

INTRODUCTION TO THE AVIATORS' MODEL CODE OF CONDUCT

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1. Benefits - Why is a code of conduct beneficial to aviators? And why should aviators care about ethics? Most of us think we're ethical, and we hardly need a code of conduct to prove it. Indeed, we are already guided by complex regulations (supplemented by extensive government-supplied guidance), and certificated¹ through approved curricula enforced by government testing.

Still, most of us know the regulations and approved training are not enough. To be successful as pilots in command, we must conquer a vast, ever-expanding body of knowledge and technique. This is a challenging task at every level of piloting. The rewards of meeting the challenge are safety and immense satisfaction. Penalties for failing the challenge run from the annoying to the severe.

The premise of this code is that ethics offers pilots an additional, systematic way to prepare for flying more safely. Ethics helps us consider flying from a new vantage point. In crucial ways, ethics complements all the regulations, instructional material, and experience we gain in aviation. In so doing, it helps us to think more effectively about how to fly.

A code of conduct based on ethics can keep pilots out of trouble, which in aviation can save lives and property. It defines goals to help pilots improve their performance and achieve their potential. It clarifies community values and provides practical guidance for living by them. Indeed, what ultimately makes a code of conduct effective is an ethical focus on values.² In aviation, dense regulations, technical skill and knowledge are insufficient to ensure safe flying. Ethical behavior, constructive attitudes, and a *positive culture*³ add to safety for individual pilots and foster a healthy aviation community.

A pilot in command should consider a wide range of issues beyond the mere *all available information about the flight* required by regulation. They should include both policy and ethical

concerns, which transcend flying skills and procedures, and affect the entire general aviation⁴ community and the public. Bringing ethics to bear on pilot thought processes and conduct may affect legal ramifications that can potentially come to the fore in any flight. “There is a legal reality that sits like a blanket over all flight activities. It may not appear important until there is a legal consequence. Nonetheless . . . it can be a stunning reality.”⁵

Put simply, the pilot who contemplates ethics is a better pilot.

2. The AMCC as a Resource - The AMCC is a baseline resource for developing different products for various audiences. The *Reference Version* of the AMCC offers a pamphlet-length document for dissemination to pilots, presenting the AMCC’s principles with brief, pilot-centric explanations and sample recommended practices explained below.⁶ A *Web-based version* of the AMCC can serve various audiences. Seaplane and Student Pilot versions are also available. Independent entities have developed other implementations, such as a Microlight Pilots’ Code of Conduct for the ultralight community and various language translations. A *Sample Passenger Briefing and Flight Rules* is available at [Secureav.com](http://www.secureav.com).

3. Scope - The scope of the Aviators’ Model Code of Conduct (AMCC) includes operational, practical, ethical, policy, and legal considerations. The AMCC is crafted by seasoned pilots with knowledge of the everyday realities of everyday flying, as well as by specialists in ethics, law, and public policy.

Aviation law⁷ fails adequately to address many areas of concern to both the general public and to pilots. For example, the law does not comprehensively address aviation safety, pilot conduct, flight standards and practices,⁸ or aviator ethics.⁹ We can enhance flight safety¹⁰ and public satisfaction within general aviation—as well as that of pilots and passengers—by narrowing the gaps¹¹ between the regulatory environment, ethics, and the cockpit. Narrowing those gaps may also forestall over-regulation¹² and help shield pilots and others from undue liability.¹³

The AMCC seeks to address issues not adequately covered by aviation law,¹⁴ including:

- techniques and procedures that will help GA pilots become better aviators,
- actions that enhance flight safety,
- pilots’ ethical responsibilities,
- training, airmanship, and pilot conduct,
- effective pilot decision-making,
- pilots’ roles within the larger GA community and society at large,
- the need for self-regulation by the GA community to forestall burdensome governmental regulation, and
- ways to promote GA and make flying a more rewarding experience.

The AMCC offers a foundation for drafting and implementing codes of conduct for individual aviators,¹⁵ pilot associations, flight schools, flying clubs, and other aviation-related entities.¹⁶ Although it is intended primarily for noncommercial GA activities, it can benefit other aviation categories and organizations as well,¹⁷ including sport flying and commercial operations.¹⁸

The AMCC postulates a social contract between pilots and society, by which society confers the privilege of flight to pilots in return for safe practices and appropriate conduct. It calls upon conscience and peer criticism within the GA community to achieve these goals.

This is an aspirational¹⁹ document, with the goal of voluntary adoption by pilots and aviation-related organizations.²⁰ As such, its guiding principles are recommendations, *not* requirements.

Many in the international aviation community have recognized the benefits of voluntary guidelines rather than strict codes or bylaws. Nonetheless, pilot organizations may choose to make some of its principles prescriptive.²¹

4. Structure - The AMCC consists of seven sections, each with annotated commentary, as follows:

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

Each section is structured as follows:

The Introduction: The Introduction furnishes general orientation.

The Principles: The heart of the AMCC is its statement of principles (grouped into the above seven sections) covering a range of substantive issues affecting GA. These principles provide general guidance to the GA community and encourage the development of a positive GA culture.²² Generally immutable,²³ broad,²⁴ and terse,²⁵ the principles serve as the basis for more precise and detailed rules in other fora. The principles within each section are not presented in any particular order of importance.

The Sample Recommended Practices (SRPs): The SRPs, providing *recommended practices* and encouraging *personal minimums*,²⁶ present techniques pilots can use to integrate the AMCC's principles into their own practices. They can serve as templates to help pilots and organizations develop practices tailored to their own activities and situations.²⁷ Unlike the principles themselves, *the SRPs may be modified*²⁸ to satisfy the unique capabilities and requirements of each pilot, mission, aircraft and GA organization that utilizes them. Some SRPs exceed the stringency of the associated AMCC principles. They are not presented in any particular order.

Each principle is expanded upon with some or all of the following:

- Commentary: The Commentary alerts pilots to particular responsibilities under the law, though primarily from an ethical perspective. In so doing, the Commentary seeks to demonstrate that there is rigor to the Code's content. The Commentary offers guidance to GA leaders and policy experts wishing to measure the AMCC's value to their individual organizations.
- Code Examples: Examples from relevant codes of conduct are presented for background, perspective, and comparison. The *Code Examples* are not necessarily endorsed by the AMCC Commentary.²⁹
- Accident Scenarios: Selected accident scenarios from NTSB Reports are included to provide support for particular principles.
- Drafting Considerations: *Drafting Considerations* are included to highlight drafting choices and issues and to assist implementers in resolving them.
- Annotations: Endnotes address specific issues; reference secondary resources, applicable laws, and practices; and supply qualification and direction for further research.

5. Recommended Practices - Some aviation codes of conduct define “minimum standards” of conduct, addressing such varied issues as pilot training, preflight preparation and passenger responsibilities. The changing dynamics of GA, including heightened security concerns and the pace of technological change, however, suggest that minimum standards are insufficient to achieve higher levels of safety.³⁰ The FAA’s *Challenge 2000 Reports*³¹ concurs.³²

The AMCC proposes *recommended*³³ practices rather than *best* practices.³⁴ Promoting supposedly “best” practices or “standards” may discourage adoption of the AMCC, or even increase pilot liability. (As one noted ethicist points out, a “code of ethics, if it is to accomplish anything, must restrict itself to that which is reasonably possible.”³⁵) Therefore, the AMCC does *not* define or promote “best” practices or “standards” for GA.

There are already several recommended practices and codes of conduct within the broader aviation community. Many documents referenced in AMCC Appendix 1, *A Survey of Aviation Codes of Conduct*,³⁶ specify recommended practices for individuals involved in GA activities. Thus the AMCC joins a host of other guidelines that stress recommended practices rather than “standards” or best practices.

The AMCC’s recommended practices offer both breadth and depth. They are the result of:

- analyses of widespread GA practices and applicable laws and regulations,
- evaluations of diverse aviation codes of conduct and ethics,
- considerations of ethical issues affecting GA and other flight activities,³⁷
- examinations of airport rules and regulations,³⁸
- reviews of foreign and international laws and practices,³⁹
- considerations of various risk-mitigation principles, and
- extensive deliberations by aviation experts, aviation groups, and the aviation community at large.

6. Ethical Considerations - An important purpose of the AMCC is the discussion of ethical issues in GA. AMCC Section VII.e., *Promote Ethical Behavior*, addresses these issues directly. Other sections touch upon ethical concerns as well, quoting relevant aviation-related codes of ethics to stress the moral basis of good pilot conduct.

This represents a way of thinking that may be unfamiliar to some aviators. A pilot’s approach to flight safety has an ethical as well as a practical basis. In other words, a careful, self-disciplined, and conservative approach to flying, by definition an ethical approach, will enhance safety and the GA experience. Even maintenance and technical concerns have an ethical dimension, because inadequate maintenance and poor technical management can have catastrophic consequences.⁴⁰

7. Promotion of Self-regulation - The GA community has traditionally relied heavily on self-regulation.⁴¹ However, GA faces significant challenges that may threaten this tradition, including new security needs in the wake of the terrorist attacks of 9/11,⁴² new environmental controls,⁴³ and heightened legal liabilities. By promoting better self-regulation within the aviation community, the AMCC seeks to offer an “alternative to traditional regulatory oversight.”⁴⁴ Also, the AMCC may help establish (something akin to) “safe harbors” for individuals and organizations that adhere to its principles,⁴⁵ suggesting some measure of protection from liability. In this regard, it could help promote self-regulation and self-governance⁴⁶ among aviators and discourage reactive, burdensome regulation.⁴⁷

8. Liability Management - GA pilots are particularly vulnerable to the specter of unlimited liability.⁴⁸ Tort liability and FAA enforcement are frightening to most pilots and often produces unexpected results. GA pilots should therefore consider active measures to better protect themselves from liability.

Adhering to an ethical code can help pilots better manage liability. In regard to liability exposure, pilots and GA organizations should carefully balance the risks and benefits of a code of conduct such as the AMCC. Organizations should consider the following:

- **General Guidance** – The AMCC offers *recommended practices as general guidance only*.⁴⁹ This guidance is understood in the law to invoke the exercise of independent judgment and discretion on the part of those who follow it.⁵⁰ As long as adopting organizations present the AMCC's recommended practices within a context of general guidance rather than as prescriptive requirements,⁵¹ it may provide an additional measure of protection from liability.⁵²
- **Voluntary Adherence** – In terms of liability protection—both for pilots and for adopting organizations—benefits may derive from making adherence to the AMCC purely voluntary;⁵³ in general, duties to third parties are not invoked by adherence to voluntary ethical guidelines. Among other things, the AMCC does not seek to create contractual rights inuring to third parties.
- **Recommended Practices** – “Recommended practices” may invoke the less stringent requirement of due care, as distinguished from the more stringent requirement invoked by defining “best practices” or “standards” of practice.⁵⁴
- **Existing Rules or Responsibilities** – Some of the AMCC's recommended practices are in fact *already expressly required* by regulation. In addition, the AMCC's general responsibilities are often exceeded by flying club rules.⁵⁵ To some extent the AMCC merely consolidates diverse requirements to present a “big picture” of recommended practices that advance flight safety, rather than imposing new obligations (and potential corresponding liabilities).⁵⁶
- **Historical Precedent** – Many of the AMCC's principles mirror the doctrines of diverse aviation codes of conduct that have not catalyzed adverse legal actions against pilots.⁵⁷
- **Government Relations** – As a voluntary code, The AMCC “can complement existing laws, thereby improving relations with government agencies and regulatory bodies”⁵⁸ and diminishing the potential for further government regulation of GA.
- **Overriding Safety Benefits** – The safety benefits of adhering to the AMCC should outweigh the perceived liability risks.
- **Subsequent Remedial Measures** – In general, the law recognizes that taking remedial measures after an incident or accident does not constitute an admission of culpability on the part of a pilot or organization. Therefore, generally speaking, pilots will not increase liability exposure by adopting the AMCC following an incident or accident.⁵⁹

9. Stylistic Conventions and Interpretation - A few stylistic conventions and organizational patterns used in the AMCC should be clarified.⁶⁰

- **Permissive Terms** – Because the AMCC is not a regulatory document and adherence to its principles is voluntary (unless otherwise specified upon implementation⁶¹), it selectively uses permissive terms such as *should*, *may*, and *are encouraged to* rather than prescriptive terms such as *shall* or *must*. It is unrealistic to require or expect uniform conformance to all of the AMCC's provisions among all adopting entities.⁶²
- **Presumption of Reasonable Application** – The AMCC is intended to be applied in a reasonable and flexible manner by adopting organizations. Similarly, the document presumes that individual pilots will exert a reasonable level of effort in conforming to the responsibilities it presents. The AMCC is not intended to replace or supersede FAR 91.3, *Responsibility and authority of the pilot in command*.
- **Gender Neutrality** – All gender-specific references should be interpreted as gender neutral, unless otherwise stated.⁶³
- **Title** – To the extent that pilots or implementing organizations perceive the title (Code of Conduct) as too regulatory or otherwise suggesting mandatory requirements, they should amend it as they choose. The title is not intended to suggest that the AMCC is or should be prescriptive, regulatory, or disciplinary.⁶⁴
- **Ordering of Principles** – The principles defined within each of the AMCC's seven sections are presented, for the most part, from the more general to the more specific. Nonetheless, there are some necessary redundancies between the general and specific principles.
- **Citations** – References to the FAR or FARs (Federal Aviation Regulations) mean references to corresponding parts of 14 C.F.R. (Title 14 of the Code of Federal Regulations).⁶⁵ References to commercial websites and products are provided for pedagogical and convenience purposes only. Neither the AMCC nor its contributors necessarily endorse any such websites or products.
- **Quotations** – The AMCC's Commentary includes many quotes from industry experts and experienced GA pilots.
- **Translations** – Translations of the AMCC facilitate localization and expedite implementation. Although translations are encouraged and facilitated on the [Secureav.com](http://www.secureav.com) website, neither the AMCC nor the [Permanent Editorial Board](#) validates the accuracy of translations. The authoritative text of the AMCC is the English *Reference Version*.
- **Legal Content** – The law is considered and annotated extensively in the Commentary to underlie an ethical code. It is included primarily as a resource for lawyers and policy administrators. Implementers and pilots may find the legal content enriching and helpful; otherwise, feel free to skip it.

10. International Focus - For proof of concept purposes and as a matter of practical convenience, the AMCC and supporting materials were initially developed with a US focus. Nonetheless, the AMCC selectively employs various internationally accepted terms and positions, and is designed to harmonize with international frameworks.⁶⁶ In part, this is being advanced by the editors of various foreign translations. Future versions of the AMCC and supporting materials will seek to further embrace an international audience.⁶⁷

11. Research Methodology - Formulation of the AMCC's recommendations is complicated by the need to assimilate credible flight safety data and develop an appropriate

research methodology.⁶⁸ As one aviation expert pointed out, databases of aviation incidents “are not sufficiently reliable or . . . detailed to make the kind of analysis or correlation desired [for the AMCC].⁶⁹ They simply indicate . . . that accidents are caused by weather or icing. . . . [They] don’t tell you why [pilots] got into the weather.”⁷⁰ Moreover, as one recognized aviation trial lawyer observed, “The NTSB⁷¹ accident database was created by an underfunded and ill-equipped agency that didn’t have the tools to do the job.”⁷² This lawyer further noted that the widely circulated statistic “that about 85 percent of GA accidents are caused by pilot error . . . is an evasion of reality and not the whole story. While pilot error may be a material factor, it is not necessarily the biggest factor.”⁷³ The reason this statistic is so commonly cited and accepted, this lawyer argues, is in part because “unlike the airframe, engine, and component manufacturers, GA pilots are not represented at the scene of an accident investigation.”⁷⁴ Clearly, the AMCC’s recommendations need to be based on much more than just quantitative accident and incident data.⁷⁵

For this reason, the AMCC adopts an approach stressing qualitative⁷⁶ data—culled from research, direct consultation with aviation experts, focus groups, and intensive text review and editorial input by diverse authorities. This approach gives voice to the diversity of viewpoints concerning desirable practices within the aviation community.

Incorporated into this research methodology is a consideration of the *system safety* process,⁷⁷ a “systematic and explicit” (*i.e.*, data-driven and highly documented) approach to safety research. *System safety* defines “all activities and resources (people, organizations, policies, procedures, time spans, milestones, etc.) devoted to the management of safety [and] uses system theory, system engineering and management tools to manage risk formally, in an integrated manner across all organizational levels, across all disciplines and all system life cycle phases.”⁷⁸ As FAA Administrator Marion Blakey explains, the system safety approach is “a continuous process that allows us to evaluate results as well as see where we need to take additional action. This data-driven approach is why we’re placing so much emphasis on information gathering and sharing. We need as much data as possible to make informed decisions.”⁷⁹

12. Relation to Relevant Codes of Conduct - Numerous aviation-related associations and professional organizations—as well as the various branches of the military—embrace specific codes of conduct.⁸⁰ These codes offer both practical and inspirational benefits to the aviators, professionals, and servicemen and women who follow them.⁸¹ Most aviation-specific codes of conduct or ethics transcend minimum legal requirements, seeking to improve the culture of aviation⁸² and pilot behavior. Most of these codes advance a particular aviation-related avocation or profession; remarkably, no widely recognized or implemented code of conduct exists specifically for GA. The principles of the AMCC reflect (or seek to harmonize with) many of these less-inclusive codes, as well as diverse rules and recommended practices. As appropriate, the AMCC advances selected precepts, common themes and approaches of some of these codes via the “Code Examples” discussed above. The AMCC does not endorse these codes.

13. Neutral, Unaffiliated Permanent Editorial Board - Drafting of the AMCC was executed without any particular organization’s taking responsibility for the editorial process.⁸³ A Permanent Editorial Board (PEB) provides editorial oversight and stewardship of the AMCC. A notice on the SecureAv website explains:

The AMCC is a “living document,” intended to be revised periodically as warranted by new information, events, and needs within GA. It is also “organizationally neutral”—neither owned nor controlled by any particular GA organization. This neutrality both advances the AMCC’s acceptability within GA and ensures that the viewpoints of diverse organizations

within and outside the GA community are considered during drafting and revision. Indeed, the AMCC's neutrality and objectivity have been essential to the success of the project and must be continually fostered to ensure that it remains valuable for the broadest reaches of the GA community.

Because the AMCC is a living document, a formal editorial body is essential to oversee and provide balance to ongoing revisions.⁸⁴

A *PEB Agreement*, executed by all PEB members, asserts the independence of its members, requires their conformance to the ethical precepts in the AMCC, and explains the PEB's operation.⁸⁵

14. Creating Viable Learning Tools - For the AMCC to be truly effective, it must produce a demonstrably positive effect on aviation safety and the GA community. Transforming a document from a mere statement of preferred conduct to a proven agent of change is no trivial undertaking, and the ability of adopting organizations to accomplish this goal will be the ultimate test of the AMCC's success.

For the AMCC to succeed, pilots must be motivated to read, reflect upon, and actively apply its principles. But pilots typically devour material directly related to their own flying experience, often paying only scant attention to other information, even when it could substantially improve the safety of their flight operations. Consequently, in developing the AMCC, we use various approaches to capture pilots' interest, such as:

- **Sample Recommended Practices** – The SRPs supply concrete examples of ways pilots can integrate the AMCC's principles into their own practice. Combining *recommended practices* with more detailed *personal minimums*, the SRPs present a compelling instructional experience for pilots, which should inspire them to adopt new safety-enhancing practices appropriate to their own circumstances.
- **Pilot Narratives** – The principles are supplemented by selected pilot narratives recounting real-life examples of how adhering to specific AMCC principles improved the safety of a particular flight or otherwise contributed to the GA community.
- **Personal Pledge** – A sample voluntary *Personal Pledge* is included in the *Student Pilot's Model Code of Conduct* as a means of underscoring a pilot's commitment to AMCC principles. When incorporated into a flight training curriculum, the Pledge may aid in understanding and implementing the AMCC.
- **Public Relations** – In addition to the approaches listed above, other mechanisms are in development. As the President and CEO of the Be a Pilot Program asserts, "Public relations can change behavior . . . [and] education is a tremendous part of PR."⁸⁶

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¹ "Certificated" is adopted in this text rather than "certified" to conform to the FAA's usage. Nonetheless, there are compelling reasons that "certified" is the proper term. One commenter remarked, "As to 'certificated' [versus 'certified'] – the FAA created it and persists in using it. It's pure bureaucratic hash. Worse, CFIs and others have bought into it. What nonsense! What do people think the FAA does when it sets test standards and then tests applicants according to those standards? If anyone thinks that's not a certification process, they need to spend time with a dictionary, a text on grammar and syntax, and a good high school English teacher. Yes, the paper (or plastic) evidence of having passed the FAA tests is a

certificate. In English, that still doesn't mean – except in the FAA's fevered world – that the successful applicant is anything other than “certified.” If you want to put in a footnote to explain why you're using the English “certified,” rather than the bureaucratically inspired, erroneous, non-English “certificated,” that footnote alone will elevate the moral tone of the Code by an order of magnitude. Using good English helps to describe concepts and their logical relationships precisely, which in turn aids moral and ethical contemplation. Yes, it's true that the language changes to accommodate usage, and that includes usage created by bureaucratic desire to say something in a complicated, stuffy way when simplicity would do. In any case, whenever there's an opportunity, there's good reason to point out that “certificated” is bureaucratic excess and silliness. (I know my high school English teachers would agree.) Particularly in some Flight Standards contexts, the FAA loves to substitute jargon for analysis. It's socially useful to identify egregious examples and resist the tendency.” Email from Richard Marks, Esq., ATP (June 20, 2005).

“A CFI is a *certified* flight instructor, no matter what the FAA says. Granting a certificate to a person certifies that person. ‘Certificated’ is an abomination, and even recognizing it awards dignity it does not deserve. *To certify* is a verb, but with the limited meaning of *to present with a certificate*. *Certificated* is the perfect participle of that verb, and can be used as an adjective in that sense.” Email from Rusty Sachs, J.D., Exec. Dir., NAFI (June 20, 2005).

² “While attitudes influence our actions in the short term, values represent the fixed star by which our behavior is steered in the long term. If you value good flight preparation, well-maintained equipment, wise counsel, and investing your money in proficiency training, then you're most likely to have the right attitudes most of the time.” Rod Machado, *Why do experienced pilots crash airplanes*, AOPA PILOT, Jan. 2005, at 42, 44.

³ For example, a culture that is nurturing, providing a shared mission, openness, and mutual respect. See, e.g., The Positive Culture Company, *What is a Positive Culture*, available at < <http://www.positiveculturecompany.com/what-is-positive-culture.htm> >; Sandy Lille, OMIX, Inc., *Working Wonders With A Positive Company Culture: For Love And Money* (Jan. 13, 2003), available at < <http://www.omix.com/html2/whitepaper/culture.html> >.

⁴ The National Transportation Safety Board (NTSB) considers GA the operation of all civil aircraft except those used by air carriers. In the U.S., GA is regulated under FAR Part 91. There are approximately 350,000 aircraft and a million pilots undertaking these types of activities globally. The International Civil Aviation Organization (ICAO) defines GA operations as “those flight activities not involving commercial air transportation or aerial work.” Aerial work is defined as “operations used for specialized services such as agriculture, construction, photography, surveying, observation and patrol, search and rescue, aerial development, etc.” See generally ICAO, at < <http://www.icao.org> >; AOPA, *GA Serving America*, at < <http://www.gaservingamerica.org/> > (surveying GA issues and answers); U.S. General Accountability Office, GENERAL AVIATION (GAO 01-916)(Aug. 2001), available at < <http://www.aviationtoday.com/reports/status0801.pdf> > (providing an overview of the status of GA); and IAOPA Secretariat, *What is General Aviation and What Do They Want?*, available at < http://www.iaopa.org/info/what_is_ga.pdf >. GA includes over 219,000 aircraft in the U.S. operating from over 2,500 public-use GA airports, carrying approximately 180 million passengers annually and representing approximately two-thirds of flying (in terms of hours flown) in the national airspace system. U.S. General Accountability Office, GENERAL AVIATION SECURITY (GAO-05-144) (Nov. 2004), at 2-3, available at < <http://www.gao.gov/new.items/d05144.pdf> >.

⁵ Telephone Interview with Richard Marks, Esq., ATP (Jan. 7, 2005). Also, “[l]egal should help make us safe. Ignoring the legal side ignores accident prevention measures.” Email from Pat Knight, MCFI (Mar. 1, 2005).

⁶ The audience of GA pilots runs the gamut from novice to highly experienced pilots. Some content that is self-evident to the pro may be over the head of the novice. Accordingly, the AMCC's Sample Recommended Practices are intended to be tailored to match each individual pilot's particular level of

experience. In addition, a separate *student pilot version* addresses persons without substantive knowledge of aviation.

⁷ *Aviation law* includes statutes, case law and regulations. The Aviation Regulations “have the force and effect of law.” *United States v. Schultetus*, 277 F.2d 322, 327 (5th Cir. 1960); see *Associated Aviation Underwriters v. United States*, 462 F. Supp. 674, 680 (N.D. Tex. 1978) (The FARs establish only minimum safety standards). The Federal Aviation Act authorizes promulgation of *minimum standards*. 49 U.S.C. app. 1421. In the absence of “specific directives of the FAA . . . the regulations . . . provide only general standards of conduct . . . and do not create specific duties.” *Rimer v. Rockwell Int’l. Corp.*, 641 F.2d 450, 455-456 (6th Cir. 1981) *rev’d on other grounds*, 739 F.2d 1125 (6th Cir. 1984). The FARs are available at < <http://www.risingup.com/fars/> >.

The Aeronautical Information Manual (AIM) provides only “*basic flight information*” and “the *fundamentals* required in order to fly.” FAA, AIM 472 (ASA 2005), available at < <http://www.faa.gov/atpubs/aim/> > (emphasis added). It provides *validly adopted interpretations* of law. *Administrator v. Smith*, NTSB Order No. EA-4088 (1994); *FAA v. NTSB*, No. 98-1365 (D.C. Cir. 1999). And, it “constitutes evidence of the standard of care for all certified pilots in the aviation community.” *First of America Bank - Central v. United States*, 639 F. Supp. 446, 453 (W.D. Mich. 1986), citing *Associated Aviation Underwriters v. United States*, 462 F. Supp. 674, 680 (N.D. Tex. 1978), available at < http://www.law.emory.edu/6circuit/mar96/96a0102p.06_fn.html >.

⁸ See *infra* text accompanying notes 30-39 (addressing *Recommended Practices*).

⁹ See generally, *infra* AMCC VII.e. (presenting ethical responsibilities of aviators).

¹⁰ The term “safety” as used herein is not interpreted in absolute terms. See Commentary to AMCC I.a. (presenting an overview of “safety”).

¹¹ Of course, complete codification of these issues is neither practical nor advisable. Nonetheless, “many things that are legal involve risk that shouldn’t be taken.” RICHARD L. COLLINS & PATRICK E. BRADLEY, CONFIDENT FLYING-A PILOT UPGRADE 249 (Aviation Supplies and Academics 2nd ed. 2001). See *Thibodeaux v. United States*, 14 Av. Cas. (CCH) ¶ 17,653 (E.D. Tex. 1976) (prudent airmen strive to exceed the minimum standards presented in the FAR). The AMCC and this Commentary consider legal implications of GA activities within an ethical context. Examining these issues from an ethical perspective will hopefully help pilots function more effectively as aviators, *but it does not represent an expansion of any regulatory or legal duty*.

¹² See *infra* text accompanying notes 41-47 (concerning the promotion of self-regulation).

¹³ See *infra* text accompanying notes 48-59 (concerning pilot liability).

¹⁴ The scope of the FARs is necessarily limited to the scope of the FAA’s jurisdiction – and the FAA neither has jurisdiction (or exclusive jurisdiction) over all subjects affecting safety *nor* a sustainable vibrant GA community. Therefore, the AMCC’s scope transcends the content of the FARs, but is anchored in flight safety to foster GA.

¹⁵ See, e.g., Rod Machado, *Samurai Airmanship*, FLIGHT TRAINING MAGAZINE (1997), available at < <http://www.rodmachado.com/Articles/samurai.htm> > (urging pilots to adopt a personal code of conduct).

¹⁶ A survey of flying club and FBO member / customer “standard” agreements indicates that many such agreements refer to (or incorporate by reference) applicable codes of conduct, ethics or the like, and yet such codes are often ill-considered, poorly drafted or, as a practical matter, largely ignored. And, no industry-wide model code of conduct has helped catalyze harmonization of codes of conduct and widely-shared behavior. Perhaps the AMCC can help to do so.

¹⁷ Such as certain commercial pilots operating under FAR Part 135. Additionally, the AMCC may benefit the ultralight community. See, e.g., South African Microlight Code of Conduct, available at < <http://www.titan.za.net/> >; FAR Part 103 *Ultralight Vehicle*, available at < <http://www.usua.org/Rules/faa103.htm> > (requiring neither a pilot certificate under Part 61 nor a training

regime (but for national self-regulation programs)). “Affiliates should provide operational guidance to ultralight operations to ensure their safety and compatibility with other forms of aviation.” Int’l Council of Aircraft Owners and Pilots Ass’ns, IAOPA POLICY MANUAL, (Oct. 1998) (“IAOPA POLICY MANUAL”), available at < <http://www.iaopa.org/info/finalpol.doc> >. Cf. Canadian ultralight regulations - CARs Ch. 401, standard: 421, available at < <http://www.tc.gc.ca/CivilAviation/RegServ/affairs/cars/menu.htm> > (requiring a minimum of five hours of training after which a pilot certificate is issued).

¹⁸ “I don’t see any reason to differentiate [with regard to the efficacy of the AMCC] by type of flying (transportation – private pilot vs. recreation – sport pilot). The physics of the operation does not change, regardless of the intent of the flight or the size of the aircraft. Both use the same airspace. Both adhere to the same regulations. E.g., The *light-sport aircraft* rules require pilot conformance to 14 C.F.R. Parts 61 and 91. See FAA, *Certification of Aircraft and Airmen for the Operation of Light-Sport Aircraft* (Sept. 1, 2004), available at < http://www.faa.gov/avr/arm/rulemaking/SportPilotRule7_19.doc >, and < http://www.sportpilot.org/sportpilot_rule.pdf >. Both risk other peoples’ lives. Both annoy certain people on the ground. Each can be deadly on the other. Both pilots end up in the same bathroom. As in the eyes of our French compatriots, we are all equals. The fact that the accident record has been so good among the ultralight pilots whom I’ve been able to ‘convert’ speaks volumes of the need to have everyone read from the same sheet.” Email from Frank Hofmann, IAOPA Representative to ICAO (Sept. 1, 2003).

¹⁹ The articulation of aspirational norms of behavior is an appropriate and useful function of a code of conduct, in diverse disciplines. See, e.g., Am. Bar Ass’n, MODEL CODE OF PROF’L RESPONSIBILITY (“MODEL CODE”), *Preamble* (1980), available at < <http://www.abanet.org/cpr/ethics/mcpr.pdf> > (“The MCPR points the way to the aspiring.”).

²⁰ “Voluntary” has been described as “non-legislatively required commitments voluntarily made by companies, associations and other organizations to influence or control behaviour, for the benefit of both themselves and their communities.” Industry Canada, *Voluntary Codes – A Brief Overview* (1998), at < http://strategis.ic.gc.ca/epic/internet/inoca-bc.nsf/en/h_ca00968e.html >; see generally DOT, Office of Commercial Space Transportation, *Voluntary Industry Standards And Their Relationship To Government Programs* (Jan. 1993), available at < http://ast.faa.gov/files/pdf/vol_std.pdf >.

²¹ Arguably, pilot association members that disregard the precepts of the AMCC as it is adopted by their association should not share in the benefits and protections afforded to members in good standing. Pilots that violate the code become a liability both to their own associations and to the GA community in general, increasing the cost of flying, catalyzing the imposition of unwarranted flight restrictions and, most importantly, diminishing safety. Certainly no pilot association should jeopardize their hard-won battles by the wanton (or worse) deeds of a few destructive members. A pilot association is not obligated to accept and retain all applicants unconditionally, and while associations are businesses and need customers, they will generally do better with at least threshold restrictions that advance flight safety and GA. Nonetheless, it is the adopting association’s *exclusive* decision whether the code should be either voluntary or prescriptive.

²² “[To achieve safety], try a principles approach. This method recognizes the fact that if a set of simple tenets or guidelines is put forth and revisited from time to time, both the principles and dedication to them eventually will become a part of . . . culture.” JOHN J. SHEEHAN, BUSINESS AND CORPORATE AVIATION MANAGEMENT 8.5 (MCGRAW HILL 2003) (emphasis added).

²³ Cf. U.S. Air Force, CORE VALUES (explaining that “they [the Core Values] point to what is universal and unchanging”); IMMANUEL KANT, GROUNDWORK FOR THE METAPHYSICS OF MORALS 15 (Allen W. Wood, trans. and ed., Yale University Press 2002) (1785) (suggesting to act “in accordance with maxims that can at the same time have themselves as *universal laws of nature for their object*”) (emphasis added).

²⁴ There is necessarily an inherent tension between specificity and generality in the AMCC. Some reviewers urged that the “typical” pilot would not readily read lengthy documents, whereas other reviewers urged that further detail would be instructive and welcomed. One reviewer even suggested limiting the

principles to three phrases: “(1) Know Thy Self; (2) Know Thy Airplane; and (3) Know the Rules.” Interview with Vincente C. Rivera, Chairman Emeritus, AOPA-Philippines, in Phila., Pa. (Oct. 30, 2003).

Other reviewers subjectively urged the expansion of certain of the AMCC's principles to suit their particular personal concerns or professional interests -- yet there was no consensus on which principles required expansion. “For among statements about conduct those which are general apply more widely, but those which are particular are more genuine, since conduct has to do with individual cases, and our statements must harmonize with the facts in these cases.” Aristotle, *Nicomachean Ethics*, Bk. II: Ch. 7 (350 B.C.), reprinted in MCKEON, INTRODUCTION TO ARISTOTLE 362 (The Modern Library 1992).

²⁵ “Simple is better [and] should be the watchword for a safety program. Perhaps even a minimalist approach is the best guidance for an effective program.” JOHN J. SHEEHAN, BUSINESS AND CORPORATE AVIATION MANAGEMENT 8.5 (McGraw Hill 2003).

²⁶ The SRPs support but do not substitute for comprehensive personal minimums checklists.

²⁷ The SRPs are challenged by an evolving understanding (and apparent contention) among human factors professionals concerning the relative merits and appropriate use of *event-based*, *proficiency-based* and *growth-based* training and proficiency standards. The AMCC exploits each of these standards and approaches, seeking attainable pragmatic application. Of course, each pilot and organization adopting the AMCC is urged to independently assess and develop the most appropriate approach and metrics for themselves. See Neil Krey, in TONY KERN, FLIGHT DISCIPLINE, xxii-xxiii (McGraw Hill 1998) (urging that there are “three eras of training that we are progressing through.” And, with the third (growth-based training), “this brings us full circle back to the basic premise of Tony Kern’s book *Redefining Airmanship* [which] argues for a shared set of fundamental criteria to define professional airmanship. His ten elements of airmanship are derived from a historical analysis of success in aviation. For now, each airman must create their own growth plan, but in the future, those of us in the training department may be tasked with providing support for those efforts.”)

²⁸ Consideration was given to whether the AMCC's text should state, “the SRPs [may] [should] or [must] be modified” Ultimately, “may” was adopted. As one AMCC reviewer stated, “In many cases individual pilots may need to modify them as you note but some are exactly right for all pilots in all normal conditions. To imply that all the SRPs must be modified sends the message that as written they are of little value which I don't believe to be the case.” Email from Cliff Chetwin, U.S. National Park Service (Feb. 11, 2004).

One reviewer urged that the SRPs should be further developed and made comprehensive. The latter proposal is perhaps best suited as an optional activity of an adopting pilot/organization.

²⁹ Indeed, some of the Code Examples are inartfully crafted and could create unanticipated legal and operational pitfalls for pilots. Nonetheless, the Code Examples document the diverse use of codes of conduct in aviation.

³⁰ In “an era where flight technology product cycle times are measured in months, rulemaking cycle times measured in years do not provide an effective tool [The FAA] is faced with increasing requirements and slow or no resource growth. In this instance the solution is based on a partnership with industry and other organizations.” Robert A. Wright, Mgr., Gen. Aviation and Commercial Div. (AFS-800), Flight Standards Service, FAA, CHANGES IN GENERAL AVIATION FLIGHT OPERATIONS AND THEIR IMPACT ON SYSTEM SAFETY AND FLIGHT TRAINING 11-12 (White Paper, v.2.0 2002), available at < <http://www.faa.gov/avr/afs/fits/program/whitepaper.doc> >. Note that the AMCC presents general *guidance*, and neither proposes nor advances the AMCC as a standard.

³¹ (Feb. 29, 1996), available at < <http://www.faa.gov/avr/AFS/CHAL2000.HTM> >.

³² Wright, *supra* note 30. (“the current system of minimum standards [is] outmoded” and recommends “more reliance on industry ‘best practices’ as a means to achieve higher levels of safety.” *Id.*)

³³ Such usage resolved considerable debate among the AMCC's reviewers regarding the most appropriate characterization of its practices as *reasonable*, *recommended*, *good*, or *best* – each term purportedly implicating varying levels of care and the last more likely to create potential unintended risks to aviators. One distinguished lawyer persuasively urged that the AMCC posit *good* rather than *best* practices, claiming that “best” practices may increase pilot liability, whereas “good” (or recommended) practices connote the recognized and accepted less stringent standards of due care. Interview with William H. Wimsatt, Esq., Magana, Cathcart & McCarthy, Past Pres., Lawyer-Pilots Bar Ass’n, in Los Angeles, Cal. (Nov. 19, 2002).

Interestingly, some codes of conduct that espouse *best* practices merely provide a template, checklist or outline of issues and suggested positions. For example, “The Best Practices listed are not intended to promulgate minimum performance standards . . . rather, it provides a means . . . to compare their operations [and] emulat[e] what other[s] have found to be effective procedures, [and thereby] improve their own operation.” Air Transport Ass’n of Canada, *Industry Best Practices and Accreditation Manual 5* (Rev. 1 Oct. 1, 2002), available at < <http://www.atac.ca> >; see NBAA, *Best Practices for Business Aviation Security*, at < <http://www.nbaa.org/ops/security/bestpractices.htm> >. Thus, as a practical matter, one must look beyond the mere characterization of the code to its actual principles to determine its legal affect.

Cf. ICAO characterizes “recommended practices” as desirable objectives to which States should endeavor (*but are not required*) to conform, while *standards* are considered essential, mandatory or required. ICAO, *General Concepts, Direction, Guidance, and Definitions*, Doc. 8400.10 CHG 15, Vol. 1, Ch. 3, § 2, ¶ 99.A (June 26, 2002), available at < http://www.faa.gov/avr/afs/faa/8400/8400_vol1/1_003_02.pdf > (emphasis added). *Standards* are directives to which ICAO members agree, whereas *recommended practices* are not. And, consistent with the Chicago Convention on International Civil Aviation, Art. 33, (Dec. 7, 1944), available at < <http://www.iasl.mcgill.ca/airlaw/public/chicago/chicago1944a.pdf> >, only *standards* are enforceable under international law (for example, in the U.S., pursuant to 14 C.F.R. § 129.11). *Id.*

³⁴ See, e.g., FAA, *Regulation of Fractional Aircraft Ownership Programs and On-Demand Operation*, 68 Fed. Reg. 54520 (2003), available at < <http://web.nbaa.org/public/ops/fractional/FAA-2001-10047.pdf> > (considering industry “best practices”).

³⁵ PHILIP L. ALGER ET AL., *ETHICAL PROBLEMS IN ENGINEERING 3* (John Wiley & Sons, Inc. 1965) (emphasis added).

³⁶ Cf. ICAO distinguishes between a “Standard” and “Recommended Practice” such that conformance to a standard is mandatory, whereas conformance to a recommended practice is merely aspirational:

a) Standard -- any specification for . . . performance, personnel or procedure, the uniform application of which is recognized as necessary for the safety or regularity of international air navigation and to which Contracting States *will* conform . . . and

b) Recommended Practice -- any specification for . . . performance, personnel or procedure, the uniform application of which is recognized as desirable in the interest of safety, regularity or efficiency of inter-national air navigation and to which Contracting States *will endeavour* to conform in accordance with the Convention;

ICAO, app. A, *Formulation of Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS)*, available at < http://www.icao.int/icao/en/res/res_arch/a32_14.htm > (emphasis added).

³⁷ E.g., *Best Practices and Checklists* developed by the Flight Test Safety Comm. (a joint initiative of the Society of Experimental Test Pilots (SETP), the Society of Flight Test Engineers (SFTE) and the American Institute of Aeronautics and Astronautics (AIAA)), available at < <http://www.flighttestsafety.org/bestprac.html> >.

³⁸ See, e.g., The County of Santa Clara, Cal., *AIRPORT RULES AND REGULATIONS* (2001), available at < <http://www.countyairports.org/docs/ArptRR20010327.pdf> >. Such “local” rules are rarely read or known by aviators and, as a practical matter, are largely inaccessible to transients.

³⁹ See *infra* text accompanying notes 56-57 (International Focus).

⁴⁰ Telephone Interview with Richard D. Marks, Esq., ATP (Mar. 5, 2004).

⁴¹ TONY KERN, *REDEFINING AIRMANSHIP* 32 (McGraw-Hill Professional 1997).

⁴² See generally *AMCC IV Security* (addressing national security concerns).

⁴³ See *AMCC V Environmental Issues*.

⁴⁴ See, e.g., The International Business Aviation Council, IS-BAO (International Standard for Business Aircraft Operation), at < http://www.ibac.org/is-bao/isbao_benefits.htm > (Serving as a code of best practice. "Regulators are given confidence that the business aviation industry is capable of self-governance to a high safety level [And it p]rovides society with an alternative to traditional regulatory oversight, through application of 'industry self-monitoring'.").

⁴⁵ For example, safe-harbor provisions for data protection and privacy practices tend to require private sector self-regulation (*i.e.*, self-policing) and a government enforcement mechanism in the event of the failure of private sector enforcement. See *Safe Harbor Enforcement Overview* (July 14, 2000), at < <http://www.ita.doc.gov/td/ecom/ENFORCEMENTOVERVIEWFINAL.htm> > (presenting a *Safe Harbor Enforcement Overview* concerning data protection and privacy practices); Bruce S. Harrison and Adam S. Belzberg, *A Safe Harbor From the Stormy Seas of European Data Privacy Regulations*, at < <http://www.shawe.com/articles/safeharbor.html> >.

The Canadian Government's Transport Canada contributed to aviation self-regulation by delegating oversight of a Private Operator Certificate program to the Canadian Business Aircraft Association (CBAA) for operating the individual operator's safety management system. See < <http://www.cbaa.ca/portal/POC/> > (transferring the administration and management of Canadian Aviation Regulation (CAR) subpart 604 from Transport Canada to CBAA and its members).

⁴⁶ For example, members of the United States Parachute Association (USPA) "pledge to follow the basic safety requirements (BSRs) and recommendations found in the SIM [The Skydiver's Information Manual]. The BSRs are the commonly accepted skydiving safety standards and the cornerstone of skydiving's *self-policing* principle. The BSRs incorporate applicable FAA requirements and industry safety standards," available at < http://www.uspa.org/Publications/SIM/SIM_2001.pdf > (emphasis added). Separately, consider that various flight activities are largely self-regulating, such as ultralights pursuant to FAR Part 103.7 *Certification and Registration*. See *supra* note 17 (concerning Ultralights).

⁴⁷ This is consistent with AMCC VII.a. *Advance and Promote GA*.

⁴⁸ Civil aviation liability generally is more limited than in GA. See, e.g., THE Convention for the Unification of Certain Rules Relating to International Transportation (Warsaw Convention), 49 Stat. 3000, 137 L.N.T.S. 11 (entered into force in the U.S. in 1934), reprinted in note following 49 U.S.C. § 40105, Art. 17 (2002) (in part, limiting carrier liability for "death or wounding of a passenger . . . if the accident . . . took place on board the aircraft or in the course of any of the operations of embarking or disembarking" subject to many limitations, such as precluding recovery for purely mental or psychic injuries). See *Eastern Airlines Inc. v. Floyd*, 499 U.S. 530, 534 (1991), *Terrafranca v. Virgin Atlantic Airways, Ltd.*, 151 F.3d 108, 108-11 (3rd Cir. 1998).

See also *King v. Am. Airlines, Inc.*, 284 F.3d 352, 357 (2d Cir. 2002) (citing 144 Cong. Rec. S11059-02 (Sept. 28, 1998)); Montreal Protocol No. 4 to Amend the Convention for the Unification of 12 Certain Rules Relating to International Carriage by Air, signed at Montreal, Canada, Sept. 23, 1975 (entered into force in the U.S. in 1999), reprinted at S. Exec. Rep. No. 105-20, 21-32 (1998).

⁴⁹ See *Robbins v. Eastman Chemical Co.*, 912 F. Supp. 1476 (N.D. Ala, 1995) (documents included an introduction "cautioning the customer to use the information only as guidance;" customers should determine for themselves the appropriate procedures; and were referred to federal and state regulations for guidance in developing adequate procedures).

⁵⁰ Note that aviation regulations require pilots to do what is needed to operate safely and provide the Pilot In Command (PIC) with commensurate flexibility and discretion. FAR 91.3(b) (PIC “may deviate from any rule . . . to the extent required to meet that emergency”).

⁵¹ Presenting the AMCC’s recommended practices as guidance rather than (compulsory) standards should help protect pilots to the extent that failure to follow guidance does not demonstrate a comparable lack of due care as failure to follow standards.

⁵² Even if the AMCC were characterized as a standard, adopting organizations would not be materially exposed. See generally Amy A. Marasco, General Counsel, American National Standards Institute, *Standards Development: Are You At Risk?*, available at < http://www.ansi.org/news_publications/other_documents/risk.aspx?menuid=7 >. (“If a standard is developed according to ANSI requirements, there should be sufficient evidence that the standard has a substantive reasonable basis for its existence and that it meets the needs of producers, users and other interest groups.”). Standards developers are liable only where (a) the developer acted in bad faith, (b) the standards were to some degree compulsory or, (c) the developer had the power to control the operations of the companies that manufactured the particular products involved.” *Id.*, citing *Beasock v. Dioguardi Enterprises, Inc.*, 494 N.Y.S.2d 974 (Sup. Ct. Monroe Co. 1985) (no duty of care imposed on a standards developer absent a relationship with the manufacturer “sufficient to exercise control over the culpable conduct”).

⁵³ Of course, a particular adopting organization is free to create contractual obligations to compel adherence.

⁵⁴ See *supra* text accompanying notes 30-39 (concerning recommended practices).

⁵⁵ See, e.g., West Valley Flying Club, *Club Rules* (2002), at < <http://www.wvfc.org/rules.html> > (members expected to “treat the aircraft with the *utmost care*” and conduct “flight and ground operations . . . in the *safest possible manner*”) (emphasis added).

⁵⁶ However, it does not conflict with, amend or supplant such legal requirements. Pilots (and particularly student pilots) are presented with an intimidating number of discrete regulations in the form of the voluminous FAR/AIM. Some of such regulations and guidance appear to be mutually exclusive or otherwise fail to present a discernable *big picture*.

⁵⁷ See AMCC app. 1 *A Survey of Relevant Codes of Conduct*.

⁵⁸ Transparency International Canada, Inc., *Voluntary Codes: A Guide for their Development and Use* (1997), at < <http://www.transparency.ca/Readings/TI-E09.htm> - *Benefits of Voluntary Codes* >.

⁵⁹ Consider Fed. R. Evid. 407 *Subsequent Remedial Measures* as it might apply regarding post-accident compliance (or lack thereof) with the AMCC (inadmissible as a subsequent remedial measure related to advance safety):

When, after an injury or harm allegedly caused by an event, measures are taken that, if taken previously, would have made the injury or harm less likely to occur, evidence of the subsequent measures is not admissible to prove negligence, culpable conduct, a defect in a product, a defect in a product's design, or a need for a warning or instruction.

FED. R. EVID. 407, available at < <http://www.law.cornell.edu/rules/fre/rules.htm> > (Subsequent Remedial Measures). Cf. *Herndon v. Seven Bar Flying Serv., Inc.*, 716 F.2d 1322 (10th Cir. 1983) (Airworthiness Directives admissible due to their mandatory status).

⁶⁰ Cf. FAR Part 1.3 *Rules of construction*.

⁶¹ It is the *exclusive* decision of organizations adopting the AMCC whether or not to make its provisions mandatory.

⁶² Arguably the AMCC *should* use prescriptive rather than permissive terms, precisely because it is intended as a voluntary instrument and therefore the consequences of violating its provisions do not include

the invoking of enforcement mechanisms. Nonetheless, even the mere perception of prescriptiveness was discouraged.

⁶³ The legacy of male-oriented terms is acknowledged (for example, *airman*, and *airmanship*). Because of such terms' legal status and extensive use as terms of art, they are used herein.

⁶⁴ The following is a non-inclusive list of alternative titles that implementers may consider to substitute for "Code of Conduct:" *Aviators' Code of Practices*, *Aviators' Code of Ethics*, *Aviators' Guidelines*; *Good Aviation Practices*; *Guidance for GA Pilots*; *Good Practices Guidelines*; *Code of Practice*; *Educational Materials for Pilots*, *Responsible Pilot : Rules to Live By*, and *The Responsible Pilot's Guide to General Aviation*. See COMMENTARY TO THE AMCC'S TITLE, at < <http://www.secureav.com/Comment-AMCC-Title.pdf> >.

⁶⁵ Available at < <http://www.gpoaccess.gov/cfr/index.html> >. "FARs" is generally used in the AMCC Commentary (rather than FAR). The rationale was well-stated in the NAFIMENTOR, Jan. 2005, at 3: "First, everyone now in aviation knows what it means [and] . . . distracts readers from the subject at hand, and in the effort to communicate knowledge clearly and concisely, we don't like to distract readers."

⁶⁶ Also, consider that "aviation safety is one of our [USA] Nation's greatest exports." Marion C. Blakey, FAA Adm'r, Presentation at AOPA Expo, in Phila., Pa. (Oct. 29, 2003).

⁶⁷ For example, see the *Code Examples* that reflect the positions of organizations within diverse nations as well as those of international organizations. Separately, we need to keep mindful that cultural differences may impact the harmonization of best practices.

⁶⁸ See, e.g., FAA, National Aviation Safety Data Analysis Center, at < <http://nasdac.faa.gov/> > (listing source data bases).

⁶⁹ "There is no common standard for the terminology used in aviation occurrence reporting systems worldwide and "a lack of common definitions has caused contradictory results in the statistical analysis of such data when undertaken by different groups in the aviation industry." ICAO, Air Navigation Commission, *Progress Report on the Standardization of Aviation Database Taxonomies*, AN-WP/7768, ¶ 1.3 at 2 (Oct. 29, 2002).

"ICAO cannot define what is meant by an accident or an incident. Accidents used to be defined as either people killed or wings damaged. Engines didn't count because they always had problems anyway. Today expensive engines, when they blow up, are tending to be considered as accidents or incidents. The problem has been with statistics - An airplane crashing in country A, being flown according to country B's air regulations, and owned by an operator in country C should be attributed as an accident in which country's statistics." What is a Loss? - Not economical for repair? Not technically repairable? To old to be repaired?" Email from Frank Hofmann, IAOPA Representative to ICAO (Nov. 21, 2002).

"Each nation defines accidents differently making comparison among countries 'apples and oranges'." John Sheehan, Secretary General, IAOPA, Presentation at the IAOPA World Assembly, in São Paulo, Braz. (Oct. 3, 2002).

⁷⁰ Telephone Interview with David R. Hunter, Ph.D., Program Scientist, FAA, (Oct. 1, 2002) (emphasis added).

⁷¹ The National Transportation Safety Board is an independent Federal agency charged "to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations . . ." The Independent Safety Board Act of 1974, as amended, 49 U.S.C. § 1901, *et seq.* See Title VII, The Federal Aviation Act of 1958, 49 U.S.C. § 1441, available at < <http://www.twa800.com/report/accmanvol1.doc> >.

⁷² Interview with William H. Wimsatt, Esq., Magana, Cathcart & McCarthy, Past Pres., Lawyer-Pilots Bar Ass'n, in Los Angeles, Cal. (Nov. 19, 2002). "Risk management would be better served if 'pilot error' were trashed as an accident cause." COLLINS, CONFIDENT FLYING-A PILOT UPGRADE, *supra* note 11, at 249. "[T]he total accident sequence and all reasons for nonpreventative action should be explored to see if

more practical ways exist to break the chain than merely crying *pilot error*.” C.O. Miller, *System Safety*, in HUMAN FACTORS IN AVIATION 62 (Earl Wiener & David Nagel, eds. Academic Press 1998).

See National Transportation Safety Board, *Current Procedures for Collecting and Reporting U.S. General Aviation Accident and Activity Data Safety Report*, NTSB/SR-05/02 (2005), available at < <http://www.ntsb.gov/publictn/2005/SR0502.pdf> > (Unlike Part 121 and certain Part 135 air operations, GA need not report actual flight activity data to DOT. Rather, the FAA uses its annual *General Aviation and Air Taxi Activity (GAATA)* “Because of a critical need for accurate activity measures, and the perception of possible problems with current general aviation activity estimates, the Safety Board analyzed several general aviation exposure measures to determine the relationship of trends over time” and recognized limitations of the survey (relatively small sample of diverse aircraft operations and possible outdated and inaccurate registry records).)

⁷³ Miller, *Id*.

⁷⁴ See NTSB investigation rules - 49 C.F.R. § 831.11 (limiting the parties to the investigation “to those persons, government agencies, companies and associations whose employees, functions, activities, or products were involved in the accident and who can provide suitable qualified technical personnel actively to assist in the investigation”).

⁷⁵ Nonetheless an examination of such data was, of course, an important part of the process of developing the AMCC’s recommended practices. Data from the Aviation Safety Reporting System (ASRS) was used, for example, to provide a *chain-of-events analysis* of aircraft accidents. The ASRS seeks to “[s]trengthen the foundation of aviation human factors safety research,” at < http://asrs.arc.nasa.gov/overview_nf.htm#1 >; see Nancy Leveson et al., *The Analysis of a Friendly Fire Accident using a Systems Model of Accidents* (MIT May 2002), available at < <http://sunnyday.mit.edu/accidents/issc-bl-2.pdf> > (presenting example application of a systems model of accidents that “provides more complete understanding of the reasons for the accident than simply looking at the chain of events”).

⁷⁶ See FAA, *Safety Risk Management Policy*, § 2.1.1 (Safety risk management), available at < <http://fast.faa.gov/toolsets/SafMgmt/section2.htm> > (permitting use of *qualitative* risk analysis methodologies). From a pilot’s perspective, perhaps one endorsement of nonquantitative risk analysis techniques was implicated by Richard Collins: “[p]robably the best way for a pilot to rate a risk is to consider how he feels while taking the risk. If he is uncomfortable about doing it while doing it, the risk is probably not worth taking.” COLLINS, CONFIDENT FLYING-A PILOT UPGRADE, *supra* note 11, at 86; “[Informal risk assessment is] a method of building a comfort zone around the flight that satisfies us regarding our own personal concept of risk.” John Sheehan, *Taking the risk out*, AOPA PILOT, Jan. 2005, at 89.

⁷⁷ FAA, Order 8040.0 *Safety Risk Management* (June 26, 1998), available at < <http://www.asy.faa.gov/Risk/Policy/Order8040-4.pdf> > (“Safety Order”). (“The continuous loop process provides for validation of decisions and evaluation for desired results and/or the need for further action.”) The system safety process is also described as “formal and flexible . . . generally follow[ing] the steps in the FAA’s *Safety Risk Management Order*,” *System Safety Process Steps*, available at < <http://www.asy.faa.gov/Risk/SSProcess/SSProcess.htm> > (“Safety Steps”), requiring the use of “a formal, disciplined, and documented decision making process to address safety risks in relation to high-consequence decisions impacting the complete product life cycle . . . [that] requires proactively searching for opportunities to improve the process at every step, not simply identifying deficiencies after an undesired event.” *Id.* Cf. C.O. Miller, *supra* note 72 at 73 (*System safety* is “the application of engineering, operations, and management tasks, specifically organized to achieve accident prevention over the life cycle of the air vehicle.”); Air Force Safety Agency, *Air Force System Safety Handbook* (July 2000), available at < http://www.system-safety.org/Documents/AF_System-Safety-HNDBK.pdf >. One FAA manager who reviewed the AMCC project work product asserted that it is actually a “system safety” infrastructure. Robert Wright, in Long Beach (Oct. 22, 2005).

⁷⁸ ICAO, *Strategic Action Plan*, app. § 2.8, C-WP/12050 (2003).

⁷⁹ Prepared remarks by Marion C. Blakey, FAA Adm'r, *Charting the Next Century of Aviation Safety*, North American Safety Conference, in Atlanta, Ga. (Feb. 5, 2003), available at < http://www.faa.gov/newsroom/speeches/blakey/2003/speeches_blakey_030205.htm > (emphasis added).

⁸⁰ See AMCC app. 1 (comparing relevant principles from diverse aviation-related codes of conduct).

⁸¹ While not aviation-specific, the following timeless description of the value of a code, or creed, highlights core principles of universal application.

Duty, Honor, Country (the creed of the Long Grey Line) . . . [e]mbraces the highest moral laws and will stand the test of any philosophy ever promoted for the uplift of mankind. Its requirements are for the things that are right and its restraints are from the things that are wrong . . . Those three hallow words irreverently dictate what you ought to be, what you can be, what you will be . . . These are some of the things they do. They build your basic character . . . they make you strong enough to know when you are weak and brave enough to face yourself when you are afraid. They teach you to be proud and unbending in honest failure but humble and gentle in success To master yourself before you seek to master others. To have a heart that is clean, a goal that is high, to learn to laugh but never forget how to weep To be modest so that you will remember the simplicity of true greatness, the open mind of true wisdom, the uniqueness of true strength. They give you a temper of the will, a quality of the imagination, a vigor of the emotions. A freshness of the deep springs of life. A temperamental predominance of courage over timidity They create in your heart the sense of wonder, the unfailing hope of what next, and the joy and inspiration of life The code embraces the highest moral laws and will stand the time of any ethics or philosophies ever promulgated for the uplift of mankind.

Gen. Douglas MacArthur, *The Farewell Address to the Corps of Cadets of the U.S. Military Academy, 'Duty, Honor, Country!'*, in West Point, N.Y. (May 12, 1962), available at < http://www.west-point.org/real/macarthur_address.html >.

⁸² The AMCC may serve student pilots particularly well by exposing them to a positive culture of aviation *ab initio*. To the extent that there is a need for a change in the culture of GA, “we’re going to do it much more quickly as an industry than the FAA is going to do it [To set the culture and leadership of GA w]e need a culture to help insure the preservation of the industry and lift minds and imagination.” Interview with John King, King Schools, in São Paulo, Braz. (Sept. 30, 2002).

⁸³ Many AMCC reviewers urged such independence to avoid the “NIH factor.” “[The] NIH factor—not invented here—is probably one of the greatest retarding elements in aviation.” BOB BUCK, NORTH STAR OVER MY SHOULDER 373 (Simon & Schuster 2002).

⁸⁴ PEB Notice (Oct. 19, 2004), at < <http://secureav.com/PEBnotice.doc> >.

⁸⁵ (Oct. 19, 2004), at < <http://secureav.com/PEBAgreement.pdf> >.

⁸⁶ Interview with Drew Steketee, Pres./CEO, The BE A PILOT Program, in Phila., Pa. (Nov. 1, 2003). “[The AMCC is] “education thru advertising.” Clearly, the AMCC is promoting something and is made public so in a sense, it is definitely a PR effort.” Email from Prof. Dale De Remer (Apr. 3, 2005).
