

FORMULA FORUM



THE IF1 JOURNAL



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COVER PHOTO

Steve Temple in #87 *Madness* battles Smokey
Young in #3 *Sly Dog* for fifth position in the
2A heat in 2009. Steve did not manage to
pass Smokey in this race, but succeeded in the
Gold Final and claimed third. This was one
of many rivalries during the '09 races.
Photo by Naomi West.

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Doug Bodine



Photo by Bill Rogers

*Fans, IF1 is
YOUR class...
Pick a plane
and a team to
follow.*

Welcome Fans and Race Teams!

If you are here at Reno reading this, you are in for an unforgettable experience. The sounds, sights, and even smells of thoroughbred race planes being put through their paces by talented and innovative crews and pilots is an experience like no other. The professionalism and dedication of the crews is inspirational, the machines are works of art, and the performance in the air bristles with spine-tingling excitement.

Congratulations to the teams for making it to the national championships, or in the case of Formula One – International. That’s right – Formula One is truly international with multiple nations fielding race teams and planes at this year’s races. Just making it to Reno is an accomplishment worth recognizing. Best of luck, and fly with safety as the first objective. Each team has its own dynamic, and each aircraft is as unique as the race participants themselves. There is something for everyone in Formula One.

Fans, IF1 is YOUR class. The planes, crews, and pilots are personable and among the most accessible of competitors at the national level of any sport. Take advantage of the opportunity to meet them first hand, and to get up close and personal with the race environment. Pick a plane and a team to follow. Check in with them after each race. Who knows, perhaps you may even be interested in participation beyond spectator level, and become a crew member, pilot or race volunteer. Don’t be afraid to ask, and do take advantage of the chance

to make the 2010 races your personal event. In between races, check out the racer’s website: if1airracing.com on the world-wide web (www). It has information about the race teams, International Formula One air racing, race rules, great pictures and videos, stories, and links to other great sites for race enthusiasts. You can even become a part of your race organization and join IF1. You’ll get a subscription to the racing organization’s magazine, The Formula Forum; full access to the website for pictures, stories, video, and team news; and access to the racer’s chat line. There is also some cool apparel and race paraphernalia for sale. If you are unable to attend the races in person, you can follow results online through the website and its links.

A hearty salute to all who make this event so special: Fans, Race Teams, Sponsors, Classes, and the Staff of the Reno Air Racing Association. You all are awesome and very much appreciated!

See you on the line! —*Doug Bodine, IF1 #92 Yellow Peril, Callsign “Jethro”*



Photo by Tim Adams

The popular orange #33 Slingshot will not race in 2010. Pilot Ed Dutreaux (shown here lining up to qualify the plane in 2009) and crew chief Nancy Glidden will be crewing for Steve Senegal who is racing two planes.

Steve Hill's Twisted Composites

Photo by Birgitta Nurmi



Steve Hill at Reno, September 2009

...all but two of the 21 IF1 competitors at the Reno Air Races in 2009 ran Steve Hill propellers.

Steve lands his DG-600 sailplane, built in Germany in 1988. He continues to fly sailplanes and participate in competitions.



Photo by Mike Abernathy

Everyone in the Formula One Class knows Steve Hill. Those of us who are not familiar with him “up close and personal” have certainly heard of him in connection with *Owens Composites*, *Twisted Composites*, or carbon fiber propellers. Jon Sharp, among others, feels that the composite prop is one of the most important single innovations in the history of IF1 air racing. It is no surprise that all but two of the 21 IF1 competitors at the Reno Air Races in 2009 ran Steve Hill propellers.

Steve used to hang his hat in the IF1 hangar at Reno as he was associated with Jon Sharp's Nemesis project from the start. In 2004 Steve moved to “the hangar next door” as crew chief for the Nemesis NXT team. He is attentive and thoughtfully focused as he works. He exudes calmness and competence, yet there is an edge; an undercurrent of intensity. There is no question as to who is in charge in this pit. He is clearly respected by his crew members.

As one contemplates the details of his career and hears what others say about him, the profile of a most remarkable man, who has established a most remarkable business, emerges.

This tall, blond-haired man, now age 51, was born and raised in

Albuquerque, New Mexico. Despite the fact that there was no one in his family active in aviation, Steve did get an early start in the field. When he was 13 years old, Steve, together with a friend, started a two year project building a hang glider. During this time a mutual friend introduced him to another schoolmate, Brent Applebay, who was also building a hang glider. It did not seem a big deal at the time, but it turned out to be an event that would determine Steve's career direction.

Brent and Steve became close friends and learned how to fly hang gliders together. Before long Brent's father, the famous sailplane designer George Applebay, offered Steve a part-time job in his shop. Steve accepted without hesitation. He worked for George all through high school and college. At the shop he became involved with the Zuni project—the development and building of a racing sailplane with a 49 foot wingspan. Thus it was that Steve entered the world of aviation and the community of racers.

Steve flew hang gliders all over the country between 1974 and 1994. He first flew a sailplane in 1978. For the last few years, he has been exclusively flying sailplanes and loves it.

What drew him in, however, was not just his love for all things mechanical that fly. As it turned out, George Applebay's shop was a very special place to be in the seventies. Applebay's specialty was working with composite materials. This technology was so new that Albuquerque and Germany were the only two places in the world where a person could learn about composites. The first American

composite sailplane was built at Applebay's shop in 1976 when this technology was considered absolutely cutting edge. What a thrill it was to learn to work with these innovative materials and to be involved in the initial stages of development.

In this charged atmosphere of excitement, something clicked into place for Steve. He knew that he has been incredibly lucky to be in the right place at the right time. "I didn't have to waste any time figuring out what I wanted to study in college. I knew I would go into Mechanical Engineering, and work with composites and aircraft".

Steve understood the potential and the many advantages of using composites. By the time he completed his Mech. E. degree at the University of New Mexico and started to create his own designs, the use of composites had become integral to his thinking and his work. But it did not end with the design process. "The use of composite materials was so new and unique that few others had experience working with this; so I also had to build what I designed."

At Applebay's, Steve worked with another young enthusiast who was learning about the use of composite materials in aviation, Jon Sharp. Steve was 16 when they first met in 1975. Soon Jon would become the next determining factor in Steve's career. As Steve put it "It all ties into Jon".

In 1978, when Jon Sharp raced for the first time in Mexicali, Mexico, Steve was with him. Jon had been racing go carts for some time but felt ready for a change. He bought a Cassutt from

David Bice and air racing seemed like the logical next step. After Jon and Steve built a race trailer they considered themselves ready. Together with two other friends they left for Mexicali, hopeful and very excited!

In Mexicali Sharp learned his first air race lesson: the plane "ran dead last." One explanation was that Sharp had a wooden prop while all other contestants were running metal props. In those days that was "the thing to have." Without hesitation an optimistic Jon Sharp installed a metal prop and performance improved. While Jon pursued his air racing career, Steve went to school. The demands of the engineering program precluded Steve's further participation in the air race scene.

By the time Steve finished his engineering degree, Applebay's sailplane factory had gone out of business and there was no compelling reason to remain in Albuquerque. He was pleased to accept a contract position at Boeing and move to Seattle. He worked for Boeing for one year until Northrop hired him to work on the design and structural testing phases of the B-2 Bomber program in their Los Angeles office. Steve then moved to L.A. where he lived for 2 1/2 years.

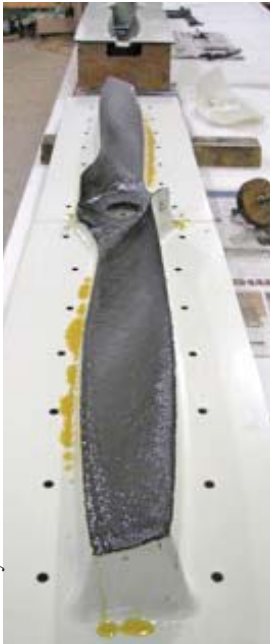
Then he decided it was time to return to New Mexico. He quit work, got married, and built a house (in six months!) Then, together with a few friends, Steve started a composites business. A government project requiring composite

"I knew I would go into Mechanical Engineering, and work with composites and aircraft."

Steve and his wife Lilly at the air races in Reno in 1998.



Photo by Patricia Sharp



Photos by Steve Hill

These photos show the steps in making a Formula One propeller. Top Right: the carbon fiber skin plies, cut from templates. These are laid in molds, and wet out with epoxy. Top Left: the mold that forms the front side of the blade. Bottom: the mold that forms the back side of the blade.

propeller blades got the business off to a promising start.

Steve wasn't thinking about air racing anymore. He had also lost touch with Jon. But in 1988, when George Applebay organized the Albuquerque Air Races, Steve went out to the field for a look around.

Jon Sharp was there a participant, but he had not anticipated meeting up with Steve. In fact, he had heard via the grapevine that Steve had been killed in an ultralight accident. Steve grins when he thinks back to Jon's reaction at the moment they met: "He was amazed that I was there and that I was alive! But I was amazed that he was running a wooden prop!"

It did not take long for the two to start "talking props" again. Jon had realized that metal props break easily and wooden props do not. He was racing *Aeromagic* with the now-famous *Nemesis* engine in it. That meant that Jon had a good plane with a really good engine. But one problem dominated everything: his propellers were breaking.

Steve had an idea. As Jon was pushing out, he walked along and showed Jon the composite blades that he

was making in his business for the government project. Jon instantly understood the possibilities. He commented, "I felt no question how it would work. When Steve showed me what he was making in his shop, I told him: 'We've got to make this bigger.' After the race was over, I showed Steve a metal race prop. 'Can you make one like this?'"

That is when Steve realized "This man was willing to risk his life testing these things." Despite the fact that this responsibility weighed heavily on him, he felt he had to proceed. He knew he could help Jon, solve his problem, and above everything else, give Jon a safer plane to race. The work began. This was the start of something new that has had, and continues to have, an enormous impact on IF1 air racing.

In 1989, with Kent Owens and one other partner, Steve started a business called Owens Composites to manufacture hang gliders. Steve was already making props for Jon on the side and continued to do so. Owens Composites ended thirteen years later, in 2002, when Kent Owens and partner decided that they did not want to make propellers any more. Steve explains that making propellers is not the most desirable business venture because of the serious risks involved.

"Props are dangerous," he says, "But at this time my props have been proven for twenty years. They don't break. So I feel like I should do this for safety's sake. And designing and building safe propellers is my passion. It was a part time business on weekends until 2000 when I started work full time for *Owens Composites*."

So when *Owens Composites* dissolved, I set up my own business, *Twisted Composites*, and carried on.”



Steve explains some of the challenges: “Building props is a process of continual and sophisticated inspection and testing that has to be done during the making of the prop. The needs of every engine are different. It is hard work—the sanding, the laying up of the materials. I don’t want to find out that a prop does not work after it is made. So I check it every step of the way. It is all a manual process.”

“In 1993 I did develop some simple automation but I cannot be fully automated because that would be very expensive and there simply isn’t enough of a market for the product. Plus they don’t break. The only times that replacement is necessary is when a prop is injured or the pilot gets a faster engine. Financially it is not a lucrative business. Not only is the product geared towards a distinctly limited market, but then one has to also consider all the work that goes into it. All the money I earn goes back into the business. I don’t pay myself and I don’t have kids so that makes it easier to justify doing this.” He adds with a smile: “My wife has a good job...”

A highly specialized market for Steve’s product is definitely an issue, even though the IF1s are not the only planes running Steve Hill props. Steve also makes aerobatic propellers which are raced on occasion. Steve may well be

the only propeller maker who has had props racing in three different classes at the same time: the IF1, Biplane, and Sport classes at Reno in 2002.

Jon Sharp has gotten to know Steve very well over the many years that they have been associated, and his words echo the thoughts of many others, “He is an incredible engineer who is not afraid to be innovative. His documentation is extraordinary. He can tell you the history of each prop. He has all the data. That has served the IF1 class very well. He is very meticulous and totally safety oriented. He is competent and totally responsible. I am convinced that he has saved lives in the IF1 class.”

In 2008 Steve built a new prop—the first new fixed pitch prop design in 50 years. The story of that development will be the subject of our next article.

Meanwhile Steve continues to love his work while enjoying life in the home that he designed and built with his wife, Lilly, years ago. The house, at 7500’ in the mountains east of Albuquerque, is solar powered, and costs only \$200 per year to heat and cool. Rain is their only source of water. A most remarkable man indeed!

Building props is a process of continual and sophisticated inspection and testing.



Steve Hill (right) stopped by to congratulate a very happy Ray Cote after Ray’s Gold race win in Alleycat at Reno, 2000.

Photo by Neal Nurmi

Reno Countdown

Wed	8th	1200	IF1 pit area available for setup
Fri	10th		Tech Inspection Signup Starts
Sat	11th	0800	Tech Inspectors Meet
		0900	Tech Inspection Starts. Certified racers requiring checkrides and rookies have priority
		1200	Mandatory meeting for all race pilots who did not race last year, including new pilots
		TBA	Mandatory hand-propping safety briefing
Sun	12th	0645	Special Brief: Pilots with Cert. Flights
		0715	Mandatory Pilot In-Brief (no brief, no fly)
		0800	Pilot qualification flights (approx. 1 hr.)
		0800	Crew Chief briefing
		1100	Practice time on the course
		1200	Latest new plane arrival
		1600	Crew Chief Briefing
		1800	Make-up Pilot In-Brief
Mon	13th	0700	Daily Pilot Meeting
		0800	Aircraft Qualifications start
		1100	Crew Chief Briefing
		1800	Make-up In-Brief
Tues	14th	0800	Aircraft Qualifications continue
		1200	Latest arrival time
		1700	BYOB IF1 Mixer Get BBQ Tickets!
Wed	15th	0800	Aircraft Qualifications continue
		1200	Racing starts: IF1 Heat 1C and 1B
		1500	IF1 Annual Meeting and Election
Thu	16th	0800	Racing: IF1 Heat 1A and 2C
Fri	17th	0800	Racing: IF1 Heat 2B and 2A
Sat	18th	0800	Racing: IF1 Bronze
		1700	IF1 Directors' Meeting
		1800	IF1 Awards Banquet (Italian cuisine)
Sun	19th	0800	Final Race: IF1 Silver and Gold
		1700	RARA Awards

This schedule is the latest available at press time. All times are approximate. Check at the IF1 office at Reno for an updated schedule.

If you have spare tickets for the **Awards Banquet**, please give them to Bob or Tom so their crews can attend.

Motor Home/Camper Spaces have been assigned to teams and officials. If you still need space, contact RARA.

Pets are allowed in camping area, not in hangar or on ramp.

The **IF1 Merchandise Trailer** will have team merchandise.

IF1 Alumni in Other Classes

IF1 alumni are participating in all Reno race classes this year. In the Biplane Class, look for **George Andre** in #3 *Zipper*, **Charlie Greer** in #69 *Miss Behaven II*, **Kirk Murphy** in #7X *Lady Luck*, **Dave Roelofs** in #11X *Purse Snatcher*, and **Birch Entriiken** in #711 *Joey*.

In the Sport Class, **Philip (Earl) Hibler** who raced IF1 in the '80s, is racing the Glasair #40 *Baby Doll*. **Dave Morss**, who raced in IF1 every year from 1984 through 1999, will race #11 *Team Driven*.

We are represented in Super Sport by **John Parker** flying #352 *Blue Thunder II*. In the '70s, John raced IF1s called *Weekend Warrior*, *Top Turkey*, and *Wild Turkey*.

Our guy in the T-6 Class is **Ken Gottschall** in *Grace 8*. The IF1 he raced as #66 *Pooder* in 2006 is now racing as *Route 66*.

In the Jet Class, **Thom Richard**, our 2009 Silver & Gold champion, will fly the red and white Iskra #3 *Pole Dancer*. **Phil Fogg** will race L-39 #8 *Fast Company*. He raced IF1 *Ole Tiger* in 1980 and then the Owl Racer *Aloha* before it became *Alley Cat*. Australian **John Kokshoorn** will race L-29 #11 *Screaming Eagle*. John raced *Outrageous* in IF1 two years ago.

Like last year, we are represented in the Unlimited Class by **Dave Morss** in P-51 #4 *Polar Bear*, and **Hoot Gibson** in the Sea Fury #99 *Riff Raff*.

Many more IF1 alums will work on crews, tech, contest committee and in general support capacity at the races.

IF1 2010 Reno Entries and Staff

Race #	Pilot	Hometown	Aircraft	Name	Reg #
1	Goforth, Philip	Midland, TX	Cassutt	Invictus	NX603R
11	Senegal, Steve	San Bruno, CA	Arnold AR6	Endeavor	N616DH
12	Onslow, Lachlan	Armidale, Australia	Cassutt IIIM	Outrageous	N25VS
20	Watkins, Tom	Calgary, AB, Canada	Cassutt	Pooder	N2020J
26	Johnson, Mark	Simi Valley, CA	Cassutt	Tree Top Flyer	N6439T
40	Davis, Gary	Sanger, TX	Cassutt	Miss USA	N5381
44	Maslen, Holbrook	Boise, ID	Shoestring	Judy	N44JW
45	Jones, Jay	Buena Vista, CO	Cassutt IIIM	Quadnickel	N53014
50	Wypraechtger, Vito	Anwil, Switzerland	Cassutt	Scarlet Screamer	N135R
54	Jordan, James	Las Vegas, NV	Cassutt	Miss Min	N54ML
66	Peters, Dan	Longwood, CO	Cassutt IIIM	Route 66	N99UX
75	Goforth, Philip	Midland, TX	Stratocaster	Knotty Girl Warlock Tribute	N591A
78	Mashowski, Larry	Okotoks, AB, Canada	Cassutt IIIM	Lime Lite	C-FNZP
87	Temple, Steve	Incline Village, NV	GR-7 Panther	Madness	N687RB
96	Senegal, Steve	San Bruno, CA	Cassutt IIIM	Miss Demeanor	N96SR

IF1 Contest Committee



Hep Porter

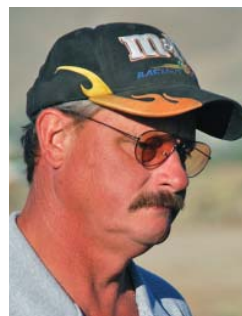


Ray Sherwood



Brian Reberry

IF1 Tech Team



Tom DeHart



Roger Sturgess

and the
"usual
suspects"

IF1 Operations Crew



Bob Bement



Jeff Gunn



Scott Garland



Photos by Lista Duren unless otherwise noted.

News From the Teams



TA

#1 Invictus... Yes, Tim Neubert pulled Invictus out of the museum and sent it out to Texas where I've been flying it on our practice course. I've put a cushion in so I can reach the pedals, but otherwise have made no mods. Crew chief: Willie Diaz; Crew: Kelly Goforth and several volunteers. — *Philip Goforth*

#5 Red Five... It's not on the official RARA list, but the X-Wing fighter may make an appearance. Look for it in the Formula One hangar. — *Luke Skywalker*

#11 Endeavor... Obviously we were disappointed with last year's performance. We started with a good engine that Ken Tunnel at LyCon put together for us. However on the final day of racing, shortly after take-off, *Endeavor* started running rough and shaking so badly that the altimeter broke. Ly-Con disassembled the engine after the race and found no anomalies. They did find that the carburetor, which wasn't overhauled prior to the 2009 race, wasn't operating properly at high power settings. We've since repaired it and put a dozen or so hours on the racer this year, and we think we've got it dialed in pretty good. Goals: Renew friendships, have fun racing, win the Gold. — *Steve Senegal*



TA



NW

#12 Outrageous ... Nothing has changed on Outrageous this year apart from a new sponsor, South Sydney Rabbitohs—yes, the rugby team! Adam Hutchins will be the Crew Chief again this year, trying to control a new batch of Australian helpers. We are hoping for some fast times and lots of great fun. Cheers! — *Lachie Onslow*

#20 Pooder is a slab-wing Cassutt, built in 1969, but this will be its first season as a racer. PRS photos show it as #76 with the name *Pocket Change* on the cowling—the name given it by the previous owner. I gave it a good workout on the pylon course with the C-85 that came with it. Since PRS, I have renamed it #20 *Pooder*, which was its original name, and I've replaced the C-85 with an O-200. My crew is excited and we're ready to race. — *Tom Watkins*



TA



KL

#26 Tree Top Flyer . . . Last raced in 2002 as the solid black Midnight Oil. Last year a carburetor problem prior to the races kept the plane at home. This year, with carb fixed, and other minor improvements, the plane performed well at PRS. At last, we expect to race. — *Mark Johnson*

#40 Miss USA is unchanged from last year but "Team Miss USA" will see a complete personnel changeover this year. Team goal: Go Fast, Do It Right, and Have Fun. Thom Richard was gracious (and brave) enough to answer a last minute call from Gary Davis for help to fill the Formula field and thus is allowing us to race *Miss USA* this year.; although not completely without ulterior motive as Scott Krause will be attending PRS next June and intends to race as a Rookie at Reno 2011. So Scott is actually the key man behind this year's Miss USA race team. Old hands Gary (come-on the grey is premature), Gene, and Greg will be mentoring Scott as a Pilot/Owner and Toby as a Crew Chief while they learn about Reno racing first hand. Pilot: Gary Davis; Alternate Pilot: Thom Richard; Owner: Thom Richard; Crew: Scott Krause, Toby Nicholes, Gene Hubbard, Greg Powell — *Gary Davis*



KL



TKS

#44 Judy . . . The stars are starting to line up in #44 Judy's corner this year at Reno. We're bringing a new powerplant that will get everyone's heart going, especially our pilot Holbrook Maslen. We're counting on everyone in our crew to assist #44 *Judy* and Holbrook around pylons fast and safe. Our pit drama crew is up to the challenge after a year round work schedule that breeds trust and care between all of us on the crew. Crew chief, Bart Welsh has a new set of sharp pencils and heavy duty wrenches to make sure he and his sidekick screwdriver jockey Art Lazzarini get the airplane in and out of the pits, and on and off the runway. Pay attention Formula I racers. Here comes Idaho's Judy. — *Art Lazzarini*

#45 Quadnickel ... Quadnickel's crew is moving on to the next generation. My daughter Allison will head up QN 45 race team. Joining her will be my brother's son, Robbie Jones, to help with racing duties. To do the grunt work, I have recruited next year's (2011) Rookies Ron Crusoe, Creighton King and Kal Smitter. This is going to be a fun Reno. — *Jay Jones*



TA



TA

#50 Scarlet Screamer looks more or less the same—I've just added stickers from my sponsors. We have done some modifications on the instrument panel, worked on the engine, and replaced some farings. The team is now Oris Big Crow Air Racing. Pilot: Vito Wypraechtger; Crew Chief: Jim Reed; Crew: Max Ungricht (public relations) and Peter Leidl (bionic surface technology). Main sponsors are: Oris Swiss Watches, Ly-Con Aircraft Engines, Bionic Surface Technology, EADS Eurofighter Typhoon, and UAV Avionics. Our goal for this season is to learn and be safe. A good race result will be even better! — *Vito Wypraechtger*

#54 Miss Min... This year we concentrated mainly on our biggest disappointment in 2009: oil bypassing the rings and fouling the plugs. With the help and guidance of Ly-Con Aircraft Engines and my team at Massey Aircraft Services, we assembled an engine that should take Miss Min to an all time record speed. We also focused on drag reduction. We are anxious to see if the simulated GPS speeds we see in Southern Cal. will be what we see at Reno at race altitude. Minor changes in the team, but most of the same faces. — *Jim Jordan*



TA



TA

#66 Route 66 ...Not many speed mods that were planned for the winter were done. Baby got a new pair of shoes with new gear, the small Lamb tires, and hand-me-down wheelpants. The same crew will return this year minus one or two. We're looking forward to seeing everyone again! — *Dan Peters*

#75 Knotty Girl Warlock Tribute... Al Goss and his team were great friends during my rookie year last year, guiding me through everything from prepping the aircraft to passing on the course. In tribute to Al who died in the crash of Warlock in March, Knotty Girl is painted blue and wears the race number 75 this year. We're running a hot new race motor, but saving airframe mods until next year. Crew chief: Brad Moffett. — *Philip Goforth*



NW



LD

#78 Lime Lite ...The engine is undergoing a major overhaul. Oil consumption was high, and when I took the engine apart, I found that the camshaft was destroyed and the rings and cylinders were worn. I have also undertaken an ambitious program of airframe modifications including, but not limited to, new instruments, refurbishing the flight controls, re-working the engine cowl and induction system, new oil tank, and new Grove aluminum gear. My good friend Dan Chrapczynski will be back as crew chief, and I have adopted Sonny Swenson's crew: Jim Smith, Leonard Hasnesh, and Jeff Gardner. — *Larry Mashowski*

#87 Madness ...We should have a new Ly-Con motor by race week, and gear straightened for alignment. I noticed a pull last year not due to p-factor, and Steve Tumlin confirmed the gear had never been aligned. My main sponsor Air Sierra is no longer working, but I picked up a new sponsor in GSE Engineering, probably the best diesel small airplane engine shop in the world. They are mainly on for consultation, but always have a great insight when it comes to small engines. My prop monster/body guard cousin Jason will be back pulling this year, Steve will be turning the wrenches, Jerry will be serving the cocktails, as always, and hopefully we will finish stronger than last year on Sunday. — *Steve Temple*



TA



TA

#96 Miss Demeanor... This year the plan is to pit *Miss Demeanor* next to *Endeavor*, which will make sharing tools and crew easier than last year. We've also expanded our crew for the two planes: Long-time crew Cash Copeland, Rita Senegal, and Vaugh Phipps will be joined by Ed Dutreaux and Nancy Glidden of *Slingshot* fame. Goals: Renew friendships, have fun racing, win the Silver and sell *Miss Demeanor*. — *Steve Senegal*

IF1 Family News



Photo by Lista Duren

Allison Jones, Twice Gold!
 Jay Jones' daughter, Allison, won the road cycling Time Trial and the cycling Road Race at the 2010 UCI Para-cycling World Championships of Baie-Comeau, Quebec, Canada on August 19 and 22. Her sister Haley reports that the race was 46 kilometers with four laps on a course that included a giant hill. Allison won by over a minute.

Race: <http://www.championnatsdumondebaiecomeau.com/index.php?/Anglais/home.html>

About Allison: www.jonezyrocks.com

Allison will be Jay Jones' crew chief at Reno. Stop by the Quadnickel pit to congratulate her and get the whole story. Links are below.

Left: Allison at the 2009 air races. Right: Allison's World Championship jersey, medal and fowers.



Photo by Bill Rogers

John Hall
 Team Premier Jet is unfortunately not directly participating in the 2010 Formula One races at Reno. After fielding both Race 98 and 99 for two consecutive years and Race 98 last year, an "on purpose" decision was made to take a step back and give our team a breather. While both aircraft are currently on the market, we will hopefully be back in 2011 with one, both, or maybe



Photos by Neal Nurmi



something completely different! I wish everyone the best this year. Fly fast and fly safe!

— John Hall



Photo by Bill Rogers

Doug Bodine
 2010 is a rebuilding year for the Yellow Peril Race Team. After four good years of running, we felt it was time to take *Peril* apart, go through it piece by piece, and make a few mods to see if we could squeeze a couple more mph out of her. We have a spare engine to build up and test run as well, and we also had a few dings in the fiberglass from an aborted takeoff that went into the grass beyond the overrun. Nothing beyond what Formula racers do all the time, but with a change in career, moving, and a couple big projects, the race program had to take a back seat this year.



Photo by Ken Linde

With Smokey wrapping up his term as Pres and this being an important time in IF1, not racing this season will allow me more time to support the organization. For crew chief Brad Docken, it is a chance to revisit an old tradition of attending the snowmobile grass drags, something he has been unable to do for the last four years because it conflicts with NCAR. I look forward to the extra time I'll have to get to know the other teams.

— Jethro

"HERE COMES TROUBLE!"

Race Insurers: Friends of IF1

The aviation insurance companies who offer our race coverage also contribute to top achievers in IF1, helping to sustain the sport. Here are specifics about coverage and contributions to the class.

Cannon Aviation Insurance is able to provide air race liability insurance for no additional premium for all of their race clients who carry annual coverage with them. Cannon Aviation is proud to offer air race insurance on behalf of both underwriting companies: Specialty Aviation Underwriters and U.S. Specialty Underwriters.

Contact Angie Harris or Kathleen Cannon at 800-851-2997. Email Angie: aharris@cannonaviation.com
Kathleen: kreese@cannonaviation.com

Again this year, **Cannon** will be a sponsor of the Reno National Championship Air Races, to include an award to IF1's fastest qualifier.

Insurance Technologies and Programs and **US Specialty Underwriters** will sponsor the air race event liability premiums again this year for all their race clients that carry annual coverage with them.

Please contact:

Mary Humphrey, 866-585-4590
Mary.Humphrey@itpinsurance.com

Susan Amey, 301-526-3282
InsTchPrg@aol.com

Again this year, **Insurance Technologies and Programs** will give an award to IF1's Rookie of the Year as part of their sponsorship to the Reno National Championship Air Races.

ERRATUM

Our July issue, page 11, incorrectly stated that Cannon refused to insure Ray Cote for racing. We should have said that in spite of Cannon Aviation's attempts to obtain a policy for Ray, underwriting companies declined to offer him coverage.

IF1 Family News, continued

Adrian Cooper's News from Vancouver:

To paraphrase Mark Twain, "The report of my demise is grossly exaggerated," but to steal from a country song, "I'm not as good as I once was, but I'm as good once as I ever was." That just about sums it up.

The Cassutt was irreparably damaged in my mishap. My fabulous crew loaded the debris and biggest parts into the trailer and brought them home for me. It was several months before I was ambulatory enough to go look, but the conclusion was foregone, so we cut her into little pieces and off she went to the dump.

The same fate didn't befall me, and as I slowly returned to mobility I set my eyes on a Nanchang CJ6A. This lovely machine is now completely airworthy,

re-equipped, and personalised, and we await an inspection by Transport Canada to issue the restricted C of A, at which time I can start flying her. I did do a month or so of spraying for Gypsy Moth in a light twin this May/June so I have been in the air, and have a full medical, and my airline transport rating is active.

On a personal note, Donna, who many of you met in the pits, was and is a tower of strength during the injury and recovery. We have known each other for eleven years and in a quiet ceremony at the beach on the West Coast of Vancouver Island we became husband and wife. You may offer her your condolences for her lack of good judgement when we see you at Reno in September. See you all then.

— Coop

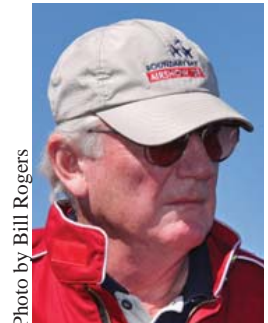


Photo by Bill Rogers



Photo by Neal Nurmi



Photo by Bill Rogers

President's Page

Smokey Young



Photo by Bill Rogers

All good things must come to an end. For the past three years I have had the honor and privilege of being the Formula One Class President. I was the class Vice President in October 2007 when Birch Entriken resigned as president. Appointed by the IF1 Board to complete Birch's term, and then being elected to serve my own two-year term, I have had a tenure as President slightly longer than most. It has been a good three years personally and professionally.

When I became President one of my major goals was to help heal some of the rifts that were having a destructive influence on the organization. Although personality conflicts will always be a part of any group, the conflicts within IF1 no longer threaten the viability of our organization. In addition, as a board we were forced to deal with legal issues stemming from the fatal accident that occurred during the 2007 Heat 2A race. It was a tough first year for both me and the board but we were able to emerge from 2007 as a strong and viable organization.

IF1 still faces many challenges. Participation is something we will always struggle with. Increasing our pool of race pilots is something that has probably been discussed at one time or another during every board meeting over the past three years. However, race pilots showing up at Reno is only one part of our participation dilemma.

We need good people to volunteer to run for positions on the Board of Directors. The organization cannot run itself and it is unhealthy to have the same people hold the same offices

year after year. In particular I find it distressing that it is so difficult to get active or current race pilots to volunteer for positions. There is an old saying, "many hands make light work." And so it goes, if everyone pitches in and has a turn at providing leadership and direction to the organization we will all be better off.

One of the most beneficial accomplishments of the IF1 board in the last three years is the much needed modification of our technical rules. All of the changes, which will be effective in 2011, enhance the safety of our racing. There is a great deal of resistance to change in our group. This is a good thing as change for the sake of change can be unhealthy. We need to be mindful of our racing heritage and the reason for certain rules. However failure to adapt to a changing environment will result in eventual extinction. I hope that the board continues to explore and propose measured rules changes over the course of the next few years.

At this point I would like to give some much deserved thanks to some people who have been very helpful to me personally over the past three years. First and foremost I would like to mention Gary Davis. Gary stepped in as Vice President when I vacated the position in 2007 to become President. Gary and I worked very closely together through 2008



Photo by Lista Duren

Gary Davis

I hope that the board continues to explore and propose measured rules changes over the course of the next few years.

and 2009. Gary is a great proponent of IF1 racing and has done much for our organization. He possesses phenomenal attention to detail, so very important as changes to rules are being discussed. He has been a good friend to me and I appreciate him.

I would also like to thank Tammy DeHart. Tammy does a lot for our organization that a lot of people don't know about. She is very involved each year in helping to plan our banquet. In addition, she has been my "go to person"



Tammy DeHart

Photo by Lista Duren

at the races the past three years when it comes to all those little details that creep up during race week. She has ordered and picked up our plaques and trophies, arranged catering, and done a hundred little things I can't remember, even though I should.

Speaking of our banquet, another



Jay Jones

Photo by Bill Rogers

name comes to mind and that is Jay Jones. Traditionally the job of our Vice President, as Promotions Director Jay accepted responsibility

for planning our banquet in 2008. Last year we had the best IF1 banquet ever! It was all due to the hard work of Jay and Tammy.

In addition to all the help I have gotten

from within the organization, I have also had some much appreciated help from outside. Mike Houghton, Bill Eck and the RARA staff have been incredible supporters of IF1. I will really miss working with them to further the sport of air racing.



Mike Houghton



Bill Eck

Last but not least I would like to thank my wife Christine. Her job at the races has always been to take care of me. She has done a great job and I could not have raced, let alone been Class President for the past three years without her love and support.

I look forward to seeing you all at the races this year. Good luck to all of you and thank you for allowing me the opportunity to serve the organization.

— Smokey Young

Good luck to all of you and thank you for allowing me the opportunity to serve the organization.



Above: Smokey Young and his wife, Christine Malcomson-Young.

Right: Christine tapes Sly Dog before a race in 2008.



Photo by Lista Duren

Bob Bement



Photo by Lista Duren

It's a short countdown to Reno and I want to cover a few things you should do before the 2010 Air Races:

1. Review IF1 and RARA Rules
2. Review Race Procedures
3. Remember to safety check your tow vehicle before leaving for Reno—as carefully as you would your plane.
4. There will again be a Mandatory Hand Propping Briefing for folks who will be hand propping and have not previously attended the briefing. This is FAA required; it doesn't matter whether you have "been there, done that" a million times, see ya there with a smile and smother the yawns.
Time TBA

Pilots:

Before you can get your Participant Packet from RARA, you will need a sign off sheet that I have signed verifying that your plane is on the premises. No plane, no packet.

Contest Committee, Technical and Operations Crew:

As usual I will have all the passes (parking, armbands, etc.) that you need to do your jobs.

Remember the only stupid question is the one that goes un-asked.

Fly Safe,

— Bob Bement

IF1 is assigned the shaded pit areas 5A-G, 5I-K, and 6A-K. Bob Bement will post the official parking plan at the IF1 hangar prior to race team arrival.

Pit Assignments

The hangar will be available for our aircraft at 12:00 noon on Wednesday, Sept 8, 2010. Parking spots are being assigned by a bid process based on criteria developed by the IF1 Board of Directors.

1	2	3	4	5	6
A		A		11	A 87
B		B		96	B 40
C		C		69	C 78
D		D		1	D 50
Restroom		E		20	E 45
		F		5	F 12
		G		54	G 44
					H
					I 26
					J 66
					K

Stage

Briefing Room

Offices

When you arrive at Reno, a copy of the parking plan will be posted. Please establish a pit in your assigned spot.

Parking priority is based on finishing position of the aircraft and the pilot in the 2009 races. The resulting priority list is:

1. Steve Temple #87
2. Jay Jones #45
3. Lachlan Onslow #12
4. Steve Senegal #11
5. Steve Senegal, #96
6. Philip Goforth #69
7. Larry Mashowski, #78
8. Dan Peters, #66
9. Jim Jordan, #54
10. Philip Goforth, #1
11. Gary Davis, #40
12. Holbrook Maslen, #44
13. Tom Watkins, #20
14. Vito Wypraechtger, #50
15. Mark Johnson, #26

Operations: Review/Refresh Race Procedures

Spotting Aircraft

by Bob Bement

Position aircraft on runway so you have room to go between the aircraft in front of you (aborted takeoff)

Flags During Race

- Yellow: Caution, continue racing
- Red: Vacate course, race canceled
- Black: Individual aircraft is disqualified
- White: Last lap
- Checkered: Race finished

Flagging Procedures For Start

10 minutes: Once aircraft all in position

5 minutes: Red flag is up

2 minutes: Crews leave aircraft

1 minute: Red flag down, Green flag is up

Starter's discretion in that 1 minute to drop Green Flag and start race.

No Start (Engine)

At 1 minute pull aircraft off the side of runway, possibly into the dirt. You can continue propping. If started and is SAFE to get your airplane in position, you can start the race. REMINDER: engine and oil will be cold, and consider reason for not starting in the first place, (remember you can always race tomorrow).

Aborted Takeoff

Roll out straight ahead, as far as possible. Wait for all aircraft to pass by before exiting with your aircraft. Pull aircraft to COLD SIDE of runway, if possible. Wait for crew to pick you up.

Hot Side/ Cold Side

Hot Side is always farthest from crowd line no matter which runway is used. Always land Hot Side, get aircraft under control, and transition to Cold Side. Don't get slow on Hot Side. Clear taxiway up onto ramp and spread out. Crew will pick up and take you back. Taxi back is okay, be careful of people and airplanes.

Take Off

Front row must hold line until past Home Pylon. First lap starts when first aircraft crosses Home Pylon, the second time by.

May Day

Pull up inside race course and get altitude. Be alert to other aircraft you are flying with. Fly airplane first, get yourself under control, and then deal with the problem. Never turn toward the crowd line, EVER. Use any runway. Use radio if needed; Emergency Crews will respond.

Race Over

Cross Home Pylon, clear yourself and pull up inside race course to gain altitude. Follow in trail in the cool down, be predictable. Wing wag downwind and base legs.

Landing

Usually land on same runway as takeoff; pilot's discretion however. Keep pattern close to airport. If you choose a different runway, announce intentions, if possible, and make sure runway is clear. Be aware a mayday aircraft may have chosen same runway.

IF1 Voting Procedures

Attention IF1 Members

by Gary Davis

Some reminders before you vote:

1. You must be a current IF1 member and be shown as such on the official IF1 member list.

Note: Associate and Complimentary members do not vote.

2. You must be "present" at the annual meeting "in person or by proxy".

Note: Mail ballots will not be used due to the requirement referenced in #2 above. This is clearly spelled out in IF1 Bylaw 5.2 and proxies were mailed to all MEMBERS of record along with the nomination forms for the use of those members that cannot attend in person.

The take away is IF1 MEMBERS can vote, but you have to be a current "full" IF1 member to do so and if you cannot attend the annual meeting in person you have to be there via proxy to vote. So, if you are not going to attend the annual meeting, give a signed proxy to someone that is going to attend so they can vote for you.

3. All signed proxies must be turned into the Secretary/Treasurer prior to any voting.

Note: If you hold a signed proxy please turn it in before the annual meeting begins.

IF1 Marketplace

AIRCRAFT FOR SALE

Prior to purchase of any aircraft, please contact the Technical Director for any IF1 rules or compliance items that apply.



Miss Demeanor, N96SR, Race 96 Race ready FLYING Formula One: Battery, Alternator, Starter, GPS, GRT EIS, MicroAir Radio and encoding transponder, NEW CYLINDERS AND PISTONS IN 2005, ENGINE OVERHAUL by LyCon in 2006 W/ NEW CASE, CRANKSHAFT, VALVES, ETC. Twisted Composites race prop. Sturba cruise prop. Uninstalled tapered horizontal stabilizer and elevators, produced by Craig Catto, designed to fly with Miss Demeanor's tapered wing. Sport fly during the year, race at Reno in September. Win the Silver, fly in the Gold! All for \$35,500. Contact: **Steve Senegal** (650) 346-6967 ssenegal@sanbrunocable.com



F1 Race 98 & 99, accepting best offer on both aircraft including almost new Lycon engines, 3 Twisted Composites props and wood sport prop.

Contact: John Hall 210-241-7378 or via email_jhall@jetav.com

CASSUTT WANTED

Looking for an entry level, basic Formula One airplane to race at Reno. Must comply with IF1 technical rules. Contact Ira Saligman: (610) 324-5500 (Philadelphia) isaligman@saligman.com

PROJECT PARTS & PRODUCTS

CASSUTT PROJECT

Stock wing, aluminum gear, cleveland brakes.

Contact: **George Budde** (405) 733-1449 patbudde@earthlink.net

Formula 1 Race Engine. EXP 0-200-12. LyCon O/H in 2002. Fast on Scarlet Screamer but hasn't raced since a piston was holed at the Nellis demo race in 2005. Cylinders redone and engine recently inspected and reassembled with new stock pistons (picked to weigh within 1 gram). Engine Log with LyCon O/H entry. Includes intake from spider to cylinders and oil tank. Install your own electronic ignition (or mags), race carb, exhaust and go race. \$10,000 OBO. Contact: **Gary Davis** at texasflyer@hotmail.com 940-458-5515 (home); 940-206-3079 (cell)



Formula 1 racing treasures accumulated over almost a decade of air racing. Too much to list... Your choice: Various Twisted Composite Carbon props; DeMuth and other wood props; Cato props; Carbon Spinners; Carbon and Aluminum Spinner Bulkheads; 4" to 8 5/8" Prop Extensions and misc. Spacers; 4 into 1 Exhausts; M40J and other Spark Plugs; Misc. Parts, Hardware and Instruments. Call or eMail for parts list and details. Contact: **Gary Davis** at texasflyer@hotmail.com 940-458-5515 (home); 940-206-3079 (cell)



Cassutt Racer Aircraft Kit/Project Plans. One piece wood spar. Welded fuselage frame (factory welded). Rudder complete... Horizontal Stab to be completed. All wing ribs complete. Aircraft plywood for wing covering. Fiberglass canopy frame. Steel landing gear with Goodyear brakes, tires & tubes. Sufficient aircraft tubing, wood and plywood to complete the project. \$3900 Contact: **Laslo Zamolyi, Jr.** Home: 610-746-2618 Cell: 610-746-2618 zamalama@aol.com EAA Chap. 70, EAA Technical Counselor



If you have aircraft or other items for sale, or updates to your listing, please email Doug Bodine: jethro@rushmore.com

Ads are free as a service to members

Continental O - 200 stuff for sale:

Twisted Composite Carbon Prop 54x64 used 12 times, with balancing kit \$1900

Slick 4381 mag with induction \$500

SAF-Air quick drain oil tank valve in package \$20

8" Sabre prop spacer with custom nuts and bolts \$300

Two flowed cylinders complete with valves and covers, grooved and need honing \$150 each

Tach housing with cover plate \$35

Oil screen housing with screen \$25

4 oversize pushrods SA537870P30 \$80/set

Push rods \$5 each

24 Champion M40J plugs serviced by Champion at Reno 2009 \$7.50 each

All items located at Vancouver BC

Shipping choices and costs are yours.

Contact:

Adrian Coop Cooper 604-328-1431
cooperracing@gmail.com

NEW COMPOSITE PARTS

Light Weight 9" Spinners, \$90

Wheel Pants, \$350.

CASSUTT PARTS: Assorted Tail Feathers, call for Quote.

LED Flashlights: Super Bright, Compact Size. Up to 155 hrs of run time on 2 AA Batteries, \$32.

10% Discount to IF1 members

Contact: **Ray Sherwood**
(530) 626-6106 rayjays@aol.com

Cassutt Projects and Inventory

Cassutt 111M, 90% complete. Needs cowl and wing finished. Includes REBUILT engine.

Cassutt 111M fully welded with tail assembly.

Cassutt 111M wing needs skin.

Cassutt 111M wing complete.

Misc inventory: engine parts (3 O-200 engines), airframe parts and instruments, one sport prop.

\$15K for all.

Contact: **Gary and Linda Elliott** for pics and inventory list: 972-264-3857

lfelliott@att.com

Grob Glider Also Volkswagen Beetle, Mill, Lathe, Camper, Engine for the Corba Kit Car project he started.

Contact: marylemmond@yahoo.com



CASSUTT PARTS

National Aeronautics has Cassutt parts including Aluminum and Steel landing gear legs. cassutt.lornet.com

Contact: **Ib or Sue Hansen** (303) 940-8442 cassutts@aol.com

NAC Aircraft Display Mat (20ftx20ft)

Plastic vinyl windscreen material with steel grommet boarder.

Available colors: yellow, red, orange, green, blue, white, and black.

Storage Bag Included

Price: \$300.00 plus ground shipping

Contact: **Tim Neubert** 727.538.8744 TNeubert@airportnac.com

Graphite Race Props

Run One or Follow One

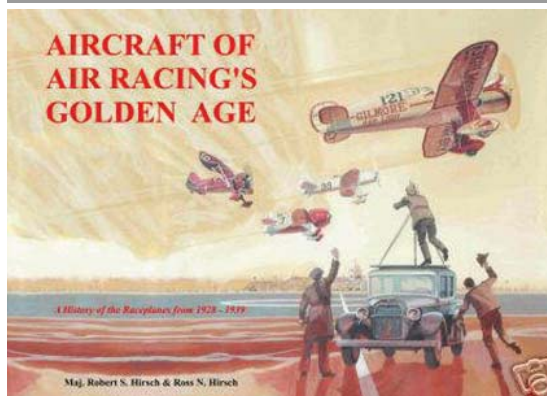
Twisted Composites, LLC

www.twistedcomposites.com

Contact: **Steve Hill**

(505) 832-1148 or (505) 321-6467

carbonprop@mac.com



AIR RACING BOOKS by Robert Hirsch

Aircraft of Air Racing's Golden Age 1928-1939,

2 Volumes, 1071 pages, 158 scale drawings: \$75 + \$10 S&H

Wedell-Williams Air Service

\$20 + \$3 S&H

Schneider Trophy Racers

Goodyear and Formula One Racing (thru 1995):

\$45 + \$5 S&H for both, or \$25 + \$3 S&H for one

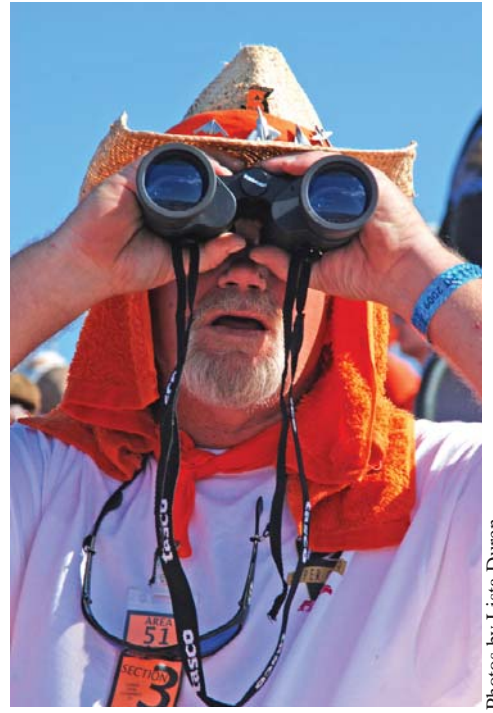
Free S&H to IF1 Members Make Checks to Maria Hirsch
8439 Dale St., Buena Park, CA 90620

Contact: Maria Hirsch (714) 828-7369

Photo by Tim Adams



Safety, tech, ops, fans...
all are critical to our races.



Photos by Lista Duren



Photo by Naomi West

Steve Temple prepares to qualify Madness in 2009 △

▽ Polishing and prepping Quadnickel in 2009



Photo by Bill Rogers



Photo by Lista Duren