

THE PROFESSIONAL FLIGHT INSTRUCTOR MENTOR



JANUARY/FEBRUARY 2021

VOLUME 23 NUMBER 1

It's Tough to Teach New CFIs

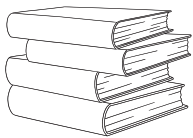
- Are We Teaching the Right Stuff?
- What Is a Professional Pilot?
- Tall Tales

PRRST STD
US POSTAGE
PAID
ORLANDO, FL
PERMIT #465



2021 TEST PREP

PASS YOUR TEST AND KNOW THE ESSENTIALS
TO BECOME A SAFE, COMPETENT PILOT OR MECHANIC



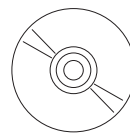
Test Prep Book or eBook

Includes 5 free practice tests at Prepware.com



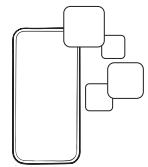
Test Prep Bundle

Book, software, and a 2-year subscription to Prepware.com



Prepware Software

PC and Mac compatible, includes 2-year subscription to Prepware.com



Prepware App

Supplement your study. For Apple and Android devices.

asa2fly.com/TestPrep

LEVEL UP YOUR QUALIFICATIONS AND GET THE COMPETITIVE EDGE

Fixed cost, fast track training programs that open more career opportunities.

ATP CTP

Airlines will hire the most qualified. Standout from your peers and get ahead!

📍 Only three days in Dallas, TX for simulator training
Save hundreds on travel costs with ATP's unique combination of virtual and in-person learning

📅 Add \$200 for ATM Knowledge Prep & Test

\$4,895 \$3,795 / 7 Days

- ✓ Full Financing Available
- ✓ GI Bill® Eligible
- ✓ ATP Alumni Discount Available



» Check ATPFlightSchool.com for Location Availability

Instructor Ratings

MULTI-ENGINE INSTRUCTOR RATING (MEI)

15-Hour Multi-Engine Add-On Program **\$8,995 / 7 Days**

INSTRUMENT INSTRUCTOR RATING (CFII)

10-Hour Single-Engine Instrument Add-On Program **\$4,495 / 5 Days**

The Leader in Multi-Engine Training

Nationwide locations. Largest fleet of new aircraft.

MULTI-ENGINE RATING

10-Hour Multi-Engine Add-On Program **\$5,995 / 5 Days**

15-Hour Multi-Engine Add-On Program **\$8,995 / 7 Days**

ATP MULTI-ENGINE CERTIFICATE

10-Hour Program. Trusted for Over 35 Years **\$5,995 / 5 Days**

ATP CTP & ATP CERTIFICATE

Discounted Multi-Engine Certification **\$7,995 / 13 Days**

CUSTOM PROGRAMS AVAILABLE

Tailored Training Matched to Your Goals..... *Call for Quote!*

GET THE COMPETITIVE EDGE



ATP alumni are eligible for exclusive discounts
» Visit ATPAlumni.org for details!

ATPFlightSchool.com

or Call/Text (904) 595-7950



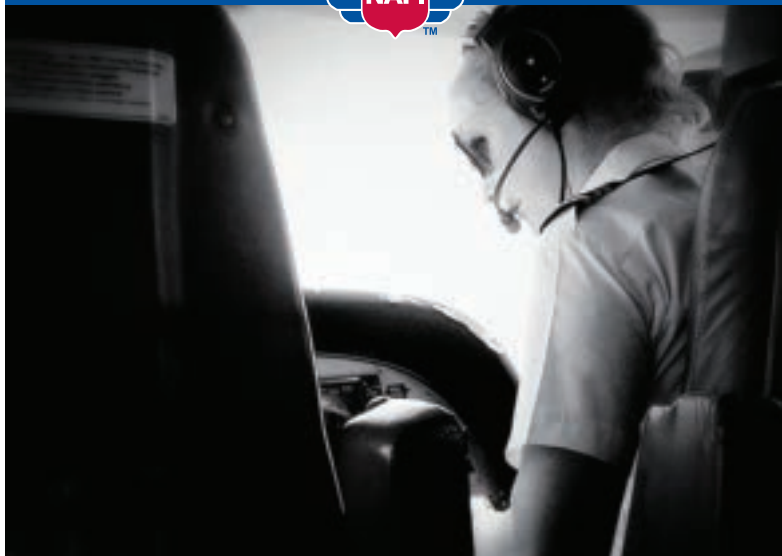
All prices offered through December 31, 2020. Discounted crew pricing shown. Check ATPFlightSchool.com for details and eligibility requirements. GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government website at <http://www.benefits.va.gov/gibill>. 14 CFR part 142 programs provided by ATP Jet Simulation, Inc.

CONTENTS

JANUARY/FEBRUARY 2021



VOLUME 23 NUMBER 1



It's Tough to Teach New CFIs, page 24

12 Are We Teaching the Right Stuff?

Lack of 'basics' results in many accidents

By Wally Moran

14 Tall Tales

Stories some pilots tell

By Keith Reed

20 Best Way to Learn

Book Review: *Brain Rules* by John Medina

By Chris Hope

24 It's Tough to Teach New CFIs

By Boots

28 What Is a Professional Pilot?

They are threat managers

By Alaba Gabriel Idowu

DEPARTMENTS

5 Your Feedback

6 NAFI News

COMMENTARY

3 Position Report

The Future Starts Now

By Robert Meder, NAFI Board Chairman

34 NAFI Joins 'Friend of Court' Brief in Warbird Case

By John J. Gagliano

2 • www.nafinet.org

MENTOR

www.nafinet.org

Mentor is a how-to magazine dedicated to improving the teaching skills of aviation instructors of all disciplines

NAFI Board of Directors

Robert V. Meder, Chairman rmeder@nafinet.org

Paul Preidecker..... ppreidecker@nafinet.org

Karen Kalishek kkalishek@yahoo.com

H.G. (Gus) Putsche Hputsche@gmail.com

Robert R. Bash robertrbash@yahoo.com

J.D. Deboskey j3debo@gmail.com

Brian Schiff..... baschiff@gmail.com

Tom Dorl..... thomas.r.dorl@gmail.com

John Gagliano..... john@gagliano.law

Gregory Feith crashdetective@msn.com

David Hipschman, Director of Publications & Editor

..... editor@nafinet.org

Mailing Address:

3101 East Milham, Kalamazoo, MI 49002

866-806-6156

Article Submissions: editor@nafinet.org

Publications Advertising & Sponsorships

Please contact Matt Mathias, NAFI Director of Business Development at mmathias@NAFINet.org or 503-345-0764 for a media guide and more information.

Statement of Ownership: NAFI *Mentor* (USPS 23-346; ISSN 1553-569X; PM 40063731) is published bimonthly by the National Association of Flight Instructors, located at 3101 East Milham, Kalamazoo, MI 49002. This publication is presented with the understanding that the information it contains comes from many sources for which there can be no warranty or responsibility by the publisher as to accuracy, originality, or completeness. It is presented with the understanding that the publisher is not engaged in rendering product endorsements or providing instruction as a substitute for approved and qualified sources. Membership cost is \$49 per year, of which \$35 is for the subscription to NAFI *Mentor*. Distribution is limited to members of the National Association of Flight Instructors. POSTMASTER: Send address changes to NAFI *Mentor*, 3101 East Milham, Kalamazoo, MI 49002. NAFI *Mentor* considers unsolicited manuscripts and article ideas, which should be submitted as Microsoft Word documents to editor@nafinet.org.

©Copyright 2021

National Association of Flight Instructors



www.facebook.com/NAFICFI/



The Future Starts Now

There is an unspoken tradition that those of us who write magazine or newspaper columns such as these begin the new year by reviewing the accomplishments of the preceding year while attempting to forecast the next. If we're doing this on behalf of an organization, such as NAFI, we try to be upbeat, inspiring and optimistic about the future. Of course, there's a reason for that — it's our job to be upbeat, inspiring and optimistic. In fact, it's in our very nature to be that way, or at least make a good attempt at it.

I will say that my reviewing 2020 would be redundant, because the effects of the COVID-19 pandemic have been at the forefront of nearly everything I've written since March. Instead, while remembering and applying what we have learned, let's start building our future.

Why do I say that? Well, first of all, the future is a blank slate. While we do learn from experience, and a wise person applies that knowledge to their activities, it is back there, in the past, while we have to move forward.

To use a past incident as an analogy, a CFI student and I were flying the pattern at Spirit of St. Louis Airport. A large bird suddenly turned in front of us and collided with the wing of the C-172RG we were flying. Once we realized that we were still flying, after what seemed like a tremendous impact, we started applying our collective experience to the problem. Our goal, as I said to her, was: "We still gotta land this thing." In other words, the collision was in the immutable past — how we acted upon it was our future. Drawing on the knowledge we had gained, both our own and from others, it became a process of saying, "We hit it at 80 knots,

we're flying at 80 knots, so we're not going to fly any other speed until we're 1 foot above the runway."

That bit of wisdom came from reading about how icing encounters had drastically changed the shape of airfoils. Part of that decision was also stated as, "Nothing's peeling off the wing at this speed, so this seems to be working." And, because we knew we'd taken a pretty good smack, given our somewhat altered wing shape and possible structural damage, along with knowing we had 6,000 feet of runway available to us, there was no good reason to use the flaps. Finally, using others' experience to shape our future plans and ensure a positive outcome, my CFI student said, "I'll read the checklist out loud, and you respond. It'd be bad if we forgot to put the gear down." She was clearly applying the hard lesson that stressful situations can make us forget what should, in hindsight, be obvious.

Needless to say, since you are reading this, nothing catastrophic happened. In fact, the damage to the aircraft turned out to be relatively minor, although it did require a waiver to fly to a repair facility to replace a wing rib and fix the leading edge. And, obviously, the point of the whole story is that we could have focused on the event of a hapless buzzard colliding with us and losing control of the situation, or we could and did say, "OK, it happened; let's deal with it."

That is where we are in the flight training industry. We have just experienced a year that required significant adjustment in the way we teach and assess risk. In fact, our risk assessment skills have become closer to home, given the nature of COVID-19. We have learned how to apply tools,

While we do learn from experience, and a wise person applies that knowledge to their activities, it is back there, in the past, while we have to move forward.

position Report

notably those associated with online conferences, to teaching situations, not only helping our students but also using the highest level of learning: correlation. Using my analogy above, we have survived an event, determined how best to cope and moved on.

So much for the past and present. The important question, now that we are in the new year with a new reality, is how do we move forward? In other words, rather than continue to react, we should recognize that we have all adapted and make plans to grow and thrive, both for our students' benefit and for ourselves.

I challenge each of you, in the coming days, to take stock of how you teach and conduct business. First, having had to assess risk in a different perhaps more personal way, find a path to relate this to aviation risk. For better or worse, many inexperienced and/or younger pilots are casual about assessing and mitigating the risk inherent in aviation. Because we have all been forced to assess and mitigate the risk inherent in the pandemic, this is the opportunity to draw parallels for your students and perhaps for yourself, applying the lessons learned regarding safety.


Second, since many of us have started using distance learning tools, perhaps for the first time, take the opportunity to

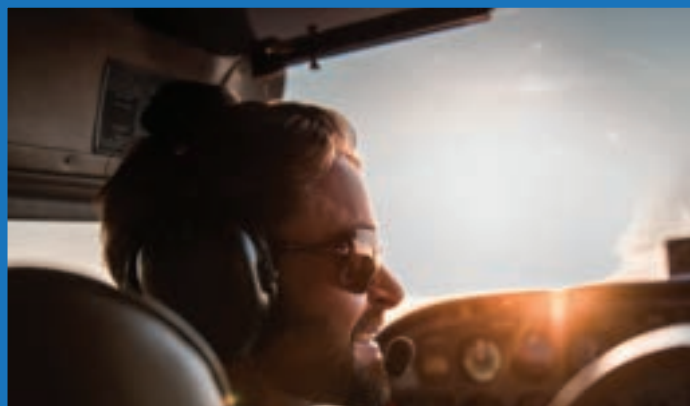
leverage them. Sometimes, using them one on one is the best method. Other times, getting a group together for guided discussions would be better. Develop your studio and graphical skills to become more impactful. These don't have to be broadcast quality, but using inexpensive video, lighting and audio tools will likely be helpful, and you'd be surprised at how robust even the simpler features in PowerPoint, Photoshop and other tools can be. Most important, take advantage of being able to interact with your students on those days when it may be impracticable to meet in person.

Traditionally, the new year is when we assess our personal skills and determine where we need to grow and improve. Although many of us, during the downtime that may have been imposed upon us, have done so previously, there is no time like the present to go through the exercise. I believe that the key questions to ask yourself are: What do I want to be doing at this time next year? Two or even five years from now? What skills do I need to learn to be a better instructor? What about becoming a better pilot? How can I set a better example for my students?

For those of you who plan to use your experience as flight instructors to go to the airlines or corporate flying, instead of being concerned about the downturn in the commercial aviation industry caused by the pandemic, this is the time to better prepare for the eventual upswing that will occur. Remember, aviation is far more than the physical skills involved in flying — it is also about how we interact with others. This is the time to learn and apply the techniques of crew resource management, the crew being your students. Use this tremendous opportunity to develop the skills necessary to fly as part of a crew, particularly in being in command of that crew. At the same time, you can help your students learn the fundamentals of risk and crew resource management so they can both apply it to their own flying and, if they are on the way to becoming career pilots, pass those lessons on to the people they touch. If you consider the tremendous positive impact this would have on all of aviation, the effort is well worth it.

Finally, take the time to consider that all the tools necessary for you to act are available now. Some, such as conferencing tools, I have already mentioned. But, as a reminder, there are other tools that you can use. Certainly, as we've said many times, we have NAFI's Professional Development Program in which I urge all of you to participate. Also, be sure to consider the many educational programs offered by NAFI's sponsors that can help you with these tasks. Finally, don't forget that many of these programs, along with NAFI's MentorLIVE series, offer WINGS credit, along with many stand-alone WINGS courses.

In short, we have learned from the past, and we have learned to thrive in what is in the present. We have to prepare for the future, which starts now. 



INSURANCE. TAILORED TO YOUR BUSINESS.

GET THE COVERAGE YOU NEED.

Flight Instruction is a business and businesses have special insurance needs. Finding the right coverage has never been easier, and in an ever-changing environment, isn't it nice to have some assurance?

Visit 360CoveragePros.com/nafi and get protected today.



YOUR FEEDBACK

Agrees With Boots

I enjoyed "ATC From a CFI Perspective" by Boots (*Mentor*, November/December 2020) and agree that ATC is normally very helpful, but it does seem that "priority" is sometimes "skewed" away from "little planes," and it is important to instill [this] in our students: The pilot in command has final authority and responsibility for the operation and safety of the flight (14 CFR 1.1); the word UNABLE indicates inability to comply with a specific instruction, request or clearance; and AIM should be on the tip of our tongue when we are abused by ATC, and maybe ATC will follow "first come, first served" as described in the JO 7110.65 series. We can always hope, and keep the NASA reports coming.

ASR and PAR approaches are becoming rare at civilian fields; as an example in Florida, Key West (KEWY) and Tallahassee (KTLH) are the only

published ones left, and getting ASR practice at a military field is almost impossible. Luis W. Alvarez, Ph.D. (nuclear physicist), who saw how important his invention was to the Berlin airlift after WWII would be disappointed. Let's just hope GPS always works?

Lou Toth

Enjoys Reading Boots

I enjoyed reading "ATC From a CFI Perspective" in the current issue of *Mentor*. Boots mentions filing NASA reports several times, and I agree that is a good idea. I also suggest calling the ATC facility and speaking with the manager when a controller does something that seems irregular. The manager can review the tapes and offer you an explanation, or remedial training for the controller if it seems appropriate.

Gil Buettner, Wausau (WI) Flying Service



New Member Benefits!

AVIS

Budget

HE HOTELENGINE

Office DEPOT OfficeMax

Constant Contact



Visit www.nafinet.org to learn more.

Congress Nixes 'Surprise Air Ambulance Bills'

Congress has eliminated "surprise air ambulance bills" as part of the just-passed federal COVID relief bill. Section 105 of the measure provides major relief for air ambulance companies and patients, AIN reported.

The bill would effectively end health insurance company claim payment denials for transports that are "out of network," establish independent resolution for disputed claims, mandate air ambulance data collection on costs and quality, and form a federal air ambulance advisory committee to examine best practices. The nation's air ambulance companies had long been criticized — often in high-profile media stories — for saddling patients with transport bills that can run into the tens of thousands of dollars.

However, the bill does not totally

eliminate patient financial responsibility — they would still be required to satisfy charges equivalent to their in-network deductible. Air ambulance companies and benefits payers would have 30 days to settle claims before taking any disputes to voluntary binding arbitration/independent dispute resolution (IDR).

Air ambulance industry lobby Association of Air Medical Services (AAMS) expressed support for the intent of the legislation but cautioned it could create additional problems for its members. In a prepared statement circulated yesterday, AAMS warned, "While the entire healthcare community is united in advocating for a solution to balance billing that takes the patient out of the middle of billing disputes, it cannot be done in a way that sacrifices healthcare services, especially during this unprecedented

global health emergency."

Before the passage of this legislation, air ambulance companies had been dealing with private insurance payment problems by establishing in-network agreements with health insurers or selling annual "memberships" directly to the general public that covered all or part of transport costs.

The bill does nothing to immediately remedy long-held industry concerns that Medicare and Medicaid covered transports are reimbursed at rates substantially below costs. Patients covered under these federal and state programs represent 70 percent of all transports, according to AAMS. However, the mandatory cost data collection section of the bill could generate information to persuade Congress to raise these reimbursement rates in the future.





**SEND US YOUR
FEEDBACK**
editor@nafinet.org

RECORD YEAR FOR FAA COMMERCIAL SPACE ACTIVITY

A record number of launches, new streamlined launch and reentry licensing regulations, and a historic licensed crewed mission are some of the noteworthy commercial space transportation achievements of the Federal Aviation Administration (FAA) in 2020. The FAA will build on these accomplishments in the coming year.

"This record-setting year in launches, and the new streamlined launch and reentry licensing regulations, bode well for continued rapid growth of America's commercial space sector," said U.S. Transportation Secretary Elaine L. Chao, who has since resigned.

In 2020, the FAA licensed 41 commercial space operations (launches and reentries), the most in the agency's history. Those operations included a record 39 FAA-licensed launches, including the first-ever NASA crewed mission to be licensed by the FAA. For 2021, the FAA is forecasting the number of licensed operations could reach 50 or more.

"The FAA is well positioned to keep pace with the dramatic increase in commercial space operations and support the innovation driven by the aerospace industry while keeping public safety a top priority," said FAA Administrator Steve Dickson.

Contributing to this year's accomplishments are the benefits of a recent reorganization of the FAA Office of Commercial Space Transportation. The changes increased the efficiency, effectiveness and accountability of the office, allowing it to dynamically scale its processes to meet the burgeoning private sector licensing demand.

The organizational changes will help the FAA implement a new rule that modernizes how the agency regulates and licenses commercial space launch and reentry operations. The rule consolidates multiple regulatory parts to create a single licensing regime for all types of launch and reentry operations, replaces prescriptive requirements with performance-based criteria, and allows the aerospace industry to continue to innovate and grow.

In 2021, the FAA will continue to provide policies and guidance to support the streamlined licensing rule by publishing advisory circulars that will identify possible means of compliance. Working with the Commercial Space Transportation Advisory Council (COMSTAC), the FAA also will prioritize its other regulations for updates and streamlining. Additionally, the agency anticipates the private sector will make notable progress toward commercially viable space tourism.

In the coming year, the FAA also will continue to test new technologies to further enable the safe and efficient integration of space-vehicle operations with other types of air traffic in the national airspace system. Additionally, the FAA will establish an interagency working group to develop a recommended national spaceport strategy to advance a robust, innovative national system of spaceports. It will also support the directives and other tasks of America's national space policy.

An FAA license is required to conduct any commercial space launch or reentry, the operation of any launch or reentry site by U.S. citizens anywhere in the world, or by any individual or entity within the United States. Once the FAA issues a license or permit, the agency works with operators to make sure they are meeting the requirements to conduct launches and reentries. This includes having FAA safety inspectors monitor licensed activities.



NAFI NEWS



ABOUT THE NAFI MASTER INSTRUCTOR PROGRAM

The *NAFI Master Flight Instructor Accreditation* is earned by aviation educators based upon a system of advanced professional standards and peer review. The accreditation identifies and publicly recognizes those teachers of flight who demonstrate an ongoing commitment to excellence, professional growth, and service to the aviation community. The NAFI Master Instructor accreditation is for two years and may be used to renew an FAA flight instructor certificate. Applicants must have been a CFI for two years and have given 1,000 hours of flight instruction. In addition, candidates must meet and document activity in four NAFI Master Instructor categories (Instructor, Educator, Service to the Aviation Community, and Professional Activity).

Members of the *National Association of Flight Instructors* work as independent instructors, at flight schools, universities, FBOs, corporate flight departments and in the military. Since 1967, NAFI and its members, who teach in 30 countries, are dedicated to increasing and maintaining the professionalism of flight instruction. NAFI members influence active pilots daily: students working to become pilots, current pilots training to advance their skills with new ratings or certificates and pilots who seek to improve their skills with recurrent training. NAFI also serves as an advocate with industry and government as a voice for flight instruction. NAFI helps shape the current and future direction of flight training. For more information about NAFI or the NAFI Master Instructor program, call 866-806-6156 or visit www.NAFINet.org.

MASTER CFIS

The National Association of Flight Instructors is proud to announce that several NAFI members have recently earned accreditation as Master Instructors; they are listed below. For more information about NAFI or the NAFI Master Instructor program, call 866-806-6156 or visit www.NAFINet.org.



DONALD KAYE MASTER FLIGHT INSTRUCTOR

This is Donald Kaye's 10th consecutive NAFI Master Flight Instructor award. Born in Canton, Ohio, Kaye says he was interested in aviation from an early age. After getting his Bachelor of Science degree in electrical engineering, he went to work for Kaiser Aerospace and Electronics. Most everyone in his department had their pilot certificate, and in early 1968 he became a private pilot. A year later he got his commercial certificate.

From 1970 until 1992, he worked as a real estate broker selling apartment houses, as a real estate developer and as a real estate investor. It took an issue of *Flying* magazine with a Mooney TLS on the cover to direct his attention back to flying. He soon earned his instrument rating, and within a month purchased a Mooney TLS. Thereafter, he achieved his instructor certificate and instrument instructor rating and started teaching full time, specializing in all models of Mooneys. His ATP certification followed.

For many years he taught both the primary Mooney Pilot Proficiency Course and its corresponding Mountain Flying Course. After a student of one of his students bought a King Air C90, he earned his multiengine and multiengine instructor ratings and began teaching the multiengine rating. Shortly thereafter the same student bought a CJ1, and the Citation CE-525S ATP was added to his credentials.

With over 11,600 hours of total time, 6,600 hours have been devoted to teaching. He has been willing to travel, to Canada, Australia and even North Dakota in the middle of January to assist those interested in learning the art of flying.

Several years ago, he upgraded the panel of his airplane to the latest in technology. With the experience gained, he has been able to quickly guide students on both purchases of such technology and on how best to use it to provide for the safest flight possible.



**SEND US YOUR
FEEDBACK**
editor@nafinet.org



DANIEL KATZ-BRAUNSCHWEIG, ASSOCIATE MCFI

Katz-Braunschweig says he was “bitten” by the aviation bug early in life when his father, a former private pilot, scheduled his first flying lesson at the age of 12 at Cherry Ridge Airport in Honesdale, Pennsylvania. His interest in flying caused Katz-Braunschweig to join the Civil Air Patrol, and during his tenure, he was regularly active in the cadet program, aerospace education and emergency services. His skills were put to task a few days after September 11, 2001, when he, as a photo specialist, was tasked with his aircrew to take photos and video of the terrorist attack at the World Trade Center and immediately deliver them to New York State’s office of emergency management. He said that experience caused him to really want to move to the left seat of the aircraft, and he started flight training in December of that year toward his private pilot certificate.

With his family helping him study and supporting him in his goals, he received his certificate in June and his instrument rating in December 2002. Katz-Braunschweig’s full-time job is as a senior lecturer in the Department of Computer Science and Engineering at New York University’s Tandon School of Engineering, where he sometimes uses his aviation background to excite students on the complexities of both fields. He has given his students insight into aviation by showing them the intricacies of ADS-B and building projects that rely on data processing and performance characteristics of both aircraft and ground systems. Since it was the obvious combination of his vocation and avocation, Katz-Braunschweig obtained his CFI certificate in 2006 and has been teaching ever since. He owns and flies a K35 Bonanza, which he uses to transport his wife and two children around the United States and to international destinations. He said that his greatest thrill is when he sees a student who has had difficulty with understanding or performing a task finally “get it.”

ANTHONY CIRINCIONE, MASTER FLIGHT INSTRUCTOR

Anthony Cirincione has over 39 years, and 11,000 hours of flight experience, flying almost every aircraft. His holds a Gold Seal CFI with airplane, helicopter, gyrocopter, glider, weight shift control, powered parachute and FE – turbojet ratings, and an A&P certificate with inspection authorization. He began his aviation career as a crew chief in the U.S. Air Force. From there he became an F-111 instructor and flight examiner, and later an instructor at the USAF Weapons School flying the F-4 Phantom.



He is type rated in Cessna, Learjet, Dassault, and Boeing aircraft. Cirincione has a master’s degree in aeronautical science and has co-authored *Advanced Flight Instruction: A Teaching Guide for Aviators*. Although he teaches in several light-sport aircraft, he spends most of his time refining pilots’ skills for safe single-pilot operation of Cessna Citation aircraft. For a closer look at his Citation work, go to www.Aeromania.net.

.....
**ANDREAS “BARON” WESEMANN
MASTER GROUND INSTRUCTOR**

Andreas Wesemann is the director of the Professional Pilot program at Utah State University, where he started a new online Master of Aviation Science degree and drone program. He joined the Civil Air Patrol in 1981 and garnered a solo scholarship that encouraged his childhood dream of becoming a military pilot and helped him toward an appointment to and his eventual graduation from the United States Air Force Academy



NAFI NEWS



where he earned his silver wings.

Wesemann retired as a lieutenant colonel after a 27-year career flying the C-130 Hercules around the world as a combat rescue pilot and deployed combat commander, garnering distinguished graduate honors at aircraft commander's school and an exceptional qualification on his instructor checkride. He was recently selected as the Teacher of the Year for Utah State University for 2020 and serves on the board for the international Alpha Eta Rho aviation fraternity. He has earned FAA WINGS validation at the basic, advanced, and masters levels on multiple occasions. As an instructor pilot for over 20 years, he has CFI, CFII, MEI, AGI, and remote pilot certificates, was an instructor pilot in the U.S. Air Force for five different aircraft, and is completing his doctorate in curriculum and instruction, with a focus on e-learning.

FRED L. GIBBS, MASTER FLIGHT INSTRUCTOR

Fred L. Gibbs' aviation career started in 1971 when he was hired by the FAA and started out in the flight service station in Williamsport, Pennsylvania, the home of Lycoming aircraft engines and right down the street from Lock Haven, the birthplace of Piper Aircraft. He put his flight service knowledge to work for the local FBO, trading knowledge (in ground school teaching)



for flight time, and as a student pilot, "hob-knobbing" with all the Piper test pilots and gaining experience flying all over the East Coast with his instructors delivering Lycoming engine parts late at night.

Gibbs worked with the local general aviation district offices back then, doing education programs with the same examiners he flew with for his ratings, and even flew within the FAA's internal 4040.9 flight programs, one of the very few from within the air traffic organization actually allowed in! Gibbs eventually qualified for the ATP certificate under that internal FAA program.

Gibbs holds ATP, CFII, ASMEI and Gold Seal certificates, with over 17,500 hours of flight time and over 13,200 hours of instructor time. He has been an instrument flight instructor (CFII-SMEI) since 1976, as well as a certified Cirrus flight instructor since 2008. After retiring from the FAA, Gibbs became the assistant chief pilot at the Freeway Airport, an active Part 141


flight school in Maryland. Upon relocating to Flagstaff, Arizona, he assumed the role of director/chief flight instructor at the local FBO there. Gibbs has flown about every GA aircraft around, has extensive conventional gear experience and is a very experienced instrument instructor.

Gibbs credits his FAA ATC and flight service station experience and knowledge for much of the success and opportunities he has enjoyed through the years. He also owns and operates his own aircraft, a restored and meticulously maintained 1973 Bellanca Super Viking. Gibbs has flown under the FAA's internal flying program and has been an FAA safety counselor at large for the past 44 years. He is also a FAAST lead representative for the Scottsdale FSDO, is active in the FAA's WINGS program, serves on the board of directors for the Arizona Pilots Association, is the safety and education director for the Arizona Pilots Association and was a captain in the Civil Air Patrol serving as the safety officer/check pilot for the local squadron in Flagstaff.

SAM LINDSAY, MASTER FLIGHT INSTRUCTOR

Sam Lindsay is a U.S. Air Force veteran and former airline first officer who began flying in the 1990s. He quickly progressed through his ratings and is currently a primary, instrument, and multiengine instructor. He specializes in Mooney and Comanche aircraft as well as high-tech avionics, but he also instructs local tailwheel pilots at a nearby grass field and mentors new student pilots in his 1977 Cessna 150. He is an independent instructor and owns his own flight school, named CourseAir Flight Training.



Lindsay has a Master of Science degree in information systems, and prior to becoming a full-time instructor, he spent 38 years in the information technology field. He has been published numerous times in various periodicals, including NAFI's *Mentor*, *MAPA Log* and *IFR Refresher*. He also produces online instructional videos for use by all students of aviation, young or not so young. 

A close-up, side-profile shot of a pilot wearing a Bose A20 Aviation Headset. The pilot is wearing glasses and is looking out of the cockpit window. The headset is black with a large circular ear cup that has the Bose logo and 'A20 Aviation' printed on it. The background shows the cockpit interior and a view of an airport tarmac with a building and a clear sky.

BOSE

AVIATION

A20 AVIATION HEADSET

Technology developed over 30 years. Appreciated in seconds.

The Bose A20 Aviation Headset offers the right combination of noise reduction, clear communication and comfort. With *Bluetooth*[®] streaming for audio and communication, auto-on*, auto-off, side-swappable mic and FAA TSO and EASA E/TSO-C139 certification, the A20 is the choice of pilots the world over. Hear the A20 difference today.

Finance with Bose Pay or start a 30-day risk-free trial at Bose.com/A20.

    Connect with us @BoseAviation

© 2020 Bose Corporation. All Rights Reserved.

The *Bluetooth*[®] word mark is a registered trademark owned by Bluetooth SIG, Inc., and any use of such mark by Bose Corporation is under license.

**In select models.*

Are We Teaching

THE RIGHT STUFF?



Lack of 'basics' results in many accidents

.....

By Wally Moran

Why should a Piper Malibu crash while attempting to execute a go-around? Why should a Grumman Tiger overshoot a 4,000-foot runway? In both cases, the airplanes were clearly capable of doing what the pilots wanted them to do, but because of poor airmanship an accident resulted.

This problem is not restricted to general aviation pilots either; it is also happening in the airline industry. For example, the National Transportation Safety Board (NTSB) recently determined the cause of an accident wherein a Boeing 737 ran off the side of the runway and was severely damaged while attempting a crosswind takeoff. The NTSB concluded the pilot possessed adequate rudder control for the conditions and could have avoided the accident. Then there are at least two other current airline accidents wherein improper stall recovery procedures were the cause. As I recall, stall recovery is something we

are supposed to teach prior to solo!

In these and many other accident reports available on the NTSB website, frankly, a common factor is pilots who have forgotten or perhaps never acquired certain basic airmanship skills.

I fear we instructors are putting more emphasis on the gadgets than we are on basics. I know pilots who can use every feature of a new Garmin panel but can't land on the centerline. I also know a pilot whose alleged checkout in his new and very complex airplane never included stalls or short- and soft-field takeoffs and landings.

Are we as instructors becoming so fascinated with technology that we are failing to look at basic airmanship skills during flight reviews and aircraft checkouts? Are we letting our students off the hook by not making them demonstrate basic skill maneuvers such as slow flight, stalls and precision landings? While it is great and in fact necessary to learn how to operate all the new gadgets we have in

our airplanes, they are not a substitute for basic skills like how to recover from a stall, make a short-field landing, perform a go-around or make a good crosswind takeoff. These are the skills that were lacking in the pilots involved in the accidents mentioned previously.

As far as I know, all those accident pilots had current flight qualifications. I would be interested to see the lesson plans for their most recent flight reviews. One of those pilots was an airline pilot, and you might ask how it could be that he was not up to speed on stall recovery procedures. Well, I can tell you how because I have been there. Airline training can lose focus just as general aviation training can. In fact, in that accident the airline training program and FAA oversight were named as factors. We seldom see training mentioned in NTSB files of general aviation accidents, but that's only because we are not as visible and don't get the attention airline accidents do.

I believe inadequate training and low

standards are a significant factor in general aviation's dismal accident rate. Sadly, we have only ourselves to blame for that.


At this point you may think I am suggesting we all set a bunch of lofty standards for the pilots we train. That is not the case. In fact, we already have fine standards available to us; we just need to use them. For example, let's take a look at what the private pilot ACS says in part about landings:

1. Select a suitable touchdown point.
2. Maintain a stabilized approach at the recommended airspeed.
- 3 Touch down at the proper pitch attitude.
4. Touch down within 400 feet beyond a specified point with no drift, and with the airplane's longitudinal axis aligned with and over the runway center.

That seems pretty basic, but if all our pilots could do that, I wonder how many landing accidents would be avoided. Now recall that these are the minimum standards for a private pilot. How much better should our experienced pilots be?

Do you assign a point on the runway for touchdown? Try it and you may be surprised how it turns out. Are we at least requiring private pilot standards on our flight reviews? I encourage you to review the skills listed in the ACS for the various maneuvers and confirm that you are indeed requiring your trainees to meet those standards.

Sure, it is fun to play with all the new toys in the panel, and in fact it is our job to ensure that the pilots we fly with know how to operate everything in the airplane, but remember, it is still basic airmanship skills that get the airplane up and down.

Ladies and gentlemen, the pilots who are having accidents are for the most part a product of their initial and recurrent training. In the general aviation world, it is you and I who provide that training, and it is our responsibility to be sure we are teaching them the right stuff. 

Wallace J. Moran has instructed in general aviation, airline operations, and gliders for over 50 years. He holds a NAFI Master CFI designation and is an FAA-designated pilot examiner. He was inducted into the NAFI Flight Instructor Hall of Fame in 2017.



Adventure Seekers Wanted!

The Ninety-Nines is the international organization of women pilots that promotes the advancement of aviation.

Join today! Benefits include:

- Scholarship opportunities for pilots seeking additional ratings or degrees and for student pilots seeking their first certificate
- The Professional Pilot Leadership Initiative, designed to support aviation career advancement through mentoring and networking
- Pilot Proficiency classes and Webinars to enhance aviation knowledge and skills
- Fly-Ins and other aviation events
- Speakers' Bureau
- Museums
- eNetworking Forum to provide inspiration, resources, and support
- Publications with the latest news from the organization, local chapters, and individual members
- Camaraderie



Become the face of a new generation of women pilots.

Visit our website at:

www.ninety-nines.org

Facebook: 99sinc

Twitter: @TheNinety-Nines

Instagram: theninetyninesinc



TAIL TALES

Stories some pilots tell

By Keith Reed

We have all heard the old saw, “How can you tell if there’s a pilot in the room? Don’t worry, he or she will tell you.” Being a pilot is a reason for pride. In 2019, there were 664,565 certificated pilots in the United States. The U.S. 2019 population was 328.2 million, meaning that only about 0.17 percent of the population were pilots. We are members of a pretty exclusive club.

One thing that I have found in more than 50 years of flying is that after politicians and fishers, pilots run a close third when it comes to telling tall tales.

Greg was a maintenance man at a chemistry lab where I worked during college. The day I started, one of the other chemists, on finding out I was a pilot, said, “You have to talk to Greg. He’s also a pilot.” At that time, I was working on my instrument rating at one of the top flight schools in the Twin Cities. In due time, I met Greg, and talk turned to flying. “Yep,” Greg said, “I just finished my instrument rating at (the same) flight school. I got a ‘B’ on it.” (Radar screen up.) “Oh,” I asked him, “who was your instructor?” He thought for a moment and then said he could not remember his name! A guy with whom he had purportedly recently spent at least 40 hours in the confines of a trainer, a briefing cubicle and a Beechcraft Musketeer. Yet the name escaped him. At my next lesson, I asked my instructor if Greg had ever studied there. He went through the files and of course found nothing.

Later, Greg asked for my help. He was, in addition to being a pilot, a diver who specialized in Lake Superior wrecks. He had a tip as to where a particular wreck was and wanted to take some aerial photographs of it before he planned his dive. He had a buddy with a new Cessna 210, and he wanted me to fly it “just above stall speed, of course — the only way you can get aerial photos,” at 100 feet above the lake, while he stood out on the wing strut (of a new 210?) wearing a parachute in case he fell! I just nodded, and of course, over time, nothing came of it. Over the next couple years, I found out that in addition to being a pilot and diver

JOIN THE MIGRATION



Universities and flight schools around the world are adding the power of Redbird Flight Simulators to their fleet, making Redbird the fastest growing simulator provider in the industry. With all this power in such an affordable design, it's easy to see why.



WWW.REDBIRDFLIGHTSIMULATIONS.COM
INFO@REDBIRDFLIGHT.COM
512-301-0718

he was, according to Greg himself, a pro photographer (his whole basement was a studio and darkroom), a master woodworker (his whole basement was a woodshop) and an expert tropical fish breeder (his entire basement was an aquarium).

This next story is more karmic than humorous. As a young pilot, I would, as did we all, hang out at the flight school. One guy, a real estate agent by trade, middle-aged, would spend his days at the airport, regaling all us youngsters of his many deeds and experiences, who, as a private pilot with “almost 400 hours,” felt he could impart upon us wisdom we could take with us into the cockpit. He of course never took time to find out about his audience: to him we were just a bunch of young, snotty-nosed, impressionable student pilots.

One day, my instructor saw me off on a checkride. On my return, he and the flight school owner met me at the door

One thing that I have found in more than 50 years of flying is that after politicians and fishers, pilots run a close third when it comes to telling tall tales.

and asked how I did. “I passed,” I proudly replied, which was met with many congratulations and much vigorous backslapping. The old veteran realtor, leaning on the coffee machine with his cup in hand, said to me, “So, you finally got your private, huh?” “No,” I said truthfully, “flight instructor.” The look on his face was precious. One could have knocked

him over with an empty coffee cup. He choked down the rest of his black with cream and sugar and made his way to the door. One of life’s little triumphs.

Several years later while instructing at a Wisconsin flight school, I greeted a man who was just transferred to our town to manage a car dealership. As a private pilot, he wished to check out in a plane so he could rent. An examination of his records showed about 300 hours of recent experience on his six-month-old private, ASEL certificate. We flew about an hour, enough for me to decide he was competent to rent. A couple months later, one of my students asked me to accompany him to an Optimist Club breakfast. All the members wore nametags with their employer name. Across the table was a man who was a mechanic at the same auto dealership. I mentioned that I had flown with his new manager. “He’s some pilot!” the man said. (Radar screen up.) “You know he’s flown every airplane in the Air Force inventory!”

Another tale: Vern was hired as manager of a flight school at which I was instructing in the early 1970s. He would regale us with tales of his B-25 experiences in World War II, his experience as a King Air pilot for a famous local entrepreneur and his extensive corporate pilot experience. It took us instructors not long to begin to doubt his tales. He never flew anymore, because, he said, his “ticker” wouldn’t allow it. I was enlisted to fly Vern to Wichita for meetings with Cessna for our recent purchase of the Cessna Pilot Center program. I was tasked by the other instructors to evaluate him in the air. On the way there, I would ask him from time to time if he would like to take the controls; he declined, saying that it was too “painful” for him to be reminded of all the good times he had spent behind the yoke. The real giveaway that he knew nothing about flying, however, came at the airport a few days later, as I was preflighting the Cessna 182 for our return to Minneapolis--St. Paul International Airport (KMSP). As I made my way around to the tail, Vern was grunting, trying to bend the trim tab up. I asked what he was doing. He said that someone must have





NAFI MEMBERS BENEFITS

FREE COURSES
20% DISCOUNT
\$29 CHECKRIDE COURSES

Your NAFI member benefit program includes some awesome offers from King Schools. You get free courses, 20% discounts on *KING* products, \$29 ACS Private and Instrument Checkride video courses and an opportunity to win a King Schools/NAFI scholarship worth more than \$18,000.

\$29 ▶ **ACS CHECKRIDE COURSES—THIS IS NOT A TYPO!**

(Reg. - \$139 each)

You will see real-world ACS checkrides, including the oral and flight tests, in HD video.

Private Pilot Practical Test course and/or the *Instrument Practical Test* - \$29 each.

FREE ▶ **FLIGHT INSTRUCTOR RESOURCES**

King Schools provides CFIs with free resources to help you do your job of instructing learning pilots. <http://www.KingSchools.com/CFI/>

20% ▶ **OFF ALL KING SCHOOLS COURSES**



8 FREE COURSES

5 Free Risk Management Courses — Risk Management for Pilots, Single Pilot IFR,

Takeoffs & Landings, Weather and Reluctant Passengers & Their Pilots.

Plus 3 more courses:

- Surviving Aircraft Systems Emergencies
- Surviving Your Most Feared Flying Emergencies
- Maneuvers for the Commercial Pilot and CFI

These offers are available by phone to current NAFI members. Please have your NAFI membership number ready when you call King Schools.

Go to [KingSchools.com/NAFI.net](http://www.KingSchools.com/NAFI.net) for more information



(800) 854-1001
www.KingSchools.com/NAFI.net






driven into the tail, because this piece of the “tail” was bent. He was trying to bend it back. Now, I have never flown a B-25 or a King Air, but I would think that sometime in the past 30 years Vern would have flown *some type* of airplane with an elevator trim tab.

Another time, a man came out with his Mooney (relax, dual controls) and asked for an instrument competency check (as they were known back then). After a thorough preflight briefing, I explained that we would first go out to the practice area for some airwork. “No,” he adamantly told me, “I am current. I only need to do some approaches. I don’t need any of that other stuff.” Knowing that the flight to MSP would give me some idea as to his basic competence, we departed. He did a passable job with his basic instrument control and radio procedures to get us lined up for an ILS into KMSP. I had informed the controller that it was a training flight,

which will be important later. He climbed to the initial approach altitude of 4,000 feet, swung his Mooney onto the localizer and did a very nice job keeping the needle centered while communicating with ATC. We crossed the outer marker, the middle marker and soon heard the rapid beep of the inner marker. “There!” he said. “Not bad, huh?”

“OK,” I said, “take off the hood and do a low pass.” He was quite surprised when he did and saw that he was still at 4,000 feet. He had done a nice job, except that he had forgotten to descend. The astute controller did not comment since I had forewarned him that it was a training flight — he probably figured we were just doing localizer work. “OK,” I said, “now let’s go to the practice area. We need to do some work.” He did not argue. On the way, we reviewed what the term decision height meant.

A while ago I saw a gray-haired gentle-

man wearing a T-shirt that read, “The older I get the better I used to fly.” I am still looking for that shirt: It defines my flying career as well. But what I have found is that flying is so special, so unique, so exciting that I really don’t need to embellish my story. The truth is enough. But, who knows what might happen in the future. Someday the grandchild on the knee might just want to hear, one more time, how Grandpa broke the world speed record between New York and Pretoria in a Cessna 120. 

In 2020, Keith Reed celebrated his 51st year as a pilot, his 48th as a flight instructor. He has worked as a flight instructor, chief flight instructor and Part 135 pilot for numerous flight operations in Minnesota and Wisconsin and has taught ground schools for even longer than that. He currently works as a writer and writes, produces and directs audience interactive mystery dinner theater productions for his company, which he formed 30 years ago.

Learn “How to Teach Beech” with the American Bonanza Society’s **ABS Flight Instructor Academy**



FREE to ABS Members
See Instructor Training
at www.bonanza.org

- Computer-Based Training on Instructional Techniques for Beech Bonanzas & Barons
- Aircraft Systems, Procedures, Techniques and Flight Maneuvers Guides
- Academy Graduates are Listed on the ABS Website Instructor Referral List for Over 9000 Beech Pilots
- ABS Flight Instructor Mentor Program to Answer Your Questions About Teaching in Beechcraft
- Opportunity to Become Accredited in ABS’ Industry-Leading Beechcraft Pilot Proficiency Program (BPPP)

ASI'S EFIRC

THE MOST TRUSTED CHOICE IN THE BUSINESS

CFIs recommend our course for its cost, convenience, and challenging content. Our tablet-friendly eFIRC allows you to complete the course on your own time.

1 NO HIDDEN FEES

We process your paperwork and ensure you keep your renewal month.

2 EXCELLENT CUSTOMER SERVICE

Our CFIs are standing by to assist.

3 GIVING BACK

Your fee supports safety education.

4 ENGAGING MULTIMEDIA

Including videos and interactive lessons.

5 CUSTOMIZED LEARNING

10 elective choices
NEW! Teaching
CFIT Avoidance



AM&P
EXCEL

BRONZE WINNER
2020

6 AWARD WINNER

Awarded Excel bronze medal by the AM&P for mobile education application.

7

ONLY
\$124

LEARN MORE AT EFIRC.COM/MENTOR

Best Way to Learn

Brain Rules by John Medina

■ A book review in NAFI *Mentor*? And a nonaviation book? What is up with that? Bear with me for a minute.

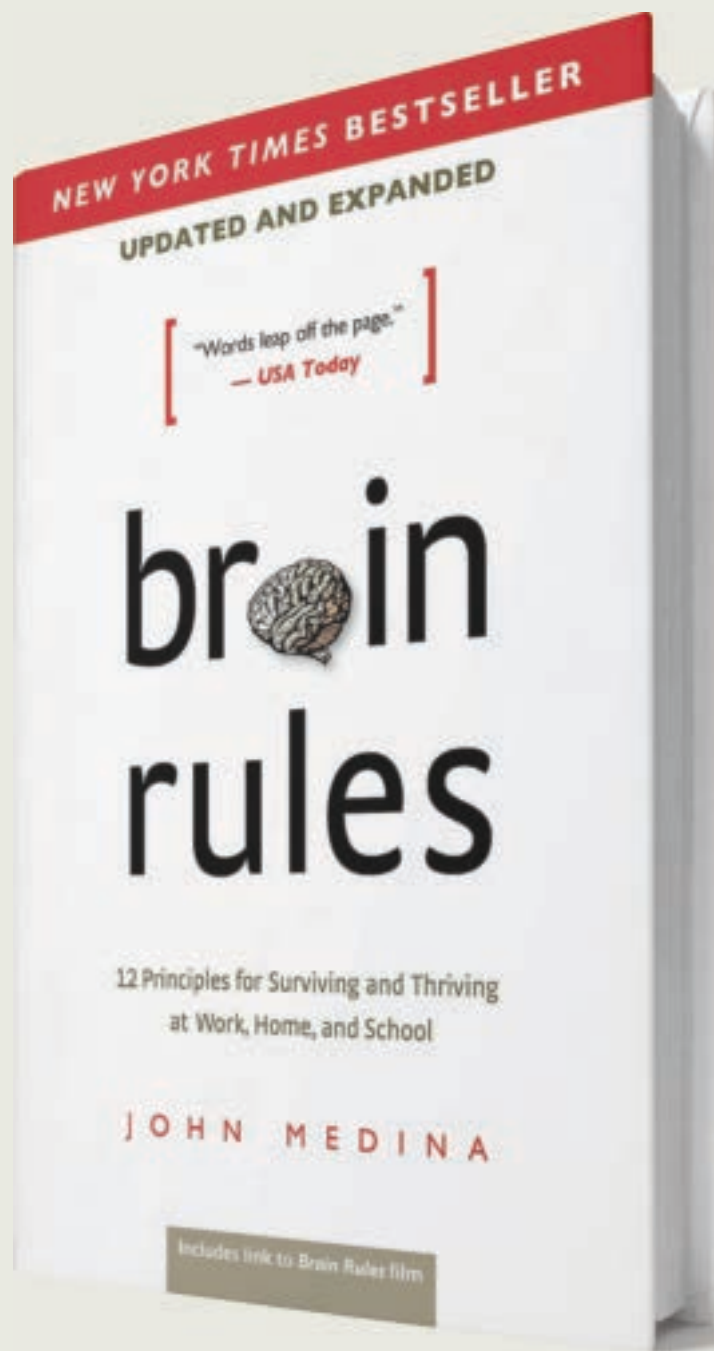
In the 40-plus years that I have been teaching, I have been trying to find ways to get students to understand and to put into practice my flying knowledge. I, like all of the rest of my fellow CFIs, have taken the courses in instruction. We know about the barriers to learning. We know that our students learn better when they are comfortable and not threatened. And on and on and on.

But John Medina, in his book *Brain Rules*, explains why this is so. And he explains this on a cellular and molecular level in a way that is understandable to even us pilots.

Medina wants to talk about how the brain works in the context of how we, as educators, can get our points across without putting our audience to sleep. (As an aside, I once taught evening ground school classes for would-be instrument pilots. Without fail, when I arrived home afterward, my wife would ask me how many students were awake at the end of the session.) Medina focuses on 12 rules for learning that will allow us to get our point across in a way that allows our students to “get it.” And all through this book, I kept thinking of ways that I could take his concepts and use them in my flight instruction.

Medina is looking more at the corporate and academic worlds as he makes his points, and not so much of the one-on-one world that we CFIs inhabit. But we can take some of his points and restate them for our own use. For example:

If workplaces had nap rooms, multi-



A GOOD PILOT IS ALWAYS LEARNING

Professional Development Program

The NAFI Professional Development Program is designed to develop and mentor a flight instructor's mastery of core concepts in aviation education and leadership.

Further, it provides the tools necessary to excel as teachers and client service experts, improving the standards of professionalism in flight instruction.

**These are the best hours you can
put on your resume.**

Start the program today!

www.nafinet.org/professional-development-program

Instruction

Business &
Communication

Leadership
Development

Risk Management

Electives

tasking was frowned upon, and meetings were held during walks, we'd be vastly more productive.

In the plane, we talk about multitasking. But I find that I am actually teaching my students that they have many pieces of information to absorb very quickly, and there are many tasks that seem to be done simultaneously. But I help the student break those tasks down into individual steps to address sequentially, not simultaneously. And walking around might be difficult in the left seat of our 172 but taking the controls from time to time and suggesting that your student take a quick stretch break will work wonders for moving her out of a momentary learning plateau.

How about his Rule No. 9? — I have long realized that I, and my students, could remember facts and numbers better if we read them, spoke them, and listened as we spoke them. That is why when I pass the final approach fix on an ILS I take one last look at the DH and missed approach procedure on the approach plate, and then constantly tell myself the altitude I am passing, the al-

**I have long realized
that I, and my
students, could
remember facts and
numbers better if
we read them, spoke
them, and listened as
we spoke them.**

titude I am going to and the first steps in the missed approach. But Medina goes beyond that. He explains what your brain is actually doing when it crams short-term and long-term memory items in.

And we have long heard that a picture is worth 1,000 words. And there is a reason. Check out Rule No. 10 and learn how our brain processes pictures versus how it processes words.

And that stress thing. And that sleep thing. Rules No. 7 and 8 explain the difference between good and bad stress, and

why our body really wants sleep and why our brain is in a constant battle between “go to sleep” and “stay awake.”

Wonder why your over-40 students learn differently than your teenagers and 20-year-olds? There is a very ancient genetic reason for this, and all of the talking we do to them is not going to alter some basic biological facts.

Since we all learn from pictures more quickly than from words, if you don't want to read the words, just enjoy a presentation on this subject at *BrainRules.net*. Scroll to the bottom right corner and watch the presentation by Biff, the frog.

This is a book that you might think would be real heavy reading. But because Medina is an author who practices what he preaches, it comes off as very readable, very enjoyable. Find yourself a copy and enjoy. 🇺🇸

.....
Chris Hope loves to read, write, and fly but not necessarily in that order. You can reach him through his website, pick out additional teaching tips and read more book reviews at www.ChrisHopeFAAFlightInstructor.com

FROM JOHN MEDINA'S BRAIN RULES

Stressed Brains Don't Learn the Same Way

- Your body's defense system — the release of adrenaline and cortisol — is built for an immediate response to a serious but passing danger, such as a saber-toothed tiger. Chronic stress, such as hostility at home, dangerously deregulates a system built only to deal with short-term responses.
- Under chronic stress, adrenaline creates scars in your blood vessels that can cause a heart attack or stroke, and cortisol damages the cells of the hippocampus, crippling your ability to learn and remember.
- Individually, the worst kind of stress is the feeling that you have no control over the problem — you are helpless.
- Emotional stress has huge impacts across society, on children's ability to learn in school and on employees' productivity at work.

Sleep Well, Think Well

- The brain is in a constant state of tension between cells and chemicals that try to put you to sleep and cells and chemicals that try to keep you awake.

- The neurons of your brain show vigorous rhythmical activity when you're asleep — perhaps replaying what you learned that day.
- People vary in how much sleep they need and when they prefer to get it, but the biological drive for an afternoon nap is universal.
- Loss of sleep hurts attention, executive function, working memory, mood, quantitative skills, logical reasoning and even motor dexterity.



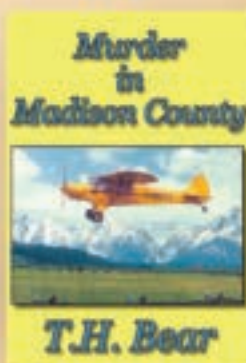
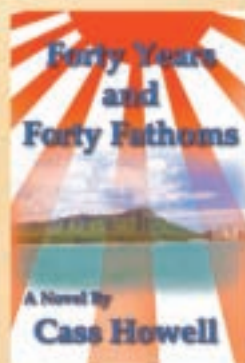
Serious Aviation Books

...for the Serious NAFI Instructors

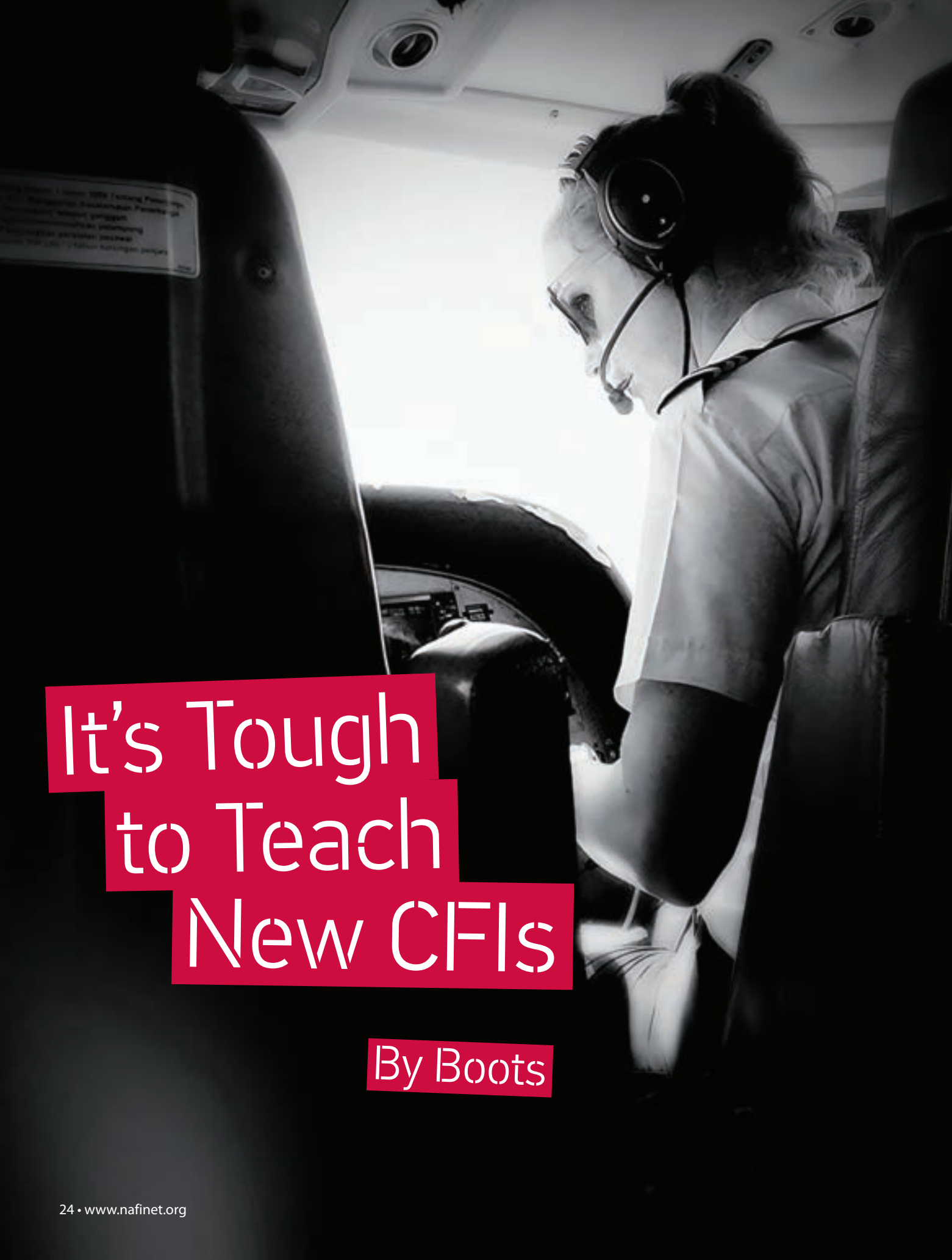
For serious aviation studies, check out these titles:



Our Serious Aviation Fiction Titles, go here:



To order any of our aviation titles, go to bluewaterpress.com, search Aviation Non-Fiction, or Aviation Fiction.
Order any books from BluewaterPress LLC and at checkout, use the code "NAFI-3" to take 15 percent off your order.



It's Tough to Teach New CFIs

By Boots



It is tough to help create new CFIs who know how to teach, or at least tough to do it right. That's the crux of the problem. When we instruct toward any other certificate, rating or endorsement, we are teaching students a new or upgraded flying skill. Perhaps an instrument rating, which is almost 180 degrees opposite from what they learned in obtaining their private certificate. Perhaps a complex or high-performance endorsement, which requires new knowledge and skills added on to what they already have learned. But becoming a CFI is completely different.

When new CFI candidates approach us, we have to assume that they already have the flying skills, knowledge and experience necessary to make good aviation decisions and operate an aircraft safely as well as competently in most situations. Unfortunately, sometimes we find that is not actually true and wonder how they ever earned their earlier prerequisite certificates and ratings. In those cases, we have to spend a lot of time teaching them things they should have already known and skills they should have already possessed, *before* we actually start teaching them to become CFIs.

The only thing we should have to teach them regarding flying is doing takeoffs and landings from the right seat, which is not as easy as most expect it to be. We also need to refresh their memories regarding various commercial maneuvers that they had to previously learn, since having a commercial pilot certificate is a prerequisite of obtaining an initial CFI. We also have to add some instruction on how to "save" botched maneuvers by their students, which is a different skill than demonstrating the maneuvers.

The only thing we should actually be teaching them is *how to teach*, not how to fly. Not everyone can teach or learn to teach. It's an entirely different skill set. Some people enjoy teaching, not just teaching flying, but teaching in general. They will make good flight instructors if they want to go in that direction and also are able to learn good flying skills as well. Not everyone can do either or both. Most of us, especially those of us old enough to have flown with World War II flight instructors earlier in life, have known CFIs that use the "English method of teaching language." They believe that if you shout loud enough, that will get the needed

knowledge across to the student. Note, that does not work. What it does do is cause the student to shut down, and all learning ends at that point.

Unfortunately, there really are a lot of CFIs out there who have somehow earned their certificates and don't know how to teach at all, and really don't care either. They just need the hours to build up so they can get their next job. Their students tool around long enough to teach themselves whatever they actually learn while those CFIs just keep them alive long enough for that to happen.

Let me start by saying that, categorically, when a student pilot on a solo flight, or a low-time pilot, or new instrument pilot, or someone with a newly minted high-performance, complex, high altitude or tailwheel endorsement gets hurt or breaks the plane, 98 percent of the time I blame the CFI for that failure or accident. Major mechanical failures are an exception, but those are actually rare compared to the pilot error problems encountered. If a student on a solo flight, even a first solo, finds the runway blocked by another plane that has just landed and blown a tire, or a vehicle that is blocking the runway, and does not know how to navigate to a close-by airport to land, and does not know how to contact ATC for help other than at that one airport they are soloing from, who do we blame? We can't blame the student pilot who was never taught these skills before the instructor rushed them into an early solo. The same holds true for a new complex pilot who forgets to lower the gear or does not know how to properly use the manual gear extension after a gear failure and a new tailwheel pilot who ground loops shortly after obtaining the endorsement. To me, all those are the CFI's fault, rather than the pilot in command at the time.

It's Tough to Teach New CFIs

Then there is the new CFI who takes a primary student up for a lesson, knowing they have very little fuel. Instead of refusing to fly the aircraft until more fuel is obtained, regardless of how difficult that may be, they go flying anyway. Further, instead of flying to the nearest airport where fuel can be obtained (10 minutes away in the case I am thinking about), they take the student out for a primary flight lesson. About 20-30 minutes later, like magic, the plane runs out of fuel and the engine stops, as we would all expect it to do. An emergency landing is made on a local highway. Fortunately, no one is injured. What has the CFI just taught the student about aeronautical decision-making? How is it even possible that someone who does something that foolish could ever obtain a CFI in the first place? How is it that the FAA would allow them to keep that CFI certificate? That tells us almost all we need to know about how difficult it is to actually teach a new CFI properly.

There are obviously CFI mills that specialize in CFI certificates. Those schools have a DPE approved to give initial CFI checkrides either on staff or close by so they can funnel a lot of CFI candidates to them. They know exactly what questions will be asked during the oral and what will be asked of the candidate on the flight test. That is exactly what they teach. Memorize the answers to get past the oral and demonstrate the maneuvers or explain them the exact way they are told to do. No actual "teaching to teach" goes on, and unless those CFIs learn that on their own, they rarely become good CFIs themselves, unless they take the initiative to learn how on their own.

The first-time failure rate of initial CFI candidates is in the 75 percent region for those taught by independent instructors or schools not associated with those CFI mills. Most fail on the oral portion of the exam. That alone means we need to spend far more time doing ground instruction with initial CFI candidates. It's on the ground that we can impart knowledge and advice and go through

the various teaching scenarios with them that they must learn to use themselves, both to pass the oral exam and to teach their students in the future. For the flying portions of the lessons, we need to help them polish their skills, but far more important, we need to make sure they actually understand the various maneuvers as well as the aerodynamics involved so they can properly explain them and answer questions that their students will ask. It's all very well to say lift over drag maximum will be at or close to your best glide speed. L/D max is easy to memorize, as is the actual speed for the specific aircraft. Now learn to explain how parasitic drag is increased as speed increases, while induced drag is drag caused by lift increases as speed decreases. Then how that formula works and why.

Learning to fly
from the right seat
isn't easy.



Another area that a good CFI must learn is how to identify errors their students make and more importantly *why* they are making those errors and how to correct them. When a student keeps losing altitude or airspeed during a steep turn, or fails to roll out on the proper heading, you can keep having them do it over and over again, or more effectively, after a couple tries, you can sit back, watch the student and figure out why they are making the errors. Then you can show them what errors they are making and why so they can learn the maneuver rather than do it over and over again until they teach themselves to make it work but never understand why.

The fundamentals of instruction and especially the law of primacy should always be in the instructor's mind. What is learned first is retained best. If an instructor teaches incorrect information and does not immediately correct their own errors to the student, the student will retain the wrong knowledge learned first, even if shown the correct information at a later date. The quickest and easiest way for an instructor to understand this is to *always admit your own mistakes*, immediately. Explain to the student that it was your mistake and immediately either correct the mistake or, at the very least, explain that you don't know and will look it up and explain it later. Never try to fake an answer or an explanation! That will always violate the rule of primacy.

A good example is teaching 8's on pylons. It's a basic commercial and CFI maneuver that is easy to learn to do, but much harder to understand and explain. I found that out as I had a commercial student some years ago who could do the maneuver almost perfectly from the first time I demonstrated it, but didn't know why and how it was happening. I didn't want to waste more time on that one since he was doing it so well, but he just didn't want to leave it alone because he said he didn't understand what he was doing. For that commercial certificate he



didn't really need to know why. He just needed to show that he could perform it well. As a CFI candidate, they do have to understand and be able to teach the aerodynamics and physics behind each maneuver. In the case of this maneuver, it's the optical illusion created while at "pivotal altitude" that is accomplished at groundspeed in knots squared, divided by 11.3, as groundspeed and altitude are changing constantly, by adjusting the aircraft airspeed and altitude to remain at that pivotal altitude while adjusting for wind and terrain changes occurring around the two points. The exercise is demonstrating mastery of the aircraft, but the knowledge on how to do so, and be able to explain it, is what the CFI needs to know. It is much more difficult to learn that knowledge than it is to demonstrate that maneuver. Lazy 8's are another one. It's very easy to demonstrate the maneuver acceptably, but much more difficult to explain and teach.


The other point that makes teaching a new CFI tough is that it does entail

so much ground instruction. Some candidates will feel like we are just wasting their time and money as we spend hour after hour going over scenarios and Q&A sessions on the ground. Others do understand what it is we are trying to accomplish. That is a big hurdle that has to be overcome if we expect that candidate to pass their oral and practical exam on the first or even second attempt and learn all the information rather than just memorize it. Some candidates have been known to try four or five times before they pass. Fortunately for myself and my students, none of them have gone that long.

There is a reason that the FAA requires us to be CFIs for at least three years before giving instruction for a CFI certificate. It's a good rule meant to give us time to learn to teach after obtaining our certificate, but more than just time is needed. It takes dedication to teaching more than to just flying.

If you have a candidate and are experienced yourself, go for it. But understand what you are getting into and make sure

that your student understands before you start. You owe that not only to your CFI student, but also to their students in the future.

You truly do have to become a mentor rather than just an instructor when teaching initial CFIs. 

.....

Boots is my full name. It's not a nickname. I was born and grew up in Hollywood, California, which usually is enough of an explanation. It's the only name on my driver's license, FAA certificates and passport. I obtained my private pilot certificate in about 1968, my instrument, commercial and multiengine about three years later, and my CFI, CFII and multiengine CFI around 20 years ago. I also obtained my A&P certificate with an IA about 25 years ago. Most of my flying was based at the Van Nuys Airport (KVNY), and I owned a Cardinal RG for about 10 years. I've flown in many parts of the world, including Central America, Africa and Europe, but never actually flew or wrenched for a living. I was on the Rare Bear racing team for many years when we were winning at Reno. I am still active as a flight instructor and live in Knoxville, Tennessee, where I usually have a few advanced students at a time.



WHAT IS A PROFESSIONAL PILOT?

They are threat managers

I have heard different definitions of what a pilot is. Some people say an aircraft pilot or aviator is a person who controls the flight of an aircraft by operating its directional flight controls. This answer makes sense, but it does not entirely define who a pilot is. Several people would become pilots if all pilots do is manipulate flight controls.

By Alaba Gabriel Idowu



A pilot's job is more onerous than what people think. Some believe pilots are like bus drivers who manipulate aircraft's flight controls. You might see pilots sitting in the cockpit holding flight controls just the way car drivers hold steering wheels, but their jobs are entirely different. A pilot's job is more mental than physical, and it involves thorough planning and considerations before setting out to fly.

Who Then Is a Pilot?

I can say a professional pilot is a threat manager who flies an aircraft and operates in a complex environment full of threats. That is why people say you must be bold to become a pilot. A professional pilot recognizes and analyzes threats and then develops a means of managing those threats before leading to errors that induce incidents or accidents.

I know most people reading this article are pilots. The question is, have you ever considered yourself a threat manager? There are threats around you, and you are a pilot because you have committed yourself to managing them. Accidents or

incidents don't just happen; they happen when threats are not properly managed. Most of the threats we deal with are divided into two categories. The first category is external threats such as weather, lack of equipment, hard-to-understand documentation, inadequate lighting, short runways and many more.

The second category are threats within our control, such as fatigue, proficiency/recency of experience, situation awareness, stress, etc. Every human being experiences fatigue in one way or another, but for pilots, it is a big deal because it poses a great threat to flight safety.

The weather is a significant threat to the aviation community. Countless aviation accidents have been recorded due to inclement weather. However, waiting for perfect weather will hurt flight operations. Developing ways to manage such threats makes us better pilots.

I read an article written by Capt. Gary Reeves titled "Is Your Runway Too Short?" That article reveals the threat of taking off from a short runway. Multiengine pilots usually calculate accelerated-go and accelerated-stop distance, but single-engine pilots hardly do that. Even though we calculate takeoff distance and landing distance, we seldom think about the possibility of having engine failure at about 100 to 200

feet AGL. This is not what we pray for, but it happens. Sometimes, we request intersection takeoff because of time. Reeves said, "Another five minutes in the aircraft is better than five days in the hospital. Taking off from a short runway decreases the margin of safety. Our utmost concern in aviation is safety. If you have the option of using a full-length runway, do not request an intersection runway that will reduce your safety margin." A professional pilot does not trivialize the importance of calculating aircraft performance during preflight.

All pilots should understand the concept of threat and error management (TEM). According to the FAA, it is a safety management process that assumes pilots will make mistakes and be in situations with a certain level of risk. This concept teaches pilots how to manage threats, prevent errors and maintain safety. TEM is also a tool that helps in managing situational awareness.

When a pilot fails to manage threats, it leads to errors, and errors are consequences of our actions or inaction, which reduce safety margin and lead to deviation from operational rules. It could come in different ways, such as aircraft handling errors, procedural errors and communication errors. However, early



Many pilots become
instructors.

Only a few become Masters.



Become an MCFI today!

Visit www.nafinet.org/eligibility for more details.



detection of errors and taking appropriate actions prevent the development of a chain of errors, which usually lead to incidents and accidents.

How Do We Manage Threat and Error?

Recognition is the first step in managing threats and preventing errors. Every pilot understands that weather becomes a threat when going out to fly in instrument meteorological conditions. Considering other parameters as to whether it is safe to fly or not is a way of managing this threat. If the pilot feels confident to fly in such weather, the next thing to consider is, "Is my aircraft equipped for this operation?" Recognizing the effect weather could have on the safety of flight prevents errors that could lead to incident or accident.

I have discovered in general aviation that we are sometimes pressured by our students to fly when the weather is not safe enough to fly. As a progress check instructor, I have encountered several such pressures from students. I was to conduct an instrument end of course for a student some time ago. The ceiling was low, so I said it would be advisable to cancel the flight and conduct the check some other day. The student tried to pressure me because I had done several instrument trainings in actual instrument meteorological conditions. Because I had never flown with him, and I was not sure of his instrument skills, I considered it unsafe to con-

I try to implement these rules to prepare for any eventuality even if the forecast weather seems favorable and 1-2-3 rules are not required.

duct his checkride in actual. I told him that flying in actual IMC will give no room for errors. On a clear day, I have seen students trying to hold on a nonprotected side of a holding fix and making several unsafe mistakes. Thus, conducting a checkride in actual IMC for a student I have not flown with is a threat. I recognized the threat to prevent unfortunate errors.

The second step of managing threats and errors is coming up with a strategy to deal with a recognized threat so that it does not reduce safety margins or lead to errors. To repeat: Accidents occur as a result of a chain of errors.

Embarking on a long cross-country

flight, especially in IMC, poses a threat due to unforeseen conditions en route or at the destination airport. Having an alternate airport is compulsory under instrument flight rules, especially if one hour before and one hour after the estimated time of arrival, the ceiling is below 2,000 feet and visibility is less than 3 statute miles. 1-2-3 rules are one of the ways of managing weather-related threats. I try to implement these rules to prepare for any eventuality even if the forecast weather seems favorable and 1-2-3 rules are not required.

I also manage threat — especially when operating under instrument flight rules in IMC — by choosing a route nearest to other airports in case of emergency and select an altitude that permits gliding to those airports in the event of engine failure.

Having personal minimums is an excellent way of managing threats. Federal minimums are good, but raising the standards to increase safety margins makes more sense than maintaining the minimum. For instance, you need 30 minutes of extra fuel at a normal cruising speed for day VFR flight. I raise the standard to one hour of extra fuel for day VFR flight just in case of delay. I was flying into an airport some time ago when the tower controller told me to hold outside the airspace. I was not given clearance to enter the airspace until after 20 minutes due to heavy IFR traffic coming into the airport. Assuming they kept me holding longer than 20 minutes, and I departed with minimum fuel for that operation, I would have violated regulations and, perhaps, put myself in danger. Situations like this are possible, so preparing for all forms of eventuality and having personal minimums are effective ways of managing those risks.

We operate in a complex environment that requires full attention. Before you go out to fly, recognize all possible threats, and develop a way of managing them. A professional pilot is a threat manager! 🇺🇸

.....
Alaba Gabriel Idowu is a flight instructor, a researcher, an aviation consultant and an author of aviation publications. He became a Master CFI in 2020 and also won the Lauber Safety Award from the University Aviation Association.

Excellence in Flight Instruction



When you join NAFI you demonstrate your commitment to the highest standard of professionalism in flight instruction.

JOIN OR RENEW TODAY!

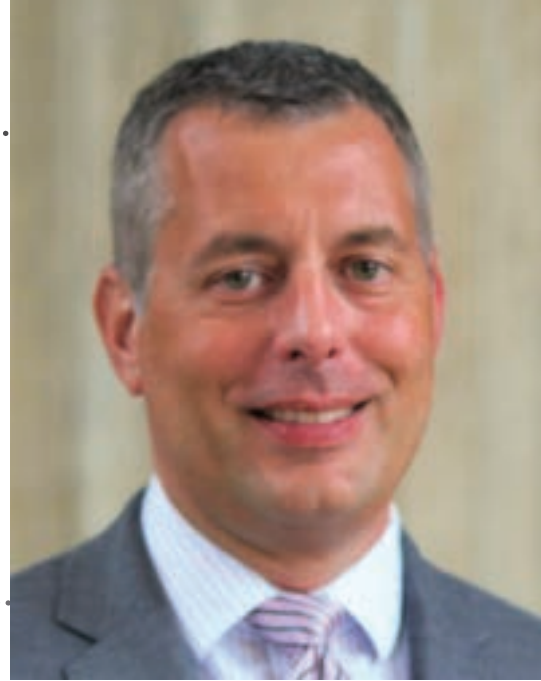
NAFI Membership provides Mentor Magazine and eMentor weekly eNewsletter, exclusive Flight Instructor liability protection, representation in government and industry affairs, valuable member-only discounts, useful teaching resources and more.

Join NAFI Today online at
www.nafinet.org
or call 866-806-6156



www.NAFInet.org

NAFI Joins 'Friend of Court' Brief in Warbird Case



The FAA has taken the position that flight instruction performed in warbirds is a flight “for compensation or hire” under the Federal Aviation Regulations if the instructor is paid. The FAA’s position about warbird flight instruction is at odds with the rules for flight instruction in every other type of aircraft, where flight instructors are generally not considered flying “for compensation or hire” even if the instructor is paid.



Columbia Circuit. Without taking sides against the FAA or the challenger, NAFI and other prominent aviation organizations recently provided some flight instruction and aviation background for the court to consider.

We all know that the FAA often enacts or changes regulations, and we must stay on top of those changes and consult the newest version of the AIM/FAR. But the FAA can change its interpretations of regulations at any time. The FAA’s changes in regulatory interpretations are not published in the AIM/FAR even though everyone with a certificate is affected.

In July 2020 a company that provides flight instruction found itself in hot wa-

ter with the FAA for perceived (or as lawyers say “alleged”) violations of the Federal Aviation Regulations (the “FARs”). The company provides training in “limited category” or military surplus aircraft, commonly known as “warbirds.”

The FAA alleged that the company violated FAR 91.315 by providing flight instruction in warbirds and getting paid for that instruction. Because FAR 91.315 prohibits the operation of a warbird with a passenger “for compensation or hire,” the FAA issued a “cease and desist” order mandating that the company stop warbird flight training. In the case, which is titled *Warbird Adventures Inc. et al. v. FAA*, the company is challenging the FAA’s cease and desist order.

The District of Columbia Circuit, where the *Warbird Adventures* case is pending, is one of the few federal courts just below the U.S. Supreme Court, and its decision in this case is likely to have nationwide consequences and long-term application. As the circuit court weighs its decision in the case, NAFI, AOPA, EAA and other aviation organizations joined forces to provide some history and context to the court.

NAFI and the other organizations are not involved directly in the lawsuit, and we did not take sides in the *Warbird Adventures* case, but through a document called a Brief of *Amicus Curiae*, we were able to provide our input to guide the court. “*Amicus Curiae*” means “friend of the court” in Latin, and in our role as “friend,” we informed

What are the implications to flight instructors if the FAA’s position stands? Can warbirds be singled out for different flight instructor standards than other aircraft? These questions and more will be sorted out in a case where the FAA’s interpretation of warbird flight instruction is being challenged in the U.S. Court of Appeals for the District of

National Association
of Flight Instructors



Education Foundation

\$10,000 Matching Grant

**Make twice the impact
when you donate!**

Through the generosity of the NAFI Board of Directors, contractors and members, the NAFI Education Foundation has received a \$10,000 matching grant. Choose which of NAFI's outstanding programs you'd like to help support:

Professional Development Program



The PDP is a 40-hour certificate program available exclusively to NAFI members representing courses in Instruction, Business/Communication, Leadership development, Human psychology/human factors/risk management, and more. When you select the PDP for your donation you help with the addition of enhanced options on the Learning Management System, and upgrades to simplify access and progress.

MENTOR LIVE

NATIONAL ASSOCIATION OF FLIGHT INSTRUCTORS

MentorLIVE is a monthly, interactive live-video streaming broadcast. These programs feature NAFI-member subject matter experts from many aspects of the flight instruction industry to help CFIs and all aviators reach greater success in their aviation endeavors. NAFI provides this program as a community service to offer rigorous, **WINGS**-approved content as a contribution to higher education to the broader flight instructor community.

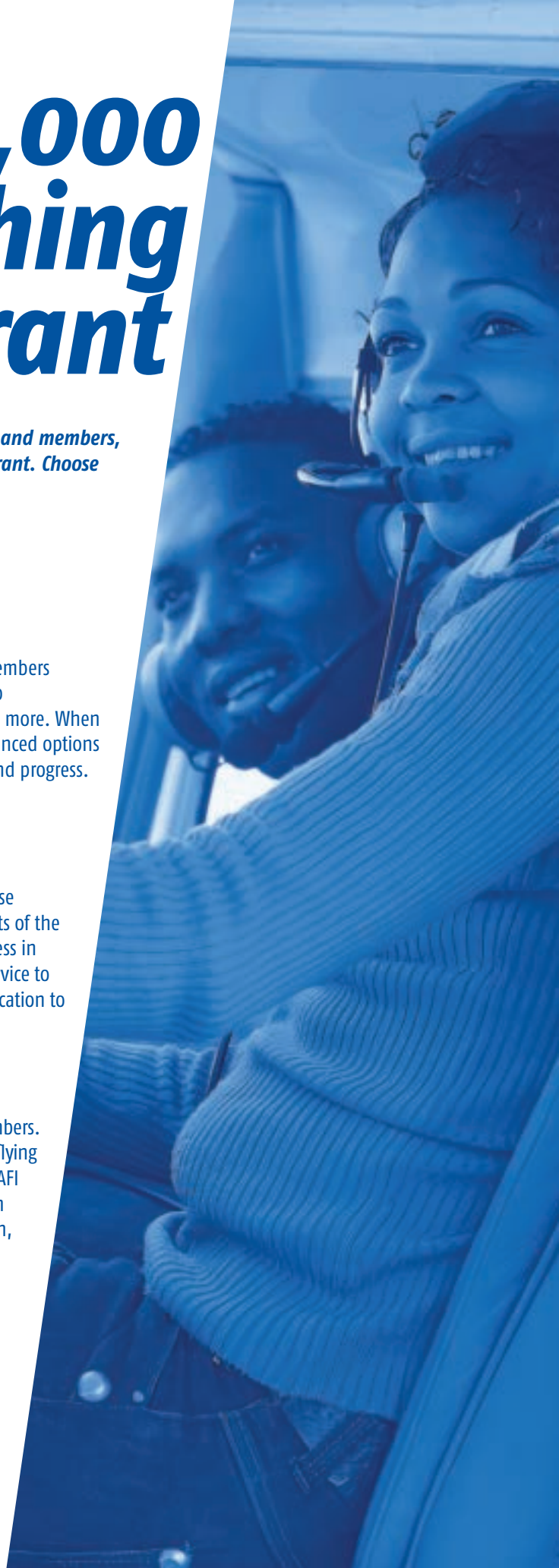
MENTOR

THE PROFESSIONAL FLIGHT INSTRUCTOR

NAFI *Mentor* is a bi-monthly magazine published exclusively for NAFI members. Its articles cover the wide range of challenges in aviation education, from flying technique to business practices to professional development. Written by NAFI members for NAFI members, *Mentor* provides a unique aviation journalism perspective. In addition, *Mentor* explores the changing universe of aviation, and was the first publication to report on the challenges and potential of drones. When you select *Mentor* for your donation you help offset price increases, contribute to the addition of more writers for more targeted content, and provide more distribution opportunities.

Most important, when you fund these efforts you help keep dues low for all members while making a contribution to these valuable education offerings.

To donate, visit www.nafifoundation.org



the court about what flight instructors do, how they do it, and how the regulations and regulatory interpretations affect them. The brief was authored by a crack legal team organized by AOPA. NAFI and all of the organizations provided input and perspective.

The FAA filed its own brief in the case on December 9, 2020. The FAA argued that FAR 91.315, which pertains to warbirds, has a blanket prohibition on flight with passengers or cargo for compensation or hire. The FAA argued that 91.315, unlike other sections of the aviation regulations, does not contain any exception for flight instruction. The FAA argued that warbird owners who seek flight instruction in their own aircraft may apply for an exemption to 91.315, and it states that there are eight (eight?!) current exemptions nationwide. That means that of all warbirds flying in the United States, only eight of them have pilots who have

legally flown with an instructor who was paid, according to the FAA.

The FAA admits in its court brief that things were not always this way. It says that the tragic October 2013 crash of a P-51 Mustang prompted a change in its interpretation of FAR 91.315, and the interpretation was changed in 2014. The FAA also admits that the horrible 2019 crash of a B-17 Flying Fortress was the triggering event of the FAA's current scrutiny of warbirds. On September 25, 2020, the FAA issued a press release saying that it is in the process of revising Advisory Circular 91-68 and updating guidance for the standardization of pilot certification in warbirds. The FAA is still thinking about it — no new guidance has been issued yet.

The FAA's brief argues to the court that warbirds are different than traditional civil aircraft and they should be treated differently for flight instruction.

It is obvious that warbirds are different, and any military pilot will tell you that *constant training* is the key to safe operation of military aircraft. The FAA's desired result in court may have the effect of reducing flight training in warbirds. By requiring an exemption for flight instruction, with tons of paperwork for each exemption to keep the bureaucrats in business, it may be that the FAA is making the skies less safe. 🇺🇸

Note: You can search the FAA's regulatory interpretations here: www.FAA.gov/about/office_org/headquarters_offices/agc/practice_areas/regulations/interpretations

John J. Gagliano is an aviation attorney, a former military flight instructor, a current CFI and a NAFI board member. Any opinions are those of the author alone and not NAFI's.

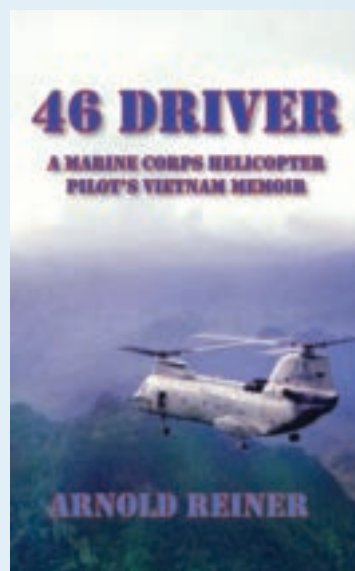
As Certificated Flight Instructors we are looked up to by our students



As CFIs, we have to make sure we are on top of the game all the time. There is only one way a professional can do that, and that is by serious studying.

Reading is the key. Everything you read will make you more intellectual and allow a greater degree of knowledge—no matter what you are reading. You can read history, technical manuals, procedural publications—it doesn't matter. All reading trains the brain!

To promote reading, all NAFI members can enjoy 15% of all sales with the code NAFI-3.



Go to www.bluewaterpress.com to order with the code, NAFI-3 and get 15% off of your entire order!

TOP RATED PRODUCTS



**Instrument
Rating/CFI-I Course**
Free companion app
4200A \$249.00



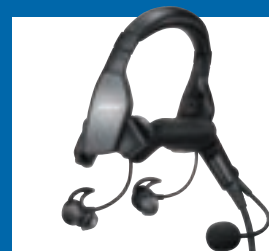
**Flight Gear Backup
Battery for iPad**
Enough power to
charge multiple iPads
6639A \$79.95



**Flight Gear HP
Tri-Fold Kneeboard**
The ultimate in-flight
organizer
7004A \$29.95



Sentry ADS-B Receiver
Made for ForeFlight
6891A \$499.00



**Bose ProFlight Series 2
Aviation Headset**
Smallest, quietest
ANR headset for
professional pilots
9784A \$1,045.95



Flight Gear iPad Bag
Specifically designed
for CFIs
10034A \$69.95

NAFI ADVOCATE SUPPORTER
NAFI MEMBERS SAVE 20%
ON SPORTY'S TRAINING PRODUCTS









SPORTY'S Learn To Fly Course

**2021
EDITION**



Provide your students with the best flight training companion by recommending Sporty's 2021 Learn to Fly Course. This flexible training platform allows students to create their own training plan and learn at their own pace. More than 15 hours of HD video, graphic and animations meet all of the knowledge requirements for Private pilot and even provides your students with the option to receive the written exam endorsement. Combine that with a detailed maneuvers guide, document library and convenient app delivery options, and you have aviation's most complete training course.

What's New:

-  New video segments
-  All-new online platform
-  Test prep question search
-  Microsoft Flight Simulator lessons
-  Enhanced flashcard mode
-  ACS with embedded videos
-  Bring your own documents
-  Video transcripts



#E1753A \$249.00

sporty's® pilot shop
Learn to fly here!

NM2101A

1.800.SPORTYS (776.7897)
Clermont County/Sporty's Airport
Batavia, Ohio



MORE INFORMATION:
SPORTYS.COM

NO SQUAWKS.

We want to make it right again.

Call us. (888) 635 4302 Avemco.com

