NOTES FOR INSTRUCTORS

Teaching the Aviators Model Code of Conduct

I. Introduction

Most experienced aviators agree that a pilot certificate is a license to learn, the beginning, rather than the end, of a process. But how can flight instructors inspire their students to embrace this concept, and to aspire toward personal improvement and good general aviation (GA) citizenship? Unfortunately, the ideals of airmanship are rarely addressed in GA curricula. The *Aviators Model Code of Conduct* (Code of Conduct) introduces these ideals and aspirations, and these *Notes for Instructors* provide techniques for presenting them to flight students.

The Code of Conduct is intended to inspire excellence, not to establish standards. Many of its sample recommended practices go beyond the FARs into the realm of expertise and character. As such, they can serve as discussion points for ideals and attitudes that should permeate all flying.[1]

Teaching the Code of Conduct benefits flight training by:
  ➢ enhancing the instructor's expertise and effectiveness
  ➢ highlighting important practices that make pilots better and safer aviators
  ➢ promoting appropriate pilot conduct, personal responsibility, and pilot contributions to the GA community and society at large
  ➢ encouraging professionalism
  ➢ advancing self-regulation through the GA community as an alternative to government regulation
  ➢ promoting GA, and
  ➢ making flight training a more rewarding experience.

II. Purpose and Scope

These *Notes for Instructors* provide tools for introducing trainees to the Code of Conduct, to the concept of aviation citizenship, and to attitudes that can support a lifelong commitment to good flying judgment. The Code of Conduct generally mirrors the FAR, AIM, and recognized flight safety practices, but these Notes are neither a curriculum nor a syllabus. They are guidelines for integrating the Code of Conduct into a curriculum or syllabus.[2]

III. Audience

➢ **Instructors** – Flight instructors and flight schools are the primary audience for *Notes for Instructors* because of their responsibility for training and instilling an ethic of safety, responsibility, and excellence.[3]

➢ **Mentors –** Mentors can contribute to the advancement and credibility of the Code of Conduct. Mentoring helps less-experienced pilots to mature, and can facilitate the transition to higher-performance and technically advanced aircraft,[4] such as through the FAA/Industry Training Standards (FITS)[5] initiative. The value of mentors includes "objective, unvarnished advice"[6] based upon their experience and demonstrated success, and is described as "the cornerstone of the National Association of Flight Instructors."[7]

➢ **Pilots –** Pilots should understand that they are responsible for their own continued learning, proficiency, safety, and good aviation citizenship. The Code of Conduct encourages all pilots to participate in developing their own training and sense of responsibilities. In this spirit, pilots should encourage their instructors to integrate the Code of Conduct into their training regime, including flight reviews, proficiency training, and training for new ratings.

IV. Teaching Methods

There is no exclusive method for teaching the Code of Conduct effectively. Instructors should experiment and choose styles that complement their particular strengths and the specific needs of each student. *Notes for Instructors* identifies a range of relevant teaching approaches to match the varied experience levels within the flight training community. No particular experience level or background is needed other than a "genuine concern for the . . . student's development of ethical sensitivity and reason."[8]

The following teaching techniques may be appropriate – in whole or in part – at the discretion of the instructor. They are not presented in any particular order.

➢ **Scenarios –** Scenario-based training cultivates pilot decision-making skills in a learning environment that encourages active participation, and fosters a *thinking,* rather than mere mechanical (maneuvers-based) *doing,* approach. Emphasis is on integration of all sources of information pertinent to the flight and continual assessment of the progress and outcome of the mission. "The most meaningful learning occurs when using *real world* scenarios tailored to the student's experience – not 'canned' scenarios. Ask students how the Code of Conduct would help address problems encountered in actual flights – during both pre-flight and post-flight briefings."[9]

➢ **Customization –** Tailor training to the student's flight training goals. For example, beyond requirements of the Practical Test Standards (PTS), a primary student seeking no more than recreational and sport flying privileges could have the instructor focus training on applications of the Code of Conduct that apply to ground reference maneuvers, short- and soft-field landings, and navigation by pilotage. In contrast, a pilot on a professional or personal business flying track could have training that uses applications of the Code of Conduct focused on instrument procedures, terminal and en route navigation, and air traffic control communications from the outset.

> **Directed Questioning –** Directed questioning (akin to a Socratic dialogue) is a teaching technique where the instructor asks a series of questions which lead the student to the desired knowledge. Such a dialogue fosters critical thinking. A mutually respectful environment and probing questions are essential elements of an effective dialogue. Fashion Code of Conduct-relevant issues using multiple question types to increase effectiveness.

> **Lectures –** Lectures offer greatest value when used strategically and sparingly. A general survey of the Code of Conduct can be effective, provided it is combined with more dynamic learning methods. In any event, instructors should understand the potential negative effects of lecturing and "preaching," particularly in professional/ethics education.

> **Small Group Discussions –** Guided discussions in small groups are valuable, particularly in self-assessment and in developing moral cognition (the mental processes of perception, memory, judgment, and reasoning). Consider discussion of selected Code of Conduct principles and how they might apply to each group member.[10]

> **Personal Minimums Development Exercises –** To emphasize responsibility, instructors can guide students to develop or refine personal minimums[11]—for many types of decisions, not just weather minimums—based upon the Code of Conduct. For example, instructors can ask students to identify Code of Conduct provisions or sample recommended practices that:

> - are considered the most (or least) applicable,
> - present the greatest challenges to adherence,
> - are most contrary to local culture,
> - present the greatest safety benefits,
> - may vary from the FAR/AIM and why, and
> - may be shunned by the local aviation community, and how to overcome this roadblock.

> **By Example –** The flight instructor is always teaching by example. Show the student the personal code you have developed. Discuss it and how you perfected it. Should you find you have deviated from your code, acknowledge the deviation to your student, discuss the factors or decisions that contributed to the deviation, and review with the student what lessons may be learned from the deviation.

> **Developing and Refining the Student's Own "Aviator Code" –** Guide students to explore the Code of Conduct by developing and refining their own aviator codes. Consider discussing the *Notes for Prospective Implementers,* available at <www.secureav.com/Notes-for-Implementers.pdf>, to aide in this exercise.

> **Safety Management System (SMS) Integration –** The Code of Conduct can contribute to developing any organization's SMS program. SMSs underscore the critical need for auditing and assessment,[12] even for single-pilot operations. Indeed, "if you can't measure it, you can't manage it."[13] Various Code of Conduct principles and practices encourage reflection, assessment, and metrics.[14] SMSs are introduced in the Commentary to AMCC I.a, available at <www.secureav.com/Comment-AMCC-I.a-General-Responsibilities.pdf>.

> **Assignment of Relevant Portions of Commentary –** To answer trainees' questions or to provide material for discussion, the Code of Conduct commentary can be selectively assigned. The commentary provides enriching and thought-provoking content. The list of available commentary is at <www.secureav.com/Commentary-Index.pdf>.

V. Teachable Moments and the Code of Conduct

Teachable moments are "times when the learner is most aware of the need for certain information or skills, and therefore most receptive to learning what you want to teach."[15]

> **Initial Student-Instructor Meeting** – The Code of Conduct serves as a core tool for "level-setting" during the initial student-instructor interaction, for both primary training and additional ratings. The Code of Conduct can be included in "welcome" packages and syllabi to help students see the big picture, and to gain a keen understanding of priorities and an aspiration for excellence. Doug Stewart, MCFI and National CFI of the Year (2004) put it as follows:

> As instructors, we all know of the rule of primacy - the things learned first are the things that stick. We also know that one of the precepts of FITS training is "learner centered grading." Furthermore we, as instructors, are aware of the need to instill in our clients the need for self-evaluation at the conclusion of every flight. Combining all these things together, we should introduce our clients to the use of the Code of Conduct as a tool in the process of self-evaluation, *from the very outset* of their training.[16]

> **Ground School** – The Code of Conduct can easily be integrated into a ground school training syllabus. It has even been integrated into courseware for a recognized flight instructors refresher course (FIRC – *see, e.g.,* <www.secureav.com/Announcement-GLEIM-FIRC.pdf>). Consider the approach taken by the largest non-profit flying club in the United States:

> We introduce the Code of Conduct to our new members when they join the organization, we have handed it out and follow-up with our flight instructors and ask them to integrate it into their instruction, plus we are running a safety seminar series were we can introduce the Code of Conduct to both pilots that fly with WVFC and the general public. We've seen [the Code of Conduct] increase our awareness and safety.[17]

> The National Association of Flight Instructors has supported and encouraged use of the Code of Conduct since 2004. As a comprehensive outline of safe practices and as the foundation for a personal safety management system, it has emerged as one of the most valuable tools yet created for the GA pilot.[18]

> **Safety Seminars –** The Code of Conduct can complement diverse safety seminars, or serve as the exclusive subject of safety seminars (such as for WINGS - Pilot Proficiency Programs).[19] Sample Code of Conduct presentation slides and other teaching materials are available at <http://www.secureav.com/teaching.html>. Consider the experience of the Cirrus Owners and Pilots Association:

> We [COPA] discuss the COPA Code of Conduct (CCC) at each of our CPPP (Cirrus Pilot Proficiency Programs) and CDM (Critical Decision-Making) training programs, and recommend that pilots not only read it, but keep it on their kneeboards for frequent review. In addition, our association Safety Officer promotes the CCC on our online discussion forums at our web site <www.cirruspilots.org>, where the CCC is available

for download or online review. Perhaps not coincidentally, the members of COPA boast a safety record approximately 15 times better than the general population of GA pilots.[20]

➢ **Simulator/Simulation Scenarios** – Simulator scenarios can be used to explore and teach Code of Conduct principles.

➢ **Phase Checks** – Phase checks facilitate self-assessment and can, in part, be measured against Code of Conduct principles and criteria.

➢ **Immediate Post-Certification** – Certification dramatically expands a pilot's freedom and responsibilities. The Code of Conduct can help new pilots appreciate the responsibilities that come with their new freedoms. This teachable moment presents new pilots with a preferred way of living the good (and safe) life of an aviator. It is a highly impressionable and memorable moment and can be exploited to the student's benefit. Instructors may help post-certification students develop outlines for continued development and/or assist them in finding a mentor to guide them through the transition from trainee to experienced pilot-in-command.[21]

➢ **Flight Reviews** – The Code of Conduct can help make the flight review and IPC more analytical, and provides a unique decision-making component that will lead the pilot to contemplate his performance in more depth. Once stick and rudder skills are demonstrated, the Code of Conduct can serve as a catalyst for judgment and aeronautical decision-making considerations.

➢ **Preflight Briefings** – As a tool to improve go/no-go analysis and decisions, the Code of Conduct provides content underscoring the obligation to plan and brief every flight properly. The Code of Conduct introduces passenger briefing responsibilities and provides reference to sample briefing materials – *see* <www.secureav.com/Passenger-Briefing-Listings-Page.html>.

➢ **Post-flight Debriefing** – The Code of Conduct is an effective resource to help assess flights during debriefings. For example, Doug Stewart, MCFI explains:

> For those clients that come to us after years of experience, for a flight review, or other recurrent training, again, the Code of Conduct can be introduced as a valuable tool in the process of the debrief at the conclusion of the training session.[22]

➢ **Incidents and ASRS Report Development** – Create a policy whereby the Code of Conduct is considered in resolving and learning from incidents, and in crafting thoughtful Aviation Safety Reporting System (ASRS) reports.[23] NTSB accident and incident reports may also provide a helpful vehicle through which to consider Code of Conduct principles.

VI. Further Assistance

Feel free to ask Code of Conduct instruction-related questions or experiences to the Permanent Editorial Board via email to: <PEB@secureav.com>.

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SAMPLE LESSON PLAN SUPPLEMENT

Intended for selective integration into general flight training syllabi

1. Introductions
2. Description of objectives/benefits
   a. Developing better judgment to enhance safety and enjoyment
   b. Incorporation of ethical considerations in aeronautical decision-making
   c. Instilling an attitude of professionalism, continued improvement, and a lifelong commitment to learning
   d. Introduction of the *Aviators Model Code of Conduct* (Code of Conduct)
3. Explanation of approach
   a. Techniques for teaching pilot judgment in addition to basic piloting tasks
   b. Use case histories and the student's personal experiences to explore decision-making options
   c. Gives students the learning value of other pilots' experiences
4. Presentation of initial case and questionnaire
   a. Ask student to present a case in which he/she made a decision in planning or conducting a flight (for a new student, consider a non-aviation example to illustrate the process)
   b. Discuss the circumstances requiring decision-making, available options, option selected, how and why the option was selected, and the outcome of the decision-making process/selected option
   c. Discuss what additional information might have enhanced an informed decision, and how that information might have been obtained
   d. Discuss likely outcomes had other identified options been selected
   e. Discuss case histories using the process presented in 4.b-d, above
5. Problems presentation, discussion, considerations in solving them; list generation (using sample problems)
   a. "What stands between you and your ideals of airmanship?"
   b. "What about the state of GA operations/training bothers your conscience?"
   c. "What isn't taught in primary training that you wish had been taught?"
   d. "How might your personality traits enhance or interfere with making good decisions?"[24]
   e. "Can good airmanship be developed? If not, why not? If so, what specific methods might a pilot use to improve airmanship?"
   f. Discuss the use of "personal minimums" in aviation
   g. Present guidance for an optional "personal code"
6. Presentation of additional cases and questionnaires
   a. Discuss additional case studies using lessons learned from sections 4 through 5, of this sample lesson plan example
7. Critique/debrief

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[1] The Code of Conduct ought not to be viewed as a mere checklist. Rather, it is best used as a tool to stimulate discussion and learning about the role each of us plays in keeping flying fun and safe.

[2] Teaching judgment effectively, developing metrics, undertake quantitative research, and ultimately demonstrating the efficacy of such teaching approach, materials, and programs may take years to achieve and go well-beyond the scope of the *Notes for Instructors.*

[3] Independent flight instructors teaching in less-structured environments may find particular benefit from this resource.

[4] *See, e.g.,* Eclipse Aviation, *The Eclipse 500 Mentor Process. Why?, at* <http://www.eclipseaviation.com/ownership/training/mentor.html>.

See Thomas P. Turner, *Transition Training,* AVIATION SAFETY MAG., Jan. 2007, at p. 9, *available to subscribers at* <http://www.aviationsafetymagazine.com> (considering mentor pilots – whose role is to "teach and counsel, resisting the urge to 'do it all him/herself' or to campaign to be hired as a corporate pilot instead of training the owner." *id.*). *See, e.g.,* Press Release, Cirrus Design Corp., *Cirrus Removes Barriers to Aircraft Ownership* (July 21, 2006); and Cirrus Access webpage, *at* <http://www.cirrusdesign.com/ownership/access/default.aspx> (describing the Cirrus Access training program).

[5] *See* FAA, FITS Webpage, *at* <http://www.faa.gov/education_research/training/fits/> ("a partnership between FAA, Industry, and Academia designed to enhance general aviation safety. This is accomplished by developing flight training programs that are more convenient, more accessible, less expensive, and more relevant to today's users of the National Airspace." *id.*).

[6] Amy Barrett, *Why You Need A Mentor and How To Find One,* BUSINESSWEEK SMALLBIZ (Feb./Mar. 2007), at p. 72, *web version available at* <http://www.businessweek.com/magazine/content/07_09/b4023456.htm?chan=search>. Barrett also notes the importance of personal chemistry and the need to first identify one's "weak spots" in order to find the right mentor. *id.*

[7] Telephone Interview with Sandy Hill, VP, NAFI (Jan. 2, 2007) (further stating that "we really hang our hats on mentoring."). "Knowledge and lore passed down is at the heart of every profession – that is the image upon which NAFI was founded." Telephone Interview with Rusty Sachs, Fmr. Exec. Dir, NAFI (May 3, 2007). *See generally,* FAA, *Best Practices for Mentoring in Aviation Education* (Sept. 2007), *available at* <http://www.faa.gov/education_research/training/media/mentoring_best_practices.pdf>.

[8] *See* Bill Rhodes, Ph.D., *Ethics Across The Curriculum And The Nature Of Morality: Some Fundamental Propositions* (Spring 2003)*, available at* <http://www.rit.edu/~692awww/seac/Ethics%20Across%20the%20Curriculum%20and%20the%20Nature%20of%20Morality-Some.pdf>. ("All that's required is an ordinary understanding of morality's relevance to one's discipline coupled with the ability to teach. . . . Engaging ethical concerns with students does not demand a special background in moral philosophy, but it does demand a genuine concern for the issues and for students' development of ethical sensitivity and reason." *id.*). For example, a school's chemistry department need not know ethics as a science in order to mention what's on chemists' consciences. The same is true for flight schools and instructors.

[9] Email from Doug Stewart, MCFI (June 4, 2007).

[10] *See, e.g.,* Curtis J. Bonk, Ph.D., Best of Bonk, *available at* <http://www.indiana.edu/~bobweb/Handout/co_1.html> (presenting some key principles of cooperative learning).

[11] Susan Parson, *Personal Minimums Development Guide* (June 2006), *at* <http://www.faasteamreps.net/gslac/ALC/libview_search.aspx?id=9091&keywords=personal+minimum>.

[12] *See, e.g.,* FAA, AC 120-59A, *Air Carrier Internal Evaluation Programs* (Apr. 17, 2006), *available at* <http://www.faa.gov>, *also available at* <http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/fd8e4c96f2eca30886257156006b3d07/$FILE/AC%20120-59a.pdf>.

[13] Interview with John Sheehan, Sec'y IAOPA, in Palm Springs, Cal. (Nov. 11, 2006). Nonetheless, consider that "*measure* may lead some to the fallacy of misplaced precision. One crazy-making aspect of such systems is the tendency to concentrate on metrics at the expense of reality. A body-count is a poor metric for victory. Fewer complaints about unsafe practices could be explained by any number of realities (e.g., fear of reprisals)." Email from Bill Rhodes, Ph.D. (Jan. 10, 2007). Audits for small operations and single-pilots need not necessarily be extensive. *See, e.g.*, The Medallion Foundation, *Annual Audit Checklist, Medallion Flyers Program for General Aviation Pilots*, *available at* <http://www.medallionfoundation.org/Flyer_Program.htm>.

[14] For example, AMCC VII, SRP ("Invite constructive criticism from your fellow aviators."), and AMCC III.e ("Accurately log hours flown and maneuvers practices to satisfy training and currency requirements.").

[15] Susan Parson, *Conducting an Effective Flight Review*, FAA AVIATION NEWS (Aug. 2006), *available at* <http://www.faa.gov/pilots/training/media/flight_review.pdf>.

[16] Stewart, *supra* note 9.

[17] Josh Smith, General Manager, West Valley Flying Club.

[18] Email from Rusty Sachs, Fmr. Exec. Dir., NAFI (June 1, 2007).

[19] The Code of Conduct has been the subject of a WINGS- and SEAWINGS-accepted seminar. *See* <http://www.secureav.com/Announcement-WINGS-Acceptance.pdf>.

[20] Email from Michael Radomsky, Pres. Emeritus, COPA (May 27, 2007).

[21] *See, e.g.*, Thomas Turner, *Leading Edge #1: After Your Checkride – The Next 100 Hours,* AvWeb, Feb. 4, 2007, *available at* <http://www.avweb.com/news/leadingedge/194320-1.html>.

[22] Stewart, *supra* note 9. *See* <http://www.secureav.com/DSFI.mpg> (describing use of the AMCC for flight training).

[23] <http://asrs.arc.nasa.gov/>.

[24] *See* FAA, AC 60-22, *Aeronautical Decision Making* (Dec. 1991), *available at* <www.faa.gov>.

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