THE SLOW ROLL

CHARTERED #921
Since DEC. 1974

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OCTOBER 2013

The Slow Roll is published by the Sun Valley Fliers By and for its membership to all others interested in the building and flying of radio control aircraft

IMAA Chapter 782

Inside this issue: **Cover Photo by Tony Quist of Joe Balabon B-25 foamie**

THE PRESIDENTS CHANNEL

Frank Moskowitz

OCTOBER 2013 SLOW ROLL PRESIDENTS LETTER

Welcome to the October 2013 Slow Roll.

Nothing really exciting happening this month. No events for October but Saturday November 16th will be our Thirteenth Annual Electric Turkey Fly-In. See the flyer in this edition of the Slow Roll.

Remember last year we were informed that Speed world had to close. Well their website reports they have a new land use agreement with the State of Arizona that is now being finalized. They expect to be open and flying again before October 1, 2013! That's good news for them.

A few members have asked me if they fly a foamie or micro size airplane, do they still need a spotter. We all take liberties when it comes to small foam airplanes. But Foamies or Park Fliers (airplanes under two pounds) do fly while others are flying. While they do not pose a problem regarding our 400 foot rule, they still can be involved in a mid-air if other pilots are flying and for that reason we require all pilots to have a spotter. Just use good common sense if you are the only one flying. The rules are also posted at each flight station on the metal signs. Remember: Spotters must be AMA members.

One last note is that Ken Justice is still the guy to go to for hats, jackets and T-shirts. The cooler weather is upon us already. So if you want to order a windbreaker or jacket, now is the time to do it.

Please join us for our next club meeting Wednesday October 2nd at Deer Valley Restaurant. We will have many raffle prizes and the 50/50 could make you very happy $$$. You never know what might happen, and you don't want to miss it. Meetings start at 7:00 pm. If you want to eat I suggest you arrive no later than 6:15 pm. Location is Deer Valley Airport Restaurant. (7th avenue and Deer Valley Road).

Have fun out there!

Frank Moskowitz

President

SVF MEETING OCTOBER 2 @ 7:00 P.M.

Sun Valley Fliers Club Meeting Minutes – 9/4/13

The meeting was called to order at 7:00pm by **Frank Moskowitz**. There were 24 members in attendance.
Frank introduced the executive and the board of directors in attendance.

Guests:

- **Monty Cain**
- **John Frank**

New Members:

- None

New Solo Pilots:

- None

Secretary's Report

- The minutes of the August meeting were accepted as published in the Slow Roll.

Treasurer's Report - Gene Peterson

- We have finished the painting and roofing job on the ramada. Additionally, the weeds have been cleaned up, all the bills are paid. We are down to $ (not including the savings account) which is a bit low but we are getting ready to do renewals.
- The Treasurer's report was accepted.

Safety Officer Report - Ken Justice/Frank Seminara

- No safety issues to report.

Old Business:

- The new roof has been installed on the ramada and painted. The landscaping has been done on the grounds. The grass on the north side of runway on west end was not in the scope of work but Gene/Frank will look at getting it done as well as the grass next to the helipad.
- **Mike Peck** is taking over as membership director so Gene can concentrate on Treasurer's role with his really cool new laptop.

New Business:

- OEAF Fly In at Adobe Mountain Park (AMPS) on Oct 19-20. **The Electric Fun Fly will be at SVF on Nov 16th to support the Wounded Warrior program.**
- The SVF Members Only Fun Fly is Nov 17th has been cancelled.
- The 25th AZ Jet Rally is at Superstition on Nov 14-17 (Thurs-Sun)
- Jim gave a briefing on the Jet World Masters in Meiringen, Switzerland. Team USA finished in 4th place only 47 points (0.6%) out of third place.
- Ken Justice had his trailer stolen. All members were emailed the information and description which includes SVF stickers. Please keep on the lookout.
- There is a float fly at Lake Mary (Flagstaff). Go to the Flagstaff Flyers website for more info.

Community Awareness – John Geyer

- No news

Door Prize Winners:

- **Dave Uhlving** – trip for four to Hawaii, **Jim McEwen** – CA and accelerator, **John Olejniczak** – Pilot figure
- **Monty Cain** – Ammo can, **Howard Kennedy** – Lead, **Bob Purdy** – CA and accelerator, **Neil Banyai** – Spektrum receiver
- **Peter Boland** – CA and RC56, Ken Norton – CA and accelerator

50/50 – Mike Peck

Show & Tell:

- **Dan Bott** brought in a prototype Husky that Howard is putting together.

The meeting adjourned at 7:43pm.

Respectfully submitted by, *Jim McEwen* - Secretary

$ TREASURERS REPORT $ with *Gene Peterson*

TREASURERS REPORT October 2013

…Member ship dues notices ARE IN THE MAIL….. Well, not quite but be ready, cuz it won't be long. Probably later in the month. Couple of members moved into the elite "Senior" group If you are sponsoring a Junior and that person is not an immediate family member, you might want to check to see that the renewal gets sent back as it would go to the Junior Member with the address we have on file. …

We have the Stickers In for your 2014 AMA card so we will be mailing them out as we get renewals in. This year we asked that you wear your AMA card on your person with the SVF Sticker on it for identification. This seems to be working out real good and thanks for that. We have more plastic badge holders at the field and usually at the General Membership Meeting. If you need one, check with Mike or I.

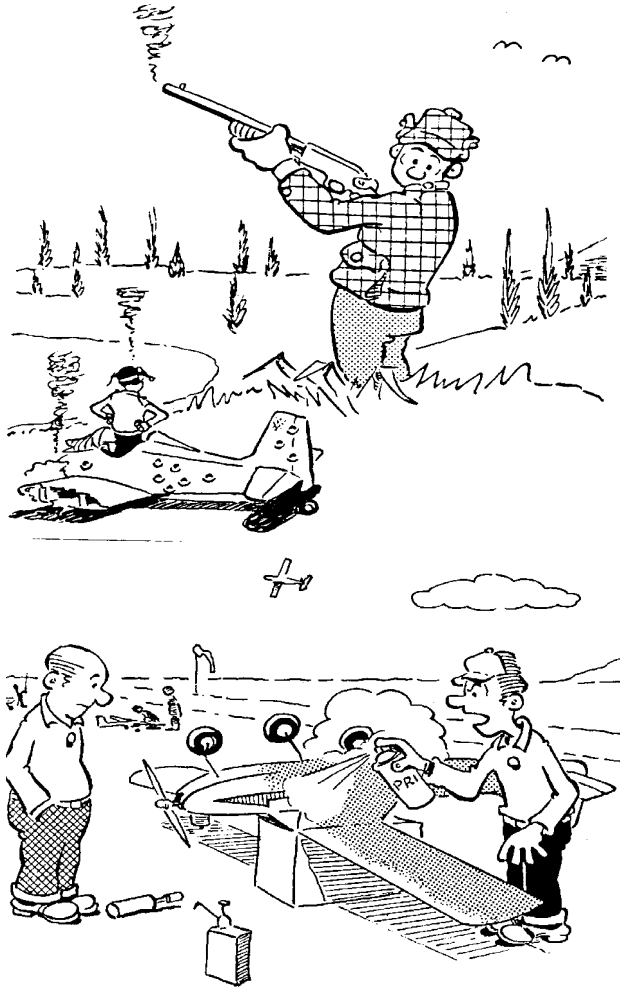
Some of the guys are going to the Scale Masters Championship neat Sacramento, Calif on October 10,11 and 12. Good luck to all of you. Bring home some trophys.

Don't forget the 1-8th AF fly in the following weekend at the AMPS Club field, 43rd Avenue and Pinnacle Peak. October 18-19-20. Friday is mostly set up but lots of people will be flying also that day. Have a nice October flying and see you at the field.

Regards *GENE PETERSON, TREASURER*
Az49er@cox.net **602-579-0925**
peckster1@msn.com .

OCTOBER 2013 SVF BirthDay Boys

First name Last name	Member type	Dob
Robert Purdy	Senior	10/01/1935
George Metro	Senior	10/01/1943
Dean Brox	Regular	10/02/1973
Cecil Walters	Lifetime	10/03/1940
Bruce Bretschneider	Senior	10/05/1940
Buck Garza	Regular	10/08/1966
Warren Fertig	Senior	10/10/1940
Abe Mirich	Regular	10/11/1970
Steve Miller	Regular	10/16/1952
Paul Steinberg	Regular	10/17/1951
John Wolcott	Regular	10/20/1972
John Elder	Senior	10/20/1946
Ken Rhoads	Regular	10/22/1950
Ken Justice	Regular	10/22/1951
John Mullins	Regular	10/24/1952
David Thielman	Senior	10/24/1947
Keith Hoffman	Regular	10/28/1956
Neil Wallis	Regular	10/29/1969
Robert Ritchey	Regular	10/30/1955
Howard Buxton	Senior	10/31/1937
Edward Hansen	Regular	10/31/1985



"I don't see what good this will do... Some guy told me it would start easier if I primed it !"

Sun Valley Fliers Aircraft

79 " WS, twin electric on 5S battery, retracts

Abe Mirichs new 3DHS Bigfoot

Debin Ray

New Solo Pilot
Congratulation to JB Bowers
Instructors, Gene P. & Howard K.

Dan Blackwell & son Caden first flight.

Electric Turkey Fly

S V F

S V F

To support the

Wounded Warrior Project

Thirteenth Annual

Electric Turkey Fly-In

November 16, 2013

Hosted by the Sun Valley Fliers

Cave Butte Park, Phoenix AZ

All Electric Aircraft Welcome

Power Available at the Field

Phantom Judged Fun Events

Raffles, Trophies, and Prizes

Vendors welcome!

Lunch

AMA Sanction 13-2034 **AMA License Required**

www.sunvalleyfliers.com

Landing Fee $25

For More Information:
CD John Geyer – 602-810-1767 or jegeyer@centurylink.net

WARBIRDS OVER THE ROCKIES 2013

By Howard Kennedy

Val Roqueni, Frank Seminera and I left for WOR on Wednesday the 11th at 6AM in Val's truck with his travel trailer. We ran into rain before we hit Flagstaff with the rain continuing all the way to Fort Collins. At our first fuel stop in Winslow we noticed fresh water leaking from the trailer---apparently a crack in the supply pipe. Nothing we could do for it so we continued on. A few miles further along a motorist flagged us over because of the water leak. The pipe had broken completely so we lost our entire water fresh water supply. No showers for the weekend. The rest of the trip was pretty uneventful, but we arrived in Fort Collins at midnight to rain and decided to spend the night at a rest area rather than try to get the trailer parked at the flying field in the dark. Hit Denny's for b'fast on Thursday morning and then headed for Drake field. The parking area for the RV's was still in pretty good shape and we were able to park the trailer ok. That day was damp and drizzly and was spent mostly visiting with friends and setting up our EZ ups after getting the truck unstuck. Friday's weather was not bad although there was some overcast. It was scheduled to
be a regular event day, but they went to open flying for the day. There was considerably less than half of the normal aircraft there. I ran the engine in the T-28 to be sure the settings were ok at that altitude, but did not fly.

Dan and Judy flew into Denver on Friday and had to detour 140 miles to get to the flying field because of flooding. I-25 and other north south routes were closed.

Saturday was regular event day with mostly clear skies and very little wind. After the noon time airshow----full scale, an NA 50 and a T-28, and models---- Dan Bott and I flew our foamies in the foamie mass launch (20 plus aircraft). That was a lot of fun with Dan and I both landing with undamaged airplanes.

I flew the T-28 later and had a gear problem---it was late going up and then would not go all the way up. On a pass to check the gear the airplane rolled 90 degrees to the right on it's own. I caught it and corrected it with no problem. This of course added to the stress lever so I decided to drop the gear and land. Well the gear wouldn't come all the way down so I decided to retract it and belly it in and fortunately the gear did go up. Had a good approach, shut the engine down to save the prop and landed gently and slid down the runway.
Unfortunately the airplane went off the far side of the runway and did break the prop there. Other than a couple of very minor scrapes there was no damage to the airplane.

The Saturday night banquet was well attended with good food served and a good speech by General Steve Ritchie---the only ace of the Vietnam War. The auction was after that with most items going for a higher price than I would have expected.

At our table were Mike and Jack Dolan, Tony Quist, Ray Olsen, Dan and Judy Bott, Val Roqueni, Frank Seminera and myself. Also present from Phoenix was Chad Veich

Next was the awards presentation with Chad getting the award for best original design (his Hellcat) and Jack getting the youngest pilot award.

Sunday morning we got up to a light rain and decided to pack up and leave. We hooked the trailer up to the truck and Val started out of the parking area and got stuck after a couple of hundred feet. We tried a couple of different things to no avail. A gentleman showed up on the flight line with a four wheel drive pickup and I asked if he would give us a tow and he said he would gladly give it a try. Fortunately for us he was able to pull us out ok. We finished loading up and headed out with the rain getting heavier all the time. We had rain all the way to Sante Fe with it being torrential at times.

25 miles from Holbrook we were pulling a hill and heard a hell of a bang . There was a big rig beside us and I thought he or we had blown a tire. We stopped and checked Val's truck and trailer and all looked ok. When we tried to continue on the truck was way down on power with the check engine light on. Further checking found the turbo hose had blown apart at the intake manifold. We managed to limp a short distance to a place we could park for the night and got a night's sleep there. In the morning Val made arrangements to have the truck and trailer towed to the nearest GMC dealer which was in Snowflake. Meanwhile Kenny Rhoads had heard of our plight and offered to come get us and the trailer to bring us back to Phoenix.
We owe you big time Kenny. Val's truck is still in Snowflake waiting for parts. *H.K.*

Warbirds Over The Rockies

Photos by Howard Kennedy

Sun Valley Fliers

Full ScaleT-28

Warbirds Over The Rockies

Photos by Tony Quist

Sun Valley Fliers

SVF Mike & Jack Dolan

Frankenstudent

Last month's article discussed the Frankenstructor and listed a few ways not to be remembered as one. For every instructor, there has to be a student. This month, the topic is how not to be remembered as a Frankenstudent.

We should all be lifelong learners, so being a student not only applies to the newbie who has never flown an RC airplane but also the seasoned veteran who wants to learn how to do a blender or how to sheet a foam-covered wing.

It is no coincidence that the same topic headings appear here that started this discussion from an instructor's point of view.

• **Be Prepared.** Yes, this is the Boy Scout motto and it *does* apply here. It is your responsibility to do your homework.

Read your club's instruction manual or other written information that is given to you. It is a waste of flying time for you and your instructor to rehash what should already be second nature to you.

• **Learn the Lingo**. A stall is not to keep a horse in and a flare is not something to light the sky. Eventually, you will know the correct meanings of these terms.

Try to shortcut what you can by reading and listening. There are plenty of references. They might be in your flying manual and other local resources. If not, there is a ton of material for beginners on the AMA website. Start here: *The Newcomer's Guide* www.modelaircraft.org/files/education/docs/newcomerguide.pdf. For more, browse or search the AMA website.

When at the field, ask plenty of questions. Your fellow fliers are a wealth of information. The hardest part, in many cases, is to get them to shut up after they get started.

• **Safety.** As I wrote in the last column, safe flying habits are learned behaviors. We will abide errors because of ignorance or shaky flying skills, but not for long. Becoming a safe pilot must be your number-one priority.

Learn your field safety rules the first day and abide by them. Be determined to be a safe and courteous flier. There is no place at any field for irresponsible or reckless flying—especially when there are agencies watching and trying to regulate what we do.

If you are a danger to yourself and those around you, we cannot afford to have you around.

• **What we have here is a failure to communicate.** Communication requires not only sending, but receiving. This applies to the student as much as the teacher. If you do not understand the instructions, say so. Don't nod your head, hoping that the meaning will somehow come to you as you go. This not only impedes your learning, it can be a safety issue. Make sure you *do* know what you are supposed to do.

• **Give your full attention**. You may have heard about the man driving down the interstate eating a sandwich and sending a text message. Multitasking may have a time and place, but this is not it. As a student you have to be ready to learn. If the water pipe broke just before you left the house for your RC lesson and all you had time to do is turn off the water, you may just as well have stayed home and fixed the pipe. You instructor requires your full attention.

This also applies to your electronic devices. Turn them off. Inattention also is a sign of disrespect. Not only will calls and texts distract your attention, they give a visual signal that your priorities are elsewhere. Once again, your instructor requires your full attention

• **Objectives.** From the last column, you know that one sign of good instruction is defined objectives. If your instructor does not outline what you should do on this flight, ask. If he or she gives you a to-do list, repeat it back. It will not only help you remember, it will make sure you are both on the same page.

• **Visualize.** See it before you do it. If you can't make a mental picture, ask your instructor to fly the procedure once before you attempt it.

• **Accept Criticism.** Criticism is meant to help you, not hurt you. Don't take it personally. Take the grit out of it, and put it to use. None of us are perfect, although we like to think so.

• **Patience.** All of those hours on the simulator have paid off, believe me. Flying in the true light of day is something else. You have to develop the habits and muscle memories to guide your movements. All of us are different in that respect.

Even with the best instruction, most students retain less than 15% of what they are taught. The only way to absorb the total lesson is to practice it until you have it. There are few shortcuts.

• **Learning Curve.** It is okay to be determined, but smart fliers know when to call it a day. If the last 10 landings have gotten progressively worse, you probably won't see much improvement if you force yourself to do 10 more. Take a break and come back to it later.

• **Replay the Day.** As you are driving home, review what you did. Refly some of the new things in your head. Memories stick better the more they are replayed.

• **Common Sense.** Make sure you are on time for each lesson. Treat your instructor with respect. If something breaks, help fix it. These are things that should become second nature to you as a student.

Above all, remember that this is supposed to be fun. A few months from now those awkward landings may come back to haunt you during the hangar flying, but that's what it's all about. God gave us all just a short time to enjoy this life and those flying experiences—the good and the not so good—will become cherished memories.

Frankenstructor—Follow-Up

I received this message from David Hogue about an error in my last article:

I'm teaching my son to fly, when I can pull him away from the phone and video games, and your column made me think. I did notice what I think is a typo here.
Safe flying habits are learned behaviors. Safety should not be the glue that holds your plan together. Shouldn't that "not" not be there?

You are exactly right. It certainly did change the meaning of that sentence didn't it? Ashley Rauen, my AMA editor, does a great job pointing out my obvious mistakes, but I can't expect her to read my mind. Thanks for the note and keep on proofreading. I am sure I will make other similar mistakes.

Jim Tiller, jtillet@hotmail.com

Let's Expand Our Horizons

Jim Wallen, sjwallen@tde.com

Let's create some diversity and adventure in our hobby. It is remarkable how many different directions our hobby has taken in the last several years.

It was only a few years ago that helicopters were branded as the "bad boys" by many clubs. They interfered with fixed-wing activities and were deemed to be a general nuisance. Today, they are one of the favorite activities of our newest generation of fliers.

The same can be said of the world of electrics as opposed to "wet fuel" aircraft. Even the older generation of fliers seems to be transitioning to electrics in small and larger aircraft. Smoke and fumes are becoming less popular, while sparks are becoming more prevalent.

There is a new breed of fliers that looms on the horizon while AMA is working diligently to properly incorporate them into our hobby. RC aircraft that can be programmed to fly a specified path, detect and avoid other aircraft, and even return to the same landing spot they took off from, are now available in local hobby shops. All of these new technologies must adhere to AMA's Safety Code.

Many of the pilots of these aircraft are more interested in the technology than actual flying. The technologies are intriguing to a large segment of the public and are changing at a whirlwind pace.

If some of these newer facets of our hobby seem intriguing to you, be brave and take a jump to some new activities that will broaden your horizons, create diversity, and spark some new interests in

In the Pits
With D.PITS

Hey Pits why can't our members give a little extra effort to help keep our field and the ramada clean? Maybe just maybe they could empty one trash container when they come out to the field? I have at times empty the trash containers when they were full. *F.S*

Well F.S. that was good of you to empty the trash container. Some members feel that their dues covers this service as if we have a full time member that only has this duty. Hey I'll do it if the Board gives me a free membership. I'll be out there once a week on a Monday! We do pay for the trash dumpster but why pay for the service if its empty all the time. A club is run by members willing to give a little, and I mean a LITTLE effort to help out at times. The club can raise the dues if you feel we should approach the trash removal company to see if they provide that service and how much would it cost? Now for my beef, when someone CRASHES their airplane it should go in the BIG DUMPSTER!! Thanks F.S. for your input, is that for Fail Safe?? That's it from D.Pits

Incredible Scratch-Built Rotary Engine

Andy Johnston must take his RC modeling very seriously … why else would he spend over 3 years building a true-to-scale, rotary Bentley engine spending another 2 years building an Avro 504K from plans, specifically for the engine? The 9-cylinder powerplant has cast-iron liners that are 1mm thick, aluminum finned barrels and a total of 347cc displacement for a range of 700 to 3500rpm with a 25.5×23 prop that has a scale blade shape. The engine spins, just like its full-size counterpart! The Avro 504K is enlarged to 27% scale from 1/4-scale David Boddington plans and has a 116-inch wingspan. It is covered in linen solartex and has freehand markings. Andy notes, "The Avro was designed around the Bentley with the provision for exchanging it for a Zenoah 62. The Avro's maiden flight was on 31st March 2012 with the 62 (and 3kg lead up front, the difference in weight between it and the Bentley) to prove the airframe and it was a great success so a further six flights were made to complete the CAA tests on that day before making the swap and further tests. The Bentley engine build started in August 2004, it's test run was 9th January 2008 and the maiden flight in the Avro was 6th April 2012. There are no noticeable effects of gyroscopic precession from the rotating Bentley affecting the handling unduly, just a slight difference in left and right which may be due to torque and the coarse-pitch propeller. Twenty-two flights with Bentley to date." Enjoy this video, courtesy of tbobborap1, our videographer friend across the pond.

VIDEO
http://www.youtube.com/watch?v=QoCjro11ZQ0#t=134

Russian Gunship from Down Under

Check out this 1/6.7-scale, turbine-powered Mil 24 Hind from Down Under … New Zealand, that is! This beauty is from Heli Classics and flown by NZMC club member Carl. Thanks to RCheliclub NZMC for taking these videos and posting them on YouTube. If you're interested in getting your own, East Coast Scale Products can sell you a partially built kit for just under $9K–a small price to be the star attraction at every flying field!

VIDEO **http://www.youtube.com/watch?v=WF9Cb-0hiA8**

VIDEO **http://www.youtube.com/watch?list=PL3439896F6BBF87E2&v=uYiQnHuQops**

Fearless 7-year-old flier

This video of a second-grader flying a 120cc aerobat will blow your mind! Here's the scoop from TripleThreatRC's Bob Thomson, who took the video and posted it on YouTube.

So, you're seven years old and just going into Grade 2. "What did you do yesterday Oliver?" asks one of his little buddies. Oliver replies, "I flew a 120cc Slick 540 at the Wenatchee Huckfest."

Oliver is a "seasoned" pilot who already has three years of flying under his belt. Azhar gladly handed over the radio to a 120cc Slick 540 demo plane to let Oliver take it for a spin. I am gobsmacked. Well done Oliver! Something tells me that if girls don't get in the way (in another ten years or so) he might have embraced this hobby at just the right age! Maybe next year Oliver's feet will touch the ground when he sits in that chair for another flight! And oh yes, Oliver said that next year he'd like to use high rates!!

Cast: The Pilot: Oliver, The Dad: Pat, The Plane: Aztech Aeromodels 120cc Slick 540, The Tx: Azhar's Futaba 18MZ, The Nice Guy: Azhar

VIDEO **http://www.youtube.com/watch?v=M3AJAs2Vy6w**

How to Select Your First Radio

If you go through the beginner section on any of the major forums you will frequently see this question, or some version of it. And you will see it in the advanced flying sections, too. That's because a radio is the most important tool you will use to fly your model aircraft. Without the radio-control system, there is no RC flying. So, how to choose?

If you are new to the hobby, have never flown, and if you plan to learn without a buddy box, I recommend an RTF package that includes the airplane, radio, and all of the electronics already installed in the airplane. It typically includes the battery and charger, too.

This eliminates so many decisions, considerations, and points of confusion. It allows the pilot focus on learning to fly.

Which RTF? That is a question for another discussion but there are plenty of good ones out there. They all come with a radio that should be adequate to the task of flying that aircraft. And the value of the radio, in that package, is typically so small that even if you never use it for anything else, that's okay.

When you have mastered your basic flying skills, it's time to consider what you want and need in a radio. You may have begun to learn about the aspects of RC flying from other pilots. You should be better prepared to understand the information below and to address the questions we will ask as we try to guide you.

Standard vs. Computer Radios

A standard radio is one without model memories and few, if any, mixing capabilities. The Spektrum DX5e or the Hitec Laser 4 would be examples of standard radios. These are fine when you get them in RTFs or if you plan to have a dedicated radio for each airplane. Otherwise, purchase a radio that has model memories. (This is typically called a computer radio).

Brands vs. Off Brands

There are plenty of good radios out there. The major brands in North America are Futaba, JR, Spektrum, Hitec and Airtronics. I am going to add Tactic here because it is sold and supported by Hobbico, a major distributor/retailer that also distributes Futaba. I don't think Tactic's market share is all that big, but I think it will grow. All others have relatively small market presence, but that doesn't mean they are bad.

The major brands are all safe bets and have great service. You will find those who love one over the other, and those who hate one vs the other. But in the end, they all have good products. If you use different brands you may get a great radio too, but the level of service and support may not be up to the standards of the aforementioned brands.

If you choose an off brand, consider where you will get help if you need it. This could be easy if your friend has one or if you a member of a forum with plenty of users of this radio.

Budget

How much are you willing to spend? As you shop for radios notice that they often come packaged with other stuff. That might include receivers, servos, cables, switches, etc. When you evaluate the price of one radio as opposed to another, you must take into account what is included in the package. A $150 radio is not cheaper than a $180 radio package that comes with a $50 receiver.

The more you can spend the more capable radio you can buy and the less important the rest of the questions become. After you get over $400 for one of the brand-name radios, they all can do what you likely will need to fly nearly anything, as long as they have enough channels.

You will get various opinions from advanced pilots as to what is better for what, but they are talking shades of gray here. If you can spend $400 or more on a major-brand radio, then buy whatever you like, whatever your friend has, or what you see the champion pilots flying in the radio ads.

If you don't have $400 for a radio, then you have to be more selective. But you can still get a capable radio for less than $250. You have to be more specific as we start finding limitations. Of course, these limitations may not matter to you.

When discussing budget, state a number. Asking for an inexpensive radio means nothing. When considering my needs, I consider $250, for the radio alone, an inexpensive radio. How about you? No matter what it is, start with a number. Does your budget include a receiver? Servos? State a number and then define it.

Naturally, there are plenty of used radios. Buying a used radio is similar to buying a used car; it may be

great or it may be a lemon. When you buy used you take a risk. As long as you accept that, you can consider used. My two main radios were purchased used.

Last, forget about the "best" radio or the one that will last you for the rest of your flying career. There is no best and we all tend to want to trade up after a while. But even a basic six-channel computer radio can serve you for decades of flying fun if your needs are basic.

I have friends who have been flying for decades, who are instructors, and who are flying with radios that they love but that would not meet my needs.

Trainer Port

Trainer ports have two main uses: working with a simulator and attaching to a buddy box. Will you be working with an instructor using a buddy box? If so, what radios will work with your instructor's radio?

If you are buying a simulator and want it to work with your radio, make sure the trainer port on your radio will work with that simulator. Buying a cool radio then not being able to get flying instructions or use it with a simulator is disappointing.

Types of Aircraft

Computer radios typically have software for airplanes and helicopters. This programming can range from basic to advanced, and the more advanced the software the higher the price. Many do not include specific software for sailplanes/gliders. That does not mean that you can't use them to fly gliders—gliders are simply specialized forms of airplanes. What it means is that the radio's software will not include the special mixes that many glider pilots want. If you plan to fly gliders, you may want to look for a radio that includes glider mixes. If gliders/sailplanes are in your plans then read this article: www.flyesl.org/forums/topic.asp?TOPIC_ID=223.

There are also quadcopters, aerial photography, and FPV as other forms of flying. They may require special software or extra channels. Before you buy a radio, talk with people who do this type of flying. It would be disappointing to buy a radio only to find it can't fly the aircraft you purchased.

How Does it Feel in Your Hand?

For many pilots, this is the deciding factor between multiple radio choices. Let's face it—we each have different hands and how the radio feels matters. One of my good flying buddies purchased the same radio I have. I love it. However, he hates how it feels in his hands so he purchased something else.

If possible, try to pick up several radios and see how they feel. Can you easily put the sticks in the far corners? Are the switches convenient? If it has side or rear sliders, are they convenient to work and reach? Don't overlook the feel. For many this is *the* key factor.

How Many Channels?

While there are some interesting four- and five-channel computer radios, I recommend that you get a computer radios with six or more channels. I don't see any real benefit for having less than six channels, The cost difference is small and the benefits of six or more channels is high. Even if you are flying a rudder-elevator glider or three-channel electric airplane today, next year you may be adding ailerons, flaps, and landing gear. So get a radio that can at least handle that. (A six-channel radio would work fine.)

Why would you ever need more? Here is a typical channel breakdown, regardless of whether you are flying electric, glow, or gas powered, or gliders, Giant Scale, or highly detailed Scale models. Jets, advanced helicopters, and FPV aircraft may have other needs, but it still comes down to channels.

- Rudder: 1 or 2
- Elevator: 1 or 2
- Ailerons: 1 to 4
- Spoilers: 1 or 2
- Flaps: 1 to 2
- Tow hook: 1
- Landing gear: 1
- Motor: 1 to 2
- Smoke, lights, other: 1 to ?

That makes 4, 5, 6, up to 18 channels depending on what kind of aircraft you have and how you set it up. So, how many do you need?

Most sport fliers will be well served for a long time with a six-channel entry to mid-level sport computer radio but more channels could come in handy in the future. If you plan to become a more serious competition pilot, plan to fly Giant Scale, full-house sailplanes, jets or are interested in having cameras, lights, smoke, or other things on your airplane, that you can control from the radio, plan for more than six channels.

Basic Features

Most new computer radios offer the following features. Regardless of what you are flying, I highly recommend your radio have these features.

- Model memories (at least 10)
- Low-battery warning
- Trims on the channels controlled by the stick(s)
- Timer—highly recommended but not required
- End-point adjustment/adjustable travel volume
- Subtrim (find centering on the servos during setup)
- Dual rates and/or exponential on ailerons and elevator
- If you are flying 3-D you want it on the rudder, too
- Elevon/delta wing and V-tail mixes

If it doesn't at least have these, don't buy it!

Model Memories

How many aircraft do you plan to own and fly? Twenty years ago, when everyone was building kits, when electronics were costly, you might have two airplanes flying and maybe three in the hangar without servos, a receiver, or a motor. There were always the pilots with 30 airplanes, but if you had three flyable models then three model memories were plenty.

Today, I would consider 10 the minimum. Airplanes and electronics are cheap, and Bind-N-Fly (BNF) types are so easy to pick up and fly.

Some radios now let you save models to a memory card or to download them to your computer. If you can save aircraft profiles outside the radio, 10 model memories are probably plenty to hold what you are actively flying, but more is always better.

Type of Flying and Surface Mixes

Surface mixes also are one of the great features that computer radios bring to the game. Input to one control can move two or more servos in a coordinated fashion to create the type of surface control you need. I use some mixes that move five servos at once. This can reduce the pilot's workload while providing consistent behavior. In some cases, these mixes can be overridden during the flight or can be turned on and off.

In the following list where two surfaces are listed, the first is the master and the second (sometimes called the slave channel) follows. The following list is what I would consider the minimum set I would want in even an entry level radio. They may be named mixes or they may be able to be created by "user mixes."

- Flaperon—requires two aileron servos on separate channels
- Aileron-to-rudder mix (coordinated turns)
- Flap-to-elevator mixing for landing and glide-path control
- At least one user-defined mix after the above

You should find these on even the simplest computer radio. If it doesn't have these, don't buy it.

This is all many pilots will ever need. But if you plan to get into full-house sailplanes, competition Pattern flying, or other advanced forms of flying, you may need other mixes. Talk with friends and people on the forums and ask them what mixes they use.

Some are only available in more expensive radios so don't put them on your required list unless you have the budget and really need it. Remember, people flew RC aircraft for decades with four-channel radios without any surface mixing, and so can you.

Receiver Selection

Without the receiver, the radio is useless, so receiver selection is important. If you are flying larger airplanes you may have plenty of room for the receiver. But if you are flying small aircraft, the size and weight

of the receiver can be critical.

Putting a 1-ounce receiver in a 6-ounce model doesn't make sense and it likely won't fit. If you are into indoor flying or micro aircraft, you want them small and lightweight. Some brands offer "bricks" that are ultralight packages that combine the receiver with the ESC and sometimes servos. If this is your interest, make sure these are available in your radio brand.

If you have a six-channel radio, you can use a receiver that has more than six channels. Sometimes we use those extra slots for things that the radio does not control, such as airplane locaters. Having receivers available with more slots than your radio can control might be useful.

Most 2.4 GHz radios have specific protocols that are used for the radio to communicate with the receiver. In many cases, you must buy the same brand of receiver as radio. There are also sometimes different protocols within the brand. For example, Futaba has FASST and FHSS radios in its line. The receivers are specific to the protocol. So a Futaba FHSS radio can't fly a Futaba FASST receiver although they are both Futaba 2.4 GHz systems.

In the 72 MHz days, it was common to find compatible receivers. You could buy a Hitec or Berg receiver to use with your Futaba, JR, or Airtronics radio. That went away with the dawn of 2.4 GHz, but compatible receivers are now available.

Today, there are compatible receivers for Spektrum/JR DSM2, Futaba FASST, and Hitec AFHSS 2.4 GHz radios. If the cost of receivers is important to you, and you would consider compatibles, then this may help influence your choice of radios.

BNF, TX-R, Others

In the old days, (10 years ago), you purchased an airplane and put in a receiver that worked with your radio. Today, you can buy aircraft that are ready to fly, including the servos and receiver. That is great, but you must have a matching radio to fly them. Horizon Hobby has a huge line of BNFs. If you have a Spektrum, JR DSM2, or DSMX radio you can buy these airplanes, bind them to your radio, and fly.

Hobbico also has a line of transmitter-ready (Tx-R) aircraft. The company's Tactic radios work with these Tx-R airplanes. However, they also have an external module—the AnyLink—which will work with many radios. When you have an AnyLink module, you can fly any of the company's Tx-R aircraft with a variety of radio brands.

If BNF or Tx-R matters to you, then you want a radio that will work with these aircraft. Not everyone cares, but if you do, take this into consideration.

Other Features

There are several types of special features on radios. Telemetry, touch screens, the ability to update the software through the Internet, and so on. How important are these? You decide. Talk with those who love them and those who laugh at them, then make your decision.

The Best and the Last

People ask which radio is the best. *There is no best.* The best is the one that you can't afford or that will be released six months after you buy one. Don't worry about the best. Decide with what will work for you, your budget, and your flying style.

Some people want to buy the radio that will last them a lifetime. Even an entry-level computer radio can fulfill that, if your requirements never exceed the capability of the radio. But the fact is that we all get the bug to upgrade. Look at something you feel will last you three to five years. Who knows what you will want in a radio five years from now.

Ten years ago we did not have 2.4 GHz radios or those that could be upgraded through the Internet. Forget the forever radio. In the world of computers and electronics, five years is forever.

I have covered the basics and it is time for you to ask questions. Read the advertisements, look at the boxes, talk with friends, and ask your questions. We are all here to help.

Resources:

Most of the major radio makers have a customer support forum on RC Universe.

It's a good place to see what types of questions/issues are being discussed.

www.rcuniverse.com/forum/forumid_52/tt.htm

Radio Discussions:

RC Universe

www.rcuniverse.com/forum/forumid_224/tt.htm

RC Groups

www.rcgroups.com/radios-135/

It can be hard to separate fact from opinion or outright fiction, but at least you can see what is being discussed. It's a great place to ask questions.

Ed Anderson, aeajr@optonline.net

SVF Members on Land & Water


Ed Hansen

Look at this shot of a mid-air with my Fairchild PT-23 & a J-3 Cub. I was flying in Wenatchee, WA at the NW Scale event. I was outbound doing a Figure 8 when I got hit. The LE of the vertical fin was damaged - about the size of your thumbnail, with no other damage.

The pilot of the J-3 was able to fly back to the field and (since it was an ARF) got another wing from a friend at the event and continued to fly the remaining rounds!! Happy flying, I miss you guys. Ward


Eric Wuestenoffer

John Geyer Electric Church


Dennis Lamb Cessna & Piper

A lifetime on the front production line: One of the original Rosie the Riveters, 93, still working at Boeing factory where she started during WW2

She's 93 and still riveting.
Elinor Otto, 93, picked up a riveting gun during World War II, joining the wave of women taking on the jobs of men sent to fight overseas.
While most of the original 'Rosie the Riveter' women left the workforce just days after the war ended, Otto continued to rivet.
These days she's building the C-17 at Boeing's California plant.
'We were part of this big thing,' Otto told **NBC News.**
'We hoped we'd win the war. We worked hard as women, and were proud to have that job.
'I'm a working person, I guess. I like to work. I like to be around people that work.
'I like to get up, get out of the house, get something accomplished during the day.'
Otto was keen to support the war effort, but as a single mom, also needed the money.
She earned just 65 cents an hour in her first job - her son's childcare cost $20 a month.
While Otto loved working as a riveter, she was pushed out when the men returned from war and re-claimed their jobs.
She tried to work as an office assistant and carhop - positions which didn't appeal to her.
Otto was grateful to be offered a position at Ryan Aeronautical Co. in San Diego for 14 years, until she was laid off.
A year later, she was lucky to pick up a job at Long Beach's C-17 plant, the state's last large military aircraft production line, and has been there ever since.
However it is likely she will have to retire next year when Boeing finishes off its last contract for those C-17 cargo planes.

Rosie the Riveter: Elinor Otto, 93, inserts rivets into the wing sections of C-17 cargo planes at a Californian Boeing plant - a job she's done since 1942.

Legendary: Otto, a great grandmother, has become a legend among her co-workers on the state's last large military aircraft production line

Strong: Otto's colleagues are impressed at her stamina

Otto is out of bed every morning at 4am, gets a coffee and newspaper, before starting work by 6am.
She parks as far away from the plant as possible so she can walk over - her morning exercise. She brings cookies for her colleagues every Thursday.
The great grandmother's dedication and longevity have made her a local legend.
'She's an inspiration,' colleague Craig Ryba, a structural mechanic, said. 'She just enjoys working and enjoys life.'
Otto was recently honored when Long Beach opened Rosie the Riveter Park next to the site of the former Douglas Aircraft Co. plant, where women worked during World War II, according to **LA Times.**
It celebrates not only the Rosie the Riveter era, but the later women's empowerment movement propelled by the slogan attached to the iconic Rosie wartime poster, 'We Can Do It!'

Glamorous: When Otto joined a small group of women at Rohr Aircraft Corp. in Chula Vista during World War II, the bosses threatened to give demerits to the men who stood around trying to talk to her

Friendly: Otto, center, with her colleagues at one of several factories she worked at

J. Howard Miller's poster, created for Westinghouse, has become one of the most iconic images of

World War II

However Otto overcame numerous hurdles on the way to fame.

LA Times reported Otto was newly single with a young son when she joined the war effort with her two sisters.

'During those days, we could hardly find an apartment that would let you rent with kids. My goodness, they're going to go to war someday and they can't even live in an apartment,' she said.

Her male colleagues resented her at first, but eventually accepted that women could do the same job just as well - if not better.

Otto's grandson, John Perry, said his grandmother made history.

'You've saved American lives and you've been saving American lives your whole life,' Perry said he told Otto.

'It's a powerful story, a positive story, and one hell of a tribute to the female work force.'

While the Long Beach resident expects she will retire soon, she admits her energy is boundless.

When I go to heaven,' she laughed. 'I hope God keeps me busy!'

Rosie the Riveter: Elinor Otto, 93, inserts rivets into the wing sections of C-17 cargo planes at a Californian Boeing plant - a job she's done since 1942.

Glamorous: When Otto joined a small group of women at Rohr Aircraft Corp. in Chula Vista during World War II, the bosses threatened to give demerits to the men who stood around trying to talk to her

More SVF Members Photos

Sun Valley Fliers

All photos by Marty Jones

How to Prevent Sparking

Scott Paschen

When connecting a LiPo pack to the controller, strong sparking commonly occurs. Fast charging of the controller filter capacitors causes this.

The higher the voltage equals the higher the cell count, and the lower the internal resistance means the better the quality of the pack. The better the capacitors in the controller and the higher the capacity of the capacitors, the bigger the spark.

In addition to the small shock (because of the sparking), the charging current of the capacitors may be, in extreme cases, so great that damage or destruction of the capacitors occurs.

A simple procedure can eliminate sparking when connecting the battery pack, thus protecting the filter capacitors.

How to connect the positive leg or wire is shown in Photo 1.

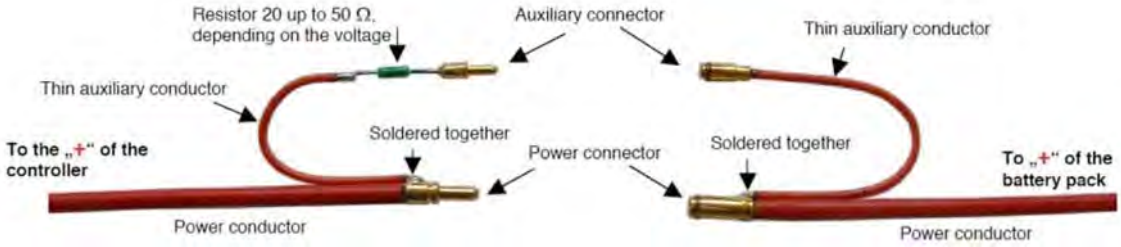


Photo 1.

Connectors, as well as the resistor, are insulated by heat-shrink tubing and shown in Photo 2.

Photo 2.

How to connect the battery:

1. Connect the "–" leg of the battery to the "–" on the controller.
2. In the positive circuit, first connect the "+" leg of the controller to the auxiliary connector (to which a resistor with tens of ohms is connected in serial). This will limit the charging current when connecting the wires and will charge the filter capacitors without sparking.
3. Now connect the power wires (sparking will not occur). You may start the motor now.

There are no special requirements on the auxiliary connector. The current is small (1 to 2 amps) and lasts for a short time.

There are also no requirements on the resistor. Any type is sufficient such as metallized 0.6W, size 0207, value between 20 to 50Ω depending on the voltage of the battery pack. Also, those for 4-6 LiPos use 20Ω, for 10 LiPos 33Ω, those for 12-15 LiPos that use 51Ω will work. However, it is not necessary to use these exact values because of wide variation.

Connect the positive leg

Connect the new auxiliary connector first. Capacitors are charged with small current. Sparking will *not* occur. (Photo 3.)

Photo 3.

Now connect the power connectors (sparking will not occur). The main current to the controller and the motor during operation passes through these power connectors and conductors. (Photo 4.)

Now connect the power connectors (sparking will not occur). The main current to the controller and the motor during operation passes through these power connectors and conductors. (Photo 4.)

Photo 4.

About Rules:
a. The rules are a good place to hide if you don't have a better idea and the talent to execute it.
b. If you deviate from a rule, it must be a flawless performance (e.g., If you fly under a bridge, don't hit the bridge.)

The ideal pilot is the perfect blend of discipline and aggressiveness.

The medical profession is the natural enemy of the aviation profession.

Ever notice that the only experts who decree the age that a pilots career is over are people who have never flown anything? Also, in spite of the intensity of their feelings that the pilot's day is over, I know of no expert who has volunteered to be a passenger in a non-piloted aircraft.

Before each flight, make sure that your bladder is empty and your fuel tanks are full; check T/O wt....

He who demands everything that his aircraft can give him is a pilot; he who demands one iota more is a fool.

There are certain aircraft sounds that can only be heard at night.

The aircraft limits are only there in case there is another flight by that particular aircraft. If subsequent flights do not appear likely, there are no limits.

Flying is a great way of life for men who want to feel like boys, but not for those who still are.

"If the Wright brothers were alive today, Wilbur would have to fire Orville to reduce costs." -- President, DELTA Airlines.

In the Alaskan bush I'd rather have a two-hour bladder and three hours of gas than vice versa.

It's not that all airplane pilots are good-looking. It's just that good-looking people seem more capable of flying airplanes.

An old pilot is one who can remember when flying was dangerous and sex was safe.

Airlines have really changed -- now a flight attendant can get a pilot pregnant.

If a Boeing 767 runs completely out of ' gas ' at 41,000 feet . . it instantly morfs into a passenger heavy,

very high-speed g-l-i-d-e-r.

A one hundred and thirty-two TON GLIDER - descending at a couple thousand feet per minute - with only enough hydraulic fluid pressure to move its primary flight control surfaces.

But if you factor in veteran pilots Bob Pearson and cool-as-a-cucumber Maurice Quintalin, we have an . . almost unbelievable . . BUT absolutely true story of Air Canada Flight 143.
Forever since known as the ' GIMLI ' GLIDER.

Flight 143's problems began with its onboard computer, designed to manage the Boeing 767's fuel loading process. The computer controlled all of the aircraft's fuel pumps and sent signals to all the 767's fuel gauges.

There remained minimum ground crew effort, other than to hook up the fuel hoses, then dial in the desired fuel quantity.

But Flight 143's onboard computer was not working accurately . . a poorly-soldered wire to one of the fuel sensors was later identified . . during the resulting million Canadian dollars worth of crash repairs.

An sequence of flight line and pilot errors, defeated the redundancy built into the new 767's computerized system, rendering Aircraft # 604 without cockpit accurate fuel gauge readings in the cockpit.

The maintenance crew had used a manual ' dip stick, ' to avoid canceling the flight from Montreal to Ottawa, then on to Edmonton, Canada.

The pilot and co-pilots had not been trained to perform nor evaluate the drip calculations, themselves. But, to be comfortable, they re-ran the completed refuelers dip stick numbers ' three times, trying to make certain the refuelers had not made an error in their manual readings.

Each time, the measurement error everyone made was 1.77 lbs. equals one English [and Canadian] LITER ! A human error of great magnitude . . serious consequences !

Why ? Among other significant changes, their new Boeing 767 was NO LONGER measuring the remaining fuel in term of pounds.

The measuring system had been switched to METRIC . .
And its measuring factor was 0.8 kilograms /liter.

After a short inter-city hop, Flight 143 landed in Ottawa, where Pearson insisted on having the 767's fuel tanks manually ' re-dripped ' a second time.

The refuelers reporting the plane as having 11,430 liters of fuel remaining in its two wing tanks. Pearson and Quintal REPEATED the measurement. But again used the incorrect [historically used ' old '] factor. And they calculated they had 20,400 kilos of fuel remaining.

In actuality, they had ONLY . . ONE . . HALF the amount of ' gas ' required to fly to their next schedule-ed stop.

Without accurate computer-generated fuel readings, Quintal and Pearson ' clicked in ' the number 20,400 into the 767's sophisticated flight computer.

Part of its mechanism was as essentially a fuel counter that subtracted the amount of fuel the engines had burned from the erroneous number they had ' punched in. ' Garbage in equals garbage out ' the computer folks say..
And the airplane's fate was now sealed . . even as the aircraft . . taxied out for take-off.

According to Pearson, the crew and passengers had just finished dinner when the first warning light came on. Flight 143 was outbound over Red Lake Ontario at 41,000 feet and 469 knots at the time. The 767's " Engine Indicator and Crew Alerting System" beeped four times in quick succession, alerting them to a low fuel pressure problem.

" We believed we had a failed left wing fuel pump and switched it off. But we also thought we could be having a computer related problem."

Our ' fuel counter ' showed more than adequate fuel remaining. In our minds, we'd safely and correctly made dip stick fuel checks at two way airport landing points prior to our destination. '
BUT THEN . . a SECOND low fuel pressure warning light . . LIT UP !

Believing it to be too much of a coincidence to have two bad fuel pumps, Pearson asked for an emergency clearance to Winnipeg, then began a gradual descent to 28,000.

The crises escalated when a third fuel pressure gauge light lit up. Then very quickly . .

. . the LEFT engine FLAMED OUT !

The crew was in process of cross-feeding wing tanks, as a fourth fuel light lit up, followed by the fuel computer system issuing a SHARP . . B - O - N - G ! as . .

. . its RIGHT engine FLAMED OUT !

OUT !

Things got quiet. Real quiet.

With complete fuel starvation, both Pratt & Whitney engines spooled to ZERO as Pearson‘s involuntary verbal response [captured on the cockpit flight recorder] became a now irrelevant . . company rule violation.

At 1:21 GMT, the forty million dollar, state-of-the-art Boeing 767 became a very heavy glider [with no Hudson below to save the 767 passengers' lives.]

Because the Auxiliary Power Unit's fuel came from the same main wing fuel tanks that were filled ONLY with air . . the APU generator power failed to take over.

Falling through 28M the Boeing 767‘s sparkling-new glass-cockpit instrument panel went BLACK ! And the two pilots were reduced to their Command radio and standby basic instruments . .

Instruments that DID NOT include a VERTICAL SPEED INDICATOR !

A GLIDER PILOT'S instrument of FIRST CHOICE !

Hydraulic pressure was falling fast. And the aircraft's controls were getting heavy. On the other hand, Boeing's cunning engineers had foreseen this unlikely event and they provided one last failsafe :

THE RAT !

The Ram Air Turbine, is a propeller driven hydraulic pump hinged up in the belly of the 767. And when extended, it would supply just enough hydraulic pressure to move the control surfaces and enable its pilots to make a ' dead-stick ' landing.

When BOTH engines failed, the RAT automatically dropped into the slip stream. As the RATS's propeller started spinning, it began supplying limited hydraulic pressure.

As Pearson began gliding the big bird, co-pilot Quintal " got busy " in the flight deck manuals, looking for emergency procedures to deal with the loss of . . BOTH engines.

There was nothing in the emergency procedures.

And neither Quintal or Pearson [nor any other 767 pilot] had been simulator-trained to handle a total loss of engine thrust. And pilot Pearson reports his thinking : " I wonder how ' this ' is all going to turn out ! "

Controllers in Winnipeg suggested alternative landing possibilities. But none of their alternatives included emergency crash equipment and people trained to handle aircraft crashes.

Particularly a horrendous crash with a 'crowd of souls' aboard.

The 767‘s radar transponder had gone dark as well, leaving controllers in Winnipeg using a chunk of cardboard for a ruler on their radar screen to estimate the 767‘s current location and rate of descent to viable airports.

Pearson glided the Boeing 767 at 220 knots, his best guess as to the optimum ' dead stick glide speed. There was nothing within the 767 manual's emergency pages to identify an airspeed that would allow a minimum sink rate—with all its engines—shut down.

The wind milling engine fans were creating enormous drag, giving the 767 a sink rate of somewhere between 2,000 and 2,500 feet each minute.

Co-pilot Quintal began making crude glide-slope calculations to see if they‘d make Winnipeg. The 767 had swapped 5,000 feet of altitude for the past ten [10] miles.

Frightening.

But an absolute FACT !

ATC controllers and Quintal both calculated that Winnipeg was going to be too far away ; the 767 was eating up downside altitude way . . too fast . . to make it that far.

" We are not going to make Winnipeg " he told Pearson.

Pearson trusted Quintal. And he immediately turned north toward GIMLI, the site of an abandoned Royal Canadian Air Force Base, twelve miles away.

GIMLI was not in Air Canada‘s equivalent of Jeppensen flight planning materials. But Quintal was familiar with it because he‘d been stationed there, in the military.

B-U-T !

Unknown to either pilot and unknown to the controllers in Winnipeg, Runway 32L (left) of GIMLI's parallel runways had become inactive.

Now it was used for auto racing and a long steel guard rail had been installed down most of 32L's southeastern concrete, dividing it into a two lane drag strip, for use in front of Winnepeg's drag racing enthusiasts.
This was the runway Pearson would elect to land on with a ' dead stick ' . . threatening an epic tragedy.

To say that runway 32L was being used for auto racing that day is perhaps an understatement. The inactive runways had also been " carved up " into a variety of courses for other racing vehicles and it was . .
" FAMILY DAY ! "
Go-cart races were being held on one portion of runway 32L.
And just past the drag strip a portion of the runway served as the final straight away for a road course.
Around the edges of the straight away were cars, campers, kids, and families in abundance.
To land an airplane in their midst would be certain disaster.

Pearson and Quintal turned toward GIMLI as their Boeing 767 continued in its steep glide. Flight 143 disappeared below Winnipeg‘s radar screens.
And the controllers frantically began radioing them for " the number of souls onboard the aircraft. "

Approaching GIMLIi, Pearson and Quintal made their next unpleasant discovery : The 767's RAT didn't supply hydraulic power to its landing gear.
Nor would the RAT LOWER the flaps for landing.
And the wings' landing slats wouldn't work.

Pearson ordered a "gravity drop" of the landing gear as he thumbed frantically through the Quick Reference Handbook [QRH] emergency landing procedures.

Quintal tossed the hand book aside and hit the cockpit's ‘ panic ‘ button releasing the gear door hinge pins.
They both heard and felt each main gear fall into place and LOCK.
But Quintal was looking at only two green lights.
The nose gear, was designed to fall forward against the slip stream's wind . . and it had not swung far enough forward...to LOCK DOWN !

Six miles out, Pearson began his final approach onto what was formerly Royal Canadian Air Force Base GIMLI. His concentration was focused on 767's airspeed indicator and other incredibly critical human judgments within his mind.

Approaching runway 32L Pearson realized that he was too high and too fast. Without flaps and dive brakes he did what sailplane pilots do :
KILL SPEED . . CROSS CONTROL . . WITH . . EXAGGERATED . . STICK AND RUDDER !
And . . . R I G-H-T N-O-W !

Pilot Pearson harshly crossed the 767's controls . . to manually force the 200 passenger airliner into a VICIOUS/SIDE/SLIP !

Slips are normally avoided on commercial flights because the buffeting and odd flight position that unnerves many passengers. As he forced the heavy airplane into the slip, he then held it to kill airspeed and altitude.

Some of Flight 143‘s passengers looked out at nothing but blue sky . . the others looked steeply down at a golf course.

Says Co-pilot Quintal, " The left wing was so far down, and I was looking down at Bob . .. instead of sideways. It was an odd feeling."

The only problem was that the severe slip slowed down the RAT's propeller. It cost Pearson precious hydraulic pressure, but he ' strong armed ' the control wheel and crunched the right rudder.

Would he be able to wrestle the 767‘s steeply canted wing to a level position before punching the 767'sits wing into the ground ?

Trees and golfers were clearly visible to starboard side passengers; windows as the 767 hurtled toward the 32L's threshold at 180 knots . . 30-50 knots faster than normal. And because the RAT didn‘t supply power to the 767‘s landing flaps or slots . . the landing would be ' hot.'

Pearson didn‘t recover from the wing down side slip until the very last moment. A passenger reportedly remarked,
" I could almost see the number on the golf clubs they were using down below."

Copilot Quintal suspected Pearson hadn‘t seen the guardrail and the crowds of people and vehicles on the runway. It was too late to avoid them. No ' go-around.' Quintal bit his lip and stayed silent, realizing the colossal tragedy about to unfold.

Think about it !
Any true glider has a single chance during landing.

GIMLI was uncontrolled so Pearson was forced to relying upon visual cues diminished my the approaching dusk. Runway 32L was a bit wider, and had been the primary runway at Gimli one year earlier.

IFR light stanchions had not been removed from it's threshold. Having earlier made the decision to go for 32L, the wide span between the parallel runways disallowed moving over to as he noticed the faded yellow X painted on the runway.

Pearson says he " . . never even noticed 32R [or puzzled over whether or not his mother loved him] as he intensely focused upon the airspeed, attitude and the aircraft's relationship to runway 32L's threshhold."

The 767 silently leveled off and the main gear touched down as spectators, racers, and even kids on bicycles fled from the runway.

Thee gigantic Boeing 767 was about to become a 132 ton silver bulldozer.

One member of the Winnipeg Sports Car Club was reportedly walking down the drag strip, five gallon can full of hi-octane racing fuel in hand, when he looked up and saw the 767 headed right for him.

Pearson stood on the brakes the instant the main gear touched down. An explosion rocked through the 767‘s cabin as two tires blew out. The nose gear, which hadn‘t locked down, collapsed.

The nose of the 767 slammed against the tarmac, bounced, and then began throwing a three hundred foot shower of sparks. The right engine nacelle struck the ground.

The 767 reached the tail end of the drag strip and the nose grazed the guardrail‘s wooden support poles. (The drag strip began in the middle of the runway with the guardrail extending out towards 32L‘s threshold) Pearson applied extra right brake so the main gear would straddle the guardrail.

Would all the sports car fans all be able to get out of the way, or would Pearson have to veer the big jet off the runway to avoid hitting stragglers?

The 767 came to a stop on it‘s nose, mains, and right engine nacelle a hundred feet from spectators, barbecues and campers. The fuselage was intact. For an instant, there was dead silence. Then cheers and applause broke out among Flight 143‘s passengers. They‘d made it; they were all still alive . .

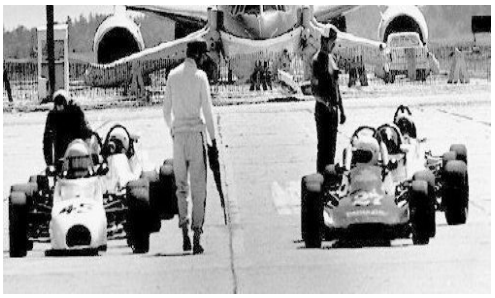
But it wasn't over yet !
Fire broke out from residual raw fuel.

Oily black smoke began to pour into the cockpit and forward passenger area. Fiery deaths on an Air Canada aircraft during a recent emergency landing in Cincinnati, was on each the flight attendants minds when the pilots quickly asked for an 'emergency status ' evacuation.

Also, the nose gear failure had caused a severe downward angle in the rear emergency slides. Descent from the rear slides would be treacherous. Fortunately, the only injuries resulted came from passengers hurtling down the rear emergency slides, their bodies striking hard on the runway. But none of the injuries were life-threatening.

And all of the race fans and kids managed to flee the silver bulldozer's path.

The fire in
the aircraft‘s nose area was battled by members of the Winnipeg Sports Car Club who re-converged on the plane with dozens of hand-held fire extinguishers.



Pearson had touched down 800 feet from the threshold. Viewing the crowd, he kicked the plane straight
ahead at an absolute last second . . used a mere 3000 feet of runway . . as he screeched the 767 to a stop.

A general aviation pilot who viewed the landing from a Cessna on edge of 32R described it as 'impeccable.'

And the 767 was relatively undamaged.

Air Canada Aircraft #604 was repaired sufficiently to be flown out of GIMLI by their chief CFI two days later,

and after approximately $1M in repairs, consisting primarily of skin repairs and replacement of a wiring harness it re-entered the Air Canada fleet.

To this day Aircraft #604 is known to insiders as " The GIMLIi Glider." The avoidance of disaster was credited to Capt. Pearson‘s knowledge of gliding, which he applied in an emergency situation . . " the ' dead stick ' landing of one of the most sophisticated aircraft ever built."

Captain Pearson credits Copilot Quintal strongly for his cockpit management of nearly everything but the actual movement of the flight controls," to include his recommendation of GIMLI as an alternate landing alter-native.

Captains Pearson and Quintal shared their experience with various interested groups. Pearson was, at the time, still employed and flying for Air Canada, and occasionally flying his Blanik glider on the weekends; he has since retired to raise horses.

Maurice Quintal is now an A-320 pilot for Air Canada, and Captains 767s to include Aircraft #604.

Source : Wade H. Nelson's well-researched story in Soaring Magazine [abridged]

Pilots: People who drive airplanes for other people who can't fly.

Army Pilots: Cold, steely eyed, weapons systems managers who kill bad people and break things. However, they can also be very charming and personable. The average Army Pilot, despite sometimes having a swaggering exterior, is very much capable of such feelings as love, affection, intimacy and caring. These feelings generally just don't involve anyone else.

Words of Wisdom From Aviators:

· **Flying is a hard way to earn an easy living.**

· **Both optimists and pessimists contribute to society. The optimist invents the airplane; the pessimist, the parachute.**

If helicopters are so safe, how come there are no vintage helicopter fly-ins?

Death is just nature's way of telling you to watch your airspeed.

Real planes use only a single stick to fly. This is why bulldozers and helicopters- (in that order) -need two.

There are only three things the copilot should ever say:

1. Nice landing, Sir.

2. I'll buy the first round.

3. I'll take the fat one.

As a pilot only two bad things can happen to you and one of them will be:

a. One day you will walk out to the aircraft knowing that it is your last flight.

b. One day you will walk out to the aircraft not knowing that it is your last flight.

Regarding aircraft, there are Rules and there are Laws:

The Rules are made by men who think that they know better how to fly your airplane than you.

Laws (of Physics) were ordained by God.

You can, and sometimes should, suspend the Rules, but you can never suspend the Laws.

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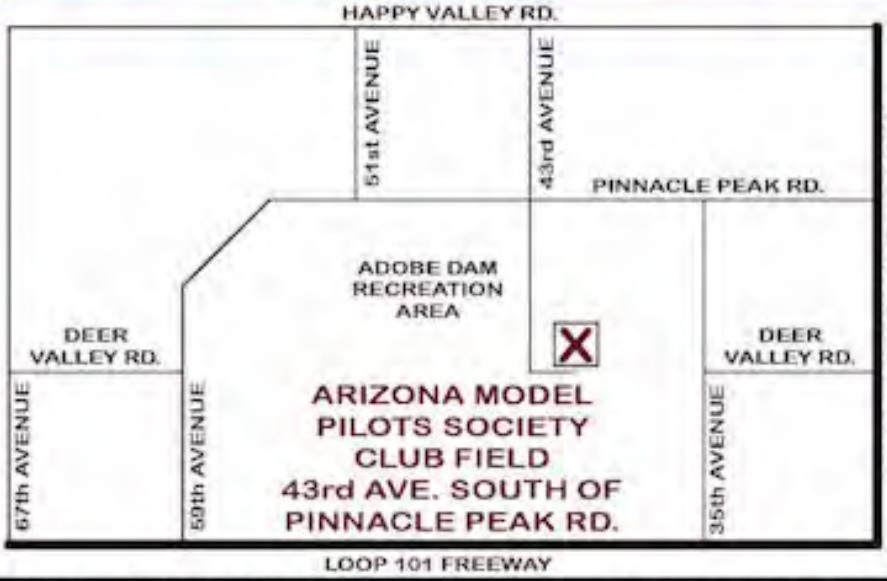

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VIDEOS and Websites Links

Click on to view video, website

ASSULT ON JAPAN 35:00

http://www.archive.org/details/TheLastBomb1945

Vought F4U Corsair 22:57

http://www.cmac.org/video/2011/20110815_corsair/video.php

How to test a AA battery 1:30

http://www.youtube.com/watch?v=Y_m6p99l6ME

Ultimate Accuracy 37:16

http://www.youtube.com/watch?v=BzHZfujKbHA

EXFC 2013 4:32

http://vimeo.com/73560779

Grasshopper 325m Test | Single Camera (Hexacopter) 1:36

https://www.youtube.com/watch?v=eGimzB5QM1M&feature=youtube_gdata_player

Riding the Booster 8:32 Turn the audio up

http://www.youtube.com/watch?v=2aCOyOvOw5c

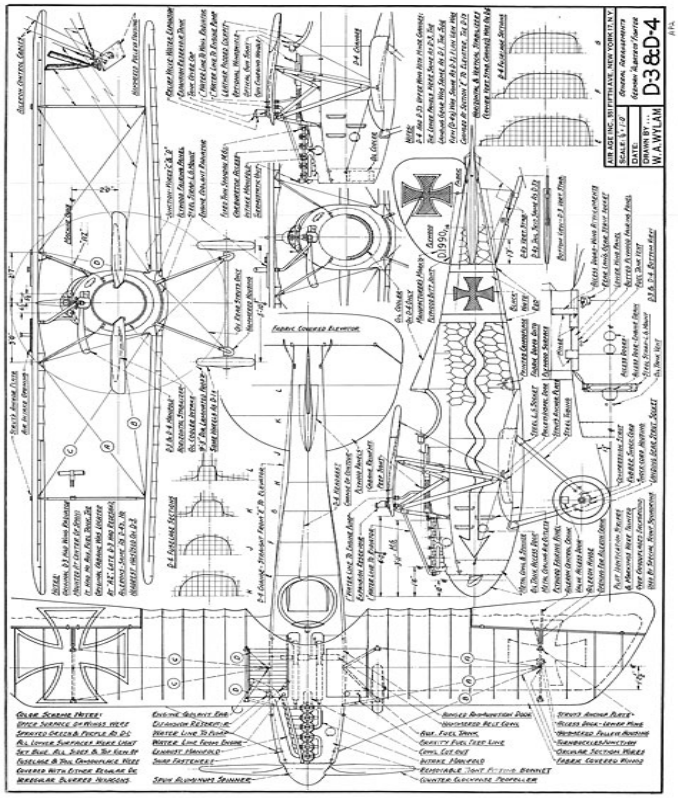
Will you miss the cold weather???

http://www.youtube.com/embed/xKy2lLNQYrI?rel=0

SVF Website Buy & Sell items.

http://sunvalleyfliers.com/classifieds/ classifieds.htm

My thanks to those who passed this info on.



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This Month Issue *10-2013*

We have the OEAF event this month.
Got some good articles, photos, videos.
Turkey Fun Fly is coming in November.

Some good VIDEOS to watch. ***GOOD stuff in this issue, MORE photos, so enjoy!*** **Send those articles and photos in and for the SVF HALL of PLANES.!** *Remember to* ***ZOOM*** *the* ***PDF*** *page to see more.* **We need your NEW projects to put in the *SR* SVF HALL OF PLANES.**

Next month Issue

Is the SVF Annual Turkey Fly In for electrics only. Get those li-po's charge up and do them in a safe matter. Get those ammo boxes out.

Would you like to be notified when the SLOW ROLL new issue is available? Give Gene your e-mail address. AZ49ER@COX.NET

Hope you will enjoy it. Bob
rcbobsvf@aol.com

THE SLOW ROLL

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