

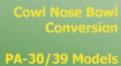
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Letter From The President

am writing this the day after the Fall Board Meeting while I am waiting for Dick Brown to pick me up and drop me at Dallas-Fort Worth Airport to start the journey home. It has been a full couple of days of Comanche Flyer Foundation and ICS action.

But importantly, it has been a couple of extremely productive and exciting days and I want to share the elements of it with you. The Board meeting was long – in fact we started at 9:00 a.m. and did not finish until 7:30 p.m. We dealt with 22 agenda items in proper detail. Monica Rehkopf, representing the European Tribe, attended by phone the whole time – which is a strong measure of her commitment.

The ICS is in a period of transformation, and this requires total Board attention. One attendee likened it to penetrating a front – we know where the clear air lies ahead, but we still have some bumpy air to get through. I was extremely heartened by the business-like and cooperative tone of the meeting and the tangible outcomes. There were no politics for the sake of it, just a resolute focus on the objectives of the Society and a commitment to creating value for members, both present and future.

And it was inspiring to see new Board members bringing fresh ideas and their own energies and passions to bear. Much of the action going forward will deeply involve these people, and their presence will increasingly be felt in the ICS.

Presentations included the President's opening comments, the Secretary's and Treasurer's reports, a report on the transition from our Oklahoma City operations to Village Press, extensive sessions on initiatives in the proficiency area, ICS marketing, and the ICS website. There were also three Convention reports – Hamilton Island 2006, Seattle-Tacoma 2007 and the Caribbean 2008, as well as the necessary procedural work around standing rules.

I would first like to publicly acknowledge the quiet and effective work of Dick and Doris Brown. This Dallas-based couple has quietly taken responsibility for arranging the Board meetings for quite some time now – right down to transportation, accommodations and meals – all at no cost to the Society, but importantly, in a way that everything just happens on time, comprehensively and without fuss. Here's to the great job that they do and the great ICS members that they are. All of the things they do are a key factor in making the meetings focused and effective.

The ICS meeting was preceded the previous evening by the CFF Board Meeting which was both positive and focused on actions, especially in the area of pilot proficiency. You are going to hear a lot more about this.

The focus of the ICS meeting was on tangible outcomes and actionable steps as we confront a sea-change in ICS – moving from the traditional model to one applicable to a different and more uncertain environment and where the impediments to, costs of, and competitors to aircraft ownership have never been higher

In times of change, there are always voices opposing change and a variety of opinions as to the best way to effect change, and the ICS is not immune to this. But change we must, and changing we are, and the Board and the elected officials are stepping up to act, and to proceed in the interests of members overall.



The first quarter of my presidency has coincided with one of the most difficult periods of change facing the ICS with finalization of the Village Press contract, a tight financial position and commencement of the transition from a fixed-cost, Oklahoma City-based operation to a variable cost, outsourced model.

As of the meeting, we are not quite where I had hoped to be by then, but we are on track, and considerable progress has been made. We are now in the final stages of the transition and a team of volunteers have taken on the final steps.

In parallel, we need to focus on the "value" provided by ICS, and freeing ourselves of the headquarters office will both cause and allow the Society to focus on this aspect.

It is already apparent that the thoughts of members have now moved beyond the headquarters outsourcing discussion, and now are focusing positively into the future implicitly understanding the new opportunities. This has already started to occur within the members and the non-member base.

The terms of the Village Press contract and an addendum dealing with the need to retain and maintain a master database within ICS have been finalized and executed. In parallel with these negotiations, Village Press has already commenced implementation planning at their end, and is now placed to push forward in the execution.

The Oklahoma City office will close with a final cleanout and working bee held December 9 and 10. Thanks to the volunteers undertaking this task – the Nelsons, the Thumans, the Harmons and the Pfeiffers. December 8 will be the last business day at the Oklahoma City office and the ICS will be open for business again on December 11.

We have tried to anticipate and manage the transition issues, but it will likely take a short time to shake down the last details. So if there any shortcomings initially, please be patient and assist us to learn from the issues and sort them out to the benefit of all.

Now looking to the future the key question is, "How do we build an ICS relevant to both current and future members?" As opposed to how to merely struggle to continue the successful and much-loved methods and customs of the past?

To do this, we need to understand and characterize the full breadth of the incoming membership and Comanche owner population: Are they lifetime airplane people or newbies? Do they have military or civilian backgrounds? Do they take on the responsibilities of aircraft ownership for status, for personal recreation, for business travel, or as a family activity? Or some combination? And is joining in a group for fellowship and like-mindedness important to them, or is the ICS simply a utility? Probably it is a mix and blend of all of these, but we need to understand and respond to it.

And while I don't have the exact figures, it is a safe bet that there will be massive turnover in the ownership of Comanches in the coming five years as age kicks in for a large segment of our membership. This turnover is both risk and opportunity.

I see and hear a lot of comments around "what the ICS should do." At the end of the day, the ICS is simply a mirror – Comanche owners get out what they put in. So as a Society we also need to focus on the responsibilities of aircraft ownership.

Aircraft "leak value" both when we fly them and when we don't. Engines, heaters, props and so on have finite lifetimes. Even the best of avionics gets dated given time. And paint, upholstery and windows just get worse with time.

The only way to combat leakage is by putting back into the bucket. Any owner who is not prepared to do that (and there are quite a few), especially as members approach the end of their flying lifetimes and are possibly on fixed incomes in an escalating price world, has an aircraft which is going backwards – and markets are harsh and pragmatic in reflecting this.

For any owner, the only way to get full measure from any expenditure on an aircraft is to fly the value out. It cannot be recouped as a capital gain on sale.

Personal training, standards and currency are an important part of keeping the value in our aircraft and making "owning a Comanche" desirable. This will become a primary focus.

I am delighted that Zach Grant, an experienced airline pilot who grew up with his dad's Comanche and now has his own (which he says is the fastest 180 around – there's a challenge), has agreed to take responsibility for developing a professional and contemporary proficiency program. This should not be under-estimated. Not only does the program need to be designed, the resources need to be developed, and the delivery mechanism established and made sustainable.

At the end of the day, the ICS is simply a mirror – Comanche owners get out what they put in.

Continued on Page 4

Comanche Flyer Submission Guidelines

All members are encouraged to submit articles for publication in the *Comanche Flyer*. If you have an article about a maintenance event, trip, piloting technique, or anything else pertinent to Comanche ownership, please share it with your fellow members.

For those with access to the Internet, please submit the article via e-mail, preferably in Microsoft Word. You may also include the article in the body of your e-mail message. Include your full name, as you would like it published, and your ICS number.

Please attach digital pictures, if applicable, in jpeg format. For best results, use the highest resolution setting your camera will allow. Photo files under 500 kb in size typically do not reproduce well.

Send to:

Kim Blonigen, Managing Editor at kblonigen@cox.net

Articles and photos may also be sent via U.S. Mail to:

Kim Blonigen 2031 South Beech • Wichita, KS 67207

Although submissions are reviewed for technical accuracy, the information in this magazine is meant for reference only. Any modifications, alterations, or major repairs to U.S. aircraft require FAA-approved data as a basis for beginning work, and as such should not be based solely on information contained in this magazine. The International Comanche Society does not endorse any piloting adverse to published FAA regulations.

Submissions are subject to editing and revision unless specifically requested to be published as submitted. The right is reserved to publish or not, any submission.

Deadline for all submissions is the 20th of the month, approximately 40 days prior to month of publication.

Just do the math – suppose there are 3,000 Comanche pilots involved in the program, and the objective is to put each pilot through every second year, that equates to a program a week.

Zach has asked for 18 months to do the job right, and that is reasonable. His first task will be to assemble the considerable body of work that exists around the Comanche world, and go from there. This considerable effort is being undertaken by CFF with the assistance of ICS.

Don Nelson, the Treasurer, reported that we are making a loss year-to-date – only part of which will be dealt with by the closure of the Oklahoma City office in this financial year. We always knew that this was going to be a rough year, and that's bearing out. If anything, it is turning out even rougher than forecasted and the Board is paying attention to every cent. Memberships are still extremely cheap by any proper comparison, and I know that when members really think about it, they know deep down that is true. Starting January 1, 2007 we voted to accept a modest five percent rise in dues, as a matter of proper attention to the Society's affairs.

It was fascinating to hear attendees talking about "cheap gas" at \$5.19 a gallon. I wouldn't have heard that just a while back!

There were two great pieces of news during the month. Both involve people making the investment in the future of our type. Paul Phillips of Phill-Air (www.phill-air.com) now has the 40-gallon nacelle tanks ready to go as an approved modification for the Twins; and the Australian Tribe has secured a full Australian STC for the new trunnion design. This is yet to be translated to an FAA STC through further administrative steps, but this is the major breakthrough. Both of these add to the amenity and longevity of the marque.

In closing, I would like to reinforce that the Board is doing the heavy lifting in taking the Society forward. But one area that can undo it all is membership. Please support the people who are supporting you. Renew, renew on time, make sure that if you sell your aircraft that the new owner is a member before they taxi away, and promote the Society to any Comanche pilots you know or come across who are not members.

Kerrie and I and our family wish you all Safe and Happy Flying and a joyous Holiday Season.

Lawrence Paratz ICS President







Who Are We?

An organization formed in 1972 with over 3,000 Comanche owners, pilots and others who love these aircraft; both singles and twins.

Where Are We?

In many countries on the six continents of the world: Africa, Asia, Australia, Europe, United Kingdom, South America and North America.

What Do We Do?

We exchange information and experiences about our airplanes, we make friends and we have fun! We also help members with their technical needs including parts, publications and member's maintenance tips.

What Do You Get? Lots!

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- 2. Access to technical expertise along with member discounts on certain parts.
- 3. Opportunities to attend Fly-Ins and our annual convention. These are both social and educational. A great way to make new friends.
- 4. Membership card and certificate that you will be proud to frame and display in your home or office.

What Does It Cost Per Year To Belong?

For all U.S., Canada and Mexico: New member-\$63.00; renewals-\$63.00 (Includes second class mailing of the *Flyer*) For Europe, Asia, Africa and the United Kingdom: \$85.00 for the first year; \$85.00 thereafter and includes \$7.00 returned to each foreign tribe for communications. Dues for Australia and all other countries are \$78.00 for the first year and \$78.00 thereafter. The spouse of a member may join ICS also for \$31.50 per year. This will ensure her voting rights.

How Do You Join?

Easy, just E-mail or Fax this completed form. If you are uncomfortable with sending information over the computer, you may mail the form to us. We accept checks, cash, moneyorders, MasterCard and Visa. Don't forget to include the expiration date.

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Certified flight instructors who have completed the CFF Larry Larkin Seminar

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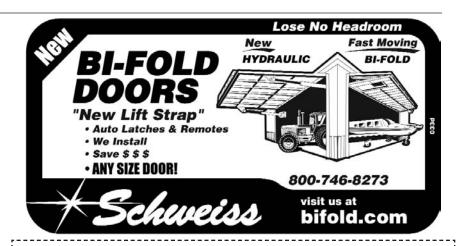
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PA-30 & Multi-Engine Flying by Alice S. Fuchs. pb, 68pp. Price \$9.00 plus shipping (North America: \$2.00; elsewhere: \$4.50.)

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DECEMBER 2006 Comanche Flyer • 7

ONLINE INTELLIGENCE

Technically Speaking

VMC Demonstrations In the Twin Comanche

The following is from a series of online postings from the Comanche's Owner's Forum. These postings are provided for informational purposes only. The views expressed in these postings represent the opinions of individual Comanche owners and have not been vetted by the ICS technical committee.

As a responsible pilot and aircraft owner, you should always seek the advice from an experienced, trusted source, such as your A&P or CFF-approved CFI, before applying any of the techniques or recommendations presented in these postings.

The postings are printed as they appeared in the Forum. Due to space considerations, we are publishing only selected posts.

Tomorrow I'm going up flying again and the instructor wants to do a VMC demo ... flying close to it to show how the plane handles ... is there anything that we should be careful of? Is this done in a TC, or just talked about? Any suggestions would be great!

Thanks, Dico

VMC demonstrations are a necessary part of endorsement training. It is not to be feared and is an interesting air exercise. Providing the instructor is a capable and competent pilot, you should have no reservations about performing the maneuver. Make sure he/she gives you a thorough pre-flight brief on the how's and why's and the factors affecting the VMC. Enjoy your training.

Regards, Barry

It can be done, although I suggest you don't do actual demonstrations (if you mean demonstration of loss of rudder authority at speeds below VMC), unless the instructor knows Twin Comanches very well. This plane does not behave like an Apache or an Aztec. It can bite if not handled properly.

Francois

In a stock Twin Comanche, the VMC and stall speed can be close, especially if one is abrupt with the maneuver. You do not want to stall the airplane with one engine wide open and the other at idle because the airplane would snap roll into a spin. Be sure to be smooth, and recover at the first sign of a loss of directional control. Don't practice at a low altitude. I would think at least 3,500 AGL would be appropriate. As an instructor, I will block the amount of rudder that the student can use in order to simulate the loss of directional control at a faster speed than would occur naturally for a little safety buffer.

In the old days the Twin Comanche was a very popular trainer. However due to a rash of accidents with VMC demo's during instruction and check rides the FAA mandated via an Airworthiness Directive that the VMC speed be increased on the airspeed indicator. Since then Piper and others have counter rotated the engines to get better single engine handling characteristics. Many Twin Comanche aircraft have modifications including counter rotation, gap seals, Piper airflow kit, vortex generators, and STOL

treatments in an effort to get better handling characteristics.

Be careful and have fun.

Steve

"The FAA no longer demands to see a VMC on the multi-engine check ride!"

Since when did they stop requiring that? I had to demonstrate loss of directional (VMC) control / recovery demo on a check ride three years ago. To my knowledge nothing has changed since.

Scott

Steve,

I differ with your suggestion regarding altitude. The higher the altitude, if the aircraft is normally aspirated, the lower the VMC speed will be. The problem is having the VMC and the stall arrive at the same time. Keeping the loss of directional control before the stall is somewhat easier in a non-C/R. I usually do them around two thousand feet. If it goes into a flat spin it does not matter how much altitude you have all the more time to contemplate your imminent demise. As the instructor, I start with some stalls at the altitude that I am going to do the VMC at. I want to know when THAT aircraft is going to stall. Then we do the VMC demo, very, very gradually. If having seen a loss of directional control before 10 knots above stall, I block the rudder. More often than not, I end up blocking the rudder. I add even more margin if the pilot isn't smooth with the aircraft or I have any doubts about his/her response to the yaw.

Kristin

Continued on Page 10



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GOVERNORS

Hi Kristin.

Yes, I agree with what you say. You must know your aircraft, the stall speed clean and dirty and in all phases of flight. You must be aware of the factors affecting VMC, altitude, weight, CoG, configuration, etc. that's why a comprehensive pre-flight brief is a must. If your instructor doesn't do this, then find another who will. Yep, any wise instructor would block the rudder. There was a case out here many years ago, when the student froze with his foot hard to the floor on one rudder pedal – not a good ending. Good training makes for a good pilot.

Regards, Barry

These are the types of discussions I like to get into. I always learn more ways to describe situations that might work when the one I have always used doesn't. Your friend sounds like he would be fun to fly with. I'll have to go try his demo sometime. He might also appreciate that my first step I teach for an engine failure is wings level, ball centered. It doesn't maximize performance, but when introducing people they realize that the aircraft isn't going to immediately fall out of the sky like in the cartoons. That way they can calmly progress into following stages, without being in such a hurry they feather the good engine!

I want to make people think about why they are doing things. The other thing I do is simulate failing an engine when the boost pump is turned off while they still have their finger on the switch. (I teach to turn them off one at a time keeping your finger under the switch several seconds so if an engine quits they can immediately go back on.) If they think; it was just working with it on, let's go back to that condition and flip it on, the engine magically comes back to life. If not, I mention that possibility. That was something that made an impression on me, so I think it might on others too. Law of intensity! I think I better say this is done at altitude, not down low. [I] don't want anybody to misinterpret my words.

After I got my Twin I did a BFR/MEI refresher with the CFI I got my MEI with in his Comanche. His was a CR model with VG's and rudder gap seals. When I did the VMC demo in mine, that initial loss of control started two to three mph faster than red line (despite banking into the good engine), so he thought I didn't have full rudder in. He did one and realized the difference between mine and his was significant.

So it goes without saying that there is a difference. I'm guessing it was primarily the VG's but I'm not sure.

Rol

The statement that the FAA doesn't demand to see a VMC demonstration is not quite correct! I am a DPE and I just completed my multi-engine check ride with my Inspector for my LOA in a PA44 vesterday. The FAA certainly does want to see a VMC demonstration for the commercial pilot rating. We talked at length about VMC and "blocking" the rudder. The PTS states under Note number two, "Airplanes with normally aspirated engines will lose power as altitude increase because of the reduced density of the air entering the induction system of the engine. This loss of power will result in a VMC lower than the stall speed at higher altitudes. Therefore, recovery should be made at the first indication of loss of directional control, stall warning or buffet." So we went up to 4,500 feet and did a VMC demonstration. At 60 KIAS, the stall warning horn came on well before we came to the end of the rudder authority!

My suggestion is if you want to actually (and safely) see what VMC looks like, is to block the rudder. The result is a higher VMC speed with the nose starting to swing away from the horizon.

Hope this helps, Linda (I have a Miller TwinCo)

Welcome to the group and thanks for the input. It has been a long time since I have instructed someone for a multi-rating, but I recall always doing VMC demos ... gingerly.

Kristin

Linda.

Welcome to Comanche flying. I read your statement about your Twin being a Miller conversion. I too have a Miller and they are very capable performers.

It's very probable that you are well aware of this, but saying it again does not hurt. If you ever lose an engine prior to VMC, absolutely ensure that the good engine is reduced to 17 inches of manifold pressure or less. The Miller is an aggressive beast and will snap over on its back in a proverbial "New York minute." If this occurs at less than 4,000 to 6,000 feet AGL, the probability of survival is very slight.

I'm fearful that this was at least a contributing factor in the fatal crash of one of our departed members, Dave Mack.

Wishing you a lot of the greatest flying, Pat A.

The "Approved" by the FAA way of handling the PA30/39 VMC demo is to not block rudder, but to block aileron. This is the way that the examiner in this area has been instructed to do it by the FAA and it works very well. The TwinCo behaves very much like an aircraft with much more HP and greater margin between stall and VMC.

The technique is simple. Climb to 5,000 agl (as per the AD limitation imposed on the PA30 by Piper when the VMC was changed). Set idle power on critical engine, full power on right engine (or whichever opposite on C/R). The pilot demonstrates the VMC by gradually reducing airspeed by about three mph/sec while increasing right rudder and right aileron. The CFI/ Examiner puts his fist on his knee under the right side of the yolk (or the side of the operating engine if in C/R) and leaves it there as a stop. The rudder is allowed to go to the floor but without aileron the aircraft starts to roll off to the left well above stall, at which there is plenty of time to smoothly retard power and regain control for a proper VMC demo, instead of a stall recovery. It is not the way it will happen in real life in a TwinCo, but it is like what a larger more powerful aircraft does. As for the rating, it qualifies you to fly all MEL non turbojet up to 12,500 pounds after all, why not train to deal with a REAL VMC event. I am a CFI MEI with many hours training in the PA30/39 and this technique takes ALL of the mystery out of how the aircraft will perform and how we come out of the maneuver. It is much more accurate than the checking of the rudder because you have a consistent reference EVERY time.

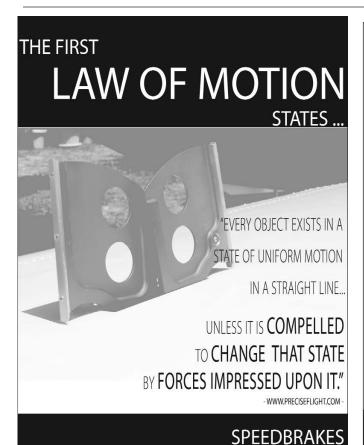
Zach

My suggestion that came from an examiner is, no matter what "demo," "test," or other maneuvers you do, set the floor at 5,000 feet agl and then go above that to do your work. Remember that 5,000 feet is the floor and not 4,999! If there is a problem, then you still have 5,000 feet to work it. [It's the] best advise I have ever gotten. Short and sweet there was a guy in New Hampshire selling a Twin Comanche simulating a engine failure in real conditions and it went south and he is no longer with us.

Hope this helps.

Paul

Continued on Page 12



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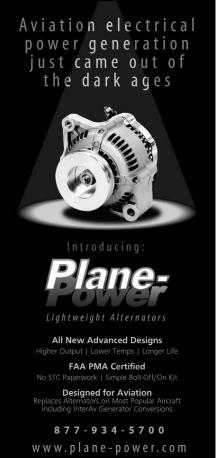
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While you are correct, a fully developed flat spin following an upset is a very dangerous situation, we must look at why the aircraft got into the situation. Most of the time it is gross misunderstanding of the aerodynamics at play or it is gross mismanagement of the controls available to the pilot. The VMC demo is a swift maneuver if it goes south as the laminar flow wing stays in there to the end, but then gives up all at once. This is exaggerated by the fact that the wing with the good engine is blown and so artificially has a reduced angle of attack. This is the rollover scenario if the aircraft is allowed to stall during a VMC demo (usually due to aggressive deceleration). Unfortunately the first reaction of most pilots is to try and roll the wings level again only adding to the problem as a gross cross control situation is introduced. The good engine running at full power is acting as a full rudder deflection opposite the ailerons.

In basic terms, there are two things required to spin an aircraft. One is the aircraft must stall, and the other is a rotational force must be introduced. The way you make an aircraft go "flat" in the spin is to fly it around the spin with power. Hmmm. So if you follow the logic, it is no mystery that if you simply PULL THE POWER OFF THE GOOD ENGINE IMMEDIATELY, AND SIMULTANEOUSLY CONTROL THE AIRCRAFT WITH COORDINATED CONTROL INPUTS, then the worst case scenario is a power off clean stall recovery.

I have not addressed the flight test accidents as they were just that, and they exceeded the design limitations by a good margin. By the way, Clay Lacy was the PA-40 test pilot that abandoned ship and the aircraft was loaded some three inches AFT of design limit CG for the tests. As I stated before, the ground is unforgiving when struck by an airplane. Altitude is not only smart, it is MANDATED BY FAR's because it is part of the PA-30 (by AD) and PA39 operating limitations. Five thousand feet is the minimum altitude for VMC demos. The FAA learned the hard way.

It used to be you had to do them below 1,500 feet in order to get the maximum differential power demonstrated. The low altitude killed a lot of people, not just in Twin Comanches but in many other light twins as well. Doing a VMC demo in a Twin Comanche is easy and predictable if the ailerons are checked. VMC will happen with a pronounced yaw/roll away from the good engine well above stall speed of the unblown wing, and thus the good engine can be throttled back to maintain control in a calm nonemergency manor and the student is taught something useful, not scared into hysterics.

Zach

The approved flight manual for the PA39 and the AD that raised the VMC from 80 to 90 on the PA-30 (can't remember the AD number) both contain this limitation. It also stipulates a minimum intentional single engine speed, and prohibits single engine stalls. There is no regulation that mandates 5,000 feet but as a limitation you are bound by the FAR's to observe ALL limitations set forth for an aircraft type in the Twin Comanche, by AD, or STC.

Hope that helps.

Zach

Check your POH. Under Section Three (Operating Instructions) – Stalls, states "When practicing stalls maintain minimum terrain clearance of 5,000 feet." (Page 34 in mine, a straight PA-30.)

While somewhat obscure and not specifically listed as a limitation, as Zach states I would also guess it would legally be taken as one. I remembered it because it made an impression on me when my instructor pointed it out saying the DPE I used is a BIG Twinkie fan and would know it where others might not. (PTS states no lower than 3,000 AGL).

Rob

Our thanks to Dale Vandever for compiling this text. You can view these messages in the context of the entire discussion by going to: http://forums.delphiforums.com/comancheflyer.



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Comanche Accidents for September 2006 and a Case

by Omri Talmon, ICS #7949

9.1

Make/Model: PA24 Date: 09/02/2006 Location: Gallup, N.M.

Description: Aircraft landed, the gear collapsed and aircraft rolled off runway. One person on board, no injuries.

Damage: Unknown

9.2

Make/Model: PA24 Date: 09/03/2006 Location: Cadillae, Mich.

Description: Aircraft on landing, gear collapsed. Four persons on board, no

injuries. **Damage:** Minor

9.3

Make/Model: PA30 Date: 09/11/2006

Location: Shreveport, La.

Description: Aircraft on taxi, left wingtip elipped the nose of another aircraft, N8250V, a PA28. Three persons on

board, no injuries. **Damage:** Minor

9.4

Make/Model: PA24 **Date:** 09/18/2006

Location: Long Beach, Calif.

Description: Aircraft on takeoff roll, gear collapsed. One person on board,

no injuries. **Damage:** Minor

A Case

[Considerably abridged for space requirements]. Accident occurred Tuesday, September 24, 2002 in Ankeny, Iowa. Aircraft: Piper PA-24-260 Injuries: One Fatal, Two Serious.

The airplane was destroyed when it impacted the terrain during takeoff climb from runway 18. Witnesses reported seeing the airplane bank left after raising its landing gear about 100-150 feet agl. [The witness's reports are detailed in the Full Narrative section]. The nose of the airplane hit the ground and the airplane spun around, but did not cartwheel, before it came to a stop. Inspection of the engine revealed it rotated and had thumb compression and suction on all cylinders. The propeller blades had rotational scoring of the paint on camber side of the blades, but no twisting or deformation of the tips. The propeller governor's pressure relief valve spring was found broken as a result of a fatigue fracture. A functional test of the propeller governor revealed that the pressure relief setting and the pump capacity were well below specified minimums. The terrain south of runway 18 at IKV was an open field with few obstacles.

The National Transportation Safety Board determines the probable cause(s) of this accident as follows:

The pilot applied an excessive angle of bank and failed to maintain terrain clearance. An additional factor was the pilot's attention being diverted.

Full Narrative History Of Flight

On September 24, 2002, at 1313 Central Daylight Time, a Piper PA-24-260, N8782P, was destroyed when it impacted the terrain during takeoff climb from runway 18 (5,500 feet by 100 feet, concrete) at the Ankeny Regional Airport (IKV), Ankeny, Iowa. The private pilot received fatal injuries and the two passengers received serious injuries.

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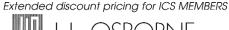
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The Title 14 CFR Part 91 personal flight was departing IKV and the intended destination was the Lee C. Fine Airport (AIZ), Kaiser, Missouri. Visual meteorological conditions prevailed. An instrument flight plan was filed but had not been activated.

The pilot had received a weather brief from a Direct User Access Terminal Service (DUATS). He filed an IFR flight plan with the Fort Dodge Automated Flight Service Station (FSS). The airplane received an IFR clearance on the ground from Des Moines Approach Control at 1312, but the airplane never contacted Des Moines Approach Control to activate the clearance.

The pilot of a Piper Saratoga that was holding short for takeoff from runway 18 witnessed N8782P departing runway 18. The pilot reported seeing the accident airplane takeoff and raise its landing gear and immediately bank left after it had climbed no more than 300 feet above ground level (agl). He reported the airplane appeared to be entering a left downwind when the airplane's nose went down and impacted a field east of the runway.

A witness, who was walking north in front of one of the airport's hangars, reported observing the accident airplane takeoff from runway 18. He reported that the airplane looked and sounded normal. He reported that when the landing gear was raised approximately 150 feet agl, he heard the engine overspeed. He reported the overspeed lasted a few seconds and then the engine sound returned to normal. He reported seeing the airplane enter a left turn, which to him appeared normal. He did not continue to observe the airplane and did not see it impact the ground.

A witness, who was walking south in front of one of the airport's hangars, reported that he saw the airplane turn left after takeoff. He reported the airplane entered a steep left bank, approximately 80 degrees angle of bank. He reported the nose dropped and the airplane lost altitude. He reported that as the airplane approached the ground the bank angle was reduced to about 30 degrees. He did not see the airplane impact the ground due to trees obstructing his view.

Continued on Page 16

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The father-in-law of the pilot reported that he and his wife were passengers on board the accident airplane. He reported the pilot preflighted the airplane while they waited at Exec One Aviation, a local fixed base operator. When they boarded the airplane, he sat in the right rear seat while his wife was in the right front seat. The pilot and front seat passenger wore their seatbelts and shoulder harnesses, while he wore only the seatbelt since a shoulder harness was not available.

reported that he thought the airplane's engine was no longer missing, but was operating normally when the airplane impacted the ground. The witness reported that he remained conscious, but the pilot and front seat passenger were both knocked unconscious. The witness crawled through the broken front windshield, and was then able to assist the right seat passenger out of the airplane. He reported that fire had started to engulf the airplane and he was not able to extricate the pilot.

"The inspection revealed that the pressure relief valve was the same type originally used by Hamilton Standard, but which Hartzell had stopped using in 1967. There was no indication the propeller governor had ever been overhauled."

He reported that the airplane taxied for takeoff and while they were number two for departure, the pilot conducted a "runup" and everything appeared normal.

The passenger reported that during takeoff about 100 to 150 feet agl, the engine sounded like it was "missing." He reported that the pilot said, "This isn't right," and reached to adjust something and momentarily the engine smoothed out. The pilot made a radio call (which the witness could not hear) and banked the airplane to the left. He reported the nose and left wing dropped and the airplane's left wing impacted the ground with about a 30 degree angle of bank. The nose of the airplane hit the ground and the airplane spun around, but did not cartwheel, before it came to a stop. The witness Emergency responders arrived at the scene and had the two survivors transported to a local hospital. The fire prevented them from rescuing the pilot.

Personnel Information

The 49-year-old private pilot held single engine land and airplane instrument ratings. He held a Third Class medical certificate that was issued on November 8, 2000. He had a total of about 570 flight hours with 187 in the same make and model as the accident airplane. He had flown about 60 hours in the last 90 days.

Aircraft Information

The airplane was a single engine Piper PA-24-260, Comanche, serial number 24-4235. The airplane seated four and had a maximum gross weight of 2,900 pounds. The engine was a 260 horsepower Lycoming IO-540-D4A5 engine. The airplane was equipped with LoPresti engine cowl, propeller, and gap seal modifications.

The last annual inspection was conducted on June 21, 2002. The airplane had flown 80 hours since the last inspection and had a total time of 3,654 hours. The last maintenance performed on the airplane at 3,645 hours was on September 13, 2002, when a fuel totalizer was installed.

The engine had 1,623 hours since overhaul, and the propeller had 1,219 hours since new at the time of the accident. The maintenance records indicated the airplane was in an airworthy condition.

Meteorological Conditions

At 1325, the recorded weather at IKV was: wind 130 degrees at 8 knots, sky clear, visibility 10 statute miles, temperature 18 degrees Celsius, dew point 5 degrees Celsius, altimeter 30.29.

Wreckage and Impact Information

The airplane wreckage was located in a harvested cornfield about 600 feet east of runway 18.

Post-impact fire consumed a majority of the fuselage between the engine firewall and the empennage. The mixture, throttle, and propeller controls were found in the full forward position. All flight controls and aircraft components were found at the accident site. The landing gear was found in the up position. The flap jackscrew was measured at four inches which indicated 20 degrees of flaps. The flap cables were attached to the flap mechanism. The flap position indicator was destroyed by fire.

The outboard wing fuel tanks in both wings were found intact and containing fuel. Fuel samples were examined for color, odor and clarity. There were no indications of fuel contamination. The fuel selector was functional and found to be on the left main fuel tank.

The examination of the engine revealed that the crankshaft could be rotated, and valve train and the accessory gears exhibited continuity. All cylinders exhibited compression and suction. The magnetos were fire damaged and could not be tested. The inspection of the spark plugs revealed no anomalies. The fuel servo inlet screen, oil filter element, and oil suction screen were found free of debris.

Medical and Pathological Information

A Forensic Toxicology Fatal Accident Report was prepared by the FAA Civil Aeromedical Institute. The report indicates the following results:

[Chemicals resulting from the fire], 0.119 Sertraline detected in blood, Sertraline detected in liver. 0.142 (ug/mL, ug/g) Desmethylsertraline detected in blood.

Desmethylsertraline detected in liver. Sertraline is a prescription antidepressant. Desmethylsertraline is a metabolite of Sertraline.

Tests and Research

The fuel servo was inspected [and] the inspection revealed the fuel servo had received fire damage that prevented functional testing of the unit. No pre-existing anomalies were found.

The three-bladed Hartzell propeller, model HC-C3YR-1RF with F7590 blades, was inspected at Hartzell Propeller Inc., in Piqua, Ohio. The inspection revealed the following information:

[Description of blades]

The Hartzell report stated that the damage to the propeller blades "suggested that the engine was developing little or no power at the time of impact." The report stated, "There were no propeller discrepancies noted that would have precluded normal operation. All damage was consistent with impact damage." (See Hartzell Propeller Inc., Aircraft Incident/ Accident Report No. 020924).

The propeller governor, F4-4, serial number 823U, manufacture date October 26, 1964, was inspected at Hartzell Propeller Inc., in Piqua, Ohio. The inspection revealed that the propeller governor's component parts were originally manufactured by Hamilton Standard, and Hartzell remanufactured the propeller governor in 1964 for use in its PA-24-260 application.

The inspection revealed that the pressure relief valve was the same type originally used by Hamilton Standard, but which Hartzell had stopped using in 1967. There was no indication the propeller governor had ever been overhauled. The Hartzell report stated, "Since 1967 Hartzell has specified different, Hartzell manufactured, pressure relief valve components. Replacement with the later components at overhaul has been long standing common practice and is further

required by Service Bulletin 176 dated November 15, 1991."

The propeller governor was run on a governor test stand. [All results are out of specifications]. Inspection of the pressure relief valve spring revealed it was fractured.

The Hartzell report stated, "Deficient pressure and pumping capacity was noted during governor testing and was attributed to a broken pressure relief valve spring. Such deficiency might cause a propeller to operate at reduced blade angle and higher than normal RPM

after take-off." (See Hartzell Propeller Inc., Aircraft Incident/Accident Report No. 020924).

Additional Information

The Piper Comanche, PA-24-260, Owner's Handbook stated that the flap setting for a minimum takeoff run was 15 degrees of flaps. There was no requirement for using 20 degrees of flaps. The flap system installed on the PA-24-260 is electrical and the flaps can be lowered and stopped in any desired position.

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The terrain south of runway 18 at IKV was an open field with few obstacles.

Discussion

It should be noted that the NTSB cites, as the probable cause(s), only the inadequate technique of the pilot, so let's discuss it first.

When is the time to retract the gear on takeoff? I was taught to do so once it's not possible to land back on the remaining runway or, in certain cases, on the terrain past the runway if it is suitable for landing gear down. In this case, the runway was 5,500 feet long, followed by an open field. It seems that the pilot rushed too quickly to retract the gear.

Engine trouble on takeoff: The general rule is to abort the takeoff, if possible. and roll out on the remaining runway. If the aircraft is airborne and past the point where landing on the runway is not possible, land straight ahead (plus or minus 45 degrees left or right). If the engine does develop partial power and there does not seem to be an immediate probability of losing it altogether (good question: How does one know?) try to return to the runway, for example, by a teardrop turn and downwind landing.

However, an iron-clad rule is, fly the aircraft at all times. Flying low and slow is definitely not a time for diverting attention. I was taught that the first action after a low-altitude single engine power failure (and, in the case of a twin, losing an engine) is an immediate yoke full forward until reaching glide attitude (or single engine attitude for a twin) to preserve flying speed.

Use of flaps on takeoff: This is a controversial issue. There is always a possibility electric flaps can retract in an asymmetric manner, a very undesirable condition right after takeoff. Flaps can create drag. For these reasons, as I wrote more than once, I use flaps on takeoff only if the prime consideration is to get off the ground as quickly as possible. I have faced such conditions only twice in my 34 Comanche years.

Medication: The pilot was taking Sertraline (brand name: Zoloft), a prescription drug which means he consulted a physician. As far as I know this drug is generally not prohibited for pilots. However, the reaction to medications and to circumstances requiring visits to physicians are highly individual and vary between persons. It is up to us to decide whether we are fit to fly, even if the rules do not absolutely prohibit us from doing so. We have, of course, no idea what the specifics were in this case.

Finally, maintenance: Cutting corners on the maintenance of critical systems is hazardous. In this case, however, it was not mentioned that the Hartzell Service Bulletin was followed by an AD. If this was the case, compliance is not mandatory. Yet, not overhauling the propeller for over 11 years, possibly 35 years, and many, many hours may be legal but it is certainly not good practice from a maintenance point of view. Further, as far as I know the propeller governor should have been overhauled together with the engine. Apparently this was not done.

Lessons

Always fly the aircraft in deference to any other action, in particular when low and slow.

Proverb

Take care of your engine. In flight, it's the best friend you've got.



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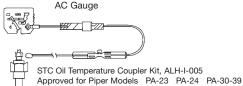


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C O M A N C H E



Cover Story: Comanche Spirit

What's Not to Love About a Twin Comanche!

By Dwight Ewing, ICS #15029

In late 1963 Frank Lambe, a Piper dealer and owner of Fresno Piper, in Fresno, Calif., caught me as I was getting out of my Beech D-18S, and insisted I fly his latest arrival – apparently the first Twin Comanche delivered to a dealer in the Central Valley of California. I liked the airplane immediately, but was still in love with Ol' Awkward (the D-18S), locking tail wheel and all! I was so used to flying the Twin Beech, I flared way too high in the Comanche, and if it had not been for Frank's quick shove on the control column, I might have bent that little hummer. I remembered the incident well, but also remembered was how much that airplane delivered in the way of economical performance.

In 1977 the Fresno Piper dealership was owned by the late Dale Ewell, and he found a good 1969 Turbo-Aztec he thought I might like. Parked beside the Aztec, was this beautiful, low-time 1964 Twin Comanche. However, Dale finally talked me out of the Twin Comanche, because he knew my wife Veta and that we had three children – the Aztec would be much more suitable for family trips. That was another great opportunity missed.

Fast forward to September 2005 when Jim Moore, a member of the International Comanche Society and living near Boston, Mass., had his 1967 Twin Comanche for sale. At that time our little company owned (and still does) a 260 Comanche, thus I was privy to the excellent *Comanche*

Flyer magazine, and still read every word, advertisements and all! After talking several times with Jim, a retired UAL Captain, I decided to red-eye back to Manchester, N.H., rent a car, and meet him. I liked Jim immediately, as well as his airplane. The deal was made in about twenty minutes, and after arranging for a new annual, I red-eyed back to San Francisco.

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▲ Veta with the Twin Comanche



There was considerable difficulty in arranging the insurance for my new airplane, as I had no time in a Twin Comanche. I crossed that hurdle when I learned that at the Merced FBO, Tom Lopes was giving a seminar on the care of the Cirrus aircraft in Duluth, Minn. the day before the annual on the Twin Comanche would be completed. Tom, with an aviation history as long as my arm, was readily accepted by Avemco (the insurance agency) as the pilot-incommand for the trip back to Merced.

We launched from Gardner on Saturday evening with threatening weather all around us, but were anxious to at least get going as the plane was supposed to be ready for me at 8:00 a.m. that morning. After a little over an hour, most of it in the dark, we landed at Binghampton, N.Y. The next

morning the weather held us on the ground until 10:30 a.m. We arrived in Laramie, Wyo. at 8:00 p.m. after an extremely pleasant flight. One of the highlights was passing abeam of O'Hare with visibility at 20 miles and crystal clear! The following morning with an 8:30 a.m. takeoff, we were in Merced right before lunch. Tom analyzed the flight with his computer and felt that the modifications that Jim Moore had made to the aircraft increased the block speed by approximately 15 miles per hour.

The modifications mentioned are WOW cowls, wheel well spats, flap seals, Knots 2U strobe, with switches on the control wheels for mikes, electric trim, and map lights, as well as the gap seals for the flaps. Jim had also installed the small nose wheel, alternators, and a voice-activated intercomm.

"I love my Twin Comanche, it's the opportunity I finally got my hands on!"

Since then, working with Knots 2U and LoPresti as well as several others, the following has been added: The Arapaho windshield and cuff, the Johnston wing tips, Vortex Generators for the wings and vertical stabilizer, the wing fillets (fore and aft) and the Arapaho dorsal fin, in which all the top antennas were placed. Dave Johnston, who owns Johnston Aircraft Service in Tulare, Calif., while installing his beautiful and carefully designed wing tips, also installed the high intensity landing lights. These landing lights, creating no heat, are really an advance in airport area traffic recognition.

I know that one's car, after being washed and polished gives the owner a quieter, softer ride, with much more acceleration, and is noticed by all, and so it may be thus with the addition of aircraft modifications! However, it does appear that the above additions have increased lateral control at approach and touchdown speeds, and has not adversely affected the high end, which to be accurate, is noticeably faster!

During the past year, Veta and I have flown to Kanab, Utah on numerous occasions to visit our daughter Georgia and her husband Jim. It was while there that Dick and Sharlotte Brewer, the popular couple who own the FBO at the Kanab Airport, agreed to help Jim, who after retiring as a surgeon on Maui, has made photography an important hobby – he took the aerial photos which are highlighted in this story and on the cover.

The scenery is always enjoyed by those of us from the San Joaquin Valley, with the beautiful multi-colored cliffs making a gorgeous backdrop, whether riding horses, or flying Comanches! The airport is right at the edge of town, and Dick and Sharlotte go out of their way to make the flying traveler feel welcome, so do not hesitate to drop in!

I love my Twin Comanche, it's the opportunity I finally got my hands on!

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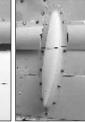


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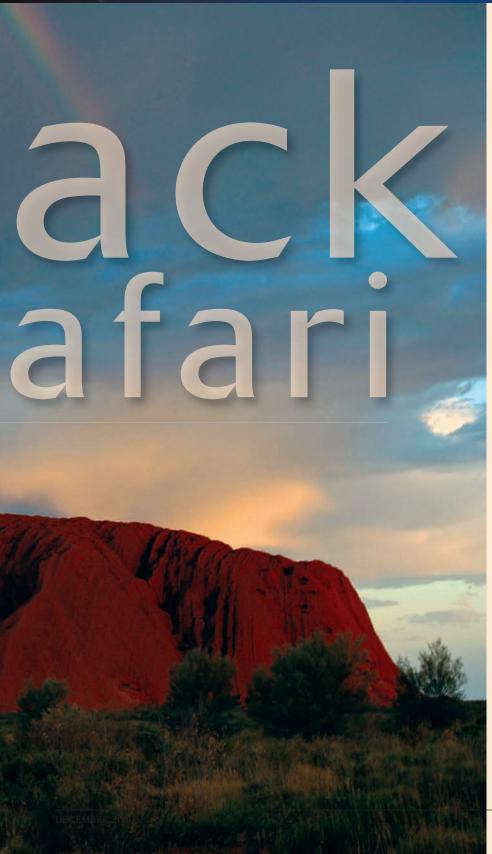
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by Phillip Reiss, ICS #14493

B From the Logbook



ur trip originated with an invitation from Rob Hendy to attend the Commander Fly-in scheduled for the weekend of October 14-16, 2005 at Charleville. My wife, Valerie had never seen the Red Centre, so I suggested we attend and also visit Broken Hill, Ayers Rock and Alice Springs. The route was subsequently expanded to include Griffith for a business meeting and also Coober Pedy, Kings Canyon, Boulia, and Longreach. We intended to visit our daughter Emma in Coolangatta after the Fly-in and finally return home to Sydney.

My Twin Comanche, VH-HPR, has had a complete makeover since I purchased it - a re-paint, new interior, extensive mechanical work, Knots 2U speed mods, special attention paid to the rigging and new instrument panel, Garmin Avionics suite, Colour Radar and Stormscope. The aircraft is fast boasting 175 knots TAS at 6,000 feet and 75 percent power while both engines were topped at 1,000 hours. Baffling mods were also done to reduce cooling drag and improve performance; this trip would be a good test. In my opinion, the Twin Comanche is the best personal light twin ever built and a great cruising aircraft - I will admit to a slight bias!!

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We could only spend one night at Charleville arriving on Saturday just after lunch for the Fly-In and leaving on Sunday around the same time. The timing was dictated by the need to be in Griffith for our business meeting on a weekday, so Monday the tenth had to be our Sydney departure date.

The trip would take eight days, two nights spent in Alice Springs allowing two extra days for sightseeing there. Valerie would see all the major places of interest and get a good overview within those eight days. The trip also could not have any flight leg longer than two and a half hours – Valerie's stipulation as she does not like flying, well not in a light aircraft even if it has two engines!! This suited me – Twin Comanche endurance seven hours plus reserves, the captain four hours max, no reserves!!

Monday, October 10, 2005

We had decided on a leisurely departure for an easy first day, Hoxton to Griffith. The flight was smooth despite 30 knots of headwind and the country looked great, having had good rain over the previous three months. We were above a broken layer of puffy cumulus clouds, the Canola crops stood out in their yellow amongst the green of the paddocks below. On approach into Griffith, we flew over Casella's tank storage vats – several acres of stainless steel vats about 50-feet high containing thousands of litres of wine. Casella is the largest wine exporter in the world to the United Sates. Thirty-six container loads of bottles are trucked out of their Winery every day.

We stayed at the Victoria Hotel right in the centre of town and walked a lot – 9.4 kilometres to be exact (I have a pedometer). I slept well that night after a good Italian meal at Vita's just down the road from the hotel.

Tuesday, October 11, 2005

The flight to Broken Hill was filed as a VFR flight. There were again strong headwinds, so our planned one-hour, 40 minute flight potentially became one-hour and 50 minutes. The flight was smooth in the cool morning air. I initially climbed to 6,500 feet but didn't like the 35-knot headwind, so I came down to 4,500 feet and a headwind of 15 knots and we were back to our planned flight time. This was to be the pattern during the trip, chase the best altitude either for favourable winds, or to avoid turbulence.

On descent into Broken Hill, I made my MBZ call, then a call to Melbourne Centre; a familiar voice came over the radio, "G'day Phil." My reply back, "Who's that?" "Victor," the voice replied. "Hi Victor," I replied. Then a female voice came on, "G'day Phil," followed by several other voices all piping in – pilots do have a sense of humour. Victor owns an immaculate Mooney and is a Captain flying Saab 340s for REX, a regional Airline, and a friend who often pops in to my hangar at Hoxton Park for a chat. We landed about 10 minutes ahead of REX. While I was securing our aircraft, Victor hitched a ride over from the main apron to the GA parking area on a BP Fuel truck. We had a chat and a good laugh over my puzzled reply. I had not expected anyone to know me or my aircraft around Broken Hill, so although the voice was familiar, I could not put Victor's name to it (the female voice was Victor's Co-Pilot, the others – who knows!).

Our accommodations were at the Silver Haven Motel in Broken Hill, about three kilometres from town and run by Bill and Denise (I never did find out there surnames). Bill had said to ring him when we arrived and he would pick us up from the airport. He did better than that, driving us to all the places of interest in the town including a trip to the top of the Tailing's dump, a hill about 200 metres high and about six-square kilometres in area - a great spot to view the town. When you consider that all of the material came from underground, mainly under the town, it gives you an appreciation of the magnitude of the BHP mine.

The motel was spotless and comfortable. Bill took us into town after we had checked in. We walked the length

of the Main street both sides, had lunch and visited the Broken Hill Co-Operative Art Gallery which has a superb collection of paintings housed in a well-restored, old building. Previously a Stock and Station Agency (a retail store at ground level, with a storage warehouse on the upper floor), it still had the original Gallows hoist, used to lift heavy items to the top floor, still in place. Valerie, a Fine Arts graduate and a talented painter in her own right, appreciates quality work and has little interest in the paintings-for-tourists style of gallery.

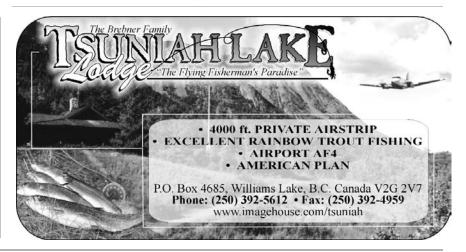
Wednesday, October 12, 2005

Airborne by 0800 for the flight to Ayers Rock via Coober Pedy, the winds were as forecast and slight turbulence. Our flight time was two hours and 30 minutes to Coober Pedy.

Noel Tippett ran the Coober Pedy Taxi service, but stopped about two years ago. However when I phoned him, he offered to take us on a tour. Noel runs a Budget rental agency among other things, including a mine. The arrangements were casual – he said, "Ring me when you get in and I will pick you up."

After refuelling I rang Noel, expecting that he would have forgotten who I was over the ensuing three weeks, but true to his word he was out to pick us up within ten minutes. He took us into town, pointing out places of interest and dropped us off at the Desert Cave, an underground Hotel where we had lunch. Noel returned after lunch to show us more of the town and the underground homes – they are cut into the sides of hills and maintain an even temperature year round. He also took us down his mine which he runs as a tourist attraction.

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Valerie was horrified at the thought of the miners lowering themselves down a metre diameter shaft, on a seat powered from a winch on the back of their trucks above ground and controlled electrically by a hand-held switch. Noel pointed out it was quite safe, as the seat had the cut-off top of a 44-gallon drum fastened to the cable above their head, to protect them from falling rocks! Fortunately we entered his mine by a long sloping ramp about three metres wide, with two metres of headroom.

From the air Coober Pedy looks like a moonscape, so many holes and craters as if a million giant demented Gophers have run amok. There is a real mixture of races – Greeks, Slavs, Croatians – most of the world's population is represented. It has a "Wild West" feel about it. You expect a "high-noon" shootout at any moment, but in fact the place is relatively peaceful.

Noel dropped us off at the airport and expecting to pay something in the order of \$50.00 plus I said, "What do I owe you Noel?" His reply, "\$30.00 will cover it." I was pleasantly surprised and paid him cash. I guess it was just beer

money for him and a diversion from the normal. He was a good, friendly bloke – one of many we were to encounter on our trip.

The flight from Coober Pedy to Ayers Rock was rough. The afternoon heat was providing a constant turbulent flow of rising air. Although the scenery was spectacular, the constant bouncing around got tiresome. Mt. Connor could be seen from about 100 miles from Ayers Rock and initially can be mistaken for The Rock as it is a very similar shape, but well to the east of our route. Valerie had never visited the Outback and was keen to see The Rock and Alice Springs. I was eager to show her the area and some of the places I had flown into during my early professional flying career. Consequently, I sounded like a tour guide as I aired my so-called knowledge - often getting it wrong. I claimed things had changed a lot in the ensuing years
- I can't admit to a failing memory!

Ayers Rock (Uluru the aboriginal name for The Rock) appeared right on schedule - a spectacular, red Monolith of pure rock, unlike the Olga's (Kata Tjuta the aboriginal name), which are a composite of sedimentary rock. We flew right past The Rock heading for the airport. I pointed out the "brain" (weathered erosion about half-way up the south-eastern side, almost as if some ancient sculptor had carved his rendition of the human brain) to Valerie. I decided against doing the Rock-Olgas circuit. Time was of the essence – we had to pick up our rental vehicle by 1600 and I also wanted to maximize the daylight hours for a ground-level visit to The Rock.

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▲ Viewing the sunset at Ayers Rock (Uluru).





We landed at 1530 after a two-hour flight, secured the aircraft and picked up our rental four-wheel drive. We drove into the village and checked into the Lost Camel Hotel, then set out for a drive to and around The Rock. Valerie felt it was far more spectacular from the ground and was in awe of the sheer size and grandeur of this ancient Monolith. We walked along the various trails, saw aboriginal rock and cave paintings and fought a constant battle with the flies. Deciding then and there to buy the fly nets that everyone was wearing over their hats and heads (which we initially found amusing), we quickly became converts. Having walked the obligatory nine-plus kilometres, we parked in the viewing area to watch the sunset on The Rock and the play of changing colour.

Thursday, October 13, 2005

Breakfast following an early rise got us away a little after 0800 for the drive to the Olgas. The country looked fantastic. A recent rain brought the desert to life and the drive was great on all sealed, very good roads. We walked up into the Olga Gorge, a constant gradient for about two-and-a-half kilometres. Fortunately, I had a small backpack containing several bottles of water, as the heat reflected off the rocks can be dehydrating.

We drove back to the airport; Valerie returned the rental while I prepared the Twin Comanche for our flight. I had planned to fly into Kings Creek Station, where I had arranged a tour of Kings Canyon, and then on to Alice Springs late that afternoon. I had refuelled and was taxiing out when a massive thunder storm moving rapidly towards the airport changed our plans – discretion taking precedence over valour.

We sat out the storm in our aircraft, the rain bucketing down, the Stormscope and Radar painting a grim picture. After an hour, the storm passed but I was getting concerned about the deteriorating weather conditions. I called Kings Creek Station, cancelled our tour and amended our IFR flight plan for Ayers Rock Alice Springs direct. I was not too keen on going into a dirt strip and finding that I could not get out when it turned to red mud.

There was still a line of CBs, (whatever you call them, I call them frightening) across our route to Alice Springs, but I reasoned I would deviate north of track to go around them. Delaying

our departure much longer could impact our chances of getting into Alice Springs, as the weather was moving that way. I calculated I would be in Alice an hour ahead of the weather, if I left immediately and I had sufficient fuel for a number of alternates, so I took off and set course with a deviation to take me 30 miles left of track.

had paid attention during Captain Dave Gwinn's lecture on the use and interpretation of Weather Radar. One consolation – we did have a good ground speed of 215 knots, in spite of having the power pulled way back to maintain safe turbulence penetration speed. We broke clear of clouds 50 nautical miles from Alice Springs and

"Picking a path between cells, avoiding the red and yellow and taking the green where necessary, I told Valerie to tighten her seat and shoulder belt (mine was already cinched up hard). I finally got past the line of cells. It was a rough ride, but we did not get hit by hail or lightning and I never felt at any time that the situation was not manageable."

The Stormscope was black with lightning activity, showing no way through, but the colour radar painted a better picture. I called Brisbane Centre for a further 30-mile diversion (making it 60 miles in all) but could not get around all of it. Picking a path between cells, avoiding the red and yellow and taking the green where necessary, I told Valerie to tighten her seat and shoulder belt (mine was already cinched up hard). I finally got past the line of cells. It was a rough ride, but we did not get hit by hail or lightning and I never felt at any time that the situation was not manageable. I was, however, glad of my experience flying Boeing and other jets in similar and worse weather conditions over many years and very thankful I landed with a big sigh of relief from Valerie and the statement that she never wanted to fly in that sort of weather again.

Just after we landed, there was a SIGMET issued for Alice Springs Airport for 50-knot wind gusts rain and hail. One hour after landing and while loading the rental car, the heavens opened up with wind gusts and torrential rain (but no hail) and it continued until the early hours of next morning. I was glad I made the decision to leave Ayers Rock Airport just after the storm passed over. Had we left a half-hour later, we would not have been able to safely make Alice Springs.

Continued on Page 32



Friday, we spent the morning exploring Alice Springs with a visit to the old Telegraph Station (the original site for the town). The construction of the overland telegraph line in 1870 to 1872 allowed Australia to communicate with the rest of the world via the underwater cable from Singapore to Darwin. Prior to this it would take three months or more for news to arrive from Europe to Australia. The Desert Park and of course all the art galleries were on our agenda and apart from the more touriststyle galleries, there were three genuine galleries. We were lucky to be in town at the same time as an exhibition of the works of the "Papunya Tula Artists" had just opened.

Friday afternoon we drove to the West McDonnell Ranges and took in its fantastic scenery. This was Albert Namatjira (an aboriginal artist who specialized in water colour landscapes) country. We visited Simpson's Gap, then Standley Chasm which was breathtaking in its form and colour. We continued on to Hermannsburg aboriginal community and the home to Namatjiri. Sadly he died at an early age (53 years) as do so many aborigines, a combination of poor nutrition disease and too often through drink. On the road to Hermannsburg, there is a monument to Albert Namatjiri and just out of Alice on the same road. the gravesite of John Flynn - founder of the Flying Doctor Service.

Thunderstorms in the afternoon and rain in the evening, commanded a decision to extend our stay an extra night. I rang my friends at the Fly-In to tender my apologies and cancel our participation. Valerie is not a confident flyer and I did not want to ruin her trip or put her off any future trips.

The pre-paid CDMA phone, as well as my mobile, ensured I had no problem calling Air Services each morning to get the latest weather. The area forecast and TAFs were sent via fax to the hotel/motel for each sector of the trip and occasionally I got it over the phone and wrote it out longhand. I would then adjust the time interval on my nil wind pre-prepared flight plans and file over the phone, with fuel uplift for the flight plus my two-hour reserve based on the forecast and new calculated flight time. The system worked perfectly and gave us flexibility and the confidence that we had covered all the bases, which was very necessary when you consider the inhospitable nature of the Outback to the careless, or ill-prepared.

Saturday we drove to the East McDonnell's, which are not-as-well vegetated. The hills are smaller and less spectacular. We did get to do some off-road driving, taking a nine-kilometre track into Trephina Gorge, through creek beds and along a stony, heavily rutted track. The road to Ross River Homestead looked interesting so we continued on.

Alice Springs is totally different than the way I remember it from 20 years ago. Todd Street is now Todd Mall, the old Stuart Arms Hotel is no more and there are now restaurants with outdoor dining (it is okay at night, but you have to do battle with the flies during the day), department

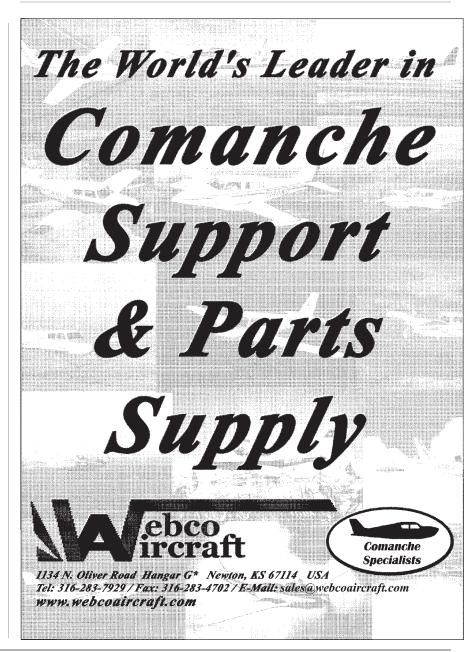
stores, supermarkets and of course the tourist gift stores. I think it is better, certainly cleaner and much more tourist-friendly.

Sunday, October 16, 2005

We departed at 0800 with clear skies and smooth air, at least until our descent into Boulia, two hours to the east.

Boulia has a good airport, population 300 people and must be a centre for something, since we only spent 27 minutes from landing to takeoff including refuelling, but I never did get to find out what. Why Boulia? Well, that stop was needed to comply with the Valerie edict – no more than two-and-a-half-hour sectors.

Continued on Page 34





The flight to Longreach got a bit bumpy for the last half-hour. We checked into the Jumbuck Motel after being picked up by Terry George, he and his wife Karen are a friendly young couple who run a good motel. Flying, walking and driving had finally eaught up with us and we crashed for an afternoon nap, surfacing at 1700. The motel is about two kilometres out-oftown so Karen drove us in for an early dinner at the Longreach Club, a great place for a good meal or a beer tastefully decorated in a modern style with indoor and outdoor dining, with a great ambience.

Monday, October 17, 2005

We had another early start. I decided to go all the way to Coolangatta (three-and-a-half hours) after negotiating with Valerie and explaining that we would have a smoother ride by staying up at altitude rather than descending, landing then having to climb back up through it again – she reluctantly conceded.

Seven thousand feet seemed to be a good altitude, just above the cloud cover that started out as few, became broken and finally overcast. The cloud climbed and so did we – 8,000 feet to finally 9,000 feet. We spent the last hour in clouds; the radar had a few colours, but nothing on our track. The flight went well, a few bumps during

the descent and we broke out of the cloud at 2,700 feet, four miles from the airport on a right base for runway 14. Naturally the tower requested a close approach to assist a Virgin Airlines 737 on a long approach. I powered back to idle with the nose up to get speed back from 160 to 120 knots, put the gear down followed by flaps, turning for a Stuka approach on final and a reasonable landing in spite of my efforts and clearing the runway to hear the tower give clear to land to the 737 – just the type of approach you need after breaking out of solid IFR almost on top of the runway. Still I must admit I did enjoy the challenge.

After securing VH-HPR, unloading and picking up our rental car, we drove to Robina to pick up our daughter Emma for a quick lunch. Later that evening she met us for cocktails and a good dinner at the Palazzo Versace where we were staying. I had decided that Valerie deserved the six-star hotel treatment after being such a good companion and I won't say fearless flyer, but certainly a courageous one and who despite not feeling comfortable flying in small aeroplanes, still came along.

Tuesday, October 18, 2005

An easy two-and-a-half-hour flight back to Hoxton Park had the Twin Comanche in its hangar; the car loaded and we were home at 1600. After nine days, 3,000 Nautical Miles (5,500 Kilometres), and a great holiday, it was even greater to get back home. Why is that? Perverse human nature, I suppose.

Aircraft Performance

The Twin Comanche performed flawlessly, was fast and comfortable, ideal for the trip and no unserviceability. It only required one litre of oil per engine for the full 19 hours. A good autopilot, two approachapproved GPS, ADF and Nav, plus Colour Radar and Stormscope made navigation safe and easy. VHF coverage was maintained throughout, except for an hour either side of Boulia. Covering 3,000 nm in 9 days, we averaged a block TAS of 157 knots.

In Summary

Would I do a similar trip again? Yes, but preferably in the winter months when it is cooler. Would I do it in the same time frame? Yes if time constraints dictated, but a few more days and a more flexible schedule would be better. Would I prefer a different aircraft? No way, the Twin Comanche was perfect for the mission.



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From the Tribe Chiefs

NORTHWEST TRIBE

Annual Christmas Party Fly-In, Blaine, Wash. December 15-16

This year's event will be held at the Resort Semiahmoo in Blaine Wash., December 15 and 16, 2006. Transportation will be provided from Blaine (4W6), and/or Bellingham (BLI) airports.

Friday arrivals will attend a no-host cocktails and dinner get-together.

Saturday activities being planned include a small winery tour and tasting, wine tasting at a local specialty gift and wine shop and a mystery tour all will enjoy.

There will be a Tribe 2007 Convention meeting on Saturday; however plenty of time will be made for your leisure. Saturday evening will be our Christmas Dinner and Party.

Sunday is for Semiahmoo's famous Brunch Buffet. We promise you will get a great variety and a lot of good food. We've put in our good weather order for walking the beach and enjoying the scenery.

Reservations should be made as soon as possible as we only have a small amount of rooms being held. If the reservations are made soon enough, rooms may be able to be added however the Resort Semiahmoo is a favorite for Christmas events. When making your reservation call Semiahmoo at (360) 318-2000, extension two, ask for Jenny, and reserve the room under your own name. Mention the rooms are being held under Don Nelson.

If you wish to use Semiahmoo's spa facilities or golfing, advance reservations are highly recommended – maybe necessary. For more information on Resort Semiahmoo, visit their website at www.semiahmoo.com.

Fly-in registration is \$10.00 made out to the NW Comanche Tribe, and should be mailed to Don Nelson, 925 Ludwick Avenue, Blaine, WA, 98230-5109.

From the Tribe Chiefs

Date	Tribe	Event/Location	Info Source/Host
Dec 15-16	NW	Annual Christmas Party/Fly-In Blaire, Wash.	Don and Shirley Nelson at nelsbldg@msn.com, (360) 332-2743, cell 360-305-0286. Shirley sanelson7@msn.com, (360) 305-0287
Dec 29-Jan 1	SE	New Year Fly-in Cypress Gardens, Fla.	Doris Click, (407) 855-5877
Jan 14	SW	Brunch Death Valley, Calif.	Craig Varga, (480) 598-5583 or cvarga1@cox.net
Feb 9-11	SW	Fly-In Laughlin, Nev.	Lorne and Peggy Harmon, (928) 717-2630 or flying@cableone.net
Mar 30-April 1	I SC	Fly-in & Gear Seminar Fredericksburg, Texas	Bruce Thumann, work (713) 649-8588, home (281) 487-5782, cell (713) 875-3056, e-mail: bruce@contractbuilderssupply.com
Aug 14-19		2007 ICS Convention Tacoma, Wash.	John vanBladeren, (503) 329-8512, e-mail: johnv@spiretech.com or Jay Hulbert, (503) 702-6403, e-mail: jhulbert@igpco.com

Please let us know of your intent to attend and transportation needs by contacting Don by e-mail at nelsbldg@msn.com, by phone (360) 332-2743, cell (360) 305-0286; or Shirley at sanelson7@msn.com or (360) 305-0287.

2007 ICS Convention Tacoma, Wash. August 14-19

The Northwest Tribe is dedicated to producing a well-rounded mix of technical and social activities of interest to all for the 2007 convention. Our host airport is Tacoma Narrows (KTIW), with the convention at the downtown Sheraton Tacoma Hotel. Plan now to come early and stay late to enjoy the beautiful Puget Sound area of Seattle/Tacoma, the Olympic Peninsula, San Juan Islands, Cascade Mountains, etc., SAYWA.

Plan a side trip up to British Columbia, Canada, only 100 nm; or on up to southeast Alaska, only another 500 nm.

Watch the *Flyer* for future information and updates. Discounted pre-registration forms will be available shortly after the first of the year.

Contact persons for this grand event are:

Convention Committee Chair John vanBladeren, (503) 329-8512, e-mail johnv@spiretech.com or Northwest Tribe Chief Jay Hulbert, (503) 702-6403, e-mail jhulbert@igpco.com.

SOUTH CENTRAL TRIBE

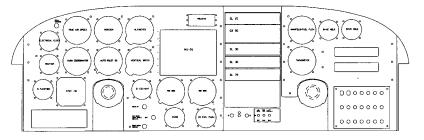
Fly-In/Gear Seminar March 30 - April 1, 2007 Fredericksburg, Texas

You've been asking for it, now here it is. Matt Kurke, owner of Comanche Gear and landing gear expert extraordinaire, has been contacted and is enthusiastic about conducting a Comanche Landing Gear seminar for everyone interested on Saturday, March 31. As part of your ICS membership, the Comanche Flyer Foundation (CFF) has agreed to pick up Matt's expenses for this seminar. Be sure to join us and learn all the basics and "gotchas" related to your Comanche landing gear system.

A Comanche will be on jacks for demonstration purposes. Gear literature will be provided and Matt's own timeless collection of field service photos will be on display, for those in attendance. Matt has agreed to spend as much time as required explaining the ins and outs of our gear system, its components, and emergency procedures. In addition, Matt will help the pilot/owner to devise a gear inspection program to help prevent those common gear system problems which seem to present themselves at the most inopportune times.

Continued on Page 38

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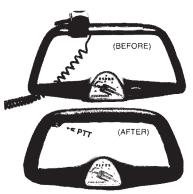
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Matt has also graciously agreed to make himself available both before and after the Saturday seminar to anyone needing his services for landing gear wiring harness replacements. Anyone wishing to take advantage of his offer will need to contact him personally for costs and to schedule a time slot. He may be contacted at (239) 593-6944, cell (239) 404-7524, or by e-mail at mkurke@comanchegear.com. If you intend to take advantage of this opportunity while he is in our area, it is very important that you call him right

away as some parts may require long lead times and he will need to get them in stock for your particular application.

For the ladies, we realize most of you probably have no interest in sitting around in a hanger listening to a technical and or hands-on seminar on Comanche landing gear. That is why this fly-in has been scheduled in Fredericksburg. It is deep in the heart of the Texas Hill Country, with a lot of great food, sights, shopping, the Nimitz Museum, and much more to keep you busy all weekend. Those of you who

have been to Fredericksburg know how it is for small-town shopping and entertainment, and for those who will be coming for the first time, you will want to come back soon.

Fly into Fredericksburg Gillespie County Airport (T82) and taxi right up to the Hotel. The Hanger Hotel is all done in World War II motif and is right on the ramp, so you can walk your bags right off the plane and into your room. The weekend group rate is \$145.00 per night, and all rooms are non-smoking with a king-size bed. There have been 20 rooms blocked for this event, which will be held until February 28, 2007. A 24-hour cancellation policy will be in effect. To make your reservation, call (830) 997-9990 and mention International Comanche Society (confirmation #K668017) to get the group rate. The weekday rate of \$99.00 per night will be available for anyone needing to arrive early or stay over for maintenance work.

Self-serve, as well as full-service fuel, will be available at the airport for the same price for fly-in participants by Fredericksburg FBO. Anyone wanting to rent a car will need to contact either The Motor Pool at (830) 990-0562 or Enterprise at (830) 997-1745. Note: The downtown area is only a few miles from the airport, and there will be a van to help shuttle everyone around. So unless you plan to tour outside the local area, there should be no reason for everyone to rent transportation.

The registration for this event will be \$30.00 per person, which will include arrival snacks, cold drinks, local transportation, and seminar facility rental fees. Registration should be sent to Bruce Thumann at 6430 Mayfair, Houston, Texas 77087. For any questions feel free to call Bruce at work (713) 649-8588, at home (281) 487-5782, by cell phone (713) 875-3056, or e-mail at bruce@contractbuilderssupply.com.

Don't miss this one. It is not often that we get an expert such as Matt to put on such a valuable seminar at the expense of the CFF. And, it may be some time before we can get him back to take advantage of his knowledge and expertise. Your gear system is one of the most important systems on your aircraft, and a full working knowledge of its components along with an owner inspection program are vital to the health and welfare of you, your loved ones, your aircraft, and the entire Comanche Fleet.

Continued on Page 40

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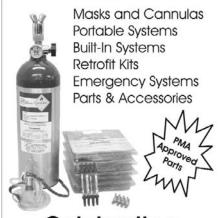
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Saturday Lunch Fly-Ins

If it is difficult for you to make a full weekend fly-in, you may find the Saturday lunch gatherings with Comanche camaraderie, sharing of flying stories, maintenance talk and lunch, to your liking. You should be able to find a schedule of the lunch fly-ins on the South Central Tribe website at http://groups.msn.com/SouthCentral TribeICS/welcome.msnw and in the South Central Tribe newsletter *Smoke Trails*.

SOUTH EAST TRIBE

New Year Fly-In December 29, 2006 -January 1, 2007 Cypress Gardens, Fla.

The South East Tribe will host their annual year-end New Year Fly-In gathering in the Bartow/Winter Haven, Fla. area December 29, 2006 through January 1, 2007.

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5601 Newton Road Albany, GA 31701 USA 229-435-4119 FAX 229-888-5766 kosola@att.net • www.kosola.com We will be flying into Bartow Municipal Airport (KBOW) and our Host FBO will be Bartow Flying Service. Tie-down fee of \$8.00 each night, will be waived with fuel purchase. You can receive a forty-cent-per-gallon discount if you use self-serve. Upon landing, please let the tower know you are with the Comanche fly-in for parking.

We will be staying at the Best Western/Admiral Inn in Winter Haven located across the street from the world-famous Cypress Gardens. All facilities on site have been remodeled and many new amenities have been added since hurricane Charlie hit two years ago. All of our rooms will be together on the third floor, over looking the pool. The South East Tribe's hospitality room will be in the Cypress Room on the third floor.

Friday will be arrival day. We have no activities planned for Friday evening. This will be social time for whatever suits you. Hang around the hospitality room, the airport, or play tourist. The brave ones may even lounge at the pool. Miniature golf is also available. There are several local eating places to choose from or you can eat at the hotel.

Saturday night dinner will be at the Seaflame Restaurant beginning about 6:30 p.m. The Seaflame serves a fine menu – you can select from beef, chicken or fish. Each guest will pay separately, but we do need an advance head count for the restaurant. You must pre-register with Doris by December 15, 2006.

This year we are offering a package for the New Year event, which includes the following:

- Three nights of Deluxe Room with two double beds
- Six full hot breakfast (breakfast for two, all three days)
- Two Cypress Garden tickets
- Two New Year's Eve dinners
- Two New Year's Eve party entries

Admiral Inn will have two New Year's Eve parties. We will initially be seated as a group in the Ballroom at 8:30 p.m. The Lounge will also have a dance band and all the same foods, etc. You will have free range between the Ballroom and the Lounge – to enjoy the music of your choice. Heavy hot/cold hors d'oeuvres, dancing, a cash bar, and party noisemakers will be provided. Also, there will be cash and door prizes, sparkling champagne for toasting in the New Year, a midnight balloon drop – all to make a wonderful evening for

everyone. Our New Year dinner will be at 6:00 p.m. at the hotel. The menu will be a choice of boneless lemon pepper chicken or carved roast beef. Either dinner will come with: salad, parsley buttered potatoes, green bean almandine, dinner rolls, chef's choice dessert, and coffee/tea.

Saturday December 30, we are pleased to have Matt Kurke discuss maintenance and owner inspection of the Comanche landing gear. His discussion will begin with how to evaluate the integrity of your landing gear system and how the green light alone is not your guarantee. And continue with what an owner can check for that's really obvious. Also to be discussed will be his company's (www.comanchegear.com) landing gear wiring harness kit, a solution to replace the original landing gear wires, which are often in poor condition. The discussion will begin at 9:30 a.m. at the Bartow Flying Service FBO, Bartow Municipal Airport. Wear some old pants and be ready to lie on a creeper for some hands-on learning.

Reservation must be made and sent to Doris by December 8 to ensure a room. Cancellations made before December 26 to Doris, (407) 855-5877, will receive a full refund. Refunds will NOT be issued for any no-shows.

Please make your plans now to be with warm friends – old and new – in sunny Florida. The Southeast Tribe sends a big open invitation to all ICS Members to come join us.

Please mail your registration form and check, made payable to ICS, Southeast Tribe to Doris Click, 228 Doolittle Street, Orlando, FL 32839. Make sure to indicate your choice of New Year dinner and if you plan to have dinner with us Saturday night. All registrations must be made with Doris.

Please call Enterprise Leasing at (863) 533-5167 if you would like to lease a car. They will have your car at the airport for pickup on arrival and it can be returned to the airport. Call early. Reservations made in December will be at a much higher rate.

REGISTRATION FORMSouth East Tribe New Year Fly-In

Registration Fee: \$20.00 per person

New Year Eve:

☐ for two \$479.00

☐ chicken ☐ carved beef

□ single \$359.00

☐ chicken ☐ carved beef

Seaflame dinner: □ yes □ no

SOUTHWEST TRIBE

Annual Brunch at Furnace Creek Inn Sunday, January 14, 2007 Death Valley, Calif.

Please join us in our annual "Sunday Brunch" fly-in at the beautiful Furnace Creek Inn in the Death Valley National Park. We always have a big turnout for this one-day event ... and why not? It's easy to fly in to and out of the 3,000-foot airstrip, the grounds

of the Inn are like stepping into an Arabian oasis, and the brunch is awe-some! The whole resort is nestled against the Funeral Mountains and looks across the desert salt pans to the famous Panamint Mountains.

We always need a rough headcount in order that our group may be seated together in one area of the dining room. If you have never attended this event, plan to do so – you won't regret it. The brunch starts at 11:00 a.m., so plan to arrive at 10:30 a.m.

Continued on Page 42



Please RSVP by January 12 to Craig Varga by phone to (480) 598-5583 or e-mail to cvarga1@cox.net.

Fly-in Laughlin, Nev. February 9-11, 2007

For the past several years, our tribe has hosted a very popular fly-in in Laughlin, Nev. This year's fly-in will be held at the beautiful Harrah's Laughlin Casino & Hotel at the south end of casino row on the Colorado River. Harrah's standard of excellence will be evident

to all who attend, from their award-winning restaurants to their beautifully appointed rooms. For the gamblers, Harrah's offers over 50,000 square feet of casino space with some of that space designated non-smoking. Get on the website (www.harrahslaughlin.com) to check them out. Our negotiated room rate is \$62 per night.

After landing Friday afternoon (or earlier if you choose) on the Arizona side of the river at the Bullhead/Laughlin Airport, you will be greeted by the host FBO – Sun Western Flyers. That evening,

roduct

everyone will be on their own to explore the river easinos, see a movie, visit the famous car museum, etc., and choose one of the many restaurants on the river for dinner.

This year, we will be offering two separate activities on Saturday.

For the Comanche pilots: Hans Neubert, a well-known Comanche expert in ICS and a member of our tribe, will be conducting a three-part seminar regarding 1) A maintenance program video produced by Hans; 2) Discussion of engineering and testing of the stabilator torque tube, along with graphs and photos; and 3) A video, again produced by Hans, describing the complete 1,000-hour gear AD, step-by-step. Of course, Hans will be most willing to answer any and all of our questions.

For the co-pilots, we'll be boarding vans and heading for Kingman, Ariz. for a tour of the Historic Route 66 Museum and the Mohave Museum of History and Arts (both within 200 yards of each other). We will then take a lunch break and head on up Route 66 to the Grand Canyon Caverns at Peach Springs, Ariz. These caverns are reached by an elevator that drops 21 stories into the earth, where you will be treated to a 45minute guided tour on underground trails through three-million-year-old undersea fossils. After this actionpacked day, we will return to the hotel mid-afternoon.

That evening, our cocktail hour (no host) and dinner (approximately \$35 per person) will be catered by Harrah's. A short business meeting and gift/cash drawing will follow. We look forward each year to this well-attended fly-in and hope to see you there. Lorne and Peggy Harmon will be hosting this event. For further details, they can be reached at (928) 717-2630 or by e-mail at flying@cableone.net.





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Fly-In Report

Southwest Tribe Meets for Brunch And Kicking Tires

By Peggy Harmon, ICS #12436

he Southwest Tribe chose the small town of Rosamond in Southern California for a one-day fly-in on October 22. We had eleven airplanes and 23 people show up for the event. I guess the draw of smooth, beautiful desert air and the aroma of fine Mexican cuisine proved to be irresistible to these Comanche pilots and guests.

The pilots were treated to the pleasure of "kicking tires" both before and after the wonderful brunch, since the restaurant was located right on the field. This was the first of several one-day fly-ins the Southwest Tribe will host this year.



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Shoulder Harness Program

Due to the tremendous response, P.V. Aero and Kosola have agreed to extend the discount programs on their shoulder harness installation kits to all ICS members indefinately. If you are not an ICS member, call Gaynor at Headquarters at (405) 491-0321 to sign up so you can get the discounts.

The shoulder harness kits provided by Kosola and P.V. Aero exceed the FAA strength standards by a factor of 1.3 or more.

Have your ICS number and aircraft serial number ready when you ask to speak to the shoulder harness program person. The prices and phone numbers for Kosola and P.V. Aero are as follows:

KOSOLA

Phone: (229) 435-4119 Fax: (229) 888-5766 Contact: John Brim

Front seat: per seat price \$420 to \$440 for strap and \$595 to \$620 for the inertia reel setup. The prices vary according to serial number.

Rear seat: per seat price \$420 for strap and \$595 for the inertia reel

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Phone: (918) 274-1616 Cell: (816) 210-4829 Contact: Lenny Spall

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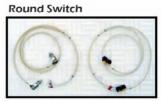


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AIRCRAFT FOR SALE: PA24/250 TTA 2237, TSMOH 2 hrs. on Piedmont ovh. Prop. 2 hrs. SOVH. Center Stack Panel with Digital Bendix 2000 pckg. and KX155 w/gs. 3 glideslopes (2 digital, 1 analog) 2 altimeters, 1/4 single piece w/s with thick side windows. Toe brakes, "EAR" insulation throughout, many other updates. Aircraft is a 9+ out and a 9+ in. Call for pics and details. Serious inquires only! Gwyn Reid 828-396-7045/garret202@earthlink.net. 1958 PA24-250 N5252P. 4600TT 350 SMOH by Penn Yan, 300TT 3 Blade McCauley Prop. Extensive renovation in 2004 at the time of major overhaul including new paint, and avionics. Avionics includes Garmin GNS530 GPS with Garmin GI-106A CDI/Glideslope, King KX155 Digital Nav/Com with King CDI/Glideslope, Garmin GMA 340 Audio Panel with 4 place intercom, King KR86 ADF, King KT76C Transponder. Equipment includes One Piece Windshield, Century I Auto Pilot, Knots-2-U and LoPresti Speed Mods, JPI EDM 700 Engine Monitor System with 6 cylinder probes, JPI FS-450 Digital Fuel Computer, Met-Co Aire Wing Tip Mod with lights, Copper Cables, alternator, Dennis Ashby Fiberglass Glare Shield with eye-brow lights, Precision Aviation Vertical Card Compass, Piper Rams Horn Yokes with Dual PTT Standard "6-pack" instrument cluster with Metal panel by Ron & Johns, Post Lights, Map Lights. New interior in 2001 includes Light gray Leather Seats, with gray carpet, headliner and side panels. Flown 150-200 hours per year by our 3 person partnership since 1999. This is a beautiful airplane that really turns heads on the ramp. Engine compartment is spotless. Complete Logs, All ADs complete. Annual Due June 2007. Hangared since 1999 at CUB in Columbia, SC. Call Clay Tapp at (803) 513-2924 or ctapp@sc.rr.com. Pictures available at http://tappix.com/761881. Asking \$88,900. Will consider trade for Piper Seneca. 1/2

PA24-260

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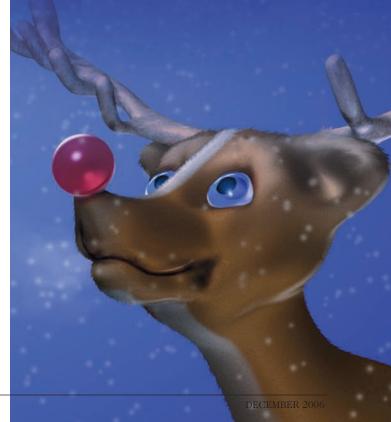




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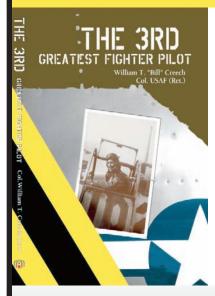
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