman Certification Representative (ACR). An individual representing a specific FIRC sponsor who is authorized under Title 49 of the United States Code (49 U.S.C.) § 44702(d) to accept FAA applications for renewal of valid flight instructor certificates from successful graduates of that sponsor’s program and to issue temporary flight instructor certificates.

b. Distance Learning Curriculum. 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.

c. Attendee/Instructor Attendee. Both terms will be used throughout this document and each will have a different definition. “Instructor attendee(s)” are those individuals attending the FIRC who are currently certificated flight instructors (CFI) and who are doing so to renew their flight instructor credentials or to meet some other regulatory requirement that will involve some

interaction, either directly or through the FIRC provider, with the FAA. The term “attendee(s)” includes instructor attendees but may also include any individual, whether or not they are a CFI, 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.

d. Course (or Course of Training). 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.

e. Credential(s). In the context of this document, this term refers to the actual flight instructor certificate issued by the FAA to a qualified flight or ground instructor. (See the current edition of FAA Order 8000.38, Aviation Safety Inspector Credentials Program.)

f. Curriculum. An organized sequence of topics or subject matter to be presented within a course of training.

g. 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 is satisfactorily accomplished through the Internet.

h. Lesson. An individual period of instruction that imparts subject matter to the attendee(s). A single lesson is generally considered to cover a single topic.

i. Lesson Plan. The instructor’s plan for teaching a given unit of learning. A series of lesson plans are components of the training syllabus.

j. Module. A module is generally intended to mean a unit of training that includes a single topic. That is how the term will normally be used in the context of this document. The term may also be used to mean a unit of training time (i.e., 1 hour) that may or may not cover more than one topic. While the term will generally be limited in this document to indicate a single topic, the alternative usage will be acceptable in sponsor documentation if clearly defined as such.

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

l. Sponsor. An individual or an organization holding FAA approval under this AC to conduct FIRC programs meeting the requirements of § 61.197(a)(2)(iii). The terms FIRC, FIRC sponsor, FIRC operator, and FIRC provider may be used interchangeably. A sponsor is to be differentiated from a presenter.

m. Stage. 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 sponsor may or may not employ stages at their discretion.

n. Student. An individual who will take aeronautical and/or flight instruction from a CFI outside the venue of a FIRC. This document does not use this term to refer to an attending CFI.

o. Training Course Outline (TCO). An overview document that details the form, methodology, and content of a course of training.

p. 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.

4. BACKGROUND.

a. Flight Instructor Refresher Program. The FAA's Flight Instructor Refresher Program was initiated in 1965 to provide standardization in updating CFIs. The FAA Aeronautical Center instructors provided instruction until their participation was 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 CFI certificate to certain qualified industry organizations. This transfer was made in a cooperative 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, at the discretion of the FAA, renew their flight instructor certificates.

b. Program Attendance.

(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.

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

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

5. THE ROLE OF THE FIRC SPONSOR.

a. Communication. The FIRC serves a vitally important role in the transfer of new information and the building of a culture of safety throughout the aviation community. 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 CFI may renew their instructor credentials in accordance with § 61.197(a)(2)(iii). All approved FIRC sponsors together constitute a larger whole that, along with and interacting with the FAA, share the common purpose of ensuring that the flight instructors are provided 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 so as to help ensure a continued enhancement of aviation safety at all levels. Individual FIRC sponsors should recognize that they are part of this larger whole and make attempts to communicate with and share ideas and current information with other sponsors and with the FAA on a regular basis.

b. Skill Building. The spirit of a FIRC should parallel that of the professional conference for attorneys or doctors. For all practical purposes, a live, in person FIRC is a professional conference in a very real sense since flight instructors are, by definition, professionals. 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 such, professional flight instructors, like professional attorneys or doctors, are assumed to possess certain basic skills. Thus, the FIRC is not intended to rehash those basics, but rather to expose the instructor to the latest in flight training techniques, the newest technology, and, most importantly, operational and 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.

c. CFI Responsibility. For many pilots the only contact they may have with an aviation authority is through their flight instructor. CFIs play a vital role in enhancing aviation safety. CFIs were accorded serious responsibilities by the FAA when they were issued their instructor credentials. Incumbent on that responsibility 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.

d. Teaching Methodology. Any single FIRC program should, as much as is practical, represent a whole, rather than a set of disconnected subjects offered one after another with no obvious connection. Each topic should be thought of as a chapter out of a larger book, 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. Try to think outside of the box when developing the overall course. An example of innovative thinking might be attendees following a fictitious pilot as he or she moves through each (or some) of the topics of the course and experiences, learns, and reacts to components of each. For example, Bob the CFI who, while instructing a student how to use advanced avionics, inadvertently flies into security related special use airspace because of excessive heads down time in the cockpit operating the avionics. After being intercepted and interviewed by persons from the Transportation Security Administration (TSA), it is discovered that he was not fully in compliance with TSA rules regarding how he was keeping records of his students. After surviving his ordeal, he then uses the experience to effectively teach his students how to stay out of trouble and make them see 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. In this example, a program sponsor 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 sponsor can use creativity and ingenuity to build context and make the subject matter meaningful, all while retaining the attendee’s interest. FIRC sponsors are in no way required to employ the particular approach

given in this example. There are many other approaches. An FIRC sponsor is considered by the FAA to be a professional educator with particular skill at training the trainers and, as such, 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 CFIs 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 on and very high expectations of the FIRC sponsor. Sponsors are expected to excel at this skill.

e. Returning to Flight Instruction Training Module. The FAA understands that many CFIs who are renewing their instructor credentials are not currently providing aviation instruction and in some cases may not have done so for many years. The time constraints within which the FIRC must operate restricts the FIRC sponsor from providing all of the information necessary to bring an inactive flight instructor up to speed, and the FIRC sponsor should not attempt to do so within the context of the FIRC. Nevertheless, the non practicing CFI in attendance is still an authority figure in aviation and should strongly be reminded 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 CFIs 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 sponsor 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 non practicing instructors in attendance and may offer the opportunity for them to learn the procedures and processes of safely returning to the profession after some period of absence. However, this topic must 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 useful information to the practicing instructor. With the exception of this single module, the FIRC provider must always direct their presentations toward that target audience.

f. 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 for the CFI. There is little that the FIRC provider teaches to the active CFI at a FIRC that is not of value to the non CFI. Therefore, FIRC sponsors should actively encourage and recruit airmen of all certificate types and levels to attend, including student pilots and ground instructors. However, the FIRC sponsors' main audience is the renewing CFI 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.

g. FIRC as an FAA Representative. An approved FIRC sponsor is granted the authority to provide a basis for renewal of an FAA issued flight instructor credentials in accordance with § 61.197(a)(2)(iii). In some cases, the FIRC sponsor is further authorized to employ a designated ACR and issue temporary airman certificates on behalf of the FAA. In these respects, the FIRC sponsor acts as a representative of the FAA and should, at all times, act accordingly. FIRC sponsors must always be supportive of the FAA and constructive in its evaluation and presentation of FAA regulations and policies. FIRC sponsors 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. An 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 (AFS-800) of the sponsor's authorization to conduct any further FIRC programs.

h. 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 sponsor is authorized to carry out the FAA's FIRC initiative in the FAA's name, authorized FIRC sponsors may use the FAA logo in any of their documents, publications, or advertising that relate specifically to the presentation of authorized FIRC programs, provided that the FIRC sponsor clearly states somewhere in their public documentation that the sponsoring organization is not the FAA, but that it is, instead, authorized to operate the program on the FAA's behalf. Sponsors must remove all FAA logos and FAA representations from all of its publications immediately upon expiration or other loss of FAA authorization to conduct FIRCs regardless of the reason.

6. GENERAL PROCEDURES REGARDING FIRCS.

a. Contact Information. Sponsors or organizations who desire to conduct FIRC programs approved under this AC should contact AFS-800 with their preliminary inquiry. Sponsor candidates may also include a copy of the TCO they plan to use if they have already developed one. The preferred format is a Microsoft Word document. Correspondence should be submitted by the prospective FIRC provider at least 90 days before any planned training under the course approval. This is to allow adequate time for the FAA's review and approval. In no case may a sponsor schedule a FIRC program before receipt of the approval letter from AFS-800. Sponsors or organizations authorized to conduct FIRCs approved in accordance with this AC must maintain with AFS-800 a current mailing address, email address, telephone and facsimile numbers, and a reliable point of contact (POC). Sponsor applicants may submit inquiries or documentation to AFS-800 via any of the following methods:

- (1) The FAA FIRC email address at 9-AWA-AVS-AFS-FIRC@faa.gov.
- (2) AFS-800 fax at 202-385-9597.
- (3) Direct emails to the FIRC business program manager (requires prior communication).

(4) U.S. Postal Service 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

b. Public versus FAA Access to Sponsor TCOs. Sponsors will provide any attendee at an approved FIRC an opportunity to review a copy of the FAA-approved TCO at the sponsor presentation site if the attendee specifically requests it. The FAA understands that a TCO may be a proprietary document. While an attendee, upon request, may review a copy in the presence of the sponsor or a representative of the sponsor, neither the sponsor nor its representative is required to allow an attendee to retain a copy, or to allow an attendee to copy the TCO. The sponsor may allow this if they wish. In any event, the sponsor may not provide to the attendees any copies of versions of the tests or test pools that the sponsor might use in that FIRC at any time. The sponsor, upon request, will provide to any FAA representative a copy of the TCO to follow during the presentations, including all of the test questions and the answers that the FIRC sponsor uses in any of its lessons, stage, 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 must return the original copy to the sponsor. FAA personnel other than AFS-800 should return any documents to the sponsor within 1 week unless the Flight Standards District Office (FSDO) and the sponsor make another arrangement. The FAA will not make any documents provided by the FIRC sponsor available to any person or organization outside the FAA without express written permission from the document developer or owner.

c. 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 sponsor. The FIRC sponsor may request the local FSDO to participate, or the FSDO may initiate a request. The decision to allow FAA participation is solely the prerogative of the sponsor unless required by an FAA Regional Office (RO) supported by AFS-800. The amount of FIRC schedule time that the FAA participant will be permitted is at the discretion of the sponsor, but may not, in any event, exceed 2 hours. FAA personnel may not exercise their authority to participate if the sponsor does not wish them to nor, if allowed to participate, may an FAA representative use more time than the sponsor wishes to allocate to them without authorization from AFS-800. In some rare cases, typically as a result of a safety initiative, it may be necessary to mandate FAA participation. In such cases, AFS-800 will coordinate between the FAA field office(s) and the sponsor(s) to find the best solution to ensure that the sponsor's scheduling is minimally disrupted. The sponsor may not restrict or forbid the FAA from observing any FIRC program at any time for any reason in a non participatory capacity. FIRC surveillance is solely at the discretion of the FAA.

d. Cross Sponsor Presentation. No sponsor may teach a part of his or her own FAA-approved TCO in conjunction with a part of another sponsor's approved TCO. Inclusion of any topic not specifically approved in the TCO, regardless of its source, is prohibited without prior approval. In some rare cases, two approved sponsors may wish to combine their programs

for a special event. In such cases, all parties must coordinate with AFS-800 to request specific, limited approval. Such approval is not guaranteed.

e. Instructor Affiliation. The principal instructor giving presentations at an FAA-approved FIRC must be an employee or affiliate of the approved sponsor or organization, or be contracted by the approved sponsor or organization. In some rare cases, a sponsor may wish to allow a specialist or expert at a particular field, who is not affiliated with the FIRC sponsor, to teach some individual module or modules. An example might be where an organization wishes to have 16 different master instructors—not affiliated with the approved sponsor—give each of the 16 hours of training. In such cases, all parties must coordinate with AFS-800 to request specific, limited approval. Such approval is not guaranteed.

f. Training Aids Authorized for Use.

(1) Use of Training Aids. FIRC sponsors are encouraged to use a variety of visual, aural, and static training aids to enhance communications 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.

(2) Operational Competency. Presenters at the FIRC must 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 must 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.

(3) Clarity of Training Aids. 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 sponsor should use colors that are clearly contrasted, easily visible, and arranged in accordance with the color spectrum sequence recommended for visual presentations. The sponsor 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.

(4) Innovative Techniques. 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 in mind the teaching goals. 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 must thoroughly know the subject matter being taught. The presentations should be

designed 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.

(5) Use of Video Presentations. Sponsors 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 online Internet-based FIRC's, sponsors must limit video and aural presentation use to not more than 50 percent of the entire course hours. Each video and aural presentation must be moderated by an instructor (well versed in the subject matter and material) who provides introduction and closure. The information provided by at distance or via the Internet will constitute significantly more video and aural content since the alternative is largely limited to simple on screen text. However, the information provided by video and/or aural presentations in at distance or Internet curricula must always be germane to the topic(s) presented.

g. 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 sponsor, attend a later scheduled FIRC program presented by that same sponsor or may receive personal training from that same sponsor on those topics that the attendee did not complete. Upon full and satisfactory completion of that sponsor's FIRC at a later date, the sponsor 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 sponsor'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 sponsors 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. Sponsors must contact AFS-810. Each video and aural presentation must be moderated by an instructor (who is well versed in the subject matter and material) who provides an introduction and closure.

h. Product Manufacturer Representatives. A sponsor may utilize a product representative from industry to present a module, or a portion of a module, in a FIRC program as a guest speaker if invited by the sponsor. 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 must 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 FIRC's.

i. Instructional Level. At nearly all times the emphasis should be on teaching the instructor how to teach the topic to their students, rather than simply teaching the instructor. The target audience is the CFI who, by nature of the fact that they hold the certification, is expected

to possess the basic knowledge that is implicit in the certification. The sponsor should not spend valuable instructional time reviewing basic pilot knowledge that any flight instructor is expected to know. The FAA understands that many who are attending the FIRC may not be active flight instructors. Nevertheless, even though such non practicing flight instructors may, at times, make up the bulk of the attending class, the target audience remains the active flight instructor who is expected to immediately apply the knowledge and skills gained at the FIRC, and the training provided by the sponsor is expected to always be at that level. The FIRC provider is encouraged to include non instructor pilots in their classes, but, again, should maintain the highest level of training commensurate with the intended target audience. Experience has shown that pilots of all levels appreciate being exposed to higher learning levels and will benefit from the exposure.

j. Records. The FIRC sponsor must maintain a record of the complete name and address of all instructor attendees and whether the sponsor issued or denied a graduation certificate. If the sponsor denies a graduation certificate, the sponsor must record the reason for the denial. The sponsor must maintain this record for a period of at least 24 months. Recordkeeping may be digital. The sponsor must also retain records for attendees who only receive a course completion certificate.

k. 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 FAA FSDO, sponsors who do not have an ACR on their staff are encouraged to contact the FSDO having jurisdiction over the area where the FIRC is presented 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 local FSDO or to the FSDO having jurisdiction over their residential area 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.

l. Aircraft Category Specialization. An FIRC may, at their option, 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 sponsor meets the general requirements of this AC and its associated core topics. Attendance by any flight instructor at any approved FIRC, whether or not that FIRC specializes in a particular category of aircraft, may be acceptable as a basis for renewal by any CFI. This is acceptable even if the CFI 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 basis for renewal of his or her CFI credentials, even though he or she does not hold a rotorcraft pilot certificate or a rotorcraft flight instructor rating.

m. CFI Renewal by Mail. Under certain limited circumstances, attendees may renew their CFI credentials by U.S. mail. FAA Order 8900.1, Flight Standards Information Management System (FSIMS), 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 FSIMS at <http://fsims.faa.gov>.

n. Integrated Airman Certification and/or Rating Application (IACRA). Providers should utilize the IACRA Internet-based program for processing applicants when practical. The sponsor should direct questions concerning how to utilize this program to the local FSDOs.

7. TCO DOCUMENT DEVELOPMENT—GENERAL.

a. TCO Length. Many new sponsors inquire as to how long the TCO document should be. There is no set length. The FAA encourages sponsors 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. TCOs in excess of 75 pages are not unusual. Thirty to 60 pages are the norm. Such 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, such as the table of contents, revision page, facilities description, personnel descriptions, etc. 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. Sponsors should not "pad" the TCO just to make it look bigger. Sponsors should exercise common sense to fully describe the program that they plan to present. Detailed information regarding specific TCO components is found later in this document.

b. Subject Matter Requirements. All sponsors must, at a minimum, include all of the core topics identified in Appendix 1. Core subjects are those mandated by the Administrator. Sponsors may add as many elective topics of their choosing as they wish. The sponsor may incorporate or combine core topics with other topics in any logical manner. The sponsor must clearly identify the location of each core topic within the subject matter and must ensure sufficient allocation of time to each of the core topics. The sponsor must ensure adequate coverage of the material, regardless of its location. Each elective topic will require FAA preapproval before a sponsor may present it. The sponsor may consider building a "library" of preapproved electives. While the sponsor may present any number of other acceptable subjects as elective topics at the sponsor's discretion, the FAA must give preapproval before the sponsor may present them. The sponsor must 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 e-mail site (9-AWA-AVS-AFS-FIRC@faa.gov). The FAA must receive the notification before the sponsor presents the changed topic. The FAA may or may not acknowledge receipt of the notification since authorization for the change is not required. It is strongly recommended that the sponsor request an automated electronic return receipt in the event that their presentation content is ever questioned.

c. Themes. The sponsor 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.

(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 CFI 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 CFI'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.

(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. 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 and, therefore, much easier to grasp as a concept and to incorporate into the overall safety culture. All pilots are taught the ADM, but the concept can far more effectively be conveyed if it is presented in these simpler, everyday terms, and the sponsor should weave this topic throughout the entire FIRC program.

(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 reoccurring theme throughout the entire FIRC program.

(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 sponsor 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 CFI be reminded that it is neither ethical nor professional and why. To be professional, flight instructors must take seriously the duties and responsibilities that come with being an FAA CFI. The sponsor should emphasize a sense of professionalism and value in doing the right thing when exercising the privileges and responsibilities that come with being a CFI.

d. Minimum Course Hours Requirements. Curricula presented for FAA approval consideration must consist of no fewer than 16 hours of ground and/or flight instruction. Sponsors may offer more. Sponsors may distribute those hours any way they choose, in that they do not need to be contiguous, nor must the sponsor complete all 16 hours of training within a concurrent 2 day span. For example, sponsors may offer portions of the curriculum on a monthly

basis. The key is ensuring that the attendee receives all of the authorized information. A CFI may use no portion of the approved FIRC program for renewal credit if the CFI has taken that portion before the applicant's last renewal. In other words, the applicant must have received all 16 hours of the approved TCO within his or her most current biannual certificate period. If the sponsor chooses to spread their program over an extended period (for example, 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, providers are strongly advised not to employ this option for periods exceeding 1 year. Nevertheless, it remains the option of the operator. If the sponsor modifies their TCO in the middle of an extended program of training, the sponsor is responsible to ensure that attendees are provided all of the training in the TCO that is approved at the time of their graduation.

e. Training Block Time Frames. Reasonable variances in the time frame 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 time frames of the overall course, the course stages, and the individual lessons. There are no required minimum times to teach any particular topic, including core topics. The sponsor's TCO must specify the anticipated amount of time that the sponsor will spend on each topic. It should specify the expected start and stop times of each lesson. The overall FIRC program must consist of the specified 16 hours of ground and/or flight instruction and comply with acceptable teaching standards and techniques appropriate to the TCO used. For the purposes of the FIRC, a program hour consists of 60 minutes. Each hour may, at the option of the sponsor, include a 10 minute break after each 50 minute learning session without taking away from the total required 16 hours. The sponsor may, for example, wish to offer a 100 minute (1 hour, 40 minute) block of training followed by a 20 minute break. However, the sponsor may not continue training throughout an 8 hour day with no breaks, then end the day 1 hour and 20 minutes early. Unbroken spans of instruction should never exceed 2 hours in length. A 50 minute learning session may include one or more individual topics or lessons. Pre course registration, lunch periods, 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). Part of the required 16 hours may include testing, but may not exceed 30 minutes in any given 8 hour span of instruction. Sponsors 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 sponsor is to cover. If the sponsor exercises this option, it must be identified in the TCO, as would any other instructional block of time. The chief (or assistant chief instructor where designated) 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.

f. Instructional Techniques/Alternatives. The sponsor 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 sponsor should explore any effective alternatives in developing their program. The goal is to transfer useful information to the attendee in an effective manner. How the presenter accomplishes the transfer is entirely up to the sponsor, 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.

g. 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 sponsor obtained this goal is to test the attendees in some manner. Paragraph 10 discusses in some detail that testing is a serious and important component of the FIRC program.

h. 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. The sponsor must structure any such forum to reflect the high standards of excellence expected of the FIRC program. The sponsor must carefully monitor and moderate these forums. All instructor attendees must 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.

i. Topic Sequencing. Topic sequencing identified in the TCO must reflect the sequencing that will take place during each particular in person FIRC presentation. This will allow ASIs to adjust their schedules if they wish to observe only particular topic(s) of the FIRC. Because of the inherent flexibility of the Internet, sponsors 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 sponsor; however, the sponsor must remain mindful of the building block method of learning and “fine tune” their attendee’s ability to move through the subject matter topics accordingly.

j. Academic Institutions. AFS-800 may approve academic institutions or vocational schools having State Board of Education approval and/or national accreditation for a curriculum leading to an Associate or Bachelor’s degree, or to a certificate of completion in aviation science or a similar course of study on a case by case basis.

k. Flight Component. Sponsors who wish to incorporate a flight component into their approved TCO must first contact AFS-800 by any of the methods identified in paragraph 6 of this document to discuss this aspect of their development plans.

l. Graduation Certificates.

(1) Graduation Certificates as a Basis for CFI Renewal. A graduation certificate issued by an approved FIRC sponsor may serve as the sole basis for renewal of a flight instructor’s credentials under the provisions of § 61.197(a)(2)(iii). The renewal applicant must complete their CFI renewal within the 3 months subsequent to the month within which the FIRC sponsor issued the graduation certificate. Further, the renewal applicant’s CFI credentials must be current at the time he or she presents the renewal application. In no case will the FAA renew a pilot’s CFI credentials if application for renewal is attempted past the expiration date printed on their current CFI.

NOTE: Some form or method of testing is a prerequisite for the receipt of a graduation certificate by an attendee.

(2) Contents of a Graduation Certificate. An issued graduation certificate must contain the following information in order to be considered a valid basis for CFI certificate renewal:

(a) The full name and address of the organization (or sponsor) holding FAA approval to conduct the course.

(b) The full name and address of the graduate.

(c) The date of issuance.

(d) The signature of the chief instructor (or assistant chief instructor where designated).

(e) A statement that the graduation certificate expires 3 calendar months from the month of issuance.

(f) Sponsor contact information.

(g) A sequential number.

(h) The expiration date of the sponsor's current authorization to conduct FIRCs.

NOTE: The sponsor 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 sponsor or representative issue a graduation certificate without the expiration date of the sponsor'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:

[SPONSOR'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). [SPONSOR'S NAME] current authorization expires on [DATE].

(3) Renewal Information. The sponsor should note that the applicant must submit a completed and signed Form 8710 1, Airman Certificate and/or Rating Application (or IACRA equivalent), along with a copy of the graduation certificate, to a certifying official (ACR, aviation safety inspector (ASI), or approved designated examiner) 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. The sponsor 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. Failure to inform the

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

(4) Completion Certificates. The sponsor, 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 CFI renewal or reinstatement. Additionally, a completion certificate does not meet the annual training requirements for the chief pilot 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 sponsor.

8. TCO STRUCTURE AND CONTENTS. This paragraph provides guidance regarding how the TCO should physically be structured and what the sponsor should include in the TCO. Sponsors 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:

a. Page Numbering and Version Identification. Each page (including the cover page) must 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.

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

c. 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 1), as well as all additional elective subjects selected by the sponsor. 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 sponsor, the larger topic framework may incorporate core topics; however, the table of contents must 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 must be able to easily determine where they occur during the program so as to synchronize his or her arrival time if necessary.

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

e. Facilities. A description of the facilities will follow the revision page. The description of the facilities must 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).

f. Training Aids. The TCO must include a description of audio visual 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 must describe the system requirements that the online attendee must meet to ensure that the program operates smoothly.

g. Chief/Assistant Chief. The TCO must list the name and qualifications of the chief instructor (and assistant chief instructor where requested). The chief instructor must meet at least the certificate and experience requirements of a chief instructor required for a part 141 pilot school course of training leading to flight instructor certification.

h. Program Presenters. The TCO must list the qualifications of other instructors, lecturers, moderators, or panelists who will present the sponsor'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 physically giving presentations at any specific approved FIRC (in person FIRCs only) must be an employee or affiliate of the approved sponsor or organization, or be contracted to the approved sponsor or organization.

i. Prerequisites. The TCO must 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 sponsor should encourage such attendees to attend. Those who are attending for reasons other than credential renewal will not receive flight instructor FIRC graduation certificates. Instead, they may receive certificates of attendance/course completion. This is left to the discretion of the FIRC sponsor. Once a flight instructor certificate has expired, the flight instructor must successfully accomplish a practical test for the reinstatement of that certificate.

j. Daily Schedule. The TCO will include a daily schedule, including the start and stop times for each lesson and the lesson title. The sponsor may choose any period of time they feel is appropriate to cover a particular topic or module adequately. The presenter must 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 sponsor exceeds the duration established for that particular lesson. This is acceptable to a certain extent, although the sponsor must remain mindful to adequately cover subsequent topics and modules. Major changes that may result in the exclusion of another topic must be preapproved by the FAA.

k. 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 sponsor should identify appropriate reference materials that the presenter will use during the presentation. The sponsor 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 must contain at least the following elements:

(1) Lesson or Module Title. In a practical sense, the lesson or module section will be the title of the module or 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.

(2) Subject Matter. The subject matter portion of each lesson plan should offer an expanded discussion of the specific subject matter(s) the presenter is to 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, but rather should make clear to the reviewer what the intent of the sponsor is regarding the subject matter and identify the principal knowledge components of the topic(s) that the sponsor intends to transfer to the attendee. The FAA is interested in the major points of information that the sponsor is offering the attendees in the specific topics for which they are approved.

(3) Lesson Objectives. The “Lesson Objectives” section should clearly specify the desired attendee learning outcomes and should be consistent with the objectives and subject matter 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 and must retain the bulk of the material and the key specific points presented. These are the lesson objectives. It is important to fully identify these objectives. Be specific. As examples, two inadequate lesson objective descriptions related to a hypothetical module on Cockpit Resource Management (CRM) are shown below, followed by a more acceptable example:

(a) Inadequate Example. At the end of this lesson, the attendee will know about CRM.

(b) 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. The attendee will understand how CRM differs between single pilot and two pilot environments. In addition, the attendee will have learned effective methods of managing 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. The instructor attendee will understand the importance of being able to effectively communicate this information to their attendees/students in a clear and concise manner.

(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 sponsor may set the minimum standard higher if they wish; however, they may not reduce the standard below 70 percent. If the sponsor wishes to employ a non traditional method of completion standard they should contact AFS-800.

(5) Testing Procedures. The sponsor 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 (i.e., 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 sponsor will specifically test the applicant on this topic or module on two different occasions using a printed multiple choice format.

l. Written Test Questions. The sponsor will provide a comprehensive written test or test question pool with an answer key in the submitted TCO. The sponsor 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. Test questions must be appropriate to the lesson plans and subject areas the sponsor will teach. The sponsor must administer closed book exams for tests given at live, in person FIRC. The sponsor must require each attendee to answer at least 30 test questions. All 30 test questions do not have to be given at the same time; however, at least 15 of the questions must be given at the end of the entire FIRC program, and that final test must 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 sponsors may set higher standards. The sponsor may provide the test questions, answers, and references as an appendix to the TCO so as to allow other non FAA personnel to see the TCO without seeing the tests and their answers. However, the sponsor must submit it as a component part of the TCO when seeking FAA approval.

NOTE: The sponsor must 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 sponsor 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 sponsor should alter multiple choice answer sequence (where used), and should reword or recast preexisting questions.

NOTE: See paragraph 9 for additional information pertaining to Internet-based FIRC testing.

m. Graduation Certificate. The sponsor should include a copy of the graduation certificate to be issued and a copy of a completion certificate, if one is to be used, in the TCO package presented for review. Specific details regarding what must be on the graduation certificate are found elsewhere in this document.

n. Remedial Training. If the sponsor 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. Sponsors who elect not to provide remedial training and testing to instructor attendees who fail to meet the minimum

standards should include a statement in their TCO to that effect. In this case, the TCO must 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.

9. INTERNET BASED, DISTANCE LEARNING, OR OUT STUDY PROGRAMS.

a. Distance Learning Programs. Distance learning FIRC curricula (which does not include Internet-based) will be accepted by the FAA for review. Sponsors 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 sponsors should be prepared to provide a 1-800 telephone number and facsimile number to ensure a rapid and effective means of communications between the sponsor and enrollees to aid the enrollees in completing all approved course materials. It may be highly advantageous for a sponsor or organization that intends to submit a distance learning curriculum to meet with AFS-800 in advance to discuss the proposed curriculum in detail.

b. Internet or Web Based Programs. Internet or Web based FIRC curricula will be evaluated by the FAA on a case by case basis. Sponsors/organizations who wish to submit an Internet-based FIRC program must contact AFS-800 and notify them of their intent. Sponsor applicants are encouraged to provide graphical outline representations of their proposed training programs for review and consideration by AFS-800. 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 to this material is sufficient. The applicant must submit a brief TCO that contains general information about the FIRC, as well as the items 1 through 10 listed below in this paragraph. Where a stated requirement is not considered applicable to an Internet-based FIRC program, the sponsor should identify that requirement and provide a reason for its inapplicability. The sponsor must make available to the FAA free form access to the completed FIRC training site. Free form access means that the FAA must be able to navigate freely throughout the program as desired, rather than being compelled to follow topics sequentially. This includes access to testing. It is strongly recommended that a sponsor or organization intending to present an Internet-based FIRC program arrange to meet with AFS-800 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:

(1) Source Materials. The source of all study materials used to support the course element that would appear on the Internet, and a description of all drawings, mockups, demos, or links used by the sponsor in the course.

(2) Minimum Hours Verification. A statement of how the sponsor intends to ensure that the attendee completes the minimum requirement of 16 hours of FIRC course subject material (study, completion, and test(s)).

(3) Identity Verification. The methodology proposed to determine the identity of course participants at log on and during navigation of the lessons, including intentional or unintentional disruption of the lesson flow. Additionally, the TCO must describe methodologies proposed to prevent multiple concurrent log-ons by a course participant for the purpose of viewing or printing material during inappropriate stages of the lesson.

(4) Testing Materials Security. A statement of how the sponsor intends to 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.

(5) FAA Access. 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.

(6) Online Attendee List Availability. A statement that the sponsor will, upon request, provide the FAA a listing of all Internet FIRC program participants that contains, at a minimum, the sponsor'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.

(7) Data Security. Methodologies proposed to ensure data availability, integrity, confidentiality, and accountability for course materials, participant information, and lesson plans.

(8) Certificate Renewal Methodology. If appropriate, the manner in which the sponsor will process applications for flight instructor certificate renewal.

(9) Revisions. The manner in which the sponsor will present future revisions to the approved TCO. These revisions must be approved by the FAA before being included in the online program.

(10) Other Information. Any other information the sponsor may consider necessary or appropriate by the FAA during development of the online program.

10. TESTING PROCEDURES.

a. 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 sponsors employ essay questions or a mixture of both. All are acceptable methods of providing quantitative data reflecting the CFI'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 sponsors give them in terms of practical knowledge and a safe operational mindset. It is incumbent upon the FIRC sponsors to take this aspect of the FIRC very seriously and design their tests in light of this mission. Tests should be sufficiently demanding. Tests should be reflective of the material

presented. The sponsor 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, sponsors may retrain deficient attendees to 100 percent if they choose to, provided that they give adequate retraining in the attendee's deficient areas. The sponsor needs to retest attendees who receive additional retraining only on the deficient areas; however, the questions used for the makeup test portions must be different from the ones first answered incorrectly.

b. Test Questions. Written tests will consist of a minimum of 30 multiple choice questions relating to the material covered. Sponsors may, and are encouraged to, use more if they choose. Sponsors may give a single final test of 30 questions, or they may break out 15 of those 30 questions into smaller units given at different times during the 16 hour program. The remaining minimum of 15 questions must be in the form of a comprehensive final test given at the conclusion of the training. This final test, or at least 15 of the questions if the sponsor uses all 30 questions in the final test, must be comprehensive and reflect all of the material presented throughout the entire 16 hours.

c. Alternative Testing. Sponsors may use methods other than multiple choice questions for testing. An acceptable alternative would be essay questions. In such a case, the sponsor 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. Sponsors may explore other methods of testing; however, they must coordinate with AFS-800 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 sponsors 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 must meet or exceed the minimum of 30 questions. See subparagraph 10g.

d. Oral Testing. Sponsors 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 sponsor. Written testing as described in this section is mandatory for all sponsors.

e. Test Records Retention. Sponsors 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.

f. Conventional In Person FIRC Testing. Sponsors should design exams to test the retention of a range of information provided during the FIRC program. Therefore, the sponsor 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. Sponsors 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. Sponsors 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.

g. Distance Learning or Internet FIRC Testing. When a sponsor 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 must meet or exceed 30. 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. Sponsors 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 sponsor must randomize tests between attendees, and with individual attendees taking FIRCs at a later date.

11. TCO REVISION, AMENDMENT, OR DELETION.

a. Required and Optional Revisions. Sponsors 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 1 and other subject matters selected for periodic emphasis by the FAA will usually be deferred until the sponsor renews their authorization. Additionally, sponsors must change exams at least once every 2 year renewal period. Sponsors 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 1 or any other changes that the Administrator has determined necessary. However, all proposed substantive changes to the TCO must be approved by AFS-800 before being presented by the sponsor in a FIRC. TCOs and revisions should be emailed to 9-AWA-AVS-AFS-FIRC@faa.gov, or sent by any of the methods identified in paragraph 6 of this document.

b. Submission of Revisions. The sponsor should email TCOs and revisions to 9-AWA-AVS-AFS-FIRC@faa.gov, or send them by any of the methods identified in paragraph 6. The sponsor should submit a single digital (i.e., Microsoft Word document or PDF) copy of the change(s), accompanied by a separate electronic letter requesting approval of the change(s). The sponsor may not include the revised material in the FAA-approved presentation until actual receipt of the letter of approval from AFS-800. 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 site identifying what the elective changes are and where and when the sponsor will present them. It is highly recommended that any submitted documents to the FAA email site require an electronic return receipt. A change of

chief instructor or assistant chief instructor will require notification to AFS-800 in accordance with the instructions contained in paragraph 13.

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

- (1) Ensure approval chronology.
- (2) Include the effective date of change or revision.
- (3) Ensure ease in identifying changed or revised material.
- (4) Include entry of change on a revision summary page.
- (5) Include written guidance describing the revision procedure to be used by the sponsor.

12. SCHEDULING OF COURSES. In the past, sponsors were required to keep AFS-800 directly apprised of the dates and locations of each course presentation. This was typically in the form of an email or physical mail. This is no longer necessary with the implementation of the FAA Safety Team's (FAASafetyTeam) FIRC registration page located at <http://www.FAASafety.gov>.

a. FAASafetyTeam FIRC Scheduling Web Site. The FAASafetyTeam has developed a location on the <http://www.FAASafety.gov> Web site where FIRC sponsors will input basic information about their programs once their TCOs are approved. Information will be limited to sponsor name, Web site (if applicable), contact email, contact telephone, and the current schedule of presentations. Listings of FIRC presentations are limited to State, city, dates, and times. The presentation schedule must extend at least 6 months at any given time. In other words, any time that an interested party reviews a sponsor's information on the Web site, he or she should be able to determine what that sponsor's offerings are for the next 6 months. It is the responsibility of the FIRC sponsor to maintain their data entries. Directions for use are available at the FAASafetyTeam Web site. Individualized access codes will be assigned to each sponsor upon approval and sponsors are required to input their organizational and contact data within 1 week of receipt of the letter of approval. Once the data are input by the sponsor, the sponsor will be responsible for keeping their information up to date. This site will be available to the public; however, only the specific sponsor and FAA personnel will be allowed to make any modifications. If, for any reason, a FIRC sponsor does not wish to have their information listed, they may select the option to disallow their information from being visible to the public. Any sponsor who chooses not to allow their information to be visible to the public must maintain their schedule data on the Web site nevertheless. Such data will only be visible to FAA personnel. The FAA will treat such data as proprietary and not permit access to it outside the FAA.

b. Inability to Upload. If the sponsor is unable to upload schedule information for any reason, they must notify AFS-800 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 6 of this document. Notification must be made 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.

c. Scheduling Web Site versus Information Web Site. The FAASTeam FIRC scheduling Web site should not be confused with the FAA's FIRC general information Web site located at <http://www.faa.gov/pilots/training/firc>.

13. CHANGE OF CHIEF INSTRUCTOR OR ASSISTANT CHIEF INSTRUCTOR. The approved sponsor or organization must notify AFS-800 when making a change in the sponsor's chief instructor (or assistant chief instructor where designated). This notification should be made at least 45 days before the change, but in no case later than 10 days after the change. Notification should be in electronic form (i.e., Microsoft Word document or PDF).

14. CHANGE OF SPONSOR. Should a change in sponsor occur due to sale or other reason and no change in personnel or course content occurs, the sponsors (both old and new) must notify AFS-800 at least 15 days before the presentation of any FIRC programs conducted under the new sponsorship. Should a change in sponsor occur due to sale or other reason and no change in personnel or course content occurs, the sponsors (both old and new) must notify AFS-800 at least 15 days before the presentation of any FIRC programs conducted under the new sponsorship. If it is an Internet-based program, the sponsor must 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 e-mail at 9-AWA-AVS-AFS-FIRC@faa.gov. If the change in sponsor involves any change in personnel of the approved FIRC TCO, authorization to conduct any further FIRCs is canceled until the new sponsor has obtained FAA approval.

15. FAILURE TO COMPLY WITH AN APPROVED TCO. The failure of an organization 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 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 sponsor will be given no more than 60 days to make the necessary revision or corrective action, as appropriate. Should the sponsor not make the necessary revision or corrective action within 60 days, FAA approval and authorization to conduct FIRC programs will be withdrawn automatically.

16. FIRC APPROVAL PROCESS.

a. TCO Document Submission. TCOs should be submitted for consideration by AFS-800, as described in paragraph 17. The FAA will conduct a thorough review of the TCO. If the sponsor meets all the guidelines of this AC the FAA will issue an approval. The FAA will not issue final approval without satisfactory evaluation of the FIRC.

b. FAA LOA. When the FAA finds that a FIRC TCO is in compliance with this AC, a signed letter indicating approval of the submitted TCO will be forwarded to the sponsor electronically. AFS-800 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 FIRC's presented by a new sponsor. The approval of an Internet FIRC will be on a case by case basis and the FAA will provide approval by the same method as for any other FIRC.

c. Field Inspections. FSDOs having geographic jurisdiction over the locations where FIRC's are presented are expected to monitor these programs to the extent possible. FIRC presentations may be monitored at any time on a random basis by the local FSDO having jurisdiction over the locations.

17. FIRC RENEWAL, WITHDRAWAL, OR CANCELLATION.

a. Renewal Requests. FIRC sponsors holding approval who desire to renew their authorization to conduct FIRC programs beyond the date of original expiration must state their request to AFS-800 at least 90 days before the expiration date of the current approval. The preferred method is via electronic mail in the form of a Microsoft Word document or PDF attachment; however, conventional mail is acceptable. See paragraph 6 for methods of contacting and transferring documents to AFS-800. It is the sponsor'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 sponsor is invalid. The FAA may not honor a certificate issued by a sponsor that held an expired approval. Additionally, an ACR designation, if held, is no longer valid and may not be used.

b. Required Renewal Documents. Approved sponsors 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 sponsor must clearly identify any changes from the previously approved TCO. 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 sponsor must update the tests or test question pool each renewal period as discussed in subparagraph 8m of this document. If the sponsor 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."

c. Reissuance of LOAs. Upon a finding by AFS-800 that the submitted TCO is in compliance with current AC requirements and is otherwise acceptable, AFS-800 will issue a new letter of approval establishing a new expiration date. Failure to comply with the FAA-approved TCO or this AC, or the failure to incorporate necessary changes to the existing TCO when so directed by AFS-800 in writing, may be sufficient cause for withdrawal of the approval.

d. Retention of Expired Document by the FAA. If AFS-800 has not received a letter from the FIRC sponsor requesting renewal as described above, or if the sponsor requests to surrender its authorization, the FAA will return all materials originally presented by the applicant if specifically requested; otherwise, the FAA will destroy those materials. The sponsor may not present any courses from that point on. To reestablish approval, the applicant must then comply with the original application procedures as outlined in this AC.

NOTE: The FAA will not notify FIRC sponsors of an approaching expiration date. Monitoring a sponsor's approval period is the responsibility of the sponsor.

18. APPLICATION AND APPROVAL OF AN ACR EMPLOYED SOLELY BY AN FIRC SPONSOR.

a. Reissuance. An ACR affords the FIRC sponsor the ability to process flight instructor certificate applications and forward them directly to Airmen Certification Branch (AFS-760) for flight instructor certificate reissuance without directly involving the FSDO.

b. Requirements for Employing an ACR. FAA-approved FIRC sponsors who have held their approval for a period of at least 1 year and presented at least one full FIRC program within that year may qualify to employ a designated ACR.

c. ACR Appointment. Appointment of an ACR is the responsibility of the local FSDO. Qualified sponsors should contact their local FSDO directly to make application to employ an ACR for their program.

d. Application Approval or Denial. Approval or denial of a sponsor's application for an ACR is at the discretion of the FSDO.

e. ACR Designation. Procedures and requirements for the designation 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.



John M. Allen
Director, Flight Standards Service

APPENDIX 1. REQUIRED INSTRUCTIONAL CORE TOPICS FOR FAA-APPROVED TCO CURRICULA

- 1.** The 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 14 CFR part 61, § 61.197(a)(2)(iii). FIRC sponsors must check the FIRC informational Web site at least once every 90 days for any updates or changes in FIRC policy, guidelines, or resources. The Web site is located at <http://www.faa.gov/pilots/training/firc>.
- 2.** The subject areas described below are those that approved FIRC sponsors are required to present during any FAA-approved FIRC program presentation. The sponsor may teach these subject areas individually or in combination when the subjects are such that teaching them together is appropriate. However, the sponsor 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 Web site 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. The sponsor must incorporate all of the core topics listed below within those 16 hours. There are no minimum time requirements for individual core topics. However, it is not likely that the presenter could cover any individual topics comprehensively in less than 30 minutes, although this is not a required time minimum. Some might be accomplished with less. The sponsor should identify, in the training course outline (TCO), the expected time that a presenter will spend on a given topic. The sponsor should also identify each topic's expected start and stop times. The sponsor, at their discretion, may present additional subject matters germane to flight instruction as elective topics in meeting the total 16 hour requirement. AFS-800 will review and approve these subjects on a case by case basis. Once the FAA grants initial TCO approval, the sponsor can submit additional subject matter topics via email through the FAA's FIRC email address at 9-AWA-AVS-AFS-FIRC@faa.gov. Approval will typically take place within a few days via return email.

REQUIRED CORE TOPICS

1. Navigating in the 21st Century: Pilotage to GPS.

Global Positioning System (GPS) is quickly becoming the principal means of navigation for many pilots. While this represents a significant improvement in navigation, over dependency 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 may be encountered such as excessive heads down time, automation fixation, database currency and limits, etc. Instructors must be able to quickly recognize systems automation based risky behavior in their students and how to correct it. Instructors must also ensure that their students do not become over dependant on these systems to the exclusion of the more traditional methods of navigation such as pilotage, dead reckoning, and Very High Frequency Omnidirectional Range (VOR).

2. Security Related Special Use Airspace: What's Going on Where, and 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 must have thorough knowledge about concepts entirely new to many General Aviation (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 must 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.

3. Transportation Security Administration (TSA): What Flight Instructors Have 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 must also be aware of the requirements for citizenship documentation, recordkeeping, foreign student processing, flight instructor and flight school security awareness training, and more. Not following the TSA guidelines properly can have serious consequences both for the student and for the flight instructor.

4. How to Teach Effectively and Build a Culture of Safety in Your Students and Your Workplace.

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 the 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.

5. Safety Trends in GA: How CFIs Can Directly Contribute to Aviation Safety.

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 much. What are some of the causes of accidents? What types of accidents have declined? What kinds 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 of the aircraft. These include takeoffs and landings, stall/spin accidents, initial climb, and low altitude maneuvering, among others. Instructors must be aware of the causal factors behind these accidents, such as excessive angle of attack, aircraft weight and balance (W&B), bank induced G loading, and many others, and how to avoid them. Risk management and risk intervention strategies are decisionmaking 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 inculcate these skills in their students and other pilots with whom they fly. Yet to do so effectively they must have the ability 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 risk management 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 risk management 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. While sponsors must present the safety trends as a core topic, they should also weave the theme of the flight instructor's role in enhancing safety throughout the entire FIRC program.

6. Pilot Deviations: Their Causes and How to Teach Your Students to Plan Ahead to Avoid Them.

A pilot deviation (PD) is defined as an action of a pilot that results in the violation of a Federal aviation regulation. PDs 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 PDs are benign, any deviation has the potential to be catastrophic. Because of this potential for catastrophic outcome, PDs are a major concern in both the aviation industry and within the FAA. For several years, PDs have been on the rise. Of particular concern is that a significant majority of all PDs (69 percent) are occurring during GA operations. Since all PDs 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 PD 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 PD. The FIRC represents an ideal venue to update the instructor on this issue, and to provide the instructor with the tools he or she needs to better convey to their students those mitigation tactics. While sponsors must 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.

7. How to Make the Best Use of the FAASTeam and the WINGS—Pilot Proficiency Program in Your Program of Instruction.

Flight instructors have at their disposal a vast and totally free array of 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 FAA Safety Team (FAASTeam). Each of the FAA's

eight regions has a regional FAAS Team office dedicated to furthering GA safety. The FAAS Team has joined forces with individuals and the aviation industry to create a unified effort against accidents and to “tip” the safety culture in the right direction. These include FAAS Team members, those individuals who make a conscious effort to promote aviation safety and become part of the shift in safety culture; FAAS Team representatives, aviation safety volunteers who wish to work closely with FAAS Team Program Managers (FPM) to actively promote safety; and FAAS Team Industry Members (FIM), who include companies or associations of people that have a vested interest in aviation safety. One of the many tools available to the instructor through the FAAS Team is the WINGS—Pilot Proficiency Program (WINGS). The WINGS program has been reengineered into a new model that offers three levels of achievement: Basic, Advanced, and Master. WINGS topics are designed to target specific emphasis areas derived from accident data and are available on the FAASafety.gov Web site, as well as through frequent live seminars given throughout the United States. Pilots attain and maintain WINGS levels on a rolling basis based on very simple and easy to understand requirements. (See http://www.faasafety.gov/WINGS/pub/learn_more.aspx.) Recordkeeping and verification are online; however, WINGS applicants do not have to have 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 FAAS Team offices can benefit both their clients and themselves.

8. 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 in 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. This, in turn, places an expectation on the FIRC sponsor to diligently research and keep abreast of the pertinent 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 sponsors will have to revise material “on the fly” as policies and regulations change. The sponsor is expected to immediately update their presentation materials to reflect any changing regulations or policies so as to stay completely up to date at all times. The sponsor 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.

9. How to Give an Effective and Useful Flight Review.

All active pilots must receive some level of refresher 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 every 2 years as established in 14 CFR part 61, § 61.56. The flight instructor typically conducts flight reviews. Many pilots never encounter a flight instructor except for that every 2 years 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 an awesome responsibility and offers them an opportunity to assess and enhance a pilot's aviation skills, and thus contribute directly to the safety of GA. The CFI should also understand that the flight review is not to be construed or conducted as a test and that there is no pass or fail and that it is intended to be a learning experience. Flight reviews are not stand alone 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. The CFI typically has only an hour on the ground and an hour in the air to accomplish this in any useful way. A thorough understanding of the process and how to instantly formulate an effective plan of action will make the difference between a pointless 2 hour exercise that only meets the regulatory requirement and a truly effective interaction from which the pilot receiving the review will come away knowing something they did not know before, will possess a degree of skill they did not have before, and will be safer in the cockpit than before.

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 instructor's professionalism. While not pervasive throughout the industry, flight instructors and others involved in aviation must guard against this mindset. Flight instructors represent the finest in GA and must be reminded of this and of the responsibility that it entails. They have the duty of fostering and ensuring safety through careful and thoughtful training. Signing a flight review endorsement in a pilot's logbook, possibly for a friend, for example, when not actually having conducted one, or having conducted only a cursory check is understood by everyone to be unethical. However, the perception of the seriousness of such a poorly conceived activity is largely dependant on those self perceived factors of ethics and professionalism. If the flight instructor has an attitude of "it doesn't really matter—I'm moving on to the airlines anyhow," then their perception of the degree of infraction will be very different than that of the flight instructor for whom instructing is an honorable profession, even if temporary, and who takes pride in their ability and authority to conduct that flight review. The instructor must be reminded of his or her 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 sponsors must present ethics and professionalism as a core topic, they should also weave this theme throughout the entire FIRC program.