



The Intrepid Airmen



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UPCOMING EVENTS

April Chapter Meeting

April 5. Tiffany Davies, MD and AME, Terminal Building

Chapter 62 Board Meeting

April 12 at 7:30 PM in the Terminal Building, all welcome.

May 19, Practical Aircraft Design Class. Chapter member Martin Hollmann, Monterey

April 21 Fly-Outs

- Harris Ranch (308)
- Calaveras County Open House and Fly-in

May Chapter Meeting

May 3. Andy Werback. Andy will give us a talk about his latest airplane, Steen Skybolt N28S. With any luck, Andy will be bringing the plane to the meeting.

June Chapter Meeting

June 7. We will be having a Rusty-prepared dinner at Mark Wainwright's house in Los Gatos, where he may pull out some dusty Falco bits.

April Event:

Tiffany Davies, MD AME

Dr. Tiffany Davies will talk about flying, medical conditions that may be of concern to the FAA and medical certificate renewals. Dr. Davies is a graduate of UCLA Medical School and she is Board Certified in Family Practice. Dr. Davies serves the local pilot population from her office in Los Gatos near Good Samaritan Hospital.



Not Andy Werback's Skybolt

EAA Chapter 62's April meeting will be held at the RHV Terminal Building

Everyone is welcome, and please bring friends

6:30 PM General Meeting
7:30 PM Presentation

President's Letter, by Konstantin Blank

Our March General Meeting featured an excellent presentation by Don Wolf about Los Medicos Voladores, an organization that selflessly helps people who would otherwise not receive the medical care they need. Thank you, Don, and thanks to Mark Wainwright for inviting Don to speak to us. Our April 5th presenter is Tiffany Davies, MD/AME who will talk about flying, medical conditions that may be of concern to the FAA, and medical certificate renewals. Thanks for covering these important topics, Tiffany!



April's flying weather should improve over March's wind, rain and low ceilings, so as we start flying more, those of use who have not flown for a while need to be mindful that our skills need to be tuned up. Don't be shy about hiring a CFI if you need to feel more comfortable getting back to crosswinds or even IFR procedures.

April will be a busy month for flying. Look forward to the Harris Ranch fly-out/fly-in on April 21 and the Young Eagles at Reid-Hillview on April 28.

I'll see you there at both events!

-Konstantin



Marquart Charger

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Your Editor Passes His Checkride

by Mark Wainwright

Getting a private pilot's license has seemed like a good idea for a long time, but one thing or another kept getting in the way. It was the usual: work, family, not enough time, not enough money when there was enough time.

Sometime in the late 1990s (I really don't know the year) I took groundschool at Foothill College's Palo Alto campus from Bill Dillon. Bill was very dedicated and taught a top-notch course in a well-equipped classroom. Shortly after finishing the course, I took the written exam with the expectation that I would be able to do all the flying in the following two years. Wrong. I didn't go flying at all and the two-year eligibility clock ticked off.

Fast forward to 2002. I flew some as a passenger, then decided that I was going to build a Falco, and so returned to Foothill's aviation classroom after spending a couple of days cramming with the Gleim book and a Hypercard program (remember Hypercard?) that threw random FAA questions at the computer screen. I received a good result again, and I started doing a little flying with an instructor at Lincoln Airport. At the time, I was CFO of a company based in Grass Valley, and, although I spent most of my time in Palo Alto, I decided to take lessons on the way to and from Grass Valley. This instructor came very highly rated by a Falco builder, but it really wasn't a good fit. Among other limitations, my instructor had extensive child-care responsibilities, and I couldn't arrange a regular training program.



Before the checkride



Citabria

Now this brings us to 2008, a moment when it seemed that time and money were both available. I chose Reid Hillview for its proximity, and went to Amelia Reid (now Aerodynamic) Aviation for a couple of reasons: I thought the transition from tailwheel to nose wheel would be much easier than vice-versa, and it was clear that Zdravko wasn't blowing the student fees on leasehold improvements. But, more seriously, the place had an old-timey feel that seemed appropriate for what I wanted to do.

Well, 2008 did not turn out to be the halcyon year that I had expected, so my flying went back on hold. Zdravko kept my name on the email distribution list, and I made the trip to RHV for the

50th Anniversary beer fest. Aerodynamic was offering \$75 hour and a half flights, which was too good a deal for me to pass up, so on the last day of 2010 I went up with my instructor, Jim Grant. Jim threw in a few spins to keep things interesting and I realized that I needed to get the license finished.

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I warmly recommend Jim as a CFI: he managed to contain his irritation even when I did really dumb things, such as forgetting to lock the primer. Moreover, Jim is very patient and thorough.

2012 arrived and my last written exam had expired eight years earlier, so it was back to the books. This time, my recollections of ground school really had become foggy, so the Saratoga Library became my new hang-out. Instead of a quick tune-up, it became an intense re-immersion on the course material. Being a serious cheap-ass, I pulled my ten year-old copy of the red Gleim book out from one of the book boxes in our cellar, coughing every time I turned one of its high-acid pages. The other thing I should have considered before saving the 15 bucks for an up-to-date copy is that some of the rules might have changed over a decade. Who'd a thunk?

Ultimately, the written was fine, but the test atmosphere at Reid Hillview is decidedly user-hostile compared to the friendly feeling at Foothill College. I was told that my iPhone was not allowed—for good reason—and that I better learn how to use an analog E6B pronto. You purists probably think this is a good idea, but I had become proficient spinning the dial on the iPhone, and computing wind correction angles with an old-style E6B was a bit tough. A hint for prospective test takers: the computer on which the exam was given includes an E6B application—a minor fact the exam proctor neglected to tell me.

The checkride itself was broken into two parts. On March 15 the ceilings were low in the morning but the forecast called for some clearing before noon, so we went ahead and finished the oral and takeoffs/landings, but found the clouds too low to do all the maneuvers. Examiner Sherry Diamond and I decided to wait for better weather to finish, which was last Thursday, March 29th. The oral part of the exam was difficult: if I had to do it again I would spend a few nights with a friend performing mock exams from the ASA blue book. The flying part went well—enough that Jim Grant had a big smile after Sherry and I had finished and he had spoken to her.

Many thanks to everyone who helped me along the way, it was terrific to have received as much support as I did. And to the smart alecks who were ribbing me about how much time I had spent, it's true that I may have set a record for elapsed



post checkride

start-to-finish time, but it also seems that I got the job done without having put an enormous number of hours in the logbook.



Introduction to Martin Hollmann's "My Life"

by Don Von Raesfeld

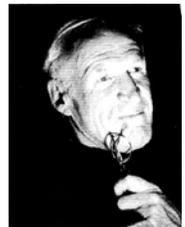
Many of you know long time chapter member Martin Hollmann. In addition to being a chapter member Martin is also a tech counselor for our chapter. Martin has written a book entitled "My Life". Reading this book I am learning a great deal about this man. He has done a lot in his lifetime and continues to do so. The book starts out with his family's escape from Germany in 1947 to the United States. He talks about the early years, 1940 through 1947, model airplanes, hot rods, surfing, his different jobs, gyroplanes, and the Stallion. Martin has given us permission to print what we want from this book in our newsletter. The book is available from Martin. The price is \$12 per copy \$6 for shipping and handling.

The book can be ordered from Martin at:

AIRCRAFT DESIGNS
5 Harris Ct. Building S
Monterey, California 93940

PREFACE to "My Life"

When you are young, you look ahead and seldom look back. You want to change the world and design better aircraft than others have done before you. You want to leave your own "*footprints in the sand.*" However, as you become older, you start looking back and you ask, "how was it done back in the early days, when knowledge was much more limited?" Today, we have computers and we should know more and must be able to do things better!" The answer to that, as many of you already know, is yes and no!



Up to now, I have found that certain windows of opportunity open and I have tried to take full advantage of them. Each chapter [in my book] is one of those windows. I am now looking at the window in my life that tells me to look back into history and I have discovered that the old timers that designed aircraft, missiles and developed technology knew a lot and in many cases, they know more than we do today.

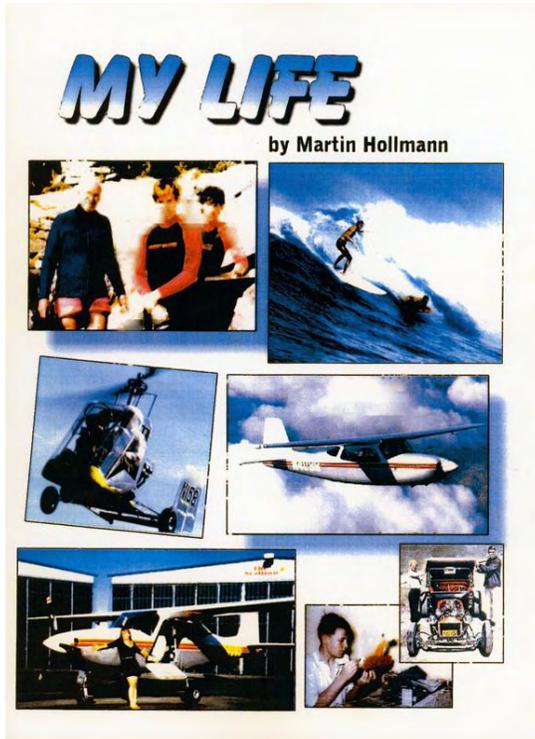
I want to take this opportunity to thank some of my friends for their great and most appreciated help. First are my parents and grandmother, Hanna Schimmelbusch who raised me and supported my hobbies in early years, my wife Rita for putting up with me. And I am thankful to God for my two great children, Eric and Christian for being what they are. I am indebted to my teachers and especially Prof. Tom Leonard of the San Jose State Aeronautics Department, Prof. Jenkins of Florida State University and Bruce Kidder who was my swim, basketball and life guard coach. For those friends that helped me acquire my first jobs: Walter Riedel—apprenticeship at Krauss Maffei; Willy Fiedler—Chief Scientist and Lockheed Missiles and Space Co.; Roger Rusch—Advanced Concepts at Ford Aerospace and Communications Corp.; Bill Volz—Advanced Concepts at Westinghouse my sincere thanks.

I am indebted to my many friends who have helped me with my aircraft design services and my thanks go to: Rick and Susie McWilliams who are not only good friends but have helped perform the aerodynamic design of many of our aircraft. Dr. R.T. Jones for helping Rick and me deserves a special "thank you". Thanks goes to Karl Dempwolf and Bruce Carmichel for always being willing to share

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“My Life”, cont’

technical knowledge and for being a good friends. Ben Owen of the Experimental Aircraft Association (EAA) Information Services. Wes Schmit also of EAA, Paul Poberezny - founder of EAA and his son Tom, and Norm Goyer editor of Custom Planes who does not mind taking some flak for my articles. Jim Irwin of Aircraft Spruce and Specialty, thank you for supplying parts for my aircraft. If it were not for Jim and his parents we would not see such a large number of experimental aircraft flying today. I thank Richard



Trickel who has so faithfully built all the composite parts to our airplanes. He deserves a large medal for the services he has provided not only to me but also to the experimental and kit aircraft movement. A good friend, Jim Kern deserves much credit for building composite aircraft and parts but also for teaching Richard about composites. Dr. Hal Loken, Andy Marshall and Richard Cabrinha† are good friends and we go back a long time. Thanks for your help all these years. Larry Fitzgerald and Andy Gelston, thank you for promoting my efforts to design good aircraft. Two of the world’s best propellor designers who have passed away but who I will never forget and always cherish as friends are Ole Fahlen and Kermit Troyer.

My gratitude goes to my early gyroplane pals, some of whom are still alive today. These are Walter “Skip” Tyler and Dr. Tom Butler who built the first Sportster, Jerry Bruener who taught me how to fly gyroplanes. Jerry Blaskey, John Bond, Oscar Westermayer, Jerry Renov and Charley Liddel shared their wealth and knowledge with me and others and were a big part of my early gyroplane experience.

Recently I have been doing work for the Federal Aviation Administration, FAA, as a Designated Engineering Representative, and I want to thank Don Buckley, Maurice Cook, Fred Guerin and Bob Poe, who work for the FAA, for their great support and help.

Last but certainly not least I want to thank some of those that have helped me build, fly and promote my Stallion airplane. Several great pilots; Dave Morss, Stallion test pilot extraordinaire, Stallion pilots Gary Tuovinen, Liliana Armelo and Richard Craig; Stallion builders Chris Gouthro and Tom Nalevenko and finally Young Bae my welder and my secretary Mary Ann Smith for keeping all that mail going and printing books. And to Andy Gelston and Wendy Gammom for editing and correcting my grammar. A big and much deserved thank you!

I hope you enjoy reading my story as much as I have and continue to enjoy living it.



Mixture - The Big Red Knob

courtesy of Ken Maples, Chief Flight Instructor at Tradewinds Aviation

During your training for the private pilot's license you may have been told how to use the mixture knob (you know - the red one) to lean the mixture during operations at altitude. However many pilots seem to have not understood some of the finer points of mixture management.

The first thing to understand is that when Cessna published the advice to "never lean the mixture below 3000 feet" they were trying to address the general pilot population rather than the erudite folks that frequent Trade Winds Aviation. What they were really trying to say was, "never lean the mixture when the power is more than 75% of maximum". If you are below 3000 feet it is very easy to have the power set above 75%. But at 7000 or 8000 feet it is more difficult (or impossible) to achieve 75% power or greater. So how do you know if you are set to 75% or greater? Check the performance tables in Chapter 5 of the POH.

Once you are sure that you are at 75% power or less, start turning the red knob out. How far? There are several ways to know, but you can get a pretty good approximation by listening to the engine and looking at the RPM. As you turn the mixture knob out and lean the engine, do so at a moderate pace - not slowly. Continue to lean the engine until you hear a change in the sound of the engine. At the same time you should see about a 50 to 100 RPM drop. Once you are at this point, turn the mixture back in by 3 or 4 twists. (A "twist" is a 180 degree turn of the knob). Once that has been done, the sound of the engine should be back to normal and the RPM should be back to where you started. If not, turn the knob in one more twist.

You can also set the mixture by use of an EGT and finding "peak" but that explanation is too long for this article and will yield results that are only somewhat better than the method described above.

Any time you change the throttle, repeat the process from scratch.

Once you descend, it's time to enrichen the mixture. How do you know how much to enrichen? A good rule of thumb is to move the mixture in by one "twist" for every thousand feet of descent. Always be sure to check that the mixture is fully in for landing (unless you are at a high density altitude airport).

Please don't hesitate to contact any Flight Instructor if you would like more details on any of this.

Ken Maples

Chief Flight Instructor



Membership Notes by Donald Von Raesfeld, Jr.

Membership Chairman
408-507-0951

On March 1, 2012 our chapter held its third general meeting of the year. VP Mark Wainwright conducted the meeting as President Konstantin Blank was unable to attend. A hot dog dinner was served prior to the opening of general business. Thank you again Rusty and Randy for preparing and serving this dinner.

The meeting was called to order just after 7:30 PM. Russ Todd, our Young Eagles Coordinator, gave an update on the Young Eagles program. Our first event will be coming up on April 28, 2012 at Reid Hillview airport. As always, volunteer pilots and groundcrew are needed for this event. If you can help out, please contact Russ and let him know how you will be able to help. Russ also mentioned that EAA National is in the process of creating a program for people ages 18 and older, which would allow YE pilots to offer flights to persons older than 17. They do not yet have a name for this program but it will probably be "Eagles". More information to follow.

Our guest speaker for the month of March was Don Wolf. Don is a member of Los Médicos Voladores (LMV), "The Flying Doctors", and he spoke to us about this organization. LMV is a 100% volunteer-based, nonreligious, nonprofit organization that aims to improve the health and well-being of geographically diverse peoples through education and the provision of no-cost, high-quality medical, dental, and optometric clinics. LMV serves Mexico, Central and South America, and migrant labor populations of southeast California. Since 1975, LMV has offered more than 250 short-term medical, dental, optometry, and other healthcare clinics, treating over 7,000 patients per year.



Don Wolf

LMV has five operating chapters. With more than 150 members, including more than 10 pilots and 45 physicians, optometrists, and dentists, the Bay Area chapter is the oldest and largest LMV chapter. Bay Area participates in 5 to 10 trips per year, mostly in volunteer-piloted small aircraft, to northern Mexico and the Coachella Valley of California. The other chapters are: Gold Country Chapter, High Sierra Chapter, Reno Chapter and the International Chapter.

LMV is forming a chapter in Southern California and is always looking for volunteers. They need pilots, healthcare professionals (dentists, physicians, dental hygienists, optometrists, chiropractors, PAs, NPs,



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etc.), translators, and general volunteers.

If you are interested in helping Los Médicos Voladores deliver quality healthcare to patients in the Southwestern United States, Mexico, and in Central and South America, please contact them. You can visit them on their website at <http://www.flyingdocs.org>.

Thank you, Don, for speaking at our March meeting.

MEMBERSHIP RENEWALS

Membership can be renewed online or by sending a check for \$30.00 made out to EAA Chapter 62. Checks can be sent to me or brought to the General Meeting. As of March 20, 2012 we have 35 paid members. I would like to thank all of you who have renewed to date and hope that the rest of our current members will renew soon.

CAPS AND SHIRTS

The chapter now has T-shirts and caps available at all of our general meetings for \$15 each. See me if you are interested in purchasing a shirt or cap.



Mark Wainwright presenting Don with a Chapter 62 hat

FLY-OUT TO HARRIS RANCH

On April 21, 2012 the chapter is planning a fly-out to Harris Ranch for lunch. Contact Konstantin Blank if you are interested in going. You do not have to be a pilot to go on this fly-out. Some pilots have extra seats available and by splitting the cost it makes it quite affordable in addition to having a great time with fellow chapter members.

YOUNG EAGLES

April 28 Young Eagles in Reid Hillview, first event of the year. More information for kids, pilots and ground personnel will be available soon.

Don Von Raesfeld, Jr.

One Day, PRACTICAL AIRCRAFT AND FINITE ELEMENT ANALYSIS CLASS DESIGN CLASS by Martin Hollmann

PRACTICAL AIRCRAFT DESIGN AND FINITE ELEMENT ANALYSIS CLASS by Martin Hollmann

Date and time: One day, Saturday, May 19. 9 AM to 5 PM

Place: 5 Harris Ct. Bldg S, Monterey, CA. Telephone: 831-621-8760

Latest aircraft design technology, materials, and computer programs will be discussed. Each participant will have the opportunity to work on a computer and learn to use the design programs. These programs include performance, c.g., a.c., stability calculations, V-n diagram, wing sizing, fuselage plot, fuselage loads. All programs run on a PC using Windows XP. Each student will receive a copy of all aircraft design programs and a NISA fea program capable of handling up to 1,000 DOF.

Seminar covers:

FINITE ELEMENT ANALYSIS:

Using NISA, each student will learn how to set up a finite element model of a wing and determine stress distributions from static loads and perform a modal analysis used in wing flutter prediction.

BASIC AIRCRAFT DESIGN:

Size your aircraft to your desired performance (top speed, endurance, climb angle, etc.) and calculate gross weight, wing area, engine power, etc.; determine c.g., aerodynamic center, airfoils, stall speed, tail trim, etc. **LOADS ANALYSIS:**

Calculate load factors for your aircraft; construct V-n diagram; calculate air-load distributions.

STRUCTURAL SIZING AND ANALYSIS:

Design and size your load structures, including wing spars, wing attach-fittings, stabilizers.

OPTIMIZING COMPOSITE STRUCTURES:

Determine optimum ply orientations and calculate stiffness and strengths, safety factors and margins of safety. How to utilize foam moldless and molded layup methods; prepregs vs. wet layups and gel coats; plug construction; vacuum bagging; fabrication techniques for minimizing cost and weight.

COURSE TEXT NOTEBOOK: Comprehensive, a 8 1/2 x 11 book

Advance Registration:

Due to limited size, advanced registration is required. Registration at the door will not be accepted. Sign up now! Registration fee: \$340 includes all computer programs.



Martin's Stallion

Intended to be Blank

Don Von Raesfeld
Membership Chairman
930 Monroe Street
Santa Clara, CA 95050

Address Label is **RED**,
time to pay your dues.



MEMBERSHIP APPLICATION

Name _____ National EAA #. _____

Address _____ City _____ State _____
Zip _____

Phone _____ Email: _____

National Membership Required www.eaa.org \$40.00 per year
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