



*A Personal Flyer's Guide
to More Enjoyable Flying*

OVERVIEW




Capt. David C. Koch

A Personal Flyer's Guide to More Enjoyable Flying

Capt. David C. Koch

The Aerospace Trust Press

www.theaerospacetrust.org

Copyright © 2013 Capt. David C. Koch

All rights reserved. No part of this book may be reproduced (except for inclusion in reviews), disseminated or utilized in any form or by any means, electronic or mechanical, including photocopying, recording or in any information storage or retrieval system, or the Internet/World Wide Web, without permission in writing from the author or publisher.

Printed in the United States of America

First Edition printing: July 2013.

Published by The Aerospace Trust Press
1400 E. Main Street
Ste. 103-195
St. Charles, IL 60174
info@theaerospacetrust.org

Cover picture: The author in the cockpit of his Stearman biplane

Cover design by Tyler Koch

ISBN-13: 978-0-9726991-0-5

*This book is dedicated to the excellent airmen
who revealed to me what airmanship excellence is,
and how to successfully pursue it.*

Capt. David C. Koch

Reviews of *A Personal Flyer's Guide To Better Flying*

For over fifty years Captain David C. Koch has dedicated his life to improving the field of aviation. "A Personal Flyer's Guide to More Enjoyable Flying" delivers solutions for personal flying's basic problems, and it provides a roadmap to improve safety and proficiency in aviation. According to Capt. Koch, "airmen who practice Airmanship 2.0 are strongly motivated to "fly fight".

In "A Personal Flyer's Guide to More Enjoyable Flying", Capt. Koch also reveals how continuous airmanship development is yoked together with the knowledge and skills pilots need in today's aviation environment. Training and practice is provided to meet the needs of each pilot based on the type of personal flying he or she is doing.

The Greek myth, Icarus and Daedalus, tells the story of a young boy who flies above the island of Crete with wings made of wax. He forgets everything in the world but joy. As Icarus flies close to the sun, the heat melts the wax from his wings. Captain Koch believes that knowing your flight environment is key to situational awareness and safety. "If you can feel confident that your flying is as safe as possible, you will enjoy the experience."

Capt. Koch believes that the practice of Airmanship 2.0 leads to airmanship excellence. "A Personal Flyer's Guide to More Enjoyable Flying" is his comprehensive guide for personal flyers who want to become an excellent airman or airwoman. If the ideas in this book are adopted by a significant number of personal flyers, I believe we will see an incredibly positive change in the culture of the personal flying community.

Susan M. Glancey
New Private Pilot (March 2012)
110 hours

Some might think that "Personal Flyer's Guide To More Enjoyable Flying" is only for experienced pilots, but as a student pilot I found it very informative. Had I read it before I started my training, I would have done many things differently. When choosing a flight school, I selected one close to my home and did not do any research on how it approached airmanship training. As a result, I spent six months flying an airplane, but it did not teach me to be an excellent airman. Learning how to fly does not end when you get your Private Pilot Certificate. You must continue your pursuit of airmanship excellence with every flight you take.

Volker Kotscha
Student Pilot

Table of Contents

Preface: <i>Reader's Preflight Briefing</i>	1
Chapter 1: <i>My Pursuit Of More Enjoyable Personal Flying</i>	9
1950s	10
1960s	14
1970s	29
1980s	53
1990s	67
2000s	81
2010s	94
Chapter 2: <i>Airmanship 2.0</i>	105
Why We Pursue Airmanship Excellence	105
Airmanship Excellence Defined	109
The History of Airmanship 2.0	112
Airmanship 2.0 For Personal Flyers	122
Airmanship 2.0 Culture	140
Chapter 3: <i>Airmanship 2.0 In Practice</i>	151
The Future: Palwaukee Aero Club	154
Briefing 1: Palwaukee Aero Club History	157
Briefing 2: Palwaukee Aero Club Structure	160
Briefing 3: Palwaukee Aero Club Fleet	163
The Tour: OpsCenter	173
The Tour: Training Center	177
The Tour: Business Offices	178
The Tour: Hangars	179
Briefing 4: Club Training Programs	185
Briefing 5: Member Support	205
Briefing 6: Club Membership	222
Working Lunch At The Club	229
The Tour: Fitness Center	233
Q&A Session	238
Back to Reality	248
Chapter 4: <i>Your Pursuit of More Enjoyable Personal Flying</i>	249
Acknowledgments	255
Resources	257

Preface: *Reader's Preflight Briefing*

Anyone can do the job when things are going right. In this business we play for keeps.

—Ernest K. Gann

Capt. Ernie Gann is one of my airmanship heroes. He started flying for American Airlines in the late 1930s. During World War II, he transferred to the U.S. Army Air Force's Air Transport Command where he flew **Douglas DC-3s**, **Douglas DC-4s** and **Consolidated C-87 Liberator Express** transports. After the war, he began a career as a novelist and screenwriter. **Gann's many books** include "The High And The Mighty", "Island In The Sky", "Fate Is The Hunter", "Blaze of Noon" and "A Hostage To Fortune".

I was very fortunate to have discovered his works early in my aviation career. As I recall, I started reading them while still in high school. And I've reread them several times since. They graphically portray not only what airmanship excellence truly is, but also how the standards that define it have evolved over time.

I've read them all and I highly recommend that you do too if you're interested in getting more enjoyment from your personal flying. As you will discover, the pursuit of airmanship excellence is the best path that I know of to a more enjoyable flying experience. It works for me and it is working for many other airmen and airwomen. It is my hope that by the time you're done reading this book, you will have decided to join us.

I chose to use the above Gann quote to open this book because it pointedly sums up the primary reason I wrote it. That purpose is to open the eye's of every personal flyer, and everyone who is considering becoming one, to the reality that if you're going to fly, you must do it right. There is no other reasonable alternative if you value your life and the lives of those who fly with you.

Throughout this book, I use the terms "personal flyer", "personal flyers" and "personal flying". So, I'd better define what I mean by "personal flyer". As far as I know, the term is not included in the Federal Aviation Regulations or the Aeronautical Information Manual. It is a term that has been around for a long time, but it is not in general use within the general-aviation

community. I'm employing it in this book to precisely define the type of aviator I wrote this book for.

The aviation industry is subdivided into three categories: airline, military and general aviation. General aviation includes all the different types of flying except airline and military flying (i.e., bush flying, pipeline patrol, corporate operations, flight training). Personal flying is generally included in the general-aviation category. For the purposes of this book, I define a personal flyer as a person who has learned to fly and then pilots a personal airplane for his/her business-and-personal-mobility needs and for his/her enjoyment.

Personal flyers enjoy the freedom and lifestyle that come from piloting an airplane, whether it is to distant locations or just around the local airport. Unlike professional pilots, personal flyers commit a sizeable portion of their fortunes and their discretionary time to their flying. They do that because they love to fly and the rewards they receive from pursuing that love are worth far more than what it costs them. In other words, the personal-flying value proposition works for them.

Unfortunately, we are experiencing a rapid decline in the population of our personal-flying community here in the U.S. This is due to many factors that we'll explore in this book, but it all boils down to the fact that the current personal-flying value proposition is becoming increasingly less attractive for current personal flyers and those who would like to join our community if they could only find a personal-flying value proposition that works for them. I believe that increasing the enjoyment personal flyers get from their flying is the key to making that value proposition more attractive to them. This book puts forward a new model for personal flying that is designed to significantly increase the enjoyment of personal flying.

That new model includes certain airmanship beliefs, values, practices, policies and procedures that can make personal flying much more enjoyable. And one of the reasons it is more enjoyable is that it is much safer. It's difficult to enjoy flying if you know that the flying you're doing is not as safe as it could be. For far too long now, the personal-flying community has prepared pilots to essentially "drive" an airplane. And as it turns out, almost anyone can learn to do that. However, the historical and current personal-flying accident rates show conclusively that many personal flyers do not have the airmanship skills and knowledge they need to handle things when they aren't going right.

Every day in the U.S. at least one person on average loses his or her life in a general-aviation accident. In 2011, 485 people died in mostly personal-flying accidents. That's an average of 1.3 per day. I estimate that the number of potentially fatal near-accidents is at least ten times higher. This record clearly shows that in personal flying, we play for keeps. Unfortunately, a significant number of personal flyers simply don't now how to play the game properly.

The pilots involved in these fatal accidents were mostly successful professionals (in non-aviation industries) who were perfectly capable of learning how to "fly right". Unfortunately, they all were practicing an old and outdated form of airmanship that I call Airmanship 1.0. Regrettably, their naive and unsuspecting passengers paid the ultimate price for trusting them. These pilots were not really fully qualified to confront the airmanship challenges they were faced with.

These accidents weren't caused by mysterious unknown forces. Rather, they resulted from insufficient airmanship capability in the face of hazards, that when confronted, presented the pilot

with airmanship challenges that he or she was just not up to handling. And the really tragic aspect of this dismal picture is that every one of the causes that contributed to these accidents has been known to the personal-flying community for many decades, along with the means to avoid them.

It is my belief that what I describe in this book as Airmanship 2.0 will reduce the personal-flying accident rate to as close to zero as humanly possible for the personal flyers who opt to practice it. This may sound like an unrealistic hope. However, the major U.S. airlines have reduced their fatal accident rate to nearly zero primarily by implementing the practice of Airmanship 2.0 in their flight operations. My research for this book indicates that if the personal-flying community can reign in these avoidable accidents, every one's enjoyment of the personal-flying experience will be significantly enhanced.

I also wrote this book to generate enthusiasm for a strategy for ensuring the continued viability of personal flying in the U.S. I've been a personal flyer since I started flying in 1958. Even during my years as an airline, military and corporate pilot. As I will explain in more detail later in this book, I became very concerned about the future of personal flying about four years ago, and since then I've been working on finding viable solutions to the basic problems that are rapidly sucking the life force out of it.

For example, in my opinion, the greatest threat to the future of personal flying in the U.S. is the rapidly dwindling population of the personal-flying community. To really get a feel for how critical this challenge is, we need to look back at the numerical high point of personal flying that took place in the early 1980s. At that time, there were over 800,000 FAA-certificated pilots in the U.S. I estimate that over 700,000 of them were personal flyers. There are no really accurate numbers published by the FAA for what I define as a personal flyer. So, I'll use the fuzzy numbers we do have to show the order of magnitude of the problem. These personal flyers each flew around forty hours per year on average. Today, it is estimated that there are less than 200,000 active personal flyers in the U.S. And we're flying on average only about twenty hours a year—roughly half as much.

This rapid reduction in the personal-flying customer base has driven up the cost of flying at a rate that significantly exceeds the rate of inflation. My estimate is that most of the cost factors related to personal flying (i.e., fuel, insurance, hangar, aircraft maintenance, flight training and aircraft rental) have increased by about 30% over the rate of inflation. As we all learned in Econ 101, as the customer base for a product or service decreases, the unit price of the product or service increases.

However, the biggest cost factor today in personal flying is the cost of the airplane you're flying. A major cost factor in the price of a new personal airplane is the number of aircraft produced by the manufacturer of the aircraft. As a given manufacturer produces more aircraft, the overhead burden (especially product liability premiums and certification costs) assigned to each new aircraft produced by that manufacturer is reduced. In the mid-1980s, aircraft manufacturers Cessna, Beech and Piper combined were churning out over 25,000 single-engine-piston personal aircraft a year. Today, all of the manufacturers of personal aircraft combined are selling less than 1,000 single-engine-piston personal aircraft a year.

The result of this drastic reduction in personal-aircraft production is revealed in the cost of a new personal airplane. In 1985, you could purchase a new top-of-the-line single-engine personal

aircraft (i.e., a **Cessna 182 Skylane**) for around \$76,000. If we apply a typical CPI (Consumer Price Index) inflation factor to the 1985 price, today's price for a new Skylane would be around \$164,000. However, the list price on a new 2013 Skylane is around \$400,000. In other words, a new Skylane now costs \$236,000 more than what it would if the price had only increased with inflation from 1985 to 2013. Today's actual purchase price reflects an almost 70% increase over the rate of inflation.

Given the fact that cost is cited as the major barrier to personal flying by current and potential personal flyers, it is obvious that something has to be done about this situation if we want to grow our personal-flying community. As the personal-flying customer base continues to shrink, costs will continue rise and even fewer people will join our personal-flying community, and even more will drop out because of escalating costs. The airmanship term for this business trend is "graveyard spiral".

A graveyard spiral is almost always fatal unless the proper technique is applied to arrest it and begin a climb to safety. In this book, I will present to you the technique that I believe can be used to escape from this graveyard spiral. That technique is the adoption of Airmanship 2.0 by a significant number of personal flyers.

It is my belief that Airmanship 2.0 will make personal flying more affordable, more accessible and more enjoyable. It is logical to think that this will result in a rapidly growing number of personal flyers. Especially given the facts that there are now about *one hundred million* more people living in the U.S. than there were in the mid-1980s, and the continuously deteriorating value propositions of airline and road travel.

As you will see, I'm optimistic about our recovery from the graveyard spiral personal flying is currently in. That's because others and I have in the past performed the necessary elements of the recovery maneuver that is described in this book. I invite you to think of *A Personal Flyer's Guide to More Enjoyable Flying* as the manual on how to bring all of these elements together to perform the maneuver. With knowledge of the elements of the maneuver and the manual on how to perform it in hand, I have true confidence (I'll define this later in the book.) in our ability to perform the maneuver successfully. And when we complete it, the personal-flying community will be on a trajectory that will take it to new heights of personal-flying enjoyment.

Let's begin our journey through the story of how we can all enjoy personal flying more with an overview of our flightplan. It looks like this:

In *Chapter 1: My Pursuit of More Enjoyable Personal Flying*, I will tell you the story of my pursuit of it. That pursuit has taken place over the last fifty-plus years. As you will see, I believe that the pursuit of airmanship excellence is the key to personal-flying enjoyment.

In *Chapter 2: Airmanship 2.0*, we'll look at why we should practice Airmanship 2.0 or quit flying. As you'll see, many other very experienced airmen and I believe that if you're going to fly, you should do it right. In this chapter, we are also going to see if we can achieve alignment on a definition of what airmanship excellence is. We'll then use that definition throughout the remainder of this book. We'll also look at the differences between Airmanship 1.0 and Airmanship 2.0, and we'll delve extensively into what Airmanship 2.0 is. This chapter also takes a look at cultures in general and an Airmanship 2.0 culture in particular. And we'll go into what it takes to make a personal-flying culture into an Airmanship 2.0 culture.

Chapter 3: Airmanship 2.0 In Practice is a fictional story of how Airmanship 2.0 can work in the real world of personal flying. Although the story is imaginary, it is based on fact and a serious analysis of how we can implement the ideas presented in this book.

And finally, in *Chapter 4: Your Pursuit of More Enjoyable Personal Flying* we'll recap our discussion of the pursuit of airmanship excellence and look at some tips and ideas that will prove useful to you should you decide to pursue airmanship excellence through the practice of Airmanship 2.0.

This book will provide you with the information you need to make that decision. As you will see, there are many benefits that accrue to any aviator, no matter how inexperienced or senior, who faithfully adheres to the Airmanship 2.0 doctrine. My hope is that when you finish this book, you'll be convinced that there are really only two good choices that a responsible aviator can make when it comes to flying airplanes. You can either pursue airmanship excellence through the practice of Airmanship 2.0, or you can quit flying. Gen. Chuck Yeager (the first man to break the sound barrier) has been quoted as saying, "If you're going to fly, do it right." I couldn't agree more with the general's statement. If you're going to challenge the gods by defying gravity, the only logical approach is doing it right.

This book was written primarily for the people who I believe need to read it most. These readers fall into one of the following categories:

1. Non-pilots who are considering learning to fly.
2. Current pilots who want more enjoyment from their personal flying.
3. The management and staff of Airmanship Development Support Organizations.

Some additional briefing notes:

- Text in **BOLD** typeface indicates that there is a Web page that you can reference for more details. You will find the Web addresses in the *Resources* section at the back of the book. You will also find the address of a Web page on the Center For Airmanship Excellence Website that you can bookmark. The page contains hot-links to all of the resources. The Web addresses in this book were current at the time of publication. However, given the nature of the Internet, I can't guarantee that they will take you to the intended Web pages.
- Throughout the book, I use the terms "airman", "airmen", "he", "him" and "his" in a non-gender-specific manner.
- The manufacture of this book is environmentally friendly. The reduction in white space cuts down significantly on the number of pages. Also, this book is printed only on demand. That means that there are no unsold copies that will join the over 50% of all printed books that go to the shredder each year.

Well, that completes your preflight briefing. Welcome aboard and enjoy the flight.

About The Author

Capt. David C. Koch has been a personal flyer for since 1958 and he has been an aerospace-industry professional for over 48 years. He has extensive experience as an aviation manager and consultant. He has many aviation-related entrepreneurial ventures to his credit. He has written numerous aerospace-industry-related articles, papers and technical documents including business plans and business cases. He is the author of “A Personal Flyer’s Guide to More Enjoyable Flying” and the co-author of the book “False Security: The Real Story About Airline Safety”. He has many media appearances to his credit and he has been a featured speaker at various aerospace-industry events and meetings. He is also the creator, writer, producer and host of several aviation-related video productions.

He has served as an airline (United Airlines), military (U.S. Army) and corporate pilot and has accumulated over 18,000 flight hours. Capt. Koch has been an FAA Certified Flight Instructor since 1965 and he served as an FAA-designated Training Center Evaluator for the world’s largest corporate-pilot training vendor. He currently enjoys personal flying in many types of private aircraft.

Capt. Koch has served in the following aerospace-industry-related capacities: Special Assistant to the president of United Airlines for Space Shuttle acquisition, Founding National Chairman of the American Society of Aero Space Pilots (ASAP), Chairman of the Publicity Committee of the Houston Chapter of the American Institute of Aeronautics and Astronautics (AIAA), Founding President of the Houston Chapter of the Aviation/Space Writers Association (AWA), Founding Chairman of the Air Line Pilots Association Professional Outlook Committee (ALPA—United Airlines), Founding Chairman of the United Pilots Buyout Committee, Founding Chairman of Houston Space Week, CEO of All-States Aviation, CEO of Apollo Skysails, CEO of AeroComm, CEO of Aerospace International Companies, CEO of AvWorld Public Charters, CEO of Cloud 9 Air Travelers Club, CEO of AvWorld FliteMatrix and he is currently the Managing Trustee of The Aerospace Trust. Capt. Koch serves on the Kishwaukee College Aviation Advisory Committee and as an FAA Safety Team representative. He is also a member of the FAA Wings Industry Advisory Committee. Capt. Koch currently serves as the Executive Director of the Center For Airmanship Excellence.