

FLIGHT INSTRUCTOR OPEN FORUM

PRESENTER GUIDE – INSTRUCTOR PROFESSIONALISM

Additional Resources

FAAS Team – <http://www.faasafety.gov>

SAFE – <http://www.SafePilots.org>

Aviators Model Code of Conduct – <http://www.secureav.com>

GA Awards Program – <http://www.GeneralAviationAwards.org>

Master Instructor Program – <http://www.MasterInstructors.org>

Aviation Educator Hall of Fame – <http://www.AviationEducatorHoF.org>

Pilot Training Reform – <http://www.PilotTrainingReform.org>

The Role of Aviation Educators

According to the statement of need for the Pilot Training Reform Symposium hosted by the Society of Aviation and Flight Educators in May 2011 (<http://www.PilotTrainingReform.org/>):

Aviation educators perform the most vital and influential duties in aviation: they are the gateway for those entering aviation, be it for pleasure, business, commercial, airline, or even military flying. Ground and flight instructors are responsible for advancing pilots through a regulated system of certificates and ratings, transitioning pilots to different aircraft and technologies, and ensuring that pilots satisfy FAA, insurance, and flight school or company recurrency requirements. Though the reasons for increased attrition among students and other pilots are many, instructors often represent the first and last lines of defense to motivate pilots to continue in aviation. Instructors directly influence our safety, security, and environmental mindsets as well—influence that has significant and widespread ramifications both inside and outside general aviation.

Some Definitions of “Professionalism / Professional”

“Professionalism: Characterized by or conforming to the technical or ethical standards of a profession” – 2010 US/Europe International Aviation Safety Conference, Pilot Professionalism and Cockpit Discipline, Greg Kirkland, FAA Assistant Mgr, Air Transportation Div., June 9, 2010

Professionalism is a “meticulous adherence to undeviating courtesy, honesty, and responsibility in one’s dealings with customers and associates, plus a level of excellence that goes over and above the commercial considerations and legal requirements’ (www.BusinessDictionary.com).” – *It Takes A Pro* by Bryan Neville, FAA Safety Briefing, July/August 2011

Wikipedia Definition of Professional (<http://en.wikipedia.org/wiki/Professional>):

1. Expert and specialized knowledge in field which one is practising professionally.[5]
2. Excellent manual/practical and literary skills in relation to profession.[6]
3. High quality work in (examples): creations, products, services, presentations, consultancy, primary/other research, administrative, marketing, photography or other work endeavours.
4. A high standard of professional ethics, behaviour and work activities while carrying out one's profession (as an employee, self-employed person, career, enterprise, business, company, or partnership/associate/colleague, etc.). The professional owes a higher duty to a client, often a privilege of confidentiality, as well as a duty not to abandon the client just because he or she may not be able to pay or remunerate the professional. Often the professional is required to put the interest of the client ahead of his own interests.
5. Reasonable work morale and motivation. Having interest and desire to do a job well as holding positive attitude towards the profession are important elements in attaining a high level of professionalism.
6. Appropriate treatment of relationships with colleagues. Consideration should be shown to elderly, junior or inexperienced colleagues, as well as those with special needs. An example must be set to perpetuate the attitude of one's business without doing it harm.
7. A professional is an expert who is master in a specific field.

From East Carolina University, The Brody School of Medicine
(<http://www.ecu.edu/cs-dhs/medicaleducation/profMedicalEducation.cfm>)



Attributes of Professionalism

Scholarship & Commitment to Learning: Punctual; attends classes, clinics, other required events; seeks additional knowledge and skills; seeks feedback; willing to assist other learners; is self aware of areas for improvement

Accountability & Initiative: Flexible; delegates effectively; accepts personal responsibility for mistakes; asks for help when needed; discloses medical error when appropriate

Self-Care & Self-Growth: Maintains personal health & hygiene; cares for self; seeks advice, counsel, or tutoring when needed; avoids harmful behaviors

Responsibility & Sense of Duty: Completes assigned duties; sets & achieves realistic goals; follows policies; responds promptly when called; detail-oriented; places patient needs first

Compassion & Respect for Others: Considerate; cooperative; displays empathy; respectful of different socioeconomic backgrounds & cultural traditions; sensitive; respects authority

Integrity & Trustworthiness: Displays honesty & forthrightness; adheres to ethical standards; truthful in all communications; maintains confidentiality; reports inappropriate behavior by colleagues

Teamwork & Professional Demeanor: Works well with others; maintains composure in difficult circumstances; inspires trust; avoids inappropriate remarks; adheres to local dress codes

Concern for the Welfare of Patients: treats patients & families with dignity; respects patient privacy & cultural values; maintain accurate information inpatient records; advocates for patients

General Aviation Awards

FAA & Industry Recognizing Excellence

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About the GA Awards Program

For nearly 50 years, the General Aviation Awards Program has recognized a small group of aviation professionals in the fields of flight instruction, aviation maintenance, avionics, and flight safety for their important contributions to the aviation community.

This awards program is a partnership and a cooperative effort between more than a dozen sponsoring organizations from the aviation industry and the Federal Aviation Administration (FAA). The selection process begins with local offices. Panels of aviation professionals from within those four fields then select national winners from the pool of regional winners.

The FAA administrator annually has presented the national awards in July during a "Theater in the Woods" program at EAA AirVenture in Oshkosh, Wisconsin. Included in the prize packages for each national winner is an all-expense paid trip to Oshkosh for the recipient and a guest to attend the awards presentation and other GA Awards activities. Generous contributions from industry sponsors pay for the winners' expenses, while the FAA provides the support and structure for nominations to proceed from local to national levels. Hard working volunteers within the industry provide the various administrative tasks.

The General Aviation Awards Program is a cooperative effort between the Federal Aviation Administration (FAA) and aviation industry sponsors to recognize annually outstanding individuals in the fields of Avionics, Flight Instruction, and Maintenance. In addition, the program recognizes outstanding individuals serving the FAA Safety Team (FAASteam) as representatives.

The awards highlight the important roles these individuals play in promoting aviation safety, education, and professionalism. Winners will be recognized locally, regionally and nationally. National winners will be recognized during AirVenture-Oshkosh each July. There, they will also receive gifts and merchandise provided by sponsors and contributors.

General Aviation Awards
(303) 485-8136

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Welcome to the Master Instructor Program™

The Best the Right Seat has to Offer

The Master Instructor Program™ provides a national accreditation for aviation educators based on advanced professional standards and rigorous peer review. In the words of former FAA Administrator Marion Blakey, the Program "singles out the best that the right seat has to offer." To ensure impartiality in the designation process, participation in the Program is open to qualified aviation educators regardless of their other affiliations. The Program is also FAA Wings-approved and can be used to renew unexpired flight instructor certificates. A number of designations are available to appeal to a broad spectrum of aviation educators:

- [Master Certificated Flight or Ground Instructor](#) (MCFI & MGI) — For holders of valid FAA/ICAO-issued Flight Instructor or Ground Instructor Certificates
- [Master Aviation Educator](#) (MAE) — For those working in academia, industry, government, or the private sector as aviation educators, but not necessarily holding FAA instructor certifications
- [Master Instructor-Helicopter](#) (MCFI-H) — For those who devote a majority of their instructional time to helicopters.
- [Master Instructor Emeritus](#) (MIE) — For those retiring from full-time aviation education duties, an honorary title in recognition of years of commitment to excellence in aviation education and participation in the Master Instructor Program™
- [Aerobatic Instructor Designation Program](#)™ (FI-A, CFI-A, MCFI-A) — For those providing spin, emergency maneuver, and aerobatic training

Based in Longmont, Colorado, long-time aviation educators Sandy and JoAnn Hill began development of the Master Instructor Program™ in 1995. From 1997 to 2008, the Hills administered their Program through another organization; in early 2009 however, they formed Master Instructors LLC to bring greater autonomy to the Program, while ensuring impartiality in the designation process.

Aviation Educator Hall of Fame

MISSION

To honor individuals who have made significant contributions to aviation education.

THE HALL

AEHOF is currently a virtual Hall of Fame. Honorees are listed under the "Inductees" menu tab.

COALITION MEMBERSHIP

Membership in the AEHOF Coalition is open to anyone who wishes to serve the mission, ideals, spirit, and best interests of the Hall of Fame.



CONTACT

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Home

To teach more about flying than how to steer an airplane; to take time with the students; to offer them the priceless thing that is the ability to fly. – Richard Bach



Welcome to the Aviation Educator Hall of Fame (AEHOF). The guiding philosophy of this Hall of Fame is to select and recognize qualified nominees who, through extraordinary achievement and service, have made outstanding contributions to aviation education. The purpose of the Hall is to publicly honor those individuals who have played an important role in the development, advancement, and promotion of aviation education. The spirit of the Hall is embodied in the symbolism designed into the AEHOF logo, specifically:

THE E6-B FLIGHT COMPUTER

The distinctive shape of the [E6-B Flight Computer](#) is emblematic of aviation education and remains instantly recognizable by generations of pilots more than 70 years after its introduction. Designed in 1940 by flight instructor and Naval Lt.

Philip Dalton, the E6-B combines math, science, navigation, meteorology, and functional design into an elegant device. The E6-B became the standard for the U.S. Navy and Army and later, general aviation pilots. It is still available in its basic "whiz wheel" form as well as electronic versions, and has been incorporated into the bezel of many pilot watches. As a tribute to Dalton, *Star Trek's* Mr. Spock was shown using an E6-B during two episodes of the 1960s sci-fi TV show.

Sadly, Dalton perished during a training flight from Anacostia Naval Reserve Air Base in June 1941; the E6-B and what it represents, however, are his enduring legacy.

THE TORCH OF KNOWLEDGE

The Torch of Knowledge has long been a symbol of education and enlightenment. It has been incorporated into the seals of institutions of higher learning, military insignias, architecture, and the medical profession.



“Accountability, transparency, fairness, professionalism”

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Aviation Educator Mentoring Program – Overview

SAFE's members ... are highly accomplished people with a lot of valuable experience to transfer. So let me congratulate you on starting the SAFE Aviation Educator Mentoring Program. I especially like the program statement that "Even experienced educators may occasionally want or need insights when teaching in new aircraft, or with new technologies and techniques." — [Former FAA Administrator Babbitt](#)

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[Minimum Requirements to Participate](#)

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About the Program

SAFE's Aviation Educator Mentoring Program (the Program) enhances the professional development of aviation educators of all types. Through mentoring and support, participants grow stronger and smarter in promoting a safe aviation environment. You too can become part of this unique Program.

The Program matches expert aviation educators with those seeking assistance or improvement to become world class educators themselves by providing an effective framework for the mentoring process. The Program is available to current educators or educators-in-training who are members of SAFE, whether in flight, ground, youth, college, maintenance, or other aviation areas. Even experienced educators may occasionally want or need insights when teaching in new aircraft, or with new technologies and techniques.

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SAFE eNEWSLETTER

Aviation Instructor's Handbook

Teaching Tips from Veteran Flight Instructors

video camera to rehearse preflight briefings until delivery is smooth. The instructor is worth \$100 per hour.

vide a second or third on the job. A PT is performing during critical phases. New PTs. a high standard of performance.

because it's legal, doesn't matter. Develop a safety-culture environment.

6 Assign organized, specific, appropriate homework after each flight lesson. 7 Use all available tools to supplement teaching and assignments: online sources, to read them because they just might. 8 Know the background, credentials, security issues, medications, etc. of the PT.

9 Thoroughly and carefully document all training events as though the flight instructor is a Federal Aviation Administration (FAA) checkride is an excellent way to establish personal minimums. 10 After each flight after a Federal Aviation Administration (FAA) checkride is an excellent way to establish personal minimums. 11 After each flight after a Federal Aviation Administration (FAA) checkride is an excellent way to establish personal minimums.



Aviation Instructor's Handbook

2008

U.S. Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Flight Standards Service

Chapter 7

Instructor Responsibilities and Professionalism

Introduction

Since students look to aviation instructors as authorities in their respective areas, it is important that instructors not only know how to teach, but that they project a knowledgeable and professional image. This chapter addresses the responsibilities of aviation instructors in the training process and role as safety advocates, discusses how aviation instructors can enhance their professional image, and offers suggestions and sources of information to assist in professional development.



Responsibilities of All Aviation Instructors

- ☑ Helping Students Learn
- ☑ Providing Adequate Instruction
- ☑ Demanding Adequate Standards of Performance
- ☑ Emphasizing the Positive
- ☑ Ensuring Safety of Flight

Additional Responsibilities of Flight Instructors

- ☑ Evaluation of Student Piloting Ability
- ☑ Pilot Supervision
- ☑ Practical Test Recommendations
- ☑ Flight Instructor Endorsements
- ☑ Additional Training and Endorsements
- ☑ Pilot Proficiency
- ☑ See and Avoid Responsibility
- ☑ Student's Pre-solo Flight Thought Process

Special Emphasis Areas

- ☑ Positive aircraft control
- ☑ Procedures for positive exchange of flight
- ☑ Stall and spin awareness (if appropriate)
- ☑ Collision avoidance
- ☑ Wake turbulence and low level wind shear avoidance
- ☑ Runway incursion avoidance
- ☑ Controlled flight into terrain (CFIT)
- ☑ ADM/risk management
- ☑ Checklist usage
- ☑ Spatial disorientation
- ☑ Temporary flight restrictions (TFR)
- ☑ Special use airspace (SUA)
- ☑ Aviation security
- ☑ Wire strike avoidance
- ☑ Other areas deemed appropriate to any phase of the practical test or proficiency check

FAA Form 8710-1 (14-06) Supervised Private Edition

Airman Certificate and/or Rating Application

Applicant: **John David Doe**, 1234 North Street, Alltown, PA 62534

Class of Aircraft: **Single-Engine Land**

Rating: **Student**

Signature: **John David Doe**, Date: **04-12-20**

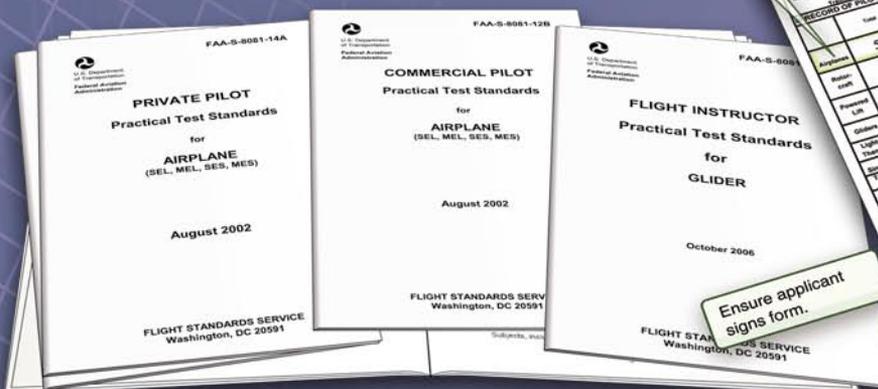
Class of Aircraft	Rating	Initial	Expire	Remarks
Single-Engine Land	Student	5	12	
Single-Engine Land	Student	5	12	
Single-Engine Land	Student	5	12	

RECORD OF PILOT TIME (Do not write in the shaded areas)

Class of Aircraft	Rating	Initial	Expire	Remarks
Single-Engine Land	Student	55	31	24

Annotations:

- Middle name must be spelled out, if no middle name, the letters "NMN" must be indicated. DO NOT USE MIDDLE INITIAL.
- Do not use P.O. Box or Rural Route, UNLESS a statement of physical location is provided.
- Enter class shown on medical (i.e., 1st, 2nd, 3rd), if required.
- Check that flight time is sufficient for certificate or rating.
- Ensure applicant signs form.
- Date signed by applicant must be within 60 days prior to issuance of any FAA certificate to me.



Aviation Instructor Responsibilities

The job of an aviation instructor is to teach. Previous chapters have discussed how people learn, the teaching process, and teaching methods. As indicated, the learning process can be made easier by helping students learn, providing adequate instruction to meet established standards, measuring student performance against those standards, and emphasizing the positive. [Figure 7-1]

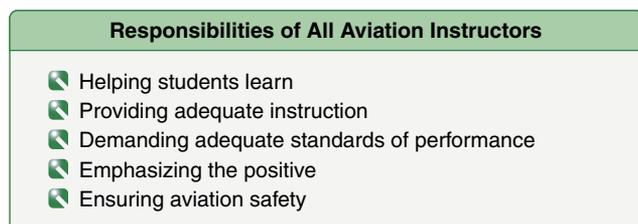


Figure 7-1. *There are five main responsibilities of aviation instructors.*

Helping Students Learn

Learning should be an enjoyable experience. By making each lesson a pleasurable experience for the student, the instructor can maintain a high level of student motivation. This does not mean the instructor makes things easy for the student or sacrifices standards of performance to please the student. The student experiences satisfaction from doing a good job or from successfully meeting the challenge of a difficult task.

The idea that people must be led to learning by making it easy is a fallacy. Though students might initially be drawn to less difficult tasks, they ultimately devote more effort to activities that bring rewards. The use of standards, and measurement against standards, is key to helping students learn. Meeting standards holds its own satisfaction for students. People want to feel capable; they are proud of the successful achievement of difficult goals.

Learning should be interesting. Knowing the objective of each period of instruction gives meaning and interest to the student as well as the instructor. Not knowing the objective of the lesson often leads to confusion, disinterest, and uneasiness on the part of the student.

Providing Adequate Instruction

To tailor his or her teaching technique to the student, the flight instructor analyzes the student's personality, thinking, and ability. No two students are alike, and a particular method of instruction cannot be equally effective for all students. The instructor talks with a student at some length to learn about the student's background, interests, temperament, and way of thinking, and is prepared to change his or her methods

of instruction as the student advances through successive stages of training.

An instructor who incorrectly analyzes a student may find the instruction does not produce the desired results. For example, the instructor at first thinks the student is not a quick learner because that student is quiet and reserved. Such a student may fail to act at the proper time due to lack of self-confidence, even though the situation is correctly understood. In this case, instruction is directed toward developing student self-confidence, rather than drill on flight fundamentals. In another case, too much criticism may discourage a timid person, whereas brisk instruction may force a more diligent application to the learning task. A student requiring more time to learn also requires instructional methods that combine tact, keen perception, and delicate handling. If such a student receives too much help and encouragement, a feeling of incompetence may develop.

A student whose slow progress is due to discouragement and a lack of confidence should be assigned subgoals that can be attained more easily than the usual learning goals. For this purpose, complex lessons can be separated into elements, and each element practiced until an acceptable performance is achieved before the whole maneuver or operation is attempted. For example, instruction in S-turns may begin with consideration for headings only. Elements of altitude control, drift correction, and coordination can be introduced one at a time. As the student gains confidence and ability, goals are increased in difficulty until progress is normal.

Conversely, students who are fast learners can also create challenges for the instructor. Because these students make few mistakes, they may assume that the correction of errors is unimportant. Such overconfidence can result in faulty performance. For these students, the instructor constantly raises the standard of performance for each lesson, demanding greater effort. Individuals learn when they are aware of their errors. Students who are permitted to complete every flight lesson without corrections and guidance will not retain what they have practiced as well as those students who have their attention constantly directed to an analysis of their performance. On the other hand, deficiencies should not be invented solely for the students' benefit because unfair criticism immediately destroys their confidence in the instructor.

In some ways, an aviation instructor serves as a practical psychologist. As discussed in chapters 1 and 2, an instructor can meet this responsibility through a careful analysis of and continuing interest in students.

Most new instructors tend to adopt the teaching methods used by their own instructors. The fact that one has learned under a certain system of instruction does not mean that the instructor, though well respected by the former student, used the best method. The new instructor needs to continue to grow in his or her role of instructor, seeking other resources and information to enhance his or her own teaching skills.

Standards of Performance

An aviation instructor is responsible for training an applicant to acceptable standards in all subject matter areas, procedures, and maneuvers included in the tasks within each area of operation in the appropriate Practical Test Standard (PTS). It must be emphasized that the PTS book is a testing document, not a teaching document. [Figure 7-2]

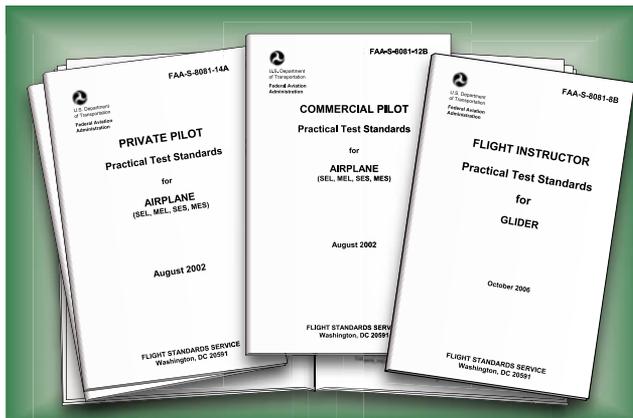


Figure 7-2. Acceptable standards in all subject matter areas, procedures, and maneuvers are included in the appropriate Practical Test Standards.

When teaching a particular procedure, an instructor might be tempted to point out the consequences of doing it differently, perhaps telling the student that failure to perform the procedure as taught will court disaster. The instructor may believe this “consequence approach” is necessary to ensure the student commits the procedure to memory, but the stated reasons for performing the procedure a certain way must contribute to the learning situation to be effective.

Emphasizing the Positive

Aviation instructors have a tremendous influence on a student’s perception of aviation. The way instructors conduct themselves, the attitudes they display, and the manner in which they develop instruction all contribute to the formation of either positive or negative impressions by students. The success of an aviation instructor depends greatly on his or her ability to present instruction in a manner that gives students a positive image of aviation. [Figure 7-3]



Figure 7-3. Students learn more when instruction is presented in a positive and professional manner.

Chapter 1, Human Behavior, emphasized that a negative self-concept inhibits the perceptual process, that fear adversely affects student perceptions, that the feeling of being threatened limits the ability to perceive, and that negative motivation is not as effective as positive motivation. Merely knowing about these factors is not enough. Instructors must be able to detect these factors in their students and strive to prevent negative feelings from undermining the instructional process.

Consider how the following scenarios conducted during the first lesson might influence and impress a new student pilot who has limited or no aviation experience:

- An indoctrination in preflight procedures with emphasis on the critical precautions which must be taken before every flight because “... emergencies in flight can be caused by an improper preflight and are often disastrous.”
- Instruction and hands-on training in the care that must be taken in taxiing an airplane because “... if you go too fast, you may lose directional control of the aircraft.”
- Introduction and demonstration of stalls, because “... this is how so many people lose their lives in airplanes.”
- Illustrating and demonstrating forced landings during the first lesson, because “... one should always be prepared to cope with a rope break in a glider.”

These new experiences might make the new student wonder if learning to fly is a good idea.

In contrast, consider a first flight lesson in which the preflight inspection is presented to familiarize the student with the aircraft and its components, and the flight is a perfectly normal one to a nearby airport, with return. Following the flight, the instructor can call the student's attention to the ease with which the trip was made in comparison with other modes of transportation, and the fact that no critical incidents were encountered or expected.

This does not mean stalls and emergency procedures should be omitted from training. It only illustrates the positive approach in which the student is not overwhelmed with information that he or she may not be prepared to digest. Again, this reinforces the need for the instructor to employ a syllabus that makes sense and consider student ability to comprehend new information. The introduction of emergency procedures after the student has developed an acquaintance with normal operations is not as likely to be discouraging and frightening, or to inhibit learning by the imposition of fear.

There is nothing in aviation that demands that students must suffer as part of their instruction. Every effort should be made to ensure instruction is given under positive conditions that reinforce training conducted to standard and modification of the method of instruction when students have difficulty grasping a task. In essence, a student's failure to perform is viewed as an instructor's inability to transfer the information. Otherwise, the instructor fails to consider himself or herself as part of a broken learning chain. Emphasize the positive because positive instruction results in positive learning.

Minimizing Student Frustrations

Minimizing student frustrations in the classroom, shop, or during flight training is an instructor's responsibility. By following basic rules, instructors can reduce student frustrations and create a learning environment that encourages rather than discourages learning.

For example, lesson plans used as part of an organized curriculum help the student pilot measure training progress. Since most pilots don't want to be students, the ability to measure their progress or "see an end in sight" reduces frustration and increases pilot motivation. [Figure 7-4]

Motivate students—more can be gained from wanting to learn than from being forced to learn. Too often, students do not realize how a particular lesson or course can help them reach an important goal. When students can see the benefits and purpose of the lesson or course, their enjoyment and their efforts increase.

Keep students informed—students feel insecure when they do not know what is expected of them or what is going to happen to them. Instructors can minimize feelings of insecurity by

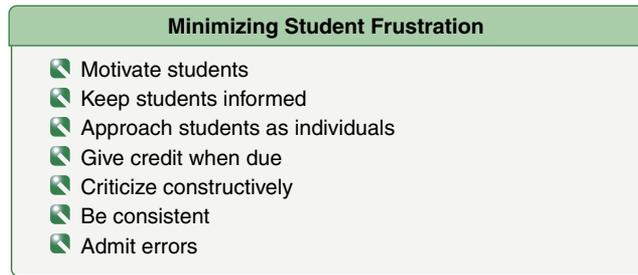


Figure 7-4. These are practical ways to minimize student frustration.

telling students what is expected of them and what they can expect in return. Instructors keep students informed in various ways, including giving them an overview of the course, keeping them posted on their progress, and giving them adequate notice of examinations, assignments, or other requirements.

Approach students as individuals—when instructors limit their thinking to the whole group without considering the individuals who make up that group, their efforts are directed at an average personality that really fits no one. Each group has its own personality that stems from the characteristics and interactions of its members. However, each individual within the group has a unique personality to constantly be considered.

Give credit when due—when students do something extremely well, they normally expect their abilities and efforts to be noticed. Otherwise, they may become frustrated. Praise or credit from the instructor is usually ample reward and provides an incentive to do even better. Praise pays dividends in student effort and achievement when deserved, but when given too freely, it becomes valueless.

Criticize constructively—although it is important to give praise and credit when deserved, it is equally important to identify mistakes and failures. It does not help to tell students they have made errors and not provide explanations. If a student has made an earnest effort but is told that the work is unsatisfactory, with no other explanation, frustration occurs. Errors cannot be corrected if they are not identified, and if they are not identified, they will probably be perpetuated through faulty practice. On the other hand, if the student is briefed on the errors and is told how to correct them, progress can be made.

Be consistent—students want to please their instructor. This is the same desire that influences much of the behavior of subordinates toward their superiors in industry and business. Naturally, students have a keen interest in knowing what is required to please the instructor. If the same thing is acceptable one day and unacceptable the next, the student

becomes confused. The instructor’s philosophy and actions must be consistent.

Admit errors—no one, including students, expects an instructor to be perfect. The instructor can win the respect of students by honestly acknowledging mistakes. If the instructor tries to cover up or bluff, students are quick to sense it. Such behavior tends to destroy student confidence in the instructor. If in doubt about some point, the instructor should admit it.

Flight Instructor Responsibilities

Learning to fly should provide students with an opportunity for exploration and experimentation. It should be a habit-building period during which students devote their attention, memory, and judgment to the development of correct habit patterns. All aviation instructors shoulder an enormous responsibility because their students will ultimately be flying, servicing, or repairing aircraft, but flight instructors have the additional responsibilities of evaluating student pilots and making a decision of when they are ready to solo. The flight instructor’s job is to “mold” the student pilot into a safe pilot who takes a professional approach to flying. Other flight instructor responsibilities can be found in Title 14 of the Code of Federal Regulations (14 CFR) part 61 and FAA advisory circulars (ACs). [Figure 7-5]

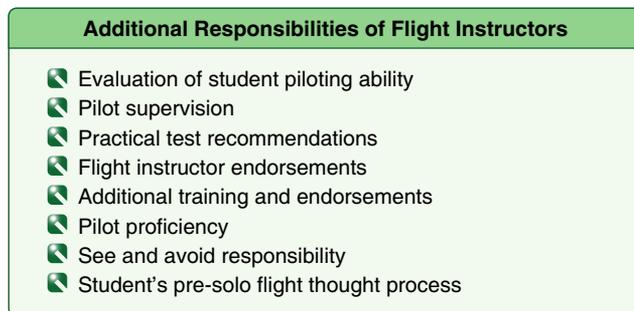


Figure 7-5. *The flight instructor has many additional responsibilities.*

Flight instructors must provide the most comprehensive ground and flight instruction possible. They should be current and proficient in the aircraft they use for flight instruction, encouraging each pilot to learn as much as he or she can and to continually “raise the bar.” Flight instructors have the responsibility of producing the safest pilots possible with the overall focus on education and learning. It is also important to convey an understanding of why pilots are trained to standards and how they are set.

Instructors should not introduce the minimum acceptable standards for passing the check ride when introducing lesson tasks. The minimum standards to pass the check ride should

be introduced during the “3 hours of preparation” for the check ride. Keep the PTS in the proper perspective, with emphasis on the Practical Test Standard (PTS) increasing later in the training.

Physiological Obstacles for Flight Students

Although most student pilots have been exposed to air travel, they may not have flown in light, training aircraft. Consequently, students may react to unfamiliar noises or vibrations, or experience unfamiliar sensations due to G-force, or an uncomfortable feeling in the stomach. To teach effectively, instructors cannot ignore the existence of these negative factors, nor should they ridicule students who are adversely affected. These negative sensations can usually be overcome by understanding the nature of their causes. Remember, a sick student does not learn well.

Ensuring Student Skill Set

Flight instructors must ensure student pilots develop the required skills and knowledge prior to solo flight. The student pilot must show consistency in the required solo tasks: takeoffs and landings, ability to prioritize in maintaining control of the aircraft, proper navigation skills, proficiency in flight, proper radio procedures and communication skills, and traffic pattern operation. Student pilots should receive instruction to ask for assistance or help from the ATC system when needed.

Mastery of the skill set includes consistent use and continued growth as well as increased accuracy of performance. The instructor determines when a student is ready for his or her first solo flight. Generally this determination is made when the instructor observes the student from preflight to engine start to engine shutdown and the student performs consistently, without need of instructor assistance.

Flight instructors need to provide adequate flight and ground instruction for “special emphasis” items listed in each PTS for airplane, helicopter, and light sport aircraft. The student needs to be knowledgeable in these special emphasis areas because examiners and authorized instructors place special emphasis upon areas considered critical to flight safety. Special emphasis items include, but are not limited to:

1. Positive aircraft control
2. Procedures for positive exchange of flight controls
3. Stall and spin awareness (if appropriate)
4. Collision avoidance
5. Wake turbulence and low-level wind turbulence and wind shear avoidance
6. Runway incursion avoidance

7. Controlled flight into terrain (CFIT)
8. Aeronautical decision-making (ADM)/risk management
9. Checklist usage
10. Spatial disorientation
11. Temporary flight restrictions (TFR)
12. Special use airspace (SUA)
13. Aviation security
14. Wire strike avoidance

Flight instructors should be current on the latest procedures regarding pilot training, certification, and safety. It is the flight instructor's responsibility to maintain a current library of information. These sources are listed in the appropriate PTS, and other sources can be located on the Internet at www.faa.gov and www.faasafety.gov. The FAA website provides comprehensive information to pilots and instructors. Other aviation organizations also have excellent information. However, an instructor is bound to follow any procedures in the manner prescribed by the FAA. If an instructor needs any assistance, he or she should contact a more experienced instructor, an FAA Designated Pilot Examiner (DPE), or the local Flight Standards District Office (FSDO).

Aviator's Model Code of Conduct

The Aviator's Model Code of Conduct presents broad guidance and recommendations for General Aviation (GA) pilots to improve airmanship, flight safety, and to sustain and improve the GA community. The Code of Conduct presents a vision of excellence in GA aviation. Its principles both complement and supplement what is merely legal. The Code of Conduct is not a "standard" and is not intended to be implemented as such. The code of conduct consists of the following seven sections:

1. General Responsibilities of Aviators
2. Passengers and People on the Surface
3. Training and Proficiency
4. Security
5. Environmental Issues
6. Use of Technology
7. Advancement and Promotion of General Aviation

Each section provides flight instructors a list of principles and sample recommended practices. Successful instructor pilots continue to self-evaluate and find ways to make themselves safer and more productive instructors. The Aviator's Model Code of Conduct provides guidance and principles for

the instructor to integrate into their own practices. More information about the Aviator's Model Code of Conduct can be found at www.secureav.com.

Safety Practices and Accident Prevention

Aviation instructors are on the front line of efforts to improve the safety record of the aviation industry. Safety, one of the most fundamental considerations in aviation training, is paramount. FAA regulations intended to promote safety by eliminating or mitigating conditions that can cause death, injury, or damage are comprehensive, but even the strictest compliance with regulations may not be sufficient to guarantee safety. Rules and regulations are designed to address known or suspected conditions detrimental to safety, but there is always a chance that some new combination of circumstances not contemplated by the regulations will arise. It is important for aviation instructors to be proactive to ensure the safety of flight or maintenance training activities.

The safety practices aviation instructors emphasize have a long-lasting effect on students. Generally, students consider their instructor to be a role model whose habits they attempt to imitate, whether consciously or unconsciously. The instructor's advocacy and description of safety practices mean little to a student if the instructor does not demonstrate them consistently. For example, if a maintenance student observes the instructor violating safety practices by not wearing safety glasses around hazardous equipment, the student probably will not be conscientious about using safety equipment when the instructor is not around. One of the best actions a flight or maintenance instructor can take to enhance aviation safety is to emphasize safety by example.

Another way for the instructor to advocate safety is to join the new FAA Safety Team (FAASafetyTeam). The FAASafetyTeam is dedicated to improving the aviation safety record by conveying safety principles and practices through training, outreach, and education. More information is available at FAASafety.gov.

Professionalism

The aviation instructor is the central figure in aviation training and is responsible for all phases of required training. The instructor, either pilot or aircraft maintenance technician, must be a professional. As professionals, aviation instructors strive to maintain the highest level of knowledge, training, and currency in the field of aviation. To achieve this goal, instructors need to commit themselves to continuous, lifelong learning and professional development through study, service, and membership in professional organizations such as the National Association of Flight Instructors (NAFI)

and Professional Aviation Mechanics Association (PAMA). Professionals build a library of resources that keeps them in touch with their field through the most current procedures, publications, and educational opportunities. Being a professional also means behaving in a professional manner. [Figure 7-6] An aviation instructor should strive to practice the characteristics on the Instructor Do's list when teaching a student.

Instructor Do's	
<input checked="" type="checkbox"/>	Be professional at all times.
<input checked="" type="checkbox"/>	Be sincere.
<input checked="" type="checkbox"/>	Present a professional appearance and personal habits.
<input checked="" type="checkbox"/>	Maintain a calm demeanor.
<input checked="" type="checkbox"/>	Practice safety and accident prevention at all times.
<input checked="" type="checkbox"/>	Avoid profanity.
<input checked="" type="checkbox"/>	Define common terms.
<input checked="" type="checkbox"/>	Continue professional development.
<input checked="" type="checkbox"/>	Minimize student frustration.
<input checked="" type="checkbox"/>	Motivate the student.
<input checked="" type="checkbox"/>	Keep the student informed.
<input checked="" type="checkbox"/>	Approach each student as an individual.
<input checked="" type="checkbox"/>	Give credit when due.
<input checked="" type="checkbox"/>	Criticize constructively.
<input checked="" type="checkbox"/>	Be consistent.
<input checked="" type="checkbox"/>	Admit errors.

Instructor Don'ts	
<input checked="" type="checkbox"/>	Ridicule the student's performance.
<input checked="" type="checkbox"/>	Use profanity.
<input checked="" type="checkbox"/>	Model irresponsible flight behaviors.
<input checked="" type="checkbox"/>	Say one thing but do another.
<input checked="" type="checkbox"/>	Forget personal hygiene.
<input checked="" type="checkbox"/>	Disrespect the student.
<input checked="" type="checkbox"/>	Demand unreasonable progress.
<input checked="" type="checkbox"/>	Forget the student is new to aviation jargon.
<input checked="" type="checkbox"/>	Set the student up for failure.
<input checked="" type="checkbox"/>	Correct errors without an explanation of what went wrong.

Figure 7-6. Guidelines for an aviation instructor.

Sincerity

An aviation instructor should be straightforward and honest. Attempting to hide inadequacy behind a smokescreen of unrelated instruction makes it impossible for the instructor to command the respect and full attention of a student. Teaching an aviation student is based upon acceptance of the instructor as a competent, qualified teacher and an expert pilot or aircraft maintenance technician. Any facade of instructor pretentiousness, whether it is real or mistakenly presumed by the student, causes the student to lose confidence in the instructor, and learning is adversely affected.

Acceptance of the Student

The instructor must accept students as they are, including all their faults and problems. The student is a person who wants to learn, and the instructor is a person who is available to help in the learning process. Beginning with this understanding, the professional relationship of the instructor with the student should be based on a mutual acknowledgement that the student and the instructor are important to each other, and that both are working toward the same objective.

Under no circumstance should the instructor do anything which implies degrading the student. Acceptance (rather than ridicule) and support (rather than reproof) encourage learning. Students must be treated with respect, regardless of whether they are quick to learn or require more time to absorb certain concepts. Criticizing a student who does not learn rapidly is similar to a doctor reprimanding a patient who does not get well as rapidly as predicted.

Personal Appearance and Habits

Personal appearance has an important effect on the professional image of the instructor. Today's aviation customer expects an instructor to be neat, clean, and appropriately dressed. Since the instructor is engaged in a learning situation, the attire worn should be appropriate to professional status. [Figure 7-7]



Figure 7-7. The aviation instructor should always present a professional appearance.

Personal habits have a significant effect on the professional image. The exercise of common courtesy is perhaps the most important of these. An instructor who is rude, thoughtless, and inattentive cannot hold the respect of a student, regardless of the instructor's ability as a pilot or aviation maintenance technician. Personal cleanliness is important to aviation instruction. Frequently, an instructor and a student work in

close proximity, and even little annoyances such as body odor or bad breath can cause serious distractions from learning the tasks at hand.

Demeanor

The attitude and behavior of the instructor can contribute much to a professional image. The instructor should avoid erratic movements, distracting speech habits, and capricious changes in mood. The professional image requires development of a calm, thoughtful, and disciplined demeanor.

The successful instructor avoids contradictory directions, reacting differently to similar or identical errors at different times, demanding unreasonable performance or progress, or criticizing a student unfairly, and presenting an overbearing manner or air of flippancy. Effective instruction is best conducted in a calm, pleasant, thoughtful manner that puts the student at ease. The instructor must constantly demonstrate competence in the subject matter and genuine interest in the student's well being.

Proper Language

In aviation instruction, as in other professional activities, the use of profanity and obscene language leads to distrust or, at best, to a lack of complete confidence in the instructor. Many people object to such language. The professional instructor speaks normally, without inhibitions, and speaks positively and descriptively, without profanity.

Evaluation of Student Ability

Evaluation of a student's ability is an important element of instruction. Used in this context, evaluation refers to judging a student's ability to perform a maneuver or procedure.

Demonstrated Ability

Evaluation of demonstrated ability during flight or maintenance instruction is based upon established standards of performance, suitably modified to apply to the student's experience and stage of development as a pilot or mechanic. The evaluation considers the student's mastery of the elements involved in the maneuver or procedure, rather than merely the overall performance. For example, qualification of student pilots for solo and solo cross-country privileges depends upon demonstrations of performance.

Keeping the Student Informed

In evaluating student demonstrations of ability, it is important for the aviation instructor to keep the student informed of progress. This may be done as each procedure or maneuver is completed or summarized during a postflight or class critique. These critiques should be in a written format, such as notes, to aid the instructor in covering all areas that were noticed during the flight or lesson. When explaining errors in

performance, instructors point out the elements in which the deficiencies are believed to have originated and, if possible, suggest appropriate corrective measures.

Correction of Student Errors

Correction of student errors does not include the practice of taking over from students immediately when a mistake is made. Safety permitting, it is frequently better to let students progress part of the way into the mistake and find a way out. For example, in a weight-shift control aircraft the bar is moved right to turn left. A student may show an initial tendency to move the bar in the direction of the desired turn. This tendency dissipates with time, but allowing the student to see the effect of his or her control input is a valuable aid in illustrating the stability of the aircraft. It is difficult for students to learn a maneuver properly if they seldom have the opportunity to correct an error.

On the other hand, students may perform a procedure or maneuver correctly but not fully understand the principles and objectives involved. If the instructor suspects this, students should be required to vary the performance of the maneuver or procedure slightly. The maneuver or procedure may also be combined with other operations, or the same elements could be applied to the performance of other maneuvers or procedures. Students who do not understand the principles involved will probably not be able to successfully complete the revised maneuver or procedure.

Aviation Instructors and Exams

Knowledge Test

When preparing a student or applicant for the private pilot certification or higher grade rating (i.e., commercial or instrument) a test is required to ensure the student has adequate aeronautical knowledge in those subject areas listed in 14 CFR part 61. The instructor may provide the student with an endorsement to certify he or she has the required knowledge to pass the test. Some additional ratings do not require a test. For information concerning additional aircraft certifications that do not require knowledge tests, refer to AC 61-65, Certification: Pilots and Flight and Ground Instructors. Flight instructors must take a short test for each additional category.

An instructor should remember he or she is held accountable for a deficient instructional performance. This is important for any instructor who signs recommendations for applicants who were not trained by that instructor.

If the applicant fails a test, the aviation instructor must sign the test after he or she has provided additional training in the areas the applicant failed. The applicant is given a retest. Prior to certification, the aviation instructor must make a statement

that he or she gave the required training in the preceding 60 days and the instructor reviewed those areas of deficiency on the applicant's knowledge test.

Practical Test

Provision is made on the airman certificate or rating application form for the written recommendation of the flight instructor who has prepared the applicant for the practical test involved. Signing this recommendation imposes a serious responsibility on the flight instructor. A flight instructor who makes a practical test recommendation for an applicant seeking a certificate or rating should require the applicant to thoroughly demonstrate the knowledge and skill level required for that certificate or rating. This demonstration should in no instance be less than the complete procedure prescribed in the applicable PTS.

When the instructor endorses the applicant for the practical test, his or her signature on the FAA form 8710-1 Airman Certificate and/or Rating Application is valid for 60 days. This is also true with the flight proficiency endorsement that is placed in the applicant's logbook or training record (AC-61-65). These two dates should be the same.

Completion of prerequisites for a practical test is another instructor task that must be documented properly. Examples of all common endorsements can be found in the current issue of AC 61-65, appendix 1. This appendix also includes references to 14 CFR part 61 for more details concerning the requirements that must be met to qualify for each respective endorsement. The examples shown contain the essential elements of each endorsement. It is not necessary for all endorsements to be worded exactly as those in the AC. For example, changes to regulatory requirements may affect the wording, or the instructor may customize the endorsement for any special circumstances of the applicant. However, at a minimum, the instructor needs to cite the appropriate 14 CFR part 61 section that has been completed.

If a flight instructor fails to ensure a student pilot or additional rating pilot meets the requirements of regulations prior to making endorsements to allow solo flight or additional rating, that instructor is exhibiting a serious deficiency in performance. The FAA holds him or her accountable. Providing a solo endorsement for a student pilot who is not proficient for solo flight operations, or providing an endorsement for an additional rating for a pilot not meeting the appropriate regulatory requirements, is also a breach of faith with the student or applicant.

Professional Development

Aviation is changing rapidly, and aviation instructors must continue to develop their knowledge and skills in order to teach successfully in this environment. The aviation instructor is well respected by other technicians and pilots because instructors must meet additional training requirements in order to be certificated. Flight instructors undergo comprehensive evaluations and a practical test to obtain a flight instructor certificate. 14 CFR part 147 requires all instructors teaching maintenance subjects to hold an FAA certificate as an aircraft maintenance technician.

Successful, professional aviation instructors do not become complacent or satisfied with their own qualifications and abilities, and are constantly alert for ways to improve their qualifications, effectiveness, and the services they provide to students. Considered by their students to be a source of up-to-date information, instructors have the opportunity and responsibility of introducing new procedures and techniques both to their students and to other aviation professionals with whom they come in contact.

Continuing Education

A professional aviation instructor continually updates his or her knowledge and skills. This goal is attained in a variety of ways, such as reading an article in a technical publication or taking a course at a technical school. There are many different sources of information the aviation instructor can use in order to remain current in aviation knowledge and teaching.

Government

One of the first educational sources for the instructor is the FAA and other governmental agencies. The FAA either sponsors or collaborates in sponsoring aviation programs, seminars, and workshops for the public. For example, the FAA conducts safety seminars around the country in conjunction with the aviation industry. These seminars, although directed at pilots, can be a useful source of knowledge for aviation instructors.

The FAA is a rich source of information that can be used to enhance an instructor's knowledge. Regulations, advisory circulars, airworthiness directives, orders, and notices are some of the documents that can be downloaded from the FAA website at www.faa.gov.

As mentioned earlier in the chapter, participation in the Pilot Proficiency Awards Program is a good way for a flight instructor to improve proficiency and to serve as an example to students. Another way is to work toward the Gold Seal Flight Instructor Certificate. Accomplishing the requirements of the certificate is evidence the instructor has performed at a very high level as a flight instructor. See AC 61-65, Certification: Pilots and Flight and Ground Instructors, for a list of requirements for earning this certificate.

Similarly, the Aviation Maintenance Awards Program affords the aviation maintenance instructor the opportunity for increased education through attendance at FAA or industry maintenance training seminars. Details for the awarding of bronze through diamond pins can be found in AC 65-25, Aviation Maintenance Technician Awards Program.

The FAA approves the sponsors who conduct Flight Instructor Refresher Clinics (FIRC) in accordance with AC 61-83. Nationally scheduled FAA-approved industry-conducted Flight Instructor Refresher Clinics (FIRC). These courses are available for flight instructors to complete the training requirements for renewal of flight instructor certificates.

The FAA cosponsors Inspection Authorization (IA) seminars. These seminars are open to all maintenance technicians, and are a good source of additional training and education for maintenance instructors.

Educational/Training Institutions

Professional aviation instructors can further increase their knowledge and skill in aviation specialties by attending classes at local community colleges, technical schools, or universities. These schools may offer complete degree programs in aviation subjects as well as single-subject courses of benefit to instructors.

Commercial Organizations

Commercial organizations are another important source of education/training for the aviation instructor. Some may be publishers of training materials while others may provide complete ground and flight training programs for professional pilots and instructors. These companies often provide a wide variety of study programs including videos, computer-based training, and printed publications. Many offer training that can be attended either at the home base of the company or in traveling classes/seminars so instructors can more easily attend.

There are numerous organizations around the country that offer courses of training for aviation instructors. These are generally courses that are available to all pilots and technicians, but are especially useful for instructors to

improve their abilities. Examples of such courses include workshops for maintenance technicians to enhance their skills in subjects such as composites, sheet metal fabrication, and fabric covering. For pilots there are courses in mountain flying, spin training, and tail wheel qualification. Flight instructors also may increase their aviation knowledge and experience by adding additional category and class ratings to their certificates.

Industry Organizations

Other significant sources of ongoing education for aviation instructors are aviation organizations. These organizations not only provide educational articles in their publications, but also present training programs or cosponsor such programs.

Many industry organizations have local affiliated chapters that make it easy to meet other pilots, technicians, and instructors. These meetings frequently include presentations by industry experts, as well as formal training sessions. Some aviation industry organizations conduct their own training sessions on areas such as flight instructor refresher clinics and Inspection Authorization (IA) seminars. Properly organized safety symposiums and training clinics are valuable sources of refresher training. They are also an excellent opportunity to exchange information with other instructors.

Sources of Material

An aviation instructor should maintain access to current flight publications or maintenance publications. For the flight instructor, this includes current copies of regulations pertinent to pilot qualification and certification, Aeronautical Information Manual (AIM), appropriate Practical Test Standards (PTS), and pilot training manuals. The aviation maintenance instructor should have copies of applicable regulations, current knowledge and PTS, and maintenance training manuals. Aviation instructors must be thoroughly familiar with current certification and rating requirements in order to provide competent instruction. AC 00.2-15, Advisory Circular Checklist, is a listing of all current advisory circulars and other FAA publications sold by the Superintendent of Documents, U.S. Government Printing Office (GPO) or available online at www.faa.gov/. Many of the advisory circulars should be considered by the aviation instructor for inclusion in a personal reference library.

In addition to government publications, a number of excellent handbooks and other reference materials are available from commercial publishers. Aviation periodicals and technical journals from the aviation industry are other sources of valuable information for instructors. Many public and institutional libraries have excellent resource material on

educational psychology, teaching methods, testing, and other aviation related subjects.

The aviation instructor has two reasons to maintain a source of current information and publications. First, the instructor needs a steady supply of fresh material to make instruction interesting and up to date. Second, instructors should keep themselves well informed by maintaining familiarity with what is being written in current aviation publications. Most of these publications are in printed form, but increasingly, information is available through electronic means. [Figure 7-8]



Figure 7-8. Aviation instructors can improve their knowledge by becoming familiar with information on the Internet.

Printed Material

In aviation, documentation in the form of flight publications or maintenance data must be immediately available for referral while flying or conducting maintenance. While the portability of printed material meets this need for immediate availability, printed material has two disadvantages. First, it takes up space for storage and second, it can be time consuming to keep printed material current. Many publishers of printed material now make their information available in electronic format. For example, most FAA regulations, standards, and guides are available either in electronic form or as hard copy.

Non-FAA publications are available through the GPO and from the National Technical Information Service (NTIS). Publications not printed by the U.S. Government Printing Office are available from the many publishers and suppliers of books. Commercial publishers usually provide catalogues and toll-free numbers or websites for ordering their products.

Electronic Sources

Access to the Internet via personal computers has opened up a vast storehouse of information for the aviation instructor. In the past, aviation instructors had limited access to information,

but the personal computer has greatly expanded sources of aviation information. This section lists some sources of information on the Internet. In the following discussion, several sites for accessing FAA materials are explored, and some non-FAA sites are included. Once instructors begin to navigate the Internet, they find sites which provide the information they use most frequently. Obviously, some FAA publications are more important to the aviation instructor than others. Many of the publications of interest to the aviation instructor can be accessed through the FAA website, www.faa.gov.

The FAA website is not the only source of aviation or education-related information on the Internet. The aviation instructor can access aviation-related publications at other government or non-government websites via published web addresses or by using the search function of the web browser. Keep in mind that most sites on the Internet are updated periodically, but some are not. In addition, new sites are added and old sites are discontinued on a regular basis. The aviation instructor can become more adept at obtaining information by entering and navigating around the Internet to become informed about the contents and how to best locate desired information. The more familiar aviation instructors become with the Internet, the better they are able to adapt to any changes that may occur.

Professional aviation instructors must continue to expand their knowledge and skills in order to be competent instructors. The field of aviation is advancing, and the instructor also must advance. Instructors can best do this by taking advantage of the wide variety of materials available from the FAA, other government agencies, commercial publishers and vendors, and from industry trade groups. These materials are available at training sessions and seminars, from printed books, papers, magazines, and from the Internet and other electronic sources. Instructors who commit to continuing education are able to provide the highest quality instruction to their students.

Chapter Summary

This chapter discussed the responsibilities of aviation instructors to the student, the public, and the FAA in the training process. The additional responsibilities of flight instructors who teach new student pilots as well as rated pilots seeking add-on certification, the role of aviation instructors as safety advocates, and ways in which aviation instructors can enhance their professional image and development were explored.

FAA Safety

BRIEFING

July/August 2011

Your source for general aviation news and information

Above and Beyond



Professionalism
and Mentoring
in **GA**



Federal Aviation
Administration

www.faa.gov/news/safety_briefing/



The July/August 2011 issue of FAA Safety Briefing presents ideas for enhancing mentoring and professionalism in general aviation. Articles highlight the importance of the attitudes, skills, and knowledge needed to take you to the top of your flying game.

Photo by James Williams



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FAA Faces*Inside Back Cover*

Jumpseat

JOHN ALLEN
DIRECTOR, FLIGHT STANDARDS SERVICE



Building for the Future

I am passionate about flying. If you're reading this magazine, it's probably because you share that view of aviation. I'd like to think that you would thus approve of the mission statement I have established for the FAA's Flight Standards Service:

To assure the safety, while enabling the adventure, commerce and service of aviation.

Each element conveys a message. First, the FAA's primary mission is to assure aviation safety through setting standards, issuing certification on the basis of those standards, and conducting oversight for continued operational safety. Please remember that it is the responsibility of those who fly, fix, train, and manage in aviation to *ensure* safety.

The second—very important to me—is to communicate the fun and excitement aviation offers, especially at events like the upcoming AirVenture® celebration in Oshkosh. And, finally, it is no exaggeration to say that the modern world could not exist without the role aviation plays in enabling business and service to the community.

Everyone wants this ... right?

For those with a passion for aviation, it's hard to comprehend that not everyone shares that view. After all, what's not to like? We tend to be like a movie character played by Meryl Streep, who airily assures her doubtful subordinate that "*Everyone* wants to be like us. *Everyone* wants this life."

There was a time when that statement was true for aviation, but not any longer. Within the next five years, the aviation industry will suffer a shortage of pilots and mechanics. Airlines can no longer rely on the military to provide well-trained airmen, in part because the advent of Unmanned Aircraft Systems (UAS) is changing the face of military aviation. New rules enacted by Congress will require anyone seeking a career in aviation to acquire more flight time and, in some cases, the analytic training and communication education provided by an accredited college degree program. It is no surprise that many are now deterred from an industry in

which the pay potential cannot offset the enormous cost of education and certification.

A Vision for Creating Future Flyers

General aviation (GA) is the heart and soul of aviation. It encompasses each of the elements in the mission statement: safety, adventure, commerce, and service. And, given the situation described above, I believe that the long-term health and success of aviation increasingly depends on what happens in GA. That's one of the reasons we're focusing this issue of

We must improve the sophistication of pilot training and qualification, and entice younger generations to choose aviation for a career.

FAA Safety Briefing on instilling professionalism right from the beginning, and at every level of aviation education and training. Mentoring—another focus area—contributes to developing proficient and professionally-minded pilots, as well as to the goal of pilot retention.

But we can do more. We must improve the sophistication of pilot training and qualification. We must entice younger generations to study math and science ... and to choose aviation for a career. We must assure those worthy of the field an affordable way to do so.

An idea I want to explore is to partner with other government agencies and the aviation community on the creation of a U.S. National Aviation Academy (USNAA). Pilot graduates would earn a bachelor's degree along with the pilot certificates and ratings needed for an aviation career. Mechanic graduates would earn an associate's degree, plus an A&P certificate. Funding would be provided through the combined efforts of industry, labor, government, private donors, and academia. Much like the U.S. military service academies, standards for admittance and completion would be rigorous.

Difficult? Definitely. Impossible? Perhaps. Ideas? Bring 'em on!



Be a Fan and Follower of the FAA

Last May, the FAA expanded its foray into the world of social media by unveiling its official Facebook page at www.facebook.com/FAA. Together with a Twitter account set up under @FAANews, FAA is well positioned to allow new opportunities for information sharing.

According to Karen Snyder, FAA's Senior Social Media Analyst, FAA's Facebook page accumulated more than 4,000 fans in just the first two weeks of operation and its Twitter feed now has more than 7,000 followers. "We're excited about the ability to leverage these social media tools to communicate and share information in a more interactive fashion," says Snyder. "We hope everyone will 'like' it!"

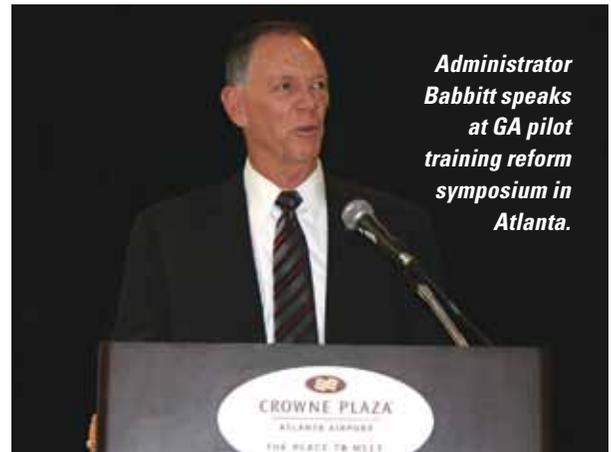


In addition to timely postings regarding aviation news and events, the FAA Facebook page also features photographs and a frequently asked questions page.

Working Towards a SAFE Solution

On May 4, 2011, more than 150 experts in the flight education community assembled in Atlanta to tackle the issue of how to improve today's flight training experience. Hosted by the Society of Aviation and Flight Educators (SAFE), the two-day General Aviation Pilot Training Reform Symposium provided attendees an opportunity to discuss and explore the problems that currently challenge the flight education industry and brainstorm on ways to move forward with concrete improvements.

Intent on making immediate progress on the issues concerning general aviation pilot training, breakout groups formed at the event were tasked with creating specific ideas for reform proposals. Deliverables on these ideas did not take long. Within two weeks of the symposium, and responding to a recommendation proposed by the Aviation Educators breakout group, Aviation Supplies & Academics (ASA) began offering free PDF versions of its syllabi for download from its Web site. The PDFs



Administrator Babbitt speaks at GA pilot training reform symposium in Atlanta.

include two Private Pilot syllabi and one syllabus each for Instrument, Commercial, and Helicopter. SAFE is currently compiling the recommendations of the other groups and will post them on www.pilottrainingreform.org.

Among those attending the symposium was FAA Administrator Randy Babbitt, who was eager to see how changes in flight training and education could assist with development of the FAA's five-year strategy for transforming general aviation safety. "We don't have all the answers," said Babbitt. "We need your help to reduce GA accidents." Stay tuned for more updates on this effort to help secure a more robust future for general aviation.

FAA Issues Revised AD for Cessna Seat Rails

Amending an earlier Airworthiness Directive (AD) on seat rail slippage issues for select Cessna series airplanes, AD 2011-10-09 clarifies and adds new steps to the existing inspection procedures. The additional steps involve inspections of the tang thickness and length on the seat roller housing. The AD also includes improved graphics for inspecting seat track hole wear and for inspecting proper seat lock pin engagement depth. The steps are itemized, in sequence, to provide clearer guidance for anyone performing the inspections. The AD, which became effective June 17, 2011, can be viewed here: http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/Frameset?OpenPage.

RANDY BABBITT

Above and Beyond

Attitude Determines Your Altitude

I have often wished I could mandate professionalism. It is true that the FAA can require some of the behaviors that are indicative of professionalism, and the thickness of the rulebook is evidence of how we've tried to do that. The reality, though, is that true professionalism is a lot more than just rule-driven rote behaviors – *pro forma* does not make a *professional*. Indeed, most definitions of professionalism call it a level of excellence above and beyond minimum standards or basic legal requirements. That's why you don't become a professional simply by earning certificates, adding ratings, or getting a paycheck for flying.

Rather, professionalism is a mindset. It comes from having the attitude, the ethics, and the discipline to do the right thing — every time, all the time, regardless of who's watching.



Photo by Susan Parson

Training and Education

We tend to use the words “training” and “education” interchangeably, but they’re not actually the same. Training is the acquisition of practical skills relating to specific useful competencies. Training is teaching someone how to do something. Don’t get me wrong. When it comes to teaching pilots how to aviate in terms of good ol’ basic stick-and-rudder skills, training is an accurate term and an important activity.

But the trifecta of professional airmanship also requires pilots to navigate and communicate as well as to aviate, and that’s where education is so important. Education is an experience that has a formative effect on an individual’s character, intellect, or physical ability. There is certainly a training aspect to aviation, navigation, and communication, as those terms are narrowly defined. But education is about teaching a person – in this case, a pilot – how to think, how to aviate no matter what, how to navigate through problems that are not just rote experiences from the textbook or maneuvers guide, and how to use crew resource management (CRM) and single pilot resource management (SRM) to communicate effectively with everyone who can render information or assistance.

To use flight instructor terms — I can do that, because I was one — training alone can take a pilot to the rote and understanding levels of learning. But it takes the formative experience of education to reach the application and correlation levels essential to true professionalism in flying.

Educating a Professional

So how do we educate someone to be a professional? Here are several ideas. And you don’t have to be an instructor to put them into practice.

Develop aviation citizens. In civic terms, a good citizen takes actions that strengthen our heritage or contribute to the political process. The concept of aviation citizenship is similar, as it implies actions that respect and strengthen our shared aviation community. Proficiency in aircraft control is only the beginning of aviation citizenship. As outlined in the FAA *Aviation Instructor’s Handbook*, the aviation citizen is a pilot who acts to:

- Make safety the number one priority.
- Develop and exercise good judgment in making decisions.
- Recognize and manage risk effectively.
- Be accountable for his or her actions.



- Be respectful of the privilege of flight.
- Act with responsibility and courtesy.
- Adhere to prudent operating practices and personal operating parameters.

Use Codes of Conduct. These concepts are also part of the *Flight Instructor’s Model Code of Conduct (FIMCC)*, recently published by a group of aviators who are passionate about professionalism. I am a real believer in the value that a formal code of conduct can have as a tool to promote safety, good judgment, ethical behavior, and personal responsibility – all components of professionalism. The code offers a vision of flight education excellence, and it recommends operating practices to improve the quality and safety of flight instruction. The FIMCC is one of several similar codes, such as the *Aviator’s Model Code of Conduct* and a *Student Pilot’s Model Code of Conduct*. You may want to keep these codes in your flight bag as a reference and reminder.

A personal minimums list is another kind of code that marks a professional. In formal terms, personal minimums refer to an individual pilot’s set of procedures, rules, criteria, and guidelines for deciding whether, and under what conditions, to operate (or continue operating) in the National Airspace System.

As the FAA has suggested, however, you might think of personal minimums as the human factors equivalent of reserve fuel. When you plan a flight, regulations require you to calculate fuel use in a

True professionalism is a lot more than rule-driven behaviors – *pro forma* does not make a professional.



A professional uses a checklist every time, whether it's the first time or the 1000th.

Photo by Raymond G. Stinchcomb

You don't become a professional simply by earning certificates, adding ratings, or getting a paycheck for flying.

way that leaves a certain minimum amount of fuel in the tanks when you land at your destination or alternate. The reserve fuel is intended to provide a safety buffer between fuel required for normal flight and fuel available. In the same way, a professional sets personal minimums that provide a solid safety buffer between the skills *required* for the specific flight you want to make, and the skills *available* through training, experience, currency, and proficiency. (For more information, please see the May/June 2006 issue of the FAA Aviation News.)

Use scenario-based training. The FAA is a strong advocate for scenario-based training (SBT). SBT is an approach that uses highly-structured scripts of real world experiences to meet flight training objectives in an operational environment. The goal is to help the pilot develop judgment and

decision-making skills. For SBT to be effective in educating a professional:

- Real world experiences need to have a real world context.
- SBT needs to use real world experiences.
- Those experiences need to be realistic.

Here's an example. Cross-country flight training can be structured as planning for a family vacation that the pilot might really want to take in an airplane. The importance of comprehensive flight planning and managing external pressures becomes very real when the pilot has to put it in specific terms such as: how many people and how many bags can be carried, how they have to be loaded, and whether the trip can be safely flown.

Participate in mentoring. Another part of developing professionalism is mentoring. There is a tendency to think of mentoring as a relationship between an older person and a younger one. In fact,

mentoring is a *transfer of experience* from a pilot with more experience or expertise to a less experienced colleague. In today's GA environment, for example, you may have thousands of hours in your logbook, but still have a lot to learn from a newer pilot who happens to be a whiz with the latest glass cockpit avionics. Bottom line: the goal is to help the person being mentored learn things that he or she might have learned more slowly, less effectively, or not at all without the mentor's assistance. I learned a lot from the pilots who mentored me in the various phases of my career as a pilot, and I tried to pass it on by mentoring my students when I was a CFI and my first officers when I was an airline pilot. As I see it, being a professional and a solid aviation citizen means taking advantage of mentoring opportunities, both as a mentee and as a mentor.

The Front Line is the Flight Line

We in the FAA can make rules, write policy, and issue guidance. But those who are on the front lines — or maybe I should say the *flight* lines — in the GA community are the people best placed to make a difference — not just today, not just tomorrow, but for the entire future of aviation. The way you fly, whether it is multiple legs every day or a recreational flight every month, should be consistent with the aviation citizenship principles outlined here. Consistent and disciplined use of practical tools like codes of conduct, scenario-based training, and mentoring are actions that give life and meaning to the concept of professionalism, and can help make professional behavior as natural as breathing.

I'm counting on you to help.

Randy Babbitt is the Administrator of the FAA.

Learn More

FAA Aviation Instructor's Handbook – FAA-H-8083-9A

www.faa.gov/library/manuals/aviation/aviation_instructors

handbook/media/FAA-H-8083-9A.pdf

Best Practices for Mentoring in Flight Instruction

www.faa.gov/training_testing/training/media/mentoring_best

practices.pdf **Aviator's Model Code of Conduct**

www.secureav.com/

FAA Aviation News – May/June 2006

www.faa.gov/news/safety_briefing/2006/media/mayjun2006.pdf



Calling All Mechanics

Keep Informed with **FAA's Aviation Maintenance Alerts**

Aviation Maintenance Alerts (Advisory Circular 43.16A) provide a communication channel to share information on aviation service experiences. Prepared monthly, they are based on information FAA receives from people who operate and maintain civil aeronautical products.

The alerts, which provide notice of conditions reported via a Malfunction or Defect Report or a Service Difficulty Report, help improve aeronautical product durability, reliability, and maintain safety.

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- cracked rudder horn weld assembly on the Piper PA28R-201
- cracked oil cooler on the Continental IO-550B powerplant
- fractured L/H side pilot's window on the Piper 46-350P

Check out Aviation Maintenance Alerts at:
http://www.faa.gov/aircraft/safety/alerts/aviation_maintenance/

Fly like a PRO

If you're interested in aviation, it's a pretty safe bet that you have seen video of the carefully orchestrated operations on board an aircraft carrier flight deck. You've seen the pitching deck, the closely-packed jets, and the swarms of crewmembers in shirts whose color denotes the individual's role in launch and recovery operations: purple for fuel handlers, yellow for plane directors, red for ordnance, and white for safety observers.

I am lucky enough to have seen it in person. As a 20-year Navy veteran and former S-3B *Viking* Naval Flight Officer (NFO), I spent my share of sea time logging hundreds of "cats and traps" – Navy

parlance for takeoffs and landings – on board ship. It's exciting stuff, but it's also demanding. Without uttering a word on the radio during "zip lip" VMC flight operations, up to 40 aircraft circle in a "stack"

above the ship. The stack is arranged in an orderly fashion by aircraft type. As each aircraft maintains its own safe interval, a "trap" occurs aboard the ship every 60 seconds.

Do you wonder how so many aircraft and so many people can safely operate in such close proximity during radio silence? The answer boils down to one word — professionalism. Professionalism means flight discipline and adherence to regulations, guidance, training and standard operating procedures (SOP). Safe carrier operations rely on the ability of each member of the crew to maintain professionalism and discipline.

Different World, Same Strategy

Though I left active duty and no longer fly in support of war-fighting exercises and operations,

I have endeavored to keep my set of professional skills and attitudes as sharp as it was when I logged cats and traps in the *Viking*. Whenever my FAA position offers the opportunity to speak or work with GA pilots, I try to convey the idea that the agency – and everyone else in the aviation community – expects professionalism and discipline from every certificate-holding pilot in every kind of aircraft. That includes everyone from the first-day student in a Diamond DA-20 to the grizzled veteran ATP in the left seat of an Airbus A-380.

As you may have heard, the foundation of the FAA's five-year strategy to transform GA and reduce the fatal accident rate by 10 percent is risk identification, mitigation and outreach. An important component of risk mitigation is to embed a professional attitude and take a professional approach to everything we do in aviation.

Here are a few ideas on how to fly like a PRO in your aeronautical activities.

Personal Integrity

A professional is characterized by a high degree of personal integrity. Among other things, that means unflinching honesty about your physical, mental, and emotional fitness for flight. Don't fly if you can't pass the venerable IMSAFE checklist outlined in the *Aeronautical Information Manual* (AIM 8-1-1). That means ensuring that you are free of Illness, Medication, Stress, Alcohol, Fatigue, or Emotion that could adversely impact the safety of your flight.



Photo by Jon Hyde

My military flights were missions, with all of the get 'er done pressure a mission entails. In the GA flying world, my flights are simply flights.



The color-coded deck crewmen prepare the S-3B Viking for take off.

Still another element of the personal integrity professionals cherish is the ability to recognize and resist external pressures. For most people, this one does not come naturally – it is a skill that is acquired, sharpened, and maintained only through constant focus and discipline. That is because so many external pressures manifest themselves in subtle and insidious ways, making it difficult for pilots to perceive them until it is too late.

Here are a couple of tips for minimizing the effect of external pressures. The first comes from the AOPA Air Safety Institute, which advises pilots to avoid the word “mission” in connection with GA flying. When I was in the military, my flights were missions, with all of the get ‘er done pressure a mission entails. Now that I am in the civilian GA flying world, my flights are simply *flights*. Nothing about a flight justifies exceeding personal minimums.

The second tip is to hone your awareness of pressure and, if you detect it in yourself or someone else, STOP. Do not make any additional moves toward flying until you clearly identify, and then mitigate or eliminate, the source of the perceived pressure. Here’s a related concept that I have carried with me from my Navy career. When I reported for duty at my first Navy training squadron, I noticed the squadron safety motto in huge letters on the hangar: “If there is doubt, there is no doubt.” At any time I am in doubt about what to do, I remove all doubt by taking the safest course of action.

Ready for Anything

A professional is physically and mentally ready for anything that happens. I would like to see my fellow GA civilian pilots prize readiness as much as we valued it during my Navy flying days.

There are several components to a professional’s readiness. The first is training and currency. A good pilot never stops training, first to attain proficiency and then to maintain both proficiency and currency. Regardless of your total time and certificate level, it is important to recognize that flying is a skill – and skills erode when they are not sharpened through regular and focused practice.

A second component of readiness is to develop not just plan A, but also plan B, plan C, and even plan D or beyond. Weather does not always follow the forecasters’ expectations. Regardless of how well they are maintained, airplanes do not always adhere to their pilots’ or mechanics’ expectations. Play the “what-if” game with yourself before, during, and after every flight. If you’re curious about the “after”

advice in the previous sentence, consider that the immediate post-flight period offers one of the best opportunities for learning what you can take from one flight to the next.

A third form of professional-level readiness is disciplined use of checklists. Aviation abounds with checklists and acronym-based memory aids. Choose and use the ones that work for you – the point is to apply consistent structure and discipline.

On Target

A professional strives to be on target in every aspect of the operation. I have always been surprised to see pilots who can apparently hold altitude ... 200 feet away from the one assigned! Regardless of the reason for a given flight, aim to stay precisely on altitude, on course, on heading, on airspeed, and on glide path. Practicing for perfection will contribute to professional-level proficiency.

A professional pilot will also be on target in terms of the aircraft’s operating envelope. As you may recall from ground school, the “envelope” defines the maximum or minimum limits for safe operation of the aircraft. It generally includes items such as airspeed, load factor, and weight and balance. Don’t try to be a test pilot, which is precisely the role you assume if you operate the aircraft outside its established design limits.

Though it pains this Navy veteran to quote from an Army recruiting slogan, I urge you to be all that you can be by flying like a PRO.

Regardless of your total time and certificate level, flying is a skill – and skills erode when they are not sharpened through regular and focused practice.

Everette Rochon is an Aviation Safety Inspector in the General Aviation and Commercial Division. He is a former S-3B Naval Air Training and Operating Procedures Standardization (NATOPS) instructor, and a current ATP and flight instructor.

It Takes a Pro



Photo by H. Dean Chamberlain

to Make a Pro: *Professionalism in Flight Instruction*

Quick – who was Ira Biffle? Never heard of him? But who *hasn't* heard of Charles Lindbergh, who was one of his flight students? Let's try again: Who was Charles Todd? Again, virtually unknown today, except for his association with a student – Jimmy Doolittle. And, finally, how about Obie O'Brien? O'Brien was flight instructor to the legendary Chuck Yeager.

Although very few flight instructors become famous, what we do, and how we do it, lives on in those we teach. And, though unknown for themselves, one thing we can safely guess is that the qualities that these three instructors

possessed, and transmitted to their famous students, included professionalism. Most instructors will never know the

Most instructors will never know the extent of their influence.

extent of their influence, and most flight students will never be famous. But, as FAA Administrator Randy Babbitt observes in his article on page 10, the tenets of professionalism apply to instructors regardless of whom we teach or the aircraft type. Instructor professionalism is the foundation for excellence and success. We read about it, and we talk

about it. So what exactly is it, and how do we embody that crucial characteristic?

Characteristics of Professionalism

A business definition of professionalism is “meticulous adherence to undeviating courtesy, honesty, and responsibility in one's dealings with customers and associates, plus a level of excellence that goes over and above the commercial considerations and legal requirements” (www.businessdictionary.com).

Professionalism is typically achieved only after extended training and preparation. This training usually requires significant self-study and practice and is typically accomplished with formal education. It brings to mind the seemingly endless hours of education, training, and practice one undergoes on the path to becoming a doctor. The path to becoming a flight instructor has similar requirements – not just in terms of formal academic study and training, but also in terms of what we might call the unwritten requirements. Let's take a look at a few of them.

Skilled pilot. The aviation instructor must be an expert pilot, one who is knowledgeable, proficient,

skillful, and safe. You should be very proficient on the equipment you use, especially avionics. Be alert for ways to improve your qualifications, your effectiveness, and the services you offer. Stay abreast of changes in regulations, practices, and procedures. Make a habit of referring to the current Aeronautical Information Manual (AIM), Airport/Facility Directory (A/FD), Sectional Charts, Handbooks, Manuals, and Practical Test Standards (PTS). You should also read aviation periodicals, browse the Internet, and attend meetings and seminars. And, of course we recommend that you have (and use) an account on www.FAASafety.gov.

Strong teacher. A flight instructor must have strong skills and abilities in two major areas. First, he or she must be a competent and qualified teacher, with all of the “soft skills” we attribute to teachers. These include communication skills, people skills, and patience.

In order to understand the progress your students are making, you must understand the four levels of learning - Rote, Understanding, Application, and Correlation.

To simplify my own comprehension of these principles, I reduced the concepts to concise, understandable definitions.

Rote	The ability to repeat something which was learned, but not understood
Understanding	To comprehend or grasp the nature or meaning of something
Application	The act of putting something to use that has been learned and understood
Correlation	Associating what has been learned, understood, and applied with previous or subsequent learning, or the ability to apply learning to a specific unpracticed situation

Practical psychologist. You need to understand anxiety and how to address it with a student. You must know that reactions to stress can be normal or abnormal, and be ready to act appropriately. You soon learn that obstacles to learning can be different for each student. You learn how to address impatience, worry, lack of interest, apathy, anxiety, discomfort, illness, and fatigue. You must work within your student’s other interests or enthusiasms. You must discover how to help the student with a multitude of troubles; you may even have to show your student how to handle fear.

Also important is your understanding of the laws of learning. Your student’s progress will be enhanced if you remember that a student *learns* because of Readiness and Effect, but *remembers* because of Primacy, Exercise, Intensity, and Recency.

Readiness	Ready to learn: strong purpose, clear objective, definite reason. Your student should understand the “why” for everything they do in training.
Effect	Emotional reaction of the student. Pleasant vs. unpleasant
Primacy	The first experience should be positive, functional, and correct
Exercise	Things most often repeated are best remembered
Intensity	Vivid, dramatic, or exciting vs. routine or boring. The real thing vs. a substitute.
Recency	Things most recently learned are best remembered

Capable Coach. The best flight instructors use a syllabus, set achievable goals for their students, and use a well-designed lesson plan. You should personally prepare for each lesson, whether ground or flight, and personally prepare for each individual student. Not having an organized plan is, in fact, a plan...for failure. No two students are the same; they must be treated as individuals. You are the key to their success.

Positive role model. Consistently using a checklist is another mark of professionalism. We all get excited or rushed at times and the use of a

Professionalism is typically achieved only after extended training and preparation, and it usually requires significant self-study and practice.



Photo by Susan Parson

checklist is the only way to ensure we don't forget something. Students will follow the behavior you model, so do it right.

A flight instructor must also have high standards of personal appearance, which means that you must be neat, clean, and dressed in a manner appropriate to the situation. Your personal habits must be acceptable. As a chief flight instructor, I once had a student request a different instructor because his instructor had an overwhelming body odor. I discovered that the instructor worked at a physically demanding job before reporting to the flight school. Moving his first lesson by an hour solved that problem. In addition to personal hygiene, you cannot be rude, thoughtless, or inattentive, and you cannot be profane or obscene.

Sincere. Professionals are true to themselves and to those they serve. Your sincerity of effort must be such that inadequacies are admitted, not hidden, and are corrected for the future. A Code of Ethics is a good reminder of the need for honesty, impartiality, fairness, and equity. (See the Model Code of Conduct in the sidebar)

Inquisitive. True performance as a professional is based on study and research, and professionals are always searching for the "why." Perhaps you can imagine the hard work required to produce a doctoral thesis. Becoming a flight instructor requires that same dedication to learning. Let's look at an example from a private pilot syllabus for flight training.

Let's assume you are going to teach a student to perform turns-around-a-point. We all know this lesson begins in the classroom. To test understanding, you ask your student to place an "X" at the point on the circle where the bank angle is the greatest during the maneuver and then tell you why he chose that point. Assume the wind as shown and left-hand turns. Before you read on, place the "X" on the circle yourself.



Photo by H. Dean Chamberlain

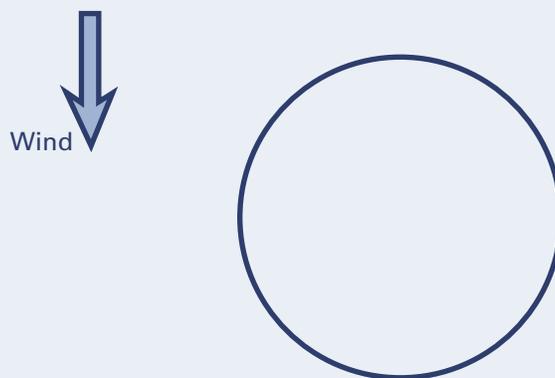


Figure 1

Many instructors place an "X" at the bottom of the circle; some place it half-way between the bottom and the direct left side point. Why are these not the correct answer? Remember, we are searching for the "why." The key is to understand that the aircraft's ground speed is the greatest at only one point. It is at this point that the wind will be pushing the aircraft away from the desired track at the greatest velocity. (See correct answer on page 31.)

Creative. You don't have to be a mathematical genius to be a pilot or a flight instructor. While a flight test pilot and an aeronautical engineer may need higher math skills, the typical pilot, and flight instructor, gets by quite easily with the basic addition, subtraction, multiplication and division skills one learns in grade school.

However, a professional flight instructor must have other qualities that could be defined as intellectual skills. These include the ability to reason logically and accurately, as well as the ability to make good decisions. Even though aviation has standard practices for normal and abnormal situations, we must also appreciate that some situations may require thinking outside the box.

You Touch the Future ...

As *Challenger* astronaut Christa McAuliffe famously proclaimed, "I touch the future - I teach!" Whatever your eventual goals in aviation might be, never forget that being a flight instructor is a real job that has real - and lasting - impact. Make it count.

Bryan Neville is an FAA Operations Inspector presently assigned as the program manager for the FAA Safety Team web site, www.FAASafety.gov, with general responsibility for the management of the WINGS - Pilot Proficiency Program and the AMT Awards Program, both hosted on FAASafety.gov. Before coming to the FAA, he worked in general aviation, primarily as a flight instructor and FAA Designated Pilot Examiner. His years of experience have given him great insight into what personal characteristics make a great flight instructor. Chief among these is professionalism.



Flight Instructor's Model Code of Conduct

In April 2011, the SecureAV Permanent Editorial Board released the Flight Instructors Model Code of Conduct (FIMCC) for publication and distribution. Developed by a team of aviation professionals and drawing upon decades of research and experience, the code recommends operating practices designed to

improve the quality of flight instruction and the safety of flight training operations.

The FIMCC:

- Promotes flight and ground instructor safety, professionalism, and instructor contributions to the aviation community and society at large,
- Encourages the development and adoption of good judgment, ethical behavior, and personal responsibility,
- Supports improved communications between instructors, students, regulators, and others in the aviation industry, and
- Promotes recognition of instruction as a highly respected and rewarding profession.

- The FIMCC is designed to be adaptable to flight instructors and training organizations at all levels—from light sport to instrument, multiengine; at large flight schools or as independent operators.

The Code of Conduct received extensive industry review and presents a vision of flight training excellence within its seven sections: (1) General Responsibilities of Instructors; (2) Students, Passengers, and People on the Surface; (3) Training and Proficiency; (4) Security; (5) Environmental Issues; (6) Use of Technology; and (7) Advancement and Promotion of Aviation Instruction. The Code of Conduct is a living document and will be periodically updated to reflect changes in standards, practice, and the aviation environment.

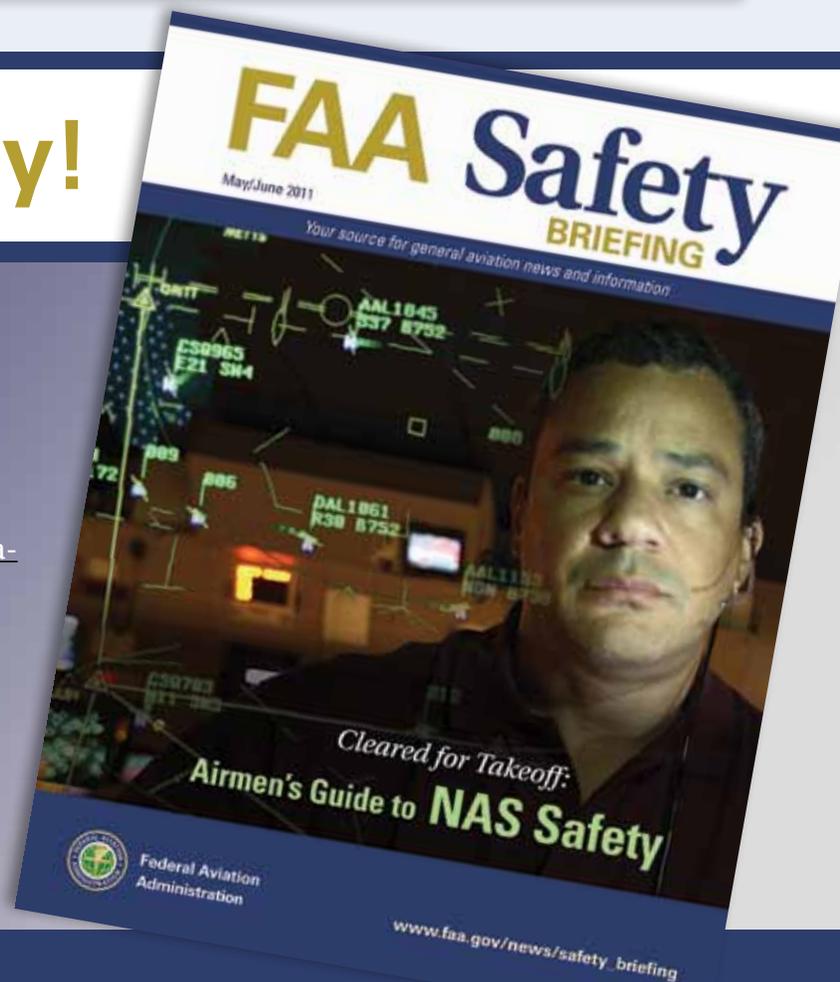
The Flight Instructors Model Code of Conduct is the latest in a family of similar codes, each available as a free public service along with supporting materials at www.secureav.com.



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What Do I Do

How the Magic of Mentoring Can Propel Your Aviation Learning Odyssey

Now?!



Photo by James Williams

You did it. The freshly-signed temporary airman certificate attesting to your new qualifications is carefully secured in your wallet. You rightly celebrate the achievement with proud family and friends. And, during this heady time, perhaps the exuberant words of Dr. Seuss in *Oh, The Places You'll Go!* ring in your head:

*You'll be on your way up! You'll be seeing great sights!
You'll join the high fliers who soar to high heights.*

If your experience is anything like mine, you put the new certificate or rating to work right away. In command of your aircraft, you soar to (relatively) high heights and see some great sights. As the initial excitement fades, though, you realize that being liberated from the structures and strictures of a formal training

program can leave you feeling both adrift and – admit it – anxious. As Dr. Seuss's narrator notes, you know deep down that:

*There are some, down the road
between hither and yon,
that can scare you so much you
won't want to go on.*

For too many pilots, here is the point where the once high-flying helium balloon starts sinking back to earth. Though you're weary of confining your flights to the geographical or functional limits of your experience, you lack the confidence to be like Columbus and sail off the edge of the known world. Or perhaps you *did* try to push the envelope, only to find that "here be dragons" that scorched your confidence and frightened family and friends who trusted their lives to your still-developing skills.

So what's a pilot to do?!

Enter the Mentor

One way to proceed is to simply wander along the aviation learning path. Not knowing a better way, that's the path that many pilots (including me) pick by default. In my case, that "now-what?!" feeling was most acute when I finished my instrument rating in 1994 and then again when the FAA inspector handed over my initial flight instructor certificate in 1996. In both cases, I understood that I had a license to learn, as the cliché goes, but I wasn't at all clear on what I was supposed to learn, much less how best to learn it. And so, like the epic poet Homer's title character in *The Odyssey*, I stumbled and occasionally bumbled my way through a long and winding voyage of aeronautical discovery.

That's where a mentor comes in. Like the original Mentor, a character in *The Odyssey*, a modern-day mentor is a trusted advisor who provides one-to-one support, encouragement, and advice. You may already be familiar with the role a mentor can play in the workplace. The medical profession uses residency programs to provide supervised real world training for medical school graduates, and many other disciplines use forms of mentoring to help freshly-trained novices transition to real-world application of book knowledge and basic skills. For example, teacher certification boards require a stint of student teaching that pairs the novice with an experienced classroom instructor for both observation and supervised application of knowledge and skills. Mentoring can also be structured to give career guidance, provide a role model, and offer a seasoned sounding board for workplace challenges and ideas. In all cases, though, perhaps the mentor's most important function is to *transfer experience* by sharing events and outcomes that can help a less-experienced colleague learn faster while making fewer mistakes along the way.

An aviation mentor can serve the same functions for a less-experienced pilot. Let's look at some specific ways that an aviation mentor can help you navigate the aeronautical learning odyssey more safely and more effectively.

Transfer Experience

The job of an aviation instructor is to impart knowledge, skills, and attitudes appropriate to the certificate or rating at hand through the process of instruction. Although the aviation mentor can certainly play a role in advancing the pilot's knowledge, skills, and attitudes, both the goal and the process are different. Khalil Gibran eloquently

captures the concept in *The Prophet*, writing that the point is to "lead you to the threshold of your own mind" by offering experience to illuminate your individual decision-making process.

Though it shares some characteristics with the aviator's favorite sport—hangar flying—a mentor's transfer of experience is a more structured and thoughtful effort aimed at helping the less-experienced pilot apply knowledge, skills, and attitudes gained via the instructional process to individual real-world situations.

A good mentor must therefore know not only how to impart "there-I-was" stories of a relevant experience, but also how to listen to the mentored pilot's concerns, formulate questions to help address them, and tactfully offer appropriate feedback.

A word of advice: Whether you seek to find a mentor or to be one, be careful not to equate a mentor pilot's *total* time with *relevant* time. The mentor pilot must be able to offer experience that is pertinent to the needs and goals of the mentored pilot. For example, an airline pilot will clearly have substantial experience, but if his or her most recent aeronautical activity consists entirely of flying transport category airliners in a crew environment, that experience will not necessarily be relevant to someone flying single-pilot instrument meteorological conditions (IMC) in a typical GA aircraft. By the same token, a 100-hour private pilot who trained in a glass cockpit aircraft could transfer some of that experience to, say, a 1,000-hour pilot who has flown nothing but round-dial aircraft.

The mentor's most important function is to transfer experience by sharing events and outcomes that can help you learn faster while making fewer mistakes along the way.



Photo by Susan Parson



Photo by H. Dean Chamberlain

Model Good Practices

There is much you can learn from a mentor who is a practitioner as well as a preacher of good aeronautical practices. My primary flight instructor, who also took me through an instrument rating, as well as my commercial and flight instructor

certificates, imparted knowledge, skills, and a professional attitude not just through what he said. Though his official role was “teacher” rather than “mentor,” his greatest long-term influence arose from

how he consistently modeled good practices. The instructor who guided me through multi-engine and multi-engine instructor qualifications has similar characteristics, and I literally trusted her with my life.

In the more recent years of my aeronautical learning journey, several pilots have unknowingly mentored me through their day-to-day actions. One was instrumental in showing me the ropes of long cross-country planning and operations.

Another demonstrated the basic principles of crew coordination, and models the kind of calm but watchful demeanor I have sought to emulate in my instructional activities. And it was through flying GA aircraft around the country with still another pilot that I finally began to understand how to evaluate weather. Though he never specifically “taught” me, watching how he approached the process of gathering, evaluating, and applying weather data was invaluable to my learning. In fact, that’s what led me to develop the structured weather analysis model that I use today when I teach, write, and present on aviation weather and weather decision-making.

Guide the Flight Path

In the workplace, one of the mentor’s main roles is to assist the mentee in setting and achieving career development goals. An aviation mentor can offer similar assistance to a pilot by helping him or her establish and work toward a range of aeronautical advancement goals. For example:

- *Certificates, ratings, and endorsements.* Work toward formal qualifications and privileges is primarily an instructional task, but an aviation mentor can help in a number of

Be careful not to equate a mentor pilot’s total time with relevant time. The mentor pilot must be able to offer experience that is pertinent to the needs and goals of the mentored pilot.

Traits of an Effective Mentor

To be most effective, a good mentor should have:

- Substantial experience that is relevant to the needs and goals of the mentored pilot.
- Good “bedside manner” that is friendly, affirming, non-judgmental, and respectful.
- Strong communication skills that include attentive listening and asking good questions.
- Clear understanding of the mentor’s role, which is to support and guide the mentored pilot’s efforts to apply knowledge and skills to real situations.
- Clear understanding of the pilot’s goals, to include knowledge of how the aircraft is to be used (i.e., recreational flying for fun, personal transportation for business or pleasure, professional operation).
- Personal connection with the mentored pilot.
- Mutual understanding of responsibilities. Both individuals must have a clear understanding of responsibilities—and liabilities—in the mentoring relationship. In general, the mentored pilot should always be PIC.

ways. By offering a sounding board, a fresh perspective, and simple encouragement to help surmount the inevitable learning plateaus, the mentor may play a vital role not only for the individual, but also for the broader goal of pilot retention.

- *Skill enhancement.* An aviation mentor can help a less-experienced pilot with a variety of skill enhancement goals and activities. The FAA’s online flight review and instrument proficiency check guides (*see below for links*) both contain worksheets to help pilots, mentors, and instructors develop an individualized plan for setting aviation goals, as well as tips for structuring proficiency development and practice sessions. Similarly, the FAA’s online mentoring guide suggests specific ways that a mentor pilot can help a less-experienced pilot gain proficiency flying in IMC.
- *Confidence building.* By providing guidance and, as appropriate, cockpit companionship on skill development flights, an aviation mentor can contribute substantially to building a less-experienced pilot’s competence and confidence.

Offer Encouragement

Let’s face it: flying isn’t easy. Sometimes you think the skills will never come. Or, you may find

yourself discouraged by a string of weather or mechanical delays. We’ve all had days when we wondered if it was really worth the effort it demands. When those days arrive, a mentor’s encouragement and support can make all the difference in your aviation learning odyssey.

And, finally, an aviation mentor can help ensure that:

Wherever you fly, you’ll be the best of the best. Wherever you go, you will top all the rest.

Susan Parson is a Special Assistant in the FAA’s Flight Standards Service and editor of FAA Safety Briefing. She is an active general aviation pilot and flight instructor.

Learn More

Conducting an Effective Flight Review

www.faa.gov/pilots/training/media/flight_review.pdf

Instrument Proficiency Check Guidance

www.faa.gov/pilots/training/media/IPC_Guidance.pdf

Best Practices for Mentoring in Flight Instruction

www.faa.gov/training_testing/training/media/mentoring_best_practices.pdf

GA Pilot’s Weather Guide (online version)

www.hf.faa.gov/WeatherDecisionGuide/default.aspx



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ARLYNN MCMAHON

Mentoring the Mentors

A national mentoring program aimed specifically at aviation educators provides support, leadership, and professional development to new and experienced instructors. The much-anticipated program is the brain-child of the Society of Aviation and Flight Educators (SAFE) and is managed by the SAFE Mentoring Governing Committee.

The program matches expert aviation educators with those seeking assistance or improvement to become world-class educators themselves. “We are very excited about the program,” said Donna Wilt, Chair of the Mentoring Governing Committee, adding, “The program was developed with input from members who participated in a needs-survey last year.” The program is available to current educators or educators-in-training who are members of SAFE, whether in flight, ground, youth, college, maintenance, or other aviation areas. Even experienced educators occasionally need new insights in new aircraft, or with new technologies

and techniques. With this support, participants grow smarter in ways to promote a safer training environment.

A Solid Start

In addition to the Governing Committee, the mentoring program has already approved several expert mentors and has paired them with instructors looking for guidance with a variety of aviation and teaching issues. Matching is based on items such as similar professional areas in aviation, experience in a particular aircraft, needed teaching or particular technical expertise, geographical location and more. A unique aspect of the program is that three suitable mentors are recommended to the mentee. The mentee makes the final selection with whom he or she thinks will best suit his or her needs. The goal is low-stress coaching for advanced professional development.

“We tap into the combined experience of a unique membership which includes some of the industry’s top aviation educators, including local and national General Aviation Award winners in the flight instructor, aviation maintenance, avionics, and FAA Safety Team categories,” notes SAFE’s Chief Mentor Arlynn McMahon. She adds, “A few of our mentors contributed to the FAA’s Best Mentoring Practices – that’s a huge resource. I hope that the mentoring program will become an industry asset as we learn from each other how to raise professionalism in instruction.”

To learn more about the SAFE Mentoring Program, visit www.safepilots.org/programs/safe-initiatives/mentoring-program or contact Dr. Donna Wilt, Chairman, SAFE Mentoring Governing Committee at dfwilt@gmail.com, or Ms. Arlynn McMahon, Chief Mentor at arlynn@aerotech.net.



Photo by Susan Parson

Arlynn McMahon is SAFE's chief mentor and the 2009 National CFI of the Year.

Nuts, Bolts, and Electrons

Professionalism in Maintenance

Become a Model Mechanic

What's the first occupation that comes to mind when you think of a professional? A doctor? A lawyer? Maybe a schoolteacher? While these are all important and highly respected professions, they are, after all, just that—professions. To be a *professional* takes much more than just having a title, prestige, or an advanced degree. It's the character and integrity of the person in that profession that defines a true professional. That's true whether your position entails the same exposure and public interaction, or if instead it involves a behind-the-scenes supporting role.

In the aviation industry, those in one of the most important supporting role professions – the Aviation Maintenance Technician (AMT) — are largely unseen by the public. Passengers see and interact with pilots, cabin crew, and customer service agents, all important professions (and hopefully professionals) in their own right. Though some may be predisposed to associate “professional” only with specific and high-visibility occupations, the men and women responsible for the safe upkeep of aircraft are undoubtedly professionals as well.

Are You A Professional?

So what makes someone a professional? Is it someone who is extremely knowledgeable and can solve problems quickly? Or maybe it's the person with the most experience. According to Dr. Bill Johnson, FAA's chief scientific and technical advisor for Human Factors in Aircraft Maintenance Systems, being a professional means going beyond a certain credential, skill, or experience level. “A young person with only two or three years on the job can be just as much a professional as someone with 20 years,” says Johnson. Instead, Johnson says it has more to do with what the “Queen of Soul” Aretha Franklin sings about in one of her most famous songs: “R-e-s-p-e-c-t—find out what it means to me...,” or to you.

“It all boils down to having respect for the responsibility of the position, as well as respect for your co-workers,” explains Johnson. “As an AMT, the public depends on you and often a lot is riding on

your ability to perform a job quickly and efficiently. Having a healthy respect for that responsibility means understanding the right skills, tools and technical information needed to do a job safely, and also knowing when to admit you need help.”

That same attitude exists for many other professional positions. The public invests a high level of trust in an AMT's abilities and decision-making skills, just as they do for a doctor, law enforcement officer, or a pilot flying them to their destination. The fact that an AMT's actions are not as visible to the public does not make them any less essential.

Similar to the “protect and serve” and “do no harm” oaths other professionals swear to uphold, is the *Mechanic's Creed*, authored by Flight Safety Foundation founder Jerry Lederer. The first paragraph of the creed stresses the significant responsibilities to which an AMT promises to faithfully support:

Upon my honor I swear that I shall hold in sacred trust the rights and privileges conferred upon me as a certified aircraft mechanic, knowing full well that the safety and lives of others are dependent upon my skill and judgment. I shall never knowingly subject others to risks which I would not be willing to assume for myself or those dear to me.

Becoming a Pro

Recognizing and respecting what it takes to be a professional is an important first step, but it must also include actions. Some may consider professionalism a squishy, intangible concept, difficult to directly see and feel. But there are several tangible ways you can perform to be the best professional you can be, and a role model for others.

Stay Fit and Focused. Keep yourself fit for duty at all times. While fitness often refers to a physical

To be a *professional* takes much more than just having a title, prestige, or an advanced degree.

condition the real challenge is to ensure a mental fitness for duty. The quality and quantity of sleep are an important way to ensure necessary mental awareness and attitude. The FAA website (www.mxfatigue.com) is a very good place

Similar to the “protect and serve” and “do no harm” oaths other professionals swear to uphold is the *Mechanic’s Creed*, authored by Flight Safety Foundation founder Jerry Lederer.

to review important practical tips about sleep. The basic rule: get about eight hours of sleep every night.

Get Smart. You worked hard to earn your aircraft mechanic certificate, spending countless hours studying and practicing skills that may have challenged you beyond your comfort zone. But don’t stop there. Maintaining a thirst for learning and an eagerness for challenge is a sure sign of a true professional. Just reading this article demonstrates a commitment to professionalism. Be sure to also check out the learning benefits offered by professional organizations like the AMT Society and Professional Aviation Maintenance Association (PAMA). They frequently host public seminars on all types of aviation maintenance topics. If glass cockpit technology is not your strong suit, consider attending a seminar or course that can expand your knowledge on the subject. And, of course, don’t forget the training available with the AMT Awards Program available on www.FAASafety.gov.

Pass it on. Knowledge is only good when you put it to use, and more importantly share it, so

try to pass on that wisdom when possible. After all, the AMT profession is already one in which mentoring is an integral part of learning and becoming a good mechanic. Mechanics take pride in mentoring one another, and often find satisfaction in providing guidance for newer employees or co-workers who may be unfamiliar with a certain aircraft or procedure. The mentee demonstrates professionalism by accepting help from another worker. It is a two-way street.

Use the Right Tools. Aircraft mechanics have a plethora of tools and resources available to help them perform tasks more efficiently and accurately. A professional will approach any procedure with the same meticulous care a medical team displays when preparing surgical tools for an operation. Are you trained and proficient with the procedures and tools being used? Do you have the most up-to-date manuals and/or data for the procedure you are performing?

And when gathering resources, be sure to make use of the Service Difficulty Reporting (SDR) system (<http://av-info.faa.gov/sdrx>). This system compiles reports of maintenance issues encountered by mechanics in the field. The power of this tool relies on your input, so be sure to submit any problems you come across. Yes, it takes time to gather the data and photos and submit them online. But think of the possible lifesaving effect that information may have on others. One of the end products of these efforts can be found in AC 43-16A, *General Aviation Maintenance Alerts* (www.faa.gov/aircraft/safety/alerts/aviation_maintenance). This AC, fed by SDR data, contains reports, diagrams, and color photos of specific aircraft issues you may find very helpful.

It’s true that the public may not always see or think of what an AMT does to preserve safety. But that is never an excuse to let down your guard or be any less proud of the significant effect you have on safety. A simple, but well-known anonymous quote on professionalism sums up the concept nicely: “It’s not the job you do, it’s how you do the job.”



Photo by Tom Hoffmann

Mentoring is an integral part of learning and becoming a good AMT.

Tom Hoffmann is associate editor of FAA Safety Briefing. He is a commercial pilot and holds an A&P certificate.

Dr. Bill Johnson contributed to this article. Dr. Johnson is the FAA’s chief scientific and technical advisor for Human Factors in Aircraft Maintenance Systems. He holds both a private pilot and A&P certificate.

FAA Faces



Pete Devaris

Professionalism: The Last Frontier of Safety

Throughout this issue, we have defined professionalism as “doing the right thing when no one is looking.” If you have ever spent time flying in the Alaskan wilderness, you know these words represent more than a personal pursuit of excellence: They are literally words to live by. Just ask Pete Devaris, FAA’s Assistant Division Manager for Flight Standards in Alaska. After spending more than 22 years working and flying in this vast territory, Devaris knows just how important professionalism can be in an unforgiving and remote place like Alaska.

“Here, you don’t have a choice about being professional,” says Devaris, “It’s simply a way of survival.” Devaris gained a healthy respect for aviation professionalism even before becoming a pilot. As captain of a commercial fishing boat, Devaris managed some of the same grizzled and cantankerous fishermen you see on TV’s *Deadliest Catch*, along with directing a team of flying salmon spotters. Circling overhead, the spotters guided ships to prime fishing spots. “With all our competitors, we’d have 50 to 60 planes flying over the same bay at once,” recalls Devaris, “and that was often with low ceilings and blowing snow. Working in those conditions required leadership skills at a life-and-death level. If you weren’t a staunch professional at all times, it could cost a life.”

Those same flying fishermen inspired Devaris to pursue his own pilot certificate, a dream initially manifested by childhood fascination with model rockets. After earning several airman certificates and ratings Devaris went on to become one of the fish spotters he had admired before. “You work with a safety pilot,” explains Devaris, “but having your head down looking for fish instead watching out for the other guy was unnerving.”

Intrigued with Alaska’s adventurous flying, Devaris established a part 135 operation in Kodiak and Southeast, Alaska, and went on to become a mountain pilot; providing climbing support on the glaciers of Denali National Park. He got acquainted with the FAA through conducting multi-engine

seaplane training and check rides for FAA inspectors, as a Safety Counselor, and finally as an operations inspector in 2002. The connection between the agency’s safety promotion role and his diverse flying skills was a good one. Within two years, Devaris was named National Field Inspector of the Year. He attributes his early success to his supervisor and mentor, Bruce Walker.

“Bruce got to me at a foundational level,” says Devaris. And who better to learn from, as Walker himself was named regional and national Mentor of the Year more times than any other inspector. According to Devaris, “the single most important thing—next to safety—is teaching others to be effective mentors.” By “paying it forward” to help promulgate a culture of safety and professionalism, Devaris hopes to have a positive impact on the GA community.

It seems to be working. In Alaska, the GA fatal accident rate has been lower than the rest of the nation in four of the last six years, and the 2011 fatal rate (at press time) is currently holding at a record-breaking zero. That is especially impressive since the utilitarian nature of GA flying in Alaska sometimes makes pilots more tolerant of risks. Moving the needle towards what Devaris considers the “last frontier of safety” involves showing pilots exactly what professionalism is, and getting them to do those things that can mitigate risks.

That same logic applies whether you’re flying in Fairbanks, or Fargo. “It is incumbent on pilots today to not only be as professional as they can be, but to also be good role models and mentors, even if only in an indirect way,” says Devaris. “You’d be surprised just how much people can learn from observing the professional actions of others.”

Tom Hoffmann is associate editor of FAA Safety Briefing. He is a commercial pilot and holds an A&P certificate.

An Introduction to the Flight Instructors Model Code of Conduct

Introduction. The *Flight Instructors Model Code of Conduct* (FIMCC)¹ was released on April 18, 2011 as a free public service to the aviation community. The FIMCC is a tool designed to enhance flight and ground instructor safety and professionalism. Developed by a diverse team of aviation professionals and extensively peer-reviewed within the aviation community, the FIMCC offers a vision of excellence to help flight and ground instructors build professional relationships with their students. This paper introduces the FIMCC, considers its anticipated uses, presents drafting considerations and options, identifies challenges, and proposes areas for future work.

Genesis of the Code of Conduct. The FIMCC is the latest in a family of aviation codes of conduct.² The code of conduct initiative began in the early 1990s when a gap in flight training curricula became evident. Unlike most professional/specialized training (engineering, law, medicine, military, finance, or even hairdressing³), general aviation training generally lacks an emphasis on the pursuit of lifelong learning, aspiring to excellence, acting with honesty and fairness, and providing a superior level of service to client or customer and society. In contrast, flight training is often focused on *teaching to the test* and getting students certificated – a focus reflecting poorly on the flight training community and its culture of professionalism. The FIMCC initiative sought to respond by articulating what it means to be a great instructor and to act with professionalism.⁴

The Code of Conduct Examined. The FIMCC is a concise document containing seven key *Principles*:

- I. GENERAL RESPONSIBILITIES OF INSTRUCTORS
- II. STUDENTS, PASSENGERS, AND PEOPLE ON THE SURFACE
- III. TRAINING AND PROFICIENCY
- IV. SECURITY
- V. ENVIRONMENTAL ISSUES
- VI. USE OF TECHNOLOGY
- VII. ADVANCEMENT AND PROMOTION OF AVIATION INSTRUCTION

This structure accommodates all issues identified during its development into a logical and supportable order.⁵ Corresponding *Sample Recommended Practices* (SRPs) provide suggestions for tailoring and applying the Principles.⁶

Supporting the Principles and SRPs is *Commentary*, published separately, that provides drafting and implementation considerations, annotation, and education.⁷ Code of conduct implementation⁸ and teaching⁹ resources are also available on the Codes website.¹⁰ As designed, the FIMCC is a multi-level, on-line, dynamic and easy-to-implement tool.

Flexibility and Customization. The FIMCC is a *model* code, not a prescriptive code. It is designed to serve as an example and to be modified to suit the particular requirements of each implementer.¹¹ The most effective implementation of a code of conduct is a personal one in which the implementer

customizes—indeed personalizes—it, internalizes it, and becomes committed to adhere to it. We encourage those implementing the FIMCC to personalize every dimension of the code, including, but not limited to: the provisions and sample recommended practices, the length¹² (even a single-page model code is available¹³), the title¹⁴ (it need not be entitled a “code of conduct”), and the format (brochures, web-based content, and Jeppesen plate style implementations are just a few available options).¹⁵

Methodology. The FIMCC has benefited from numerous focus groups, extensive editorial consultation, and review by hundreds of experts.¹⁶ It incorporates incremental improvements gained from development of each prior code of conduct and associated commentary. In this regard, it is a *grass roots* initiative reflecting real world, line oriented input. Most importantly, however, the strength of the code was enhanced by the seasoned oversight, collective experience, vision, and judgment of its *Permanent Editorial Board* (PEB). The PEB is an active group of eight accomplished and diverse aviation professionals and pilots including academics, flight instructors, industry executives, and a major airline captain.¹⁷

Anticipated Uses of the FIMCC. While its intended uses are broad and unrestricted, we anticipate the FIMCC will primarily be used to articulate preferred and prudent practices; advance a safety culture;¹⁸ underscore a commitment to life-long aviation training and education; help develop personal minimums, standard operating practices (SOPs), and checklists; and to advance flight and ground instructor professionalism.¹⁹ The FIMCC is intended to motivate an overarching discussion by:

- flight schools—to socialize a safety and professional culture,
- flight instructors—to set an example for other instructors and students, i.e., to lead by example, and
- prospective flight students—to ascertain what they might expect from excellent instructors.²⁰

Challenges. Professional codes have an extensive body of research and implementation support, yet many core issues concerning their efficacy remain in play. For example, how can the FIMCC best assist implementers to commit to its provisions? How can the FIMCC best encourage implementers to view themselves as professionals²¹ and generate a safety culture? To what extent can the FIMCC facilitate professionalism? Is it feasible for the FIMCC to be implemented effectively by any flight instructor in the absence of support and oversight by professional educators and ethicists? Resolving such questions is beyond the scope of the FIMCC. Nonetheless, to the extent that the benefits (and limitations) of the FIMCC are consistent with professional codes of conduct in other disciplines, then the FIMCC should provide value and endure similar challenges.

Conclusion. The Permanent Editorial Board promotes, reviews, and periodically revises the family of aviator codes of conduct. Current projects include an update of the foundational *Aviators Model Code of Conduct* (AMCC) that will reflect lessons learned from the recently released *Aviation Maintenance Technicians Model Code of Conduct* (2009) and the FIMCC (2011), both of which are geared to professionals. We hope such lessons, focused on *aspirations* of professionalism, continue to permeate the entire aviation community – in both private general aviation operations and commercial operations; from primary training to airline transport training, and beyond.²²

Consistent with the FAA Administrator’s call for greater pilot professionalism²³, the FIMCC provides the flight instruction community with a roadmap to accomplish such a goal.

¹ Available at <<http://www.secureav.com/FIMCC-Listings-Page.html>>.

² Codes released earlier include the *Aviators Model Code of Conduct* (AMCC), *Aviation Maintenance Technicians Model Code of Conduct* (AMTMCC), *Glider Aviators Model Code of Conduct* (GAMCC), *Light Sport Aviators Model Code of Conduct* (LSAMCC), *Seaplane Pilots Model Code of Conduct* (SeaplanePMCC), and *Student Pilots Model Code of Conduct* (SPMCC). Available at <www.secureav.com>.

³ See, for example, Code of Conduct, Guidelines for European Hairdressers, The International Hairdressing Union (2001), available at <<http://www.eesc.europa.eu/self-and-coregulation/documents/codes/private/008-private-act.pdf>>.

⁴ See FAA Administrator Randolph Babbitt, Keynote Address at the Pilot Training Reform Symposium, Atlanta (May 5, 2011), available at <www.faa.gov/news/speeches/news_story.cfm?newsId=12685> and <<http://www.secureav.com/Babbitt-Atlanta-Symposium.pdf>> (addressing professionalism and lauding the FIMCC). See also Commentary to AMCC I.f – General Responsibilities, at <<http://www.secureav.com/Comment-AMCC-I.f-General-Responsibilities.pdf>> (addressing professionalism and the Codes of Conduct).

⁵ Although the order of the material is not generally prioritized, emphasis was given to third parties (passengers and people on the surface) as the second of the seven principles to underscore the importance of the enhanced ethical obligations of the instructor to the safety and well being of third parties. Also noteworthy is the explicit (if not elevated) treatment of security, environmental, and technology issues – considered an essential triad for safe and effective flight operations.

⁶ The separate presentations of principles and SRPs was an editorial decision not only to keep the FIMCC focused and to better facilitate customization, but to encourage the implementer to *think* – that is, to analyze the content – with the expectation that this would enhance understanding. One highly influential aviation association urged that we interlineate the Principles with the SRPs. After considerable redrafting to create such an interlineated prototype, it was found unwieldy and comparatively ineffective. “Forcing” SRPs into exclusive association with a single Principle had the unintended effect of (a) disassociating certain SRPs with other (often equally) valid Principles, (b) creating imbalance since some Principles then had no associated SRPs whereas others had many, and (c) diminishing the learning process by creating a “checklist like” document that failed to encourage implementers to engage in critical thinking, sole-searching, and discourse to effectively change behavior, and garner commitment.

⁷ See <<http://www.secureav.com/Commentary-Index.pdf>> (providing a table of contents to the Commentary).

⁸ *Notes for Implementers*, available at <<http://www.secureav.com/Notes-for-Implementers.pdf>>.

⁹ *Notes for Instructors*, available at <<http://www.secureav.com/teaching.html>>.

¹⁰ At <www.secureav.com>.

¹¹ Customization of each implementation may be a function of: instructor(s), culture, equipment, mission, and flight environment, among other factors.

¹² See Commentary Addressing Code of Conduct Model, Length, and Organization, available at <<http://www.secureav.com/Comment-AMCC-General.pdf>>.

¹³ See <www.secureav.com/FIMCC-Summary.doc>.

¹⁴ See <<http://www.secureav.com/Comment-AMCC-Title.pdf>>.

¹⁵ See <<http://www.secureav.com/newdevelopments.html>> (highlighting many diverse implementations in diverse factor-forms, of the Code of Conduct).

¹⁶ See <www.secureav.com/Ack.pdf>.

¹⁷ The PEB includes: Michael S. Baum, JD, MBA; Ric Peri, VP AEA; Michael Radomsky, CFII; Bill Rhodes, Ph.D.; Rusty Sachs, JD, DhE, MCFI; Josh Smith, CFII; Don Steinman, ATP, CFII; and Thomas P. Turner, ATP, MCFI. See www.secureav.com/PEB.pdf (further introducing the PEB). The underlying agreement for the PEB is available at http://www.secureav.com/PEB_agreement.pdf (describing PEB roles and responsibilities with respect to the Code of Conduct).

¹⁸ See Eurocontrol/FAA Action Plan 15 Safety, "Safety Culture in Air Traffic Management, A White Paper" (2008), available at [http://www.eurocontrol.int/safety/gallery/content/public/library/Safety%20Culture/Safety ATM WhitePaper final%20low.pdf](http://www.eurocontrol.int/safety/gallery/content/public/library/Safety%20Culture/Safety_ATM_WhitePaper_fina%20low.pdf). (*Safety Culture* "is the product of individual and group values, attitudes, competencies and patterns of behaviour that determine commitment to, and the style and proficiency of, an organisation's health and safety management." Advisory Committee for Safety on Nuclear Installations (HSC, 1993, p. 23)).

¹⁹ THE FIMCC may also contribute to a single pilot SMS. It is recognized that a SMS "should not be any more complex than the rest of the organization's operation or management processes," Transport Canada, *Let's be practical*, TP 14135 - *Safety Management Systems for Small Aviation Operations - A Practical Guide to Implementation* (Nov. 9, 2004), available at <http://www.tc.gc.ca/civilaviation/general/Flttrain/SMS/TP14135-1/section5.htm>. The FIMCC can provide a viable format for single pilot and similar, basic operations. It emphasizes core SMS principles of safety risk management, internal evaluation, and self-audit, provides safety promotion as a core value, and embraces important SMS attributes including a philosophy of *responsible free-agency*, high-level principles underpinning a safety policy, and *procedures and practices*: via SRPs. See <http://www.secureav.com/Comment-AMCC-I.a-General-Responsibilities.pdf> (addressing SMS and the Codes of Conduct).

²⁰ Student focus, however, should be on the Student Pilots Model Code of Conduct (SPMCC) or the Aviators Model Code of Conduct (AMCC), not the FIMCC. The FIMCC should assist flight and ground instructors in teaching the SPMCC and AMCC.

²¹ See generally Muriel J. Bebeau and Verna E. Monson, Univ. of Minn., *Guided by Theory, Grounded in Evidence: A Way Forward for Professional Ethics Education*, in HANDBOOK FOR MORAL AND CHARACTER EDUCATION, pp. 557-582 (Larry P. Nucci & Darcia Narvaez, Eds.) (2008), available at <http://www.routledge.com/books/details/9780805859614/>.

²² Future work has been suggested by members of the aviation community, including further development of teaching tools to support code of conduct use and education, an enhanced focus on professionalism within each of the codes, support for single pilot operations within a Safety Management System (SMS), a survey of use and benefits/limitations of the codes, and possible collaboration on the assessment of code of conduct effectiveness.

²³ FAA Administrator Randy Babbitt, Speech (Nov. 5, 2009), available at <http://atwonline.com/international-aviation-regulation/news/babbitt-calls-northwest-overfly-incident-example-pilot-profes> > (there is an "extreme need to refocus on professionalism..."); Randy Babbitt, Address at the ALPA Air Safety Forum (Aug. 5, 2009), available at http://www.faa.gov/news/speeches/news_story.cfm?newsId=10680 > ("We cannot regulate professionalism... and it still comes down to us — and by us, I mean every pilot.").



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Dear Flight Instructor:

This letter introduces the **Flight Instructors Model Code of Conduct (FIMCC)**. Developed by a team of aviation professionals and drawing upon decades of research and experience, the Code recommends operating practices to improve the quality of your instruction and the safety of your operation.

Flight instructors serve as role models for the entire aviation community. The FIMCC can be a valuable tool for flight instructors at all levels—light sport or instrument, large flight schools or independent operators. Your fellow pilots look to you as an expert; the manner in which you teach and the example you set impact the safety culture of aviation.

A professional code can help you achieve new levels of proficiency. The FIMCC is just such a tool, a set of guidelines that is adaptable to your needs. It can build and enhance not only the perception, but the reality of the instructor-student relationship as that of respected professional and client. We encourage you to adopt it.

The FIMCC was developed as a volunteer effort and is provided without charge as a public service. The Code and supporting materials can be found online at secureav.com.

**

VERSION 1.0

FLIGHT INSTRUCTORS MODEL CODE OF CONDUCT

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**Tools to Advance Flight
and Ground Instructor
Safety and Professionalism**

**Provided to the Aviation Instructor
Community by:**



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INTRODUCTION

The FLIGHT INSTRUCTORS MODEL CODE OF CONDUCT (Code of Conduct) offers recommendations to advance safety and professionalism in both ground and flight instruction. The Code of Conduct presents a vision of excellence for flight and ground instructors. Its principles complement and underscore legal requirements.

The Code of Conduct is a [model](#), not a standard. Users should customize or otherwise revise the document—including [title](#), [length](#), and [organization](#)—to fit their needs. See “Additional Resources” (below) for materials to help facilitate such customization.

The Code of Conduct will be most effective if users have a firm grasp of the fundamentals of flight as well as a commitment to achieving professionalism as educators. It is intended to assist in teaching the core principles that help aviators build a foundation of flight safety, proficiency, and wisdom.

The Code of Conduct has seven sections, each presenting Principles and Sample Recommended Practices.

The Sections:

- I. GENERAL RESPONSIBILITIES OF INSTRUCTORS
- II. STUDENTS, PASSENGERS, AND PEOPLE ON THE SURFACE
- III. TRAINING AND PROFICIENCY
- IV. SECURITY
- V. ENVIRONMENTAL ISSUES
- VI. USE OF TECHNOLOGY
- VII. ADVANCEMENT AND PROMOTION OF AVIATION INSTRUCTION

The Sample Recommended Practices:

Sample Recommended Practices are suggestions for applying the principles of the Code of Conduct and tailoring them to individual instructors and organizations. ***Sample Recommended Practices may be reordered, modified or eliminated to satisfy the unique capabilities and requirements of each instructor, mission, aircraft, organization, and flight environment.*** Some Sample Recommended Practices exceed the provisions of the associated Code of Conduct principles. They are not presented in any order of importance, except that instrument flight rule (IFR)-specific Sample Recommended Practices generally appear last.

The Commentary:

Commentary on selected provisions of the Code of Conduct is published at <www.secureav.com>. The Commentary provides discussion, interpretive guidance, and suggested ways to adopt the Code of Conduct. Published commentary on any provision does not imply greater importance of that provision. Additional provisions will be added as the Commentary evolves.

Benefits of the Code of Conduct:

The Code of Conduct benefits instructors and the aviation community by:

- ❑ highlighting practices to support professionalism and safety among instructors,
- ❑ promoting improved pilot training, airmanship, conduct, personal responsibility, and instructor contributions to the aviation community and society at large,
- ❑ encouraging the development and adoption of good judgment and ethical behavior,
- ❑ advancing self-regulation through the aviation community as an alternative to government regulation,
- ❑ supporting improved communications between instructors, students, regulators, and others in the aviation industry, and
- ❑ promoting recognition of instruction as a highly respected and rewarding profession.

To achieve these benefits, instructors should embrace the precepts of the Code of Conduct and promote them to their students.

Note: References to the United States Federal Aviation Administration (FAA) are used as examples. In all jurisdictions, applicable laws and regulations must be followed.

**

FLIGHT INSTRUCTORS MODEL CODE OF CONDUCT

PRINCIPLES AND RECOMMENDED PRACTICES

I. GENERAL RESPONSIBILITIES OF INSTRUCTORS

Instructors should:

- a. make safety a high priority,**
- b. seek excellence in airmanship,**
- c. develop, exercise, and teach good judgment, and aeronautical decision-making,**
- d. recognize and manage risks effectively, and teach sound principles of risk management,**
- e. demonstrate and teach situational awareness, prudent operating practices and personal operating parameters (e.g., minimums),**
- f. aspire to professionalism,**
- g. act with responsibility and courtesy, and**
- h. adhere to applicable laws and regulations.**

Explanation: These General Responsibilities serve as a preamble to the Code of Conduct's other principles. They emphasize safety, excellence, risk management, and responsibility.

Sample Recommended Practices:

- ❑ Approach flight instruction with seriousness and diligence, recognizing that your life and the lives of your students, their passengers, and others depend on you.
- ❑ Recognize that instructor conduct reflects upon the entire aviation community.
- ❑ Understand and comply with the privileges and limitations of your certificates, licenses, and additional ratings, and ensure any endorsements are correct and current. Consider a training plan that will yield new certificates, licenses, ratings, and endorsements.
- ❑ In addition to instructor certificate renewal, complete an instrument proficiency check (IPC) or the equivalent every six months.
- ❑ Teach situational awareness based on sound principles of airmanship, scenario-based instruction, and risk management.

- ❑ Recognize, accept, and plan for costs of implementing proper safety practices.
- ❑ Within the scope of your education, training, and authority apply a Safety Management Systems (SMS) approach to safety considering equipment, facilities, environment, mission, organization, and human factors.
- ❑ Review flight instructor methods and techniques with a trusted flight instructor-mentor during flight reviews or more frequently.
- ❑ Develop and teach Crew Resource Management (CRM), and Single Pilot Resource Management (SRM) techniques.
- ❑ Teach the increased risks associated with flying at low altitude, in inclement weather, at night, in congested areas, over water, and over rugged, mountainous or forested terrain.
- ❑ Never subject others to risks you would not prudently take, plan your lessons accordingly, and communicate your reasoning.
- ❑ Develop, use, periodically review, and refine personal checklists and personal minimums for all phases of flight and instruction. Review these materials regularly with an experienced instructor or other trusted mentor.
- ❑ See and be seen. Demonstrate techniques for seeing and avoiding other aircraft. Do not practice maneuvers in congested airspace. Enhance your visibility through appropriate use of lights and strobes.
- ❑ Listen and be heard. Monitor appropriate frequencies to remain aware of other aircraft, and accurately inform other pilots of your position and intentions.
- ❑ Monitor and report. Address safety and compliance issues.
- ❑ Teach and maintain a sterile cockpit for taxi, takeoff, landing, and other critical phases of flight.
- ❑ Minimize turns and maneuvers below 500 feet AGL except as required during takeoff and landing.
- ❑ Never allow simulated emergencies to become actual emergencies.
- ❑ File a flight plan or communicate your intended flight itinerary/lesson to ground personnel prior to departure, even when flying locally.
- ❑ Be aware of personal susceptibility to (and seek to avoid or manage) distraction, fatigue, stress, and hazardous attitudes.

- ❑ Make personal wellness and an honest evaluation of your and your student’s mental and physical fitness a precondition of each flight—for example, by using the *I’M SAFE* (Illness, Medication, Stress, Alcohol, Fatigue, Emotion) checklist.
- ❑ Recognize that poor personal hygiene may diminish an instructor’s effectiveness and professionalism.
- ❑ Establish conservative personal parameters for the use of supplemental oxygen, and an awareness of your personal susceptibility to hypoxia. Consider use of a pulse oximeter. Use supplemental oxygen on flights when it may be beneficial.
- ❑ Demonstrate adherence to applicable rules and operating practices of your airport, flying club or school, FBO, flight center, or aircraft rental provider.
- ❑ Teach airworthiness and maintenance responsibilities and limitations for both owners and renters. Stress owner/operator compliance with Airworthiness Directives (ADs) and the benefits of complying with recommended inspections and Service Bulletins (SBs).
- ❑ Teach students to operate rental aircraft as if they owned them, and to communicate all discrepancies effectively and promptly.
- ❑ Refuse to use an aircraft that has unsafe maintenance write-ups or is otherwise not airworthy.
- ❑ Return aircraft in an equal or better state of cleanliness than received.
- ❑ Encourage students to develop conservative personal operating parameters reflecting their experience, proficiency, and currency in challenging conditions, including poor weather and night operations.
- ❑ Avoid sexual relationships with your students and sexual harassment in your workplace.

**

II. STUDENTS, PASSENGERS, AND PEOPLE ON THE SURFACE

Instructors should:

- a. **maintain student and passenger safety first, and then reasonable student and passenger comfort,**
- b. **manage risk and avoid unnecessary risk to students, passengers, people and property on the surface, and people in other aircraft,**
- c. **brief and debrief students on planned flight lessons and inform them of any significant or unusual risk associated with the flight,**
- d. **seek to prevent unsafe conduct by students and passengers, and**
- e. **avoid operations that may alarm, disturb, or endanger students, passengers or people on the surface.**

Explanation: Instructors are responsible for the safety, comfort, and progress of their students. Students and passengers place their lives in flight instructors’ hands, and flight instructors should exercise sufficient care on their behalf. Such care includes, but is not limited to, disclosing unusual risks and exercising prudent risk management. Instructor responsibility also extends to passengers, people on the ground, and in other aircraft.

Sample Recommended Practices:

- ❑ Set the highest examples of professionalism as a pilot and instructor.
- ❑ Teach students to improve safety margins by planning and flying conservatively.
- ❑ Tactfully disclose risks to students and address their concerns or anxieties regarding operations or maneuvers.
- ❑ Teach and conduct a passenger safety briefing for every flight (see Additional Resources below).
- ❑ Remember that student safety begins in the preflight briefing and on the ramp before entering the aircraft. Monitor students closely and keep them clear of ground-based hazards (e.g., fuel trucks, propellers, engine thrust/blast, tools, slippery surfaces).

- ❑ Be aware of a student’s attention span, workload, and level of fatigue, and tailor instruction accordingly.
- ❑ Determine the experience, background, and concerns of your students. Incorporate this knowledge into your lessons.
- ❑ Offer mentoring to students after completion of training.
- ❑ Teach safety considerations for refueling aircraft with and without passengers onboard, as appropriate.
- ❑ Obtain flight instructor insurance coverage, and make sure that your students are also insured. Comply with all policy provisions.

**

III. TRAINING AND PROFICIENCY

Instructors should:

- a. **participate in regular recurrent training to maintain and improve instructor proficiency beyond legal requirements,**
- b. **participate in flight safety education programs,**
- c. **remain vigilant and avoid complacency,**
- d. **train to recognize and deal effectively with emergencies,**
- e. **plan every lesson carefully,**
- f. **follow a training syllabus and ensure students are progressing, and**
- g. **maintain an accurate log to satisfy training, currency requirements, endorsements given, and maneuvers practiced, for both instructor and student.**

Explanation: Training and proficiency underlie aviation safety for both instructor and student. Recurrent training is a primary component of proficiency and should include both air and ground training. Each contributes significantly to flight safety and neither can substitute for the other. Training to promote flight safety must often exceed legal requirements.

Sample Recommended Practices:

- ❑ Develop and follow a training regimen that incorporates the assessment of student progress and ensures the assessment is communicated to the student and includes the student’s input.
- ❑ Pursue a rigorous, lifelong course of aviation study. Become familiar with theories of effective teaching and training.
- ❑ Consider the pursuit of advanced teaching credentials and professional certifications.
- ❑ Embrace and accommodate varying student learning styles. Seek feedback from students and refine your teaching accordingly.
- ❑ Teach appropriate use of the aircraft flight manual.
- ❑ Teach students to understand and appreciate their roles and responsibilities as pilot in

- command, including declaring an emergency when appropriate.
- ❑ Help student develop decision-making and risk-management skills at all levels of training. Integrate stick-and-rudder and scenario-based training.
 - ❑ Expand your instruction to include challenging environments such as water, remote, desert, or mountainous terrain, emphasizing effective risk management.
 - ❑ Train for survival, and carry adequate survival equipment, apparel, and drinking water.
 - ❑ Understand and teach the unique risks and need for vigilance in taxi and runway operations.
 - ❑ Develop and teach a practical understanding of the mechanics and systems of each aircraft you fly.
 - ❑ Achieve and maintain proficiency in the operation of avionics and automation. Instruct your students to do the same.
 - ❑ Understand, teach, and use appropriate procedures in the event of system malfunctions (e.g., electrical failure, lost communications, and instrument problems).
 - ❑ Obtain adequate training before instructing in an unfamiliar aircraft, or with unfamiliar systems, even if you have flown that type in the past.
 - ❑ Join type clubs or support organizations for your training aircraft to learn more about their safe operation, including capabilities and limitations.
 - ❑ Learn, review, and teach current aviation regulations and understand their implications and rationale.
 - ❑ Stay current with diverse and relevant aviation publications.
 - ❑ Develop and teach a systematic approach to obtaining timely weather briefings and evaluating flight conditions.
 - ❑ Incorporate a periodic review of recent accidents and incidents, including local trends, into your training regime, focusing on probable causes.
 - ❑ Teach and demonstrate mastery of applicable written and flight test standards, and train to exceed applicable test minimums. Maintain currency that exceeds minimum regulatory requirements and professional standards.
 - ❑ Teach and demonstrate mastery of airspace categories and classes, their limitations, and methods to prevent inadvertent pilot deviations.
 - ❑ Avoid practicing training maneuvers in busy airspace or over congested areas.
 - ❑ Fly often enough to maintain proficiency and currency in day, night, VFR, and IFR conditions.
 - ❑ Maintain a log to track errors and lessons learned on each flight. Teach your students to do the same.
 - ❑ Advise students of estimated cost and time, obtain their express consent to such fees and time prior to commencing instruction, and seek effective teaching solutions consistent with regulations and safety. Advise students if actual costs vary from the estimate, and obtain approval before proceeding.

**

IV. SECURITY

Instructors should:

- a. seek to maintain the security of all persons and property associated with their aviation activities,
- b. remain vigilant and immediately report suspicious, reckless, or illegal activities,
- c. become familiar with the latest security regulations, and
- d. avoid special-use airspace except when approved or necessary in an emergency.

Explanation: Enhanced security awareness is essential to the safety and viability of the aviation community. Threats to security demand responsive action. This Section addresses the instructor's role in promoting national security and preventing criminal acts.

Sample Recommended Practices:

- ❑ Teach students to check NOTAMS thoroughly during preflight preparation, and obtain updates during long flights, with emphasis on NOTAMS for airspace restrictions.
- ❑ Periodically review military intercept procedures. Monitor 121.5 MHz when practicable.
- ❑ Always use a transponder with altitude encoding if equipped and operable unless otherwise authorized or directed by ATC.
- ❑ Report suspicious behavior and other security concerns to the appropriate authorities.
- ❑ Do not deviate from an active flight plan (IFR or VFR) or clearance without notifying the appropriate air traffic facility.
- ❑ To help avoid special use airspace, use ATC radar advisories when conducting VFR training flights, or consider flying IFR (if rated and equipped), whenever practicable.
- ❑ Secure all unattended aircraft. Use additional or enhanced locks or other anti-theft mechanisms to secure all aircraft, as appropriate.
- ❑ Teach students to query passengers regarding hazardous materials and weapons in their luggage or on their person.

- ❑ Confirm that ramp access gates are closed securely behind you to prevent "tailgating" by unauthorized persons.
- ❑ Teach students to challenge and report irregularities, including unauthorized or suspicious people.
- ❑ Become familiar with the means to report and deter suspicious activities, such as AOPA's *Airport Watch* (866-GA-SECURE / 866-427-3287).
- ❑ Complete required security training.

**

V. ENVIRONMENTAL ISSUES

Instructors should:

- a. teach and seek to mitigate the environmental impact of aircraft operations,**
- b. minimize the discharge of fuel, oil, and other chemicals into the environment during refueling, preflight preparations, ground servicing, and flight operations,**
- c. respect and protect environmentally sensitive areas, and set such examples for students,**
- d. comply with and teach applicable noise-abatement procedures and mitigate aircraft noise near noise-sensitive areas, and**
- e. review and adhere to prudent hazardous materials handling procedures.**

Explanation: Environmental issues can close airports, hamper operations, and increase regulatory burdens. Reducing pollution caused by aviation will reduce health problems, environment impact, and unfavorable public perceptions.

Sample Recommended Practices:

- ❑ Adopt and teach environmentally sound and legally compliant procedures for fuel sampling, defueling, and disposing of fuel samples.
- ❑ Learn, adopt, and teach environmentally sound and compliant methods for all aspects of aircraft care, especially degreasing, de-icing, and handling run-off.
- ❑ Adhere to applicable noise abatement procedures provided safety is maintained.
- ❑ Be aware of the noise signature of your aircraft, and follow procedures to reduce noise such as reducing engine power and/or propeller RPM, as soon as practicable after takeoff.
- ❑ If practicable, fly well above or avoid noise-sensitive areas.
- ❑ Teach owners/operators the benefits of installing noise-reducing equipment such as quieter props and exhaust systems, if practicable.
- ❑ Consider the impact of aircraft on wildlife, and conform to recommended practices (such as National Park Service minimum altitudes) when

flying near wilderness and other environmentally sensitive areas.

- ❑ Patronize service providers (such as FBOs, repair services, and aircraft cleaners) that adhere to environmentally friendly practices.

**

VI. USE OF TECHNOLOGY

Instructors should:

- a. **become familiar with, properly use, and teach appropriate technologies,**
- b. **teach students to monitor applicable airport advisory frequencies and report position accurately when approaching airports without an operating control tower and other higher-risk areas, if radio-equipped,**
- c. **use transponders or other position-indicating technologies during training flights, if available or otherwise directed by ATC, and use ATC radar advisories for VFR enroute operations,**
- d. **carry redundant transceivers and navigational equipment and use them in appropriate circumstances, and**
- e. **use flight simulators and training devices as available and appropriate.**

Explanation: Innovative, compact, and inexpensive technologies have greatly expanded the capabilities of aircraft. This Section encourages the use and promotion of such safety-enhancing technologies.

Sample Recommended Practices:

- ❑ When practicable, invest in new technologies that advance flight safety and aviation education. Learn and understand the features and limitations of such technologies and teach their proper use.
- ❑ Consider keeping back-up and redundant communication/navigation devices accessible during flight operations, including extra batteries or a back-up power supply. Consider use of a personal locator beacon.
- ❑ Inspect and maintain avionics and flight instruments to keep them operational, current, and approved for the intended flight.
- ❑ Report inoperative navigation aids and areas of poor radio coverage to the appropriate authority.
- ❑ Teach proper management of autoflight systems. Demonstrate that programming avionics may cause distractions, and that distractions may lead to errors, particularly during taxi and other critical phases of flight.

- ❑ Teach basic flying and navigating skills to enhance safety in the event of failure or absence of advanced instrument displays or automation. Teach realistic scenarios for recovery from instrument failure in IMC.
- ❑ Teach students to avoid flying in or near moderate or higher weather radar returns, especially when thunderstorms are present or forecast. Seek frequent ATC or AFSS weather updates.
- ❑ Train students to operate with an autopilot or a qualified second pilot if practicable when flying in IMC and/or at night.
- ❑ Train students to operate with attitude-indicator (AI) system redundancy if practicable, and maintain partial-panel proficiency in IMC.
- ❑ Consider the use of flight tracking or flight data monitoring technologies.
- ❑ Use flight simulators, training devices, or web-based tools as appropriate, even when their use precludes in-flight instruction.

**

VII. ADVANCEMENT AND PROMOTION OF AVIATION INSTRUCTION

Instructors should:

- a. advance and promote aviation safety and adherence to the Code of Conduct,**
- b. volunteer in and contribute to organizations that promote aviation and airports, and should use their skills to contribute to society at large—and encourage their students to do so too,**
- c. demonstrate appreciation for other aviation professionals and service providers,**
- d. advance a training culture that values openness, humility, integrity, positive attitudes, and the pursuit of personal improvement,**
- e. promote ethical behavior within the aviation community, and**
- f. mentor new and future instructors.**

Explanation: Vigilance and positive responsive action are essential to ensure industry vitality and to enhance the aviation instruction community.

Sample Recommended Practices:

- ❑ Strive to adopt the Code of Conduct.
- ❑ Serve as an *aviation ambassador* to your students and to the public by providing accurate information and refuting misinformation concerning aviation activities, and by encouraging potential student pilots.
- ❑ Contribute articles or papers to aviation journals or other media.
- ❑ Join and participate in a professional organization of instructors.
- ❑ Attend and contribute to training programs offered by government or industry, for example, the FAA Pilot Proficiency Program (“WINGS”).
- ❑ Register at <www.faa.gov> to receive announcements of safety meetings, literature, and to review appropriate safety courses. Encourage your students to do so too.
- ❑ Volunteer in support of the aviation industry such as with youth groups and “career days” to share your flight instruction expertise and enthusiasm and recruit new students.

- ❑ Make charitable use of your aviation resources (for example, by transporting persons seeking medical care or donating flight time to youth and environmental programs).
- ❑ Participate in aviation-related fundraising events.
- ❑ Consider instructing for Civil Air Patrol or Coast Guard Auxiliary as a way to increase overall instructional experience while also giving back to the community.
- ❑ Express appreciation to controllers and service personnel for their valuable assistance.
- ❑ Invite constructive criticism from your fellow aviators and instructors, and provide the same when asked.
- ❑ Adhere to the highest ethical principles in all aviation dealings, including business practices.
- ❑ Seek to resolve disputes quickly and informally.

**

ADDITIONAL RESOURCES

- ❑ A one-page summary of the Code of Conduct’s provisions is available at www.secureav.com/FIMCC-Summary.doc.
- ❑ *Notes for Instructors* assists in teaching the Code of Conduct. Available at www.secureav.com/Notes-for-Instructors.pdf.
- ❑ *Notes for Prospective Implementers* helps facilitate Code of Conduct implementation. Available at www.secureav.com/Notes-for-Implementers.pdf.
- ❑ Resources to help *[insert your organization here]* advance instructor skills and promote flight safety are available at [www.\[your organization\].org](http://www.[your organization].org).
- ❑ Annotated *Commentary* helps interpret the Code of Conduct and provides source materials. Available at www.secureav.com.
- ❑ Resources to help develop and teach passenger briefings are available at <http://www.secureav.com/Passenger-Briefing-Listings-Page.html>.
- ❑ Further information about aviation instruction is available at:
 - FAA:** www.faa.gov;
 - www.faasafety.gov
 - AOPA:** www.aopa.org
 - EAA:** www.eaa.org
 - NAFI:** www.nafinet.org
 - SAFE:** www.safepilots.org
- ❑ The AVIATION MAINTENANCE TECHNICIANS MODEL CODE OF CONDUCT, the AVIATORS MODEL CODE OF CONDUCT, the FLIGHT INSTRUCTORS MODEL CODE OF CONDUCT, the GLIDER AVIATORS MODEL CODE OF CONDUCT, the LIGHT SPORT AVIATORS MODEL CODE OF CONDUCT, the SEAPLANE PILOTS MODEL CODE OF CONDUCT, and the STUDENT PILOTS MODEL CODE OF CONDUCT are available at www.secureav.com.

ABBREVIATIONS

AD	Airworthiness Directives
AFSS	Automated Flight Service Station
AGL	Above Ground Level
ATC	Air Traffic Control
CRM	Crew Resource Management
FAA	Federal Aviation Administration
FBO	Fixed Base Operator
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IMC	Instrument Meteorological Conditions
IPC	Instrument Proficiency Check
MSL	Mean Sea Level
SB	Service Bulletin
SMS	Safety Management Systems
SRM	Single Pilot Resource Management
VFR	Visual Flight Rules
VMC	Visual Meteorological Conditions

NOTICE

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Pilots and the aviation community may use the Code of Conduct as a resource for code of conduct development, although it is recommended that this be supported by independent research on the suitability of its principles for specific or local applications and situations. It is not intended to provide legal advice and must not be relied upon as such.

EDITS, ERRATA, COMMENTS

The FLIGHT INSTRUCTORS MODEL CODE OF CONDUCT is a living document, intended to be updated periodically to reflect changes in aviation instruction practices and the aviation environment. Please send your suggestions, edits, errata, questions, and comments to: PEB@secureav.com.

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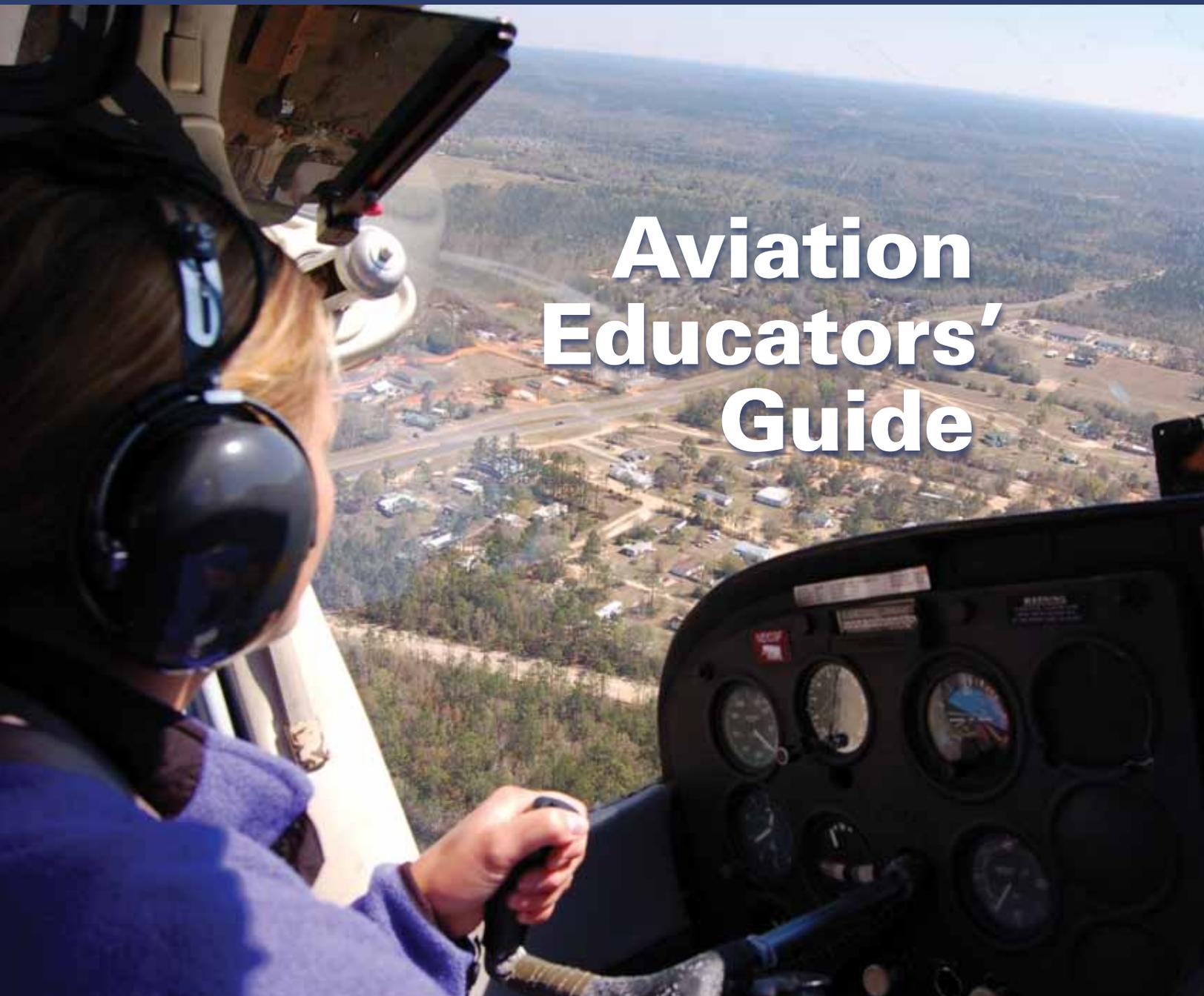
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FAA Safety

BRIEFING

September/October 2012

Your source for general aviation news and information



Aviation Educators' Guide



Federal Aviation
Administration

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The Sep/Oct 2012 issue of FAA Safety Briefing explores the critical role of the aviation educator. Articles focus on flight instructor requirements and best practices as well as the many tools and educational resources that can help sharpen your teaching skills.



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DOUG STEWART

So You Flight Want to Be a Instructor?

Photo by Raymond G. Stinchcomb

How would you respond to a help wanted advertisement that stated, in part: "... applicant must be very responsible and of the highest integrity; must have effective communication skills; must be capable of human, mechanical, technical and meteorological analysis; must be adept in managing risk; a continuing education program is mandated; proficiency in working in cramped spaces is required? Work hours can be long. No guarantee of a climate-controlled work environment. Pay commensurate with experience. Benefits include: high respect from your clients; a lofty perch from which to view the world; travel to exciting places; and the knowledge that your job is the most important job of all those available in this field of endeavor."

Sound good? Well, I have just such a job. I am a full-time flight instructor. True, there are more lucrative ways of earning a living in aviation, but I assert that there is no other aviation endeavor that is as rewarding and satisfying as sharing the gift of flight by teaching others to be safe, knowledgeable, and proficient pilots. And those flight instructors who teach primary flight students undoubtedly play the most important role of anyone in aviation.

The reason that the primary flight instructor has this most critical position is because of the immutable law of primacy — the things we learn first are the things we retain — and also the hardest things to change. To this day, I remember my first flight lesson. It was pretty much a “kick the tires, light the fires” kind of experience, certainly not a great way to lay the first stones of the foundation. And even to this day, after many thousands of hours of flying, I have to consciously overcome some of the bad habits I acquired on that first flight. That’s why the primary flight instructor has the most important job of anyone in aviation, bar none.

Do You Have the Right Stuff?

With this point in mind, what qualities and attributes should be instilled, developed, nurtured, and embraced by those who teach flight, especially by those who will be teaching primary flight students? Here’s my list.

Responsibility is at the very top of the list. The flight instructor is the single most important element in creating safe pilots. The flight instructor bears responsibility for ensuring that clients embrace not only solid stick-and-rudder concepts and skills, but just as importantly the elements of risk management critical to being safe pilots. The flight instructor is the person who sets the stage for the rest of the entire flight career of each primary flight student.

That’s why the most important thing we need to instill in the minds, hearts, and souls of flight instructors is to ensure that they not only understand the critical responsibility they are being entrusted with, but also to make certain that they buy into that responsibility. They need to understand that even if they are only going to use the flight instructor certificate as a means of building hours so that they can move on to air carrier flying, they still have an immense responsibility during every hour logged in the right seat of a training airplane. It is no exaggeration to say that these hours matter enormously not only to their clients, but also to the future of general aviation.

Respect is next on my list, and it has three parts. First is respect for the responsibility that they have been entrusted with. Second is respect for their clients. Third is respect for themselves as instructors.

Respect for our responsibility is somewhat self-explanatory, but also addressed above as the first item on my list. Respect for clients includes a number of professional attitudes and behaviors, starting with the concept that we will always have a syllabus, lesson plan, or curriculum and that we ensure our clients are aware of it. We show respect by being punctual. We show it by communicating not in aviation jargon, but in language they can understand as novices.

Most beginning flight students don’t understand aviation-speak and, though they will learn it as they progress, respect means meeting them where they are when they arrive. Another important way to show respect is to adjust our teaching style to the way they best learn.

Another immutable rule — the rule of karma — comes into play regarding respect. As the saying goes, what goes around, comes around. If respect is shown for the responsibility one holds as a flight instructor, and if respect is shown to clients, it will come back one thousand fold to those who show it. You will quickly realize that being a flight instructor is a vocation that you can, and should be exceedingly proud to practice.

The flight instructor is the single most important element in creating safe pilots.



Photo by H. Dean Chamberlain

Integrity follows in the list of qualities crucial to being a flight instructor with the right stuff. It is integrity that dictates being honest when answering questions. That includes admitting when we don't know the answer, but promising to do research before the next meeting and deliver the answer then, without fail. It is integrity that dictates declining to provide training in aircraft or avionics unfamiliar to you. It is integrity that mandates a flight review be a genuine review, and not just a short hop to a nearby airport for lunch and back. It is integrity that drives a "do as I do" mentality, understanding that the flight instructor is a role model for the primary flight student, and that every observed action will most likely be modeled by the client.

And it is integrity that mandates a high level of situational awareness. This means that the instructor is not only aware of the client's wants and needs, but is constantly aware of, and diligent in managing, the risks of flight. An instructor who is truly effective in this area is teaching the elements of risk management (at a level that the client can understand) right from the very first lesson.

Communication is another quality integral to being a proficient aviation educator. Understanding that communication is a sharing of information — a two-way endeavor and not just a one-sided lecture — is vital to success both for instructor and client. You need to have (or develop) the knowledge and

skills to communicate in a variety of fashions, including non-verbal, and to recognize that effective

communication can be highly dependent upon the situation at hand. A good educator must be able to teach with regard to the myriad learning styles, preferences, and experiences that clients bring to the table. A flight instructor must also learn that proactive communication is essential, as is the ability to deliver critical messages in a way that does not demean, demoralize, or demotivate.

Continuing Education is another item on my list of "right stuff" qualities for the aviation educator. It very quickly becomes evident to anyone who starts to teach that the true learning only begins once the teaching starts... *and it never ends*. After providing more than 10,300 hours of flight instruction, I can truly say that part of the excitement of my job is that I can look forward to learning more on virtually each and every encounter with a client. It is critically

important that the concept of continuing education be instilled not only in the neophyte instructor, but even more importantly in the earliest hours of a student pilot's engagement with aviation. The aviation educator must inculcate the mentality and instill the habit of continuing education into every client, leading them to understand that training doesn't end at the conclusion of regulatory minimum requirements. Rather, lifelong learning is a core part of being a pilot. If we succeed in this area, then we will have gone an immeasurable way toward reducing the GA accident rate.

Mentoring is an important element of continuing education. How nice (and how beneficial) it would be if every beginning flight instructor had a mentor to consult for advice and counseling. It is interesting and noteworthy (but not in a good way) that the United States is one of the few countries, if not the only country, where a low-time CFI is granted the authority to recommend a pilot for a certificate or rating. Most other countries mandate an apprentice period for low-time instructors, much as air carriers do for new hires and new captains, as a way of ensuring that continuing education occurs and develops experience. I strongly believe it would be advantageous if we in the United States voluntarily adopted this mentality.

It's Worth It

So, you'd like to be a flight instructor? Yes, it can be daunting. Yes, it requires high levels of responsibility, respect, integrity, communication and continuing education. Yes, it means that you will be working in environments that at times are less than conducive to teaching/learning. But it also means that you will be fulfilling one of the most critical roles in aviation — that of creating safe pilots. It means that you will be gaining the respect and friendship of those you teach. It means that you will be part and parcel of the sustenance of aviation as we know it. And if you are doing it right, it means that at the end of the day you will have a marvelous sense of satisfaction in knowing that your job is the most important of all those to be had in aviation! 

Doug Stewart is the 2004 National CFI of the Year, a Master CFI and a DPE. He operates DSFI, Inc. (www.dsflight.com) based at the Columbia County Airport (K1B1), and he serves as Executive Director of the Society for Aviation and Flight Educators (SAFE).

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