

# The Hammerhead



## *In this Issue:*

***Remembering Ron Burns***

***Report from the WAC***

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***And more...***

### **The Pitts Stop, by Steve Pennypacker IAC Chapter 35 President**



Ron Burns joined Chapter 35 a dozen years ago, in 1991. He was chapter VP back in 1993, before most of us started flying acro. Until a couple years ago, he flew a beautiful S-2B that he had worked his mechanical magic on and “improved” in various subtle ways. Back problems motivated him to upgrade to the more reclined seat of an Extra 230 that he completely rebuilt, using his intuitive mechanical ingenuity to restore it like a Phoenix back into the top quality machine that it had been a long time ago.

He brought home a fair amount of contest wood to go along with his machines, peaking in 2000 with wins in Intermediate at both Orange and Springfield and placing 2<sup>nd</sup> in a field of 14 at Maytown. Along the way, Ron picked up his CFI and taught folks to fly a Pitts, myself included. He even taught me to land it, though not until I challenged him with his first would-be ground loop. When you teach in a Pitts you need to expect some of those, but what made this one interesting was that it wasn’t just my first back seat flight, but also his first from the front seat, with a real live student at the controls. I’ve never lost the vivid memory of that landing, and I doubt that Ron did either. His comment, after the screeching stopped, the tower crew got back up from under their chairs, and after he somehow returned the airport to its proper place and alignment beneath my smoldering landing gear, was “That was interesting, but I would have preferred you to wait until the second landing to do that.”

Ron was always helping someone with his boundless mechanical expertise. Whether it was routine maintenance, building custom parts, or designing a better mousetrap, you always came away knowing more than you did a few minutes or hours before. Ron earned many friendships as a result, and it shone through at his memorial service. If you haven’t already heard, Ron lost

his 11 month struggle with cancer on July 25. His aerobatic friendships were so deep that his wife, Janet, scheduled Ron's memorial service around Oshkosh and his friends' weekend flying activities. I'm sure the wait wasn't easy for her. Thank you Janet, from all of us. And goodbye and thank you to Ron, from all of us. We'll miss you.

Some of our members closest to Ron have offered to help Janet sell Ron's plane. Help spread the word that there's a very high quality, newly rebuilt, Extra 230 available [See Ad below].

### Ron Burns

Ron Burns died quietly at home on his sofa in his sleep on the afternoon of July 25<sup>th</sup>. Ron had been battling cancer since it was found by accident during gall bladder surgery last August.

Ron was well known in Chapter 35. He had been on the scene for years competing originally in a Decathlon, later in N-5327C his beloved and fussed over Pitts S2B. Last year he started flying (and tweaking) an Extra 230.

Ron led an interesting life. He married his high school sweetheart, Janet, (who survives him with their son Jason and his family). After graduating from Princeton he worked at the High Energy Physics lab at Harvard and was fired for being a labor organizer. During this period he raced motorcycles, often returning from weekend races with a broken bike and damaged body.

The intermediate section of Ron's life was a ten-year period during which he used his knowledge, skill and creativity to invent an accurate computer based X-ray detector for molecular analysis used in Cancer and drug research. Remarkably he produced this device in the basement of his home in Cambridge, beating out several huge and generously funded research labs, which were working on the same idea. After he sold this device he spent a couple of years in Madison Wisconsin overseeing its entry into production.

On his return to Cambridge he decided to take up flying and found his way to Executive Flyers. After he got his Private certificate Ron became interested in Aerobatics. His instructor was Mike Goulian. Mike introduced Ron to both aerobatics and competition. Ron took to

aerobatics like a duck to water. Ron later became an aerobatics instructor at Executive flyers in the various EFA Decathlons and his S2B.

Ron's engineering was always brought to bear on the aircraft he flew. The mechanics at EFA said that Ron had rigged his Pitts so carefully that it flew 10 miles an hour faster than any other S2B. Hans remembers him using a laser theodolite and a lathe to true his tailwheel to the .000<sup>th</sup> place so the aircraft would track straight on the runway. He enjoyed the process of understanding how the world, (and especially the mechanical world) was flawed and then laboring over it to set it right.

In the last 11 months of his life Ron brought his engineering skills to bear on his body which he referred to as his "final engineering project." He brought his dogged good will and creativity to the problem of coping with his demise. He saw it as his job not just to manage the difficulties of his body, which were many, but to make his passing as easy as possible for his wife, son, daughter-in-law and granddaughter, Ripley, who he had hoped to teach to fly.

Ron told me in June that he had led a lucky life, I feel lucky to have known him.

Stephen Till



*Ron Burns - Our teacher, our friend. We will miss you.*



*May 12, 1943 – July 25, 2003*

*High Flight*

*Oh! I have slipped the surly bonds of earth  
And danced the skies on laughter-silvered wings;  
Sunward I've climbed, and joined the tumbling mirth  
Of sun-split clouds - and done a hundred things  
You have not dreamed of - wheeled and soared and swung  
High in the sunlit silence. Hov'ring there,  
I've chased the shouting wind along, and flung  
My eager craft through footless halls of air.  
Up, up the long, delirious, burning blue  
I've topped the wind-swept heights with easy grace  
Where never lark, or even eagle flew -And,  
while with silent lifting mind I've trod  
The high untrespassed sanctity of space,  
Put out my hand and touched the face of God.  
John Gillespie Magee, Jr.*

(Thanks to Elle Hilliard at Executive Flyers for this tribute page)

### Springfield Contest Rescheduled

The Springfield, Vermont contest, which was postponed due to weather, has been tentatively rescheduled for October 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup>.

### New Hammerhead Head

What do you do when the newsletter editor for most of the past 4 years wants to resign? You threaten to force him to fly with you, until he caves in and keeps the job for a few more months while you figure out what to do. But when he starts offering rides in someone else's Suke for whoever replaces him (unbeknownst to the person paying the Suke's bills), you know time is running out. Editing a newsletter is obviously a highly visual job, so naturally after wading through the piles of resumes that flooded my mailbox, I handpicked Rob Petit for the job. His salary requirements were reasonable, and he assures me that once he gets that new telescopic lens figured out, he'll actually be able to see parts of the newsletter he's been publishing for the last couple months. Meanwhile, with Hans' SU-29 parked for the time being, we've given Dave a complimentary subscription to Trade-A-Plane so he can start to make good on his offer. So when you see Dave, thank him and his family for pumping out our newsletters for the past 4 years. And when you see Rob, don't tell him it's a 4-year term, OK?

... by the way, for those of you who believe the inverted picture of me in the B at the head of this column unequivocally demonstrates my mastery of inverted flight, stop reading right here. OK, now that nobody's reading... no, the "forgery" isn't a lame attempt at self promotion. Dave W put that in originally and it just kind of stuck. Maybe trees really -do- grow upside down...

### WAC Report

I don't even know where to start writing about the WAC. The whole experience was so great and so varied. Last month's Pitts Stop column hit some highlights but barely scratched the surface.

The flying was great, but the trip wouldn't be much fun without so many friends and other like-minded people, and that's what really made it a special event. There were a handful of Chapter 35 folks helping out and hanging around

the volunteer area: Peter Ashwood-Smith and his family, Rob Petit, Dave, Lori, and Ryan Watson, George Hendricks, Steve McCalmont, and Jim Wells. I airlined down to Florida by myself, but George spotted me at breakfast on my first day there, and that was the last time I was ever alone until the flight home. Jim and I were scheduled to fly down to meet Curtis Pitts in Jim's Baron, but Curtis' health nixed that at the last minute. Disappointing, but as a result we were treated to a day of Unknowns and some of the best flying imaginable. Peter's son Simon had to be the most enthusiastic person at the whole event. At an evening party, we pointed out various pilots from all the various teams, and he'd go right up and get their autographs in his program. He didn't miss many. During the flying, he was the only one who always had the order of flight (it wasn't publicly posted) and knew who was flying. Ryan Watson mostly just abused me for carrying around an extra wing on top of my airplane, even after reminding him that at least I -have- my own airplane that I can fly. He thinks he's going to quit his day job as starter at Orange and enter the contest next year. We'll see about that!

Tied for most enthusiastic was Alex Belov, who got to know just about everyone as the official weatherman of WAC 2003 (even though his job at The Weather Channel, which he has since left, was as a network guy). Ron Chadwick got a few of us past security to tour the flight line and hangars. The Russians had lined up all their Sukhois for a photo shoot. As we walked towards them, we saw a tiny little S-1T being paraded past all the Sukes and taking its place at the end of the row. The Russians scowled and growled with indignity, until they realized it was Alex's plane. At that point the jeers became more good-natured and I wished we had a translator.

Various dinners, banquets, and parties were scheduled for each night. Kermit Weeks hosted the most perfect, warm, and inviting party imaginable. If you've never been to his personal playground, Fantasy of Flight, put it high up on your list. This night, the grounds were open only to WAC folks. After winding through a Disneyesque entrance traveling back through the history of flight and culminating in a hands-on walkthrough of a B-17 complete with crew, ammo, and realistic videos through the bomb bay doors, we walked through one of the museum hangars out to the tarmac where he had pushed

several of his largest planes to make room for the party in another hangar. We'd been told to expect hors d'oeuvres and cash bar, but in addition found a full dinner and open bar for several hundred of Kermit's "closest friends". And it was all free. He gave a nice talk and birthday ceremony for the oldest IAC competitor (94 yrs young), topped off by an enormous cake with 94 full-size dinner candles, wheeled in and extinguished by the Lakeland Fire Department in full firefighting dress. After that, I headed over towards Kermit's P-51C in the back corner. His D-model, Cripes A Mighty, has won Grand Champion Warbird at Oshkosh and is arguably the most authentically restored 51 in the world. This one is no different. Both are exquisitely polished aluminum with drop tanks, ammo stores, and so on. Keep that in mind when I tell you that as the crowd started to thin out, Kermit opened up the C to let people climb on board and sit in the cockpit. About 20 of us took him up on it. As some of that crowd dispersed, a dozen of us quietly headed off through some back doors and got treated to the same deal with his Spitfire. Kermit himself was around for part of this but left us in the hands of one of his employees for the Spit. The whole evening, all the doors to the hangars and even the unguarded gates to the grounds were thrown wide open, inviting everyone to come in, enjoy the company, and explore the museum. That's just the kind of guy he is.

I got to Lakeland in the middle of the first Unknown program. From the very first flight, you could see that while the pilots were all incredibly good, they weren't perfect. It was a tough Unknown and wind was a factor. There were lots of zeros and only Robert Armstrong escaped with no outs. Each flight had mistakes. Some had more than others, and some were more egregious than others, but they all had them. Still, the pilots made it look easy. Unknown 2 was easier to keep in the box and there was little or no wind, but still maybe 1 in 5 pilots had an out or two.

Flying for the judges is all about perception, and here is my perception. Pilots love to complain about judges. My favorite complaint was that the pilots were so obviously fooling them with figures that should have been severely downgraded at best, and preferably zeroed. But this is the illusion of world class aerobatics. The Sukhois were particularly notable for flying their way through spins. You could see it from the

volunteers' viewpoint 50 yards behind the judges, but it was blatantly and painfully obvious from the box corner positions. Many hesitation rolls had knife-edge points that were intentionally over- or underrotated to the point that each 90 degrees of roll took noticeably different amounts of time to execute. 45's were uniformly steep- diamond loops made this particularly obvious as they were much taller than they were wide. And so on. But that's all what the judges wanted to see, and the pilots knew it. There were some great flights and some not so great flights, and for the first Unknown, we all picked Robert Armstrong as the best. The judges agreed, and Robert won the flight. Had Robert had even a single out, he would have landed in 2<sup>nd</sup> place to Mikhail Mamistov. We generally agreed with the judges' other rankings for the flight as well. Just as at regional contests, the judges are far from perfect but they seem to pretty much pick the right ranking in the end.

Then there were the softer style differences. Unlike at IAC contests, humpties were all flown until the planes pretty much ran out of steam, then gently coaxed around an impossibly slow and small radius bump at the top. I can only imagine the buffeting and torquing they're going through, but it was never perceptible from the ground. Both unknowns had an outside loop with 4- or 8-point roll at the bottom. Most pilots made some attempt to keep the roll on an arc, though much flatter than the rest of the loop. Better to downgrade than snap out and zero it. A few pilots flew a half loop down, point roll on a line, then half loop up. To me, those are separate maneuvers and should have been zeroed. I didn't see those scores, so I don't know if they were zeroed or not. Only Sergey Rakhmanin truly maintained the same arc the whole way around the 8-point loop, which may have been the difference between his gold medal flight and Kirby's silver. Point rolls in general showed varying styles with soft vs. hard points, and verticals were slightly positive or negative when viewed from the corners. Tailslides were all visibly cheated to avoid flopping the wrong way. Some pilots chose to ride the whole line positive, while others pushed to positive only when approaching the top.

Sukhois dominated the field, with smaller numbers of CAPs, Edges, and one or two Giles. There were no Extras, and although it was old news, Ryan still couldn't help reminding me there were no biplanes. The Edges were

generally the loudest planes flying (no surprise there, but certainly not a good thing) and performed nicely. Only Alan Cassidy in a G-202 had under 300 hp.

There was some controversy about who would be allowed to fly 4-Minute Free, as many pilots who intended to fly didn't register in advance as required, and there was a question of whether the independent pilots (not affiliated with national teams) would be allowed to fly since they had been cut from Programme 3 (2<sup>nd</sup> Unknown) due to time constraints. In the end, all 18 pilots who wanted to fly it were allowed to. As you'd expect, each flight was completely different. Some flew to music from Johann Strauss to Eric Clapton, others flew only to the sounds of their engines. Some were artistic, refreshing, and absolutely amazing. Others were a bit more vanilla.

Eddy Dussau and Robert Armstrong both flew spectacular 4-Minutes. Debbie Rihn-Harvey flew a unique box entry, a beautiful and perfect 12 of 4 on a 45 downline, in perfect sync to the music. It doesn't sound like anything special but it was very effective. She came by shortly after the flight and we told her what a great flight it was, but she wasn't happy with it. The judges seemed to like it, as she was the top placing woman for the flight, though not quite at the top overall. Although some of the high-speed stuff was cool, it was the low-speed maneuvering that defined the 4-minutes. Lots of CAP pilots did the CAP "hover" where the plane ends up inverted and seemingly stationary. Most of them flew away into multiple horizontal slow rolls. Eddy flew away by slowly pushing the nose up to vertical and flopping around into the worlds smallest (and most egg-shaped) outside loop. I don't know if it's the planes or the pilots, but the Edges couldn't hold a candle to the CAPs and Sukes in the low-speed & tumbling department. I don't think I ever saw an Edge fly a tumble that was much more than an outside snap. (Note I've since watched some of Kirby's videos, and this is pretty clearly not an airplane limitation).

One of the less experienced competitors flew a maneuver down low right over the crowd, in probably the worst safety violation I've ever watched. It almost happened a second time on the same flight during a roller, but the pilot aborted the roller and yanked hard to narrowly avoid another deadline intrusion.

The star of the 4-Minute was a Sukhoi 26 M3 shared by Svetlana Kapanina and Victor Chmal. I'm told it's got a different wing and a brand new engine. The M14 has been replaced by an experimental M9. It's currently putting out 450 hp, but still under development and they flew it at partial power while using the WAC as a testing ground. When they get the final injection system installed, they expect 500hp and supposedly a 1:1 thrust/weight ratio. Finally a plane that has almost enough power! Victor stole the 4-Minute Free in it, with some terrific tumbles, a tight/fast rolling & snapping 360 with the nose pointed way up, and flying off horizontally from the first pendulum swing after a tailslide. Then he pointed the nose up 60-70 degrees and just about hovered. That 1:1 thrust ratio isn't very far off. This airplane is so far above the capabilities of anything else around that I would expect the Russians to dominate the 4-Minute until either everyone else starts flying 500hp Sukhois or someone develops a similar capability in another airplane.

When the 4-minutes were complete, Lakeland turned into a ghost town as everyone headed for the closing festivities at Sea World. After a nice dinner, we headed to the awards ceremony, which was at least a step or two above the ones we hold outside in the dirt. The large number of medals and trophies could have dragged on forever, but Mike Heuer and Phil Knight ran the ceremony quickly, efficiently, and with the honor these pilots deserved, and nobody got bored. The Russians absolutely dominated the evening, and Svetlana had to start holding her medals so they would stop clinking on her way down the steps. That got a good-natured chuckle from the crowd, which embarrassed her a bit. Most of the Russian pilots had to force themselves into an uncomfortable smile for the cameras. The one exception was Elena Klimovich, who clearly enjoyed being there. I've never met her, but she has all the looks of a truly classy lady. On the other end of the spectrum from the Russians, Robert and Debbie thoroughly appreciated and enjoyed their time on the podium, and the crowd responded well to that. The pilots of other nationalities were somewhere in between the Russian stoicism and the American joy. By now you all know how things ended up, with Russians in the top 3 slots overall. The top 2 slots were pretty well locked up by Sergei and Svetlana, but just 0.3 points out of 10,000 (0.003%) kept Robert off the podium and looking forward to 2005.



Nature puts on an air show at the boundary.



A new Russian engine, the M3. 450+ HP.



Men's unknown winners. 1<sup>st</sup> – Robert Armstrong (USA), 2<sup>nd</sup> - Mikhail Mamistov (RUS), 3<sup>rd</sup> - Sergey Rakhmanin (RUS)



Women's 4 min. free winners. 1<sup>st</sup> - Debby Rihn-Harvey (USA), 2<sup>nd</sup> - Svetlana Kapanina (RUS), 3<sup>rd</sup> - Sylvie Breton (FRA)



Men's overall winners. 1<sup>st</sup> - Sergey Rakhmanin (RUS), 2<sup>nd</sup> - Alexander Krotov (RUS), 3<sup>rd</sup> - Robert Armstrong (USA)



Women's overall winners. 1<sup>st</sup> - Svetlana Kapanina (RUS), 2<sup>nd</sup> - Elena Klimovich (RUS), 3<sup>rd</sup> - Svetlana Fedorenko (RUS)



Russian dominance. Sukhoi row.



Kirby's plane up close.

(Photo's by Dave Watson and Steve Pennypacker)

## Plymouth Airport Fun Day

Those not attending the contest in Gatineau on Labor Day weekend may want to check out the Plymouth airport fun day and barbecue at Bill Crawford's hanger. Here are the details:

**On Labor Day Sunday, August 31  
(Rain Date Monday, September 1)**

**Barbecue Grill Ignites at 1PM  
Air Show Ignites at 3PM**

*My Doctor says I mustn't get excited, much less  
electrified.  
Does Airport Fun Day Put Me at Risk?*

Absolutely! Plymouth Airport throws a *Thrilling Air Show* featuring heart-pumping, mind-numbing aviation action. There'll be parachute jumpers, endless noisy fly-bys, airplane rides, helicopters dashing hither and thither, demonstrations of implacable American might, and a flea market and craft fair that will destroy your faith in progressive Darwinism. And this year is the 100<sup>th</sup> Anniversary of Powered Flight. Come celebrate!

You're probably thinking, "Dude, this thing sounds even better than Monster Trucks. I'm there—unless of course it means missing a *Buffy* rerun. But will I really get fed?"

Well sure you will, generally speaking. You'll be in the recently washed culinary hands of co-host and dear friend Chef Bobby Thissell. He's a multi-tasking master mechanic who can flip burgers (animal-based or politically correct vegan, your choice) while expertly timing the magnetos on any Cessna in the fleet!

This is a family-friendly event; so don't hesitate to bring the tykes. It's important they lose their hearing early and learn to support airport bond issues. Bring your husband. Bring your boyfriend. (Bring them both!) But on account of the party-chilling effects of whirling propellers, no unchained pets, please!

Are you a pilot? Wow! That must be really stimulating! Arrive by air and show off the hardware. The field is scheduled to close at 3PM for the Air Show. But Check NOTAMS

Not a pilot? Washed out of training? Weak stomach? Too damn yellow? Then arrive by car. Gate 4, your private entrance, will be open until 3PM, so arrive before then. If you're late, call the cell at 617 680-8581 and we'll send a rescue team with a key, maybe.

Don't forget your manners. RSVP head count to Bill at [wec@tiac.net](mailto:wec@tiac.net) or 617 267-8945

What if it looks like rain? Then call the cell number above, or the airport office, at 508 746-2020, to confirm. Remember the rain date!

### DIRECTIONS TO PLYMOUTH AIRPORT

#### Airport Fun Day

#### From Boston:

Take **Route 3 South** (Boston to Cape Cod)

From Route 3 South, take **Exit 6b, Route 44 West, Carver.**

Go west on Route 44 three full stoplights.

At the third stoplight (1.1 miles from Route 3), turn approximately 60 degrees **left onto Seven Hills Road**, toward Myles Standish State Forest.

Continue on Seven Hills Road, 0.7 miles, bearing slightly right as required, until you come to **the next stoplight** and South Meadow Road. Turn **right onto South Meadow Road**. Plymouth Airport is 2.2 miles.

The common riff raff will enter Gate 2. Plan to enter **at Gate 4**. When you do, go down the road and take the first paved left turn. Pass between the buildings (there's a red one on your right) and through the gate and keep going straight until you see hangar 15A on your right. The number is on the left side of the big door.

#### From Route 495:

Take **495 to 44 East to 58 South**. Pass through Carver Center; take a **left onto South Meadow**

**Road** to Plymouth Airport. **Gate 4** is not clearly marked from this direction. Look for Gate 6 on your right, and then **Wade Street** on your left. **Gate 4** comes up immediately after Wade Street, on the right, after the mailbox. It's about 2.2 miles from Route 58. If you see the **Town Line** sign, you've gone too far.

Drive slowly on the airport, and watch for moving aircraft.

**If Gate 3 is open**, go through the gate and immediately turn right, then left, then right. There will be hangars on both sides. You'll pass a large red hangar on your left. Our gray hangar, number 15A, is next.

If you get lost, Bill's cell number is 617 680-8581

During your wanderings, if you need to get through a pedestrian gate and someone official inquires, the password is "I'm going to Bill Crawford's hangar."

For Sale



**Lazer 230**, 1996, 225 TT, Lycoming IO-360 220 HP, 225 SMOH, 10:1 pistons, MTV-15 prop, Sky Dynamics oil sump and 4-into-1 exhaust, Christen inverted oil, Christen Fuel pump, Grand Rapids engine monitor with fuel flow indicator, digital G meter, header tank, B&C oil filter adapter, B&C starter, B&C alternator, symmetrical airfoil wing, push/pull ailerons, sighting device, lexan floor, Grove landing gear, Haigh tailwheel, Icom IC-A23, Garmin 95 GPS. Aircraft is built for a 6'2" pilot. \$64,800. 508-994-5957, [hans.bok@comcast.net](mailto:hans.bok@comcast.net)



**EXTRA 230**, 535 TT, 50 SMOH, Fuel totalizer, Electronic Oil Pressure & Oil Temp, Becker Comm, Garmin GPS, Sight Gauge. Price \$79.9K. Call Charlie (603) 885-6719, Hans (508) 994-5957

[Calendar of Events](#)

[August 29-31](#)  
Aerobatics Canada contest-  
Gatineau (near Ottawa), Quebec

[August 31](#)  
Plymouth Airport Fun Day

[September 5-7, 2003](#)  
Kathy Jaffe Challenge sponsored by  
IAC Chapter 52.  
Monticello, New York

[September 20](#)  
Chapter Meeting  
Location TBD - Mansfield or Nashua

[September 21-26, 2003](#)  
U.S. National Aerobatic  
Championships  
Sherman/Denison Texas

[October 17-19](#)  
Springfield, Vermont  
(Tentative)