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# The Comanche Flyer

is the official monthly member publication of the

# **International Comanche Society**

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### **Cover Photo**

Ron Franks' 1962 Comanche 250

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# LETTER FROM THE PRESIDENT



wish all our members a happy holiday season, and a wonderful and prosperous new year. Some of you used your Comanches to your advantage during the holiday season, by flying yourselves to visit family, friends, or just for a holiday vacation. If you

did, take a moment to write me about your holiday adventure. I'm sure many of our members would love to enjoy your trip vicariously, by reading your story. Send your stories (and pictures, if you have them) to me at avshiloh@verizon.net, and copy Melissa Frisbie at editormf@att.net.

We're now in the heart of winter. Some of our northern members may have laid their aircraft to hibernate for the winter. Others fly their birds yearround. Although I have to endure the cold Pennsylvania winters, I fly all year. In fact, to me, one of the most valuable advantages of aircraft ownership is being able to aviate away to the more temperate climates down South. Every winter, I try to fly as often as possible to Florida and points south. I hope that this winter will be no exception. By the time you read this in January, I hope I will have already made a week's journey to Fort Lauderdale, Key West, or perhaps one of the closer Bahama Islands. Few things give me more pleasure, and

make me appreciate my Comanche more than departing a snowy Northeast Philly Airport, and landing in sunny South Florida. Being able to unload our luggage into the rental car in a T-shirt is, as they say, "priceless." Then, day trips to Marathon, Ocala, Orlando, Freeport, etc. simply add to the "magic." Because of our schedule, we can rarely stay for more than about a week, but it's a week in heaven! Returning home to a frozen Philadelphia landscape is bittersweet. As we fly north toward home, we inevitably cross into the "snow-line." I usually comfort myself by immediately beginning to plan our next winter getaway. My favorite and most memorable vacations have always been the ones in which I reach my destination via "Comanche Airlines."

# **Barry Schiff and the Comanche 600**

Recently, while cleaning out my garage, I stumbled upon a 1968 article written by the prolific Barry Schiff. Barry is a well-known writer and

# 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.

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.

Send to: Melissa Frisbie, Managing Editor at editormf@att.net

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

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columnist in the aviation world, having written in many publications for about five decades. Lately, he has been a regular contributor to AOPA Pilot magazine. This particular article is about a Comanche 600; a real Comanche fitted out with an AiResearch turbine engine. I thought that our members would enjoy reading this 47-year-old article. I discussed it with Melissa Frisbie, our always wonderful Managing Editor. She wasted little time, and only days later, surprised me. Melissa had managed to personally contact Mr. Schiff, who gladly and generously approved the reprinting of his article in our Flver. After I had emailed him a "thank you." he responded immediately with:

The pleasure is mine, Av. I'm delighted that this 47-year-old article about a fascinating airplane will once again see the light of day.

Best,

— Barry

You can read Barry's article on Page 37. If you enjoy it, feel free to thank him at barryschiff@earthlink.net.

# **2016 Annual Convention**

Our Annual Convention is only three months away. Deana and I plan to attend ... and to see New Zealand for the first time. Some of my friends who have been to New Zealand insist that it's the most beautiful place on earth. I'm excited that soon I'll be able to be the judge of that. We also plan to extend our trip in order to visit some of the sights in Australia. I hope many of you are going to make the journey to the Convention. Deana and I look forward to personally meeting you "Down Under."

# **Comanche Cuba Cayman Caravan**

I am pleased to announce that our planned trip to Havana and Grand Cayman Island (May 16-23, 2016) will be well attended. As I write this in November, we already have thirteen confirmed aircraft, out of the maximum twenty. You may still have an opportunity to join us. Should you want to fly with us, or if you have any questions, please email me.

# **General Fund Contributions**

When you renew your membership this year (or sooner), please consider

adding a contribution to the ICS. Of course, the amount of this contribution is up to you, but I would like to encourage our members to contribute \$25.00 to our General Fund. Whether you choose to contribute more or less, I assure you that it will be most helpful. Please excuse this "shameless plug" solicitation for funds, but your contributions will enable your Board to financially strengthen our Society, and to ensure that the ICS remains healthy, vibrant, and relevant to our members, into the future.

# Comanche Flyer

Speaking of contributions, here's another important way our members can help the ICS. One of our major goals is to make the Comanche Flyer the best type-club magazine in aviation. You've already seen some of the changes in our content, and soon you'll see more, including a general "facelift" in the appearance of the Flyer. But, we can't reach our goal without our members' input. Please write us to let us know your ideas. Please write a "Letter to the Editor" with your comments and suggestions about any of the Flyer's contents. Please write us to let us know about an article you liked or about one vou didn't. Please write us to let us know what you would like to see more of or what you would like to see less of. Please write us about how we're doing, in general. Every comment and criticism we receive will be carefully considered, and acted upon. So, LET US KNOW! And, of course, please write us an article you think our members would enjoy reading. Email me and Melissa Frisbie (email addresses, above). We would love to hear from you! We want the Flyer to be the magazine you impatiently anticipate in your mailbox, each and every month.

Happy New Year and warm tailwinds,



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# **COVER STORY**

# Letter from the Director

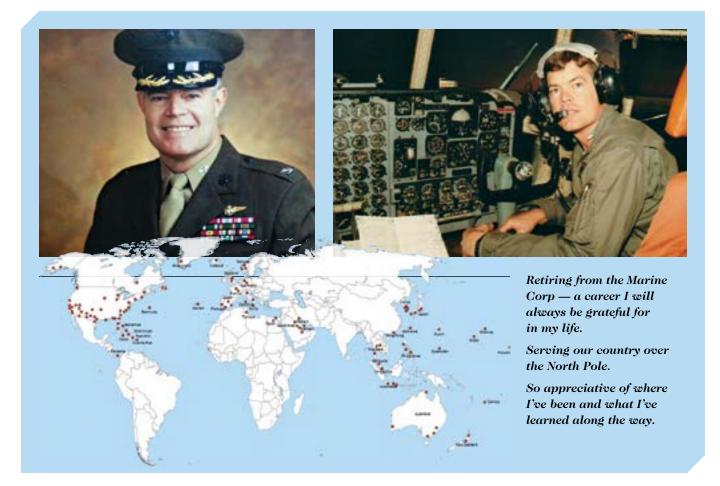
# by Ron Franks, South Central Tribe Rep

'll get to my story in a minute ... I promise! But first, I just have to get this off my chest. When thinking about my Comanche, I am reminded of a movie I saw recently with my wife, Debby, called "The Age of Adeline" — a rather well-done film, in my opinion. It's about a lady (well played by the striking Blake Lively) who, as a result of a car accident on a black snowy night and through a rather strange set of circumstances, never aged from that moment on. She remained permanently twenty-nine years old and gorgeous. While all the women I know are horrified at the unfair advantage that might portend, I can't help but think the same

of my Comanche! Every time I round the corner of my hangar door, with thoughts of the daily grind ricocheting around my head, I am halted in my steps at the ageless beauty of my beautiful 53-year-old hunk of aluminum and paint sitting there on the hangar floor patiently waiting for our next tryst.







I became interested in flying at an early age. I always had the thought that pilots were pretty cool people, and flying would beat working any day. But finances and the grind of making a living always seemed to get in the way of flying on a regular basis. That's where the Marine Corps came in. As the Viet Nam war was in its full fury, and the services desperately needed pilots, they offered a deal for us non-grads called the "Scholarship Program." It meant that I could join, learn to fly, and if they were sufficiently enamored with my performance, they would send me back to college after the first tour of duty to complete my degree. Thank God I wasn't smart enough to realize that I was getting into the perfect "Catch 22" situation. I did get my "Wings of Gold" in August 1975, completed my first tour as a Huey pilot, and returned to finish my degree — just as advertised! But by the time I finished Officer Candidate School, The Basic School, flight training, and got qualified as PIC in my aircraft, Viet Nam was winding down.

Not that I was disappointed, mind you, but I did believe that I was joining the Marines to be sent to Viet Nam.

After finishing my undergraduate degree, I requested and was approved for the transition to KC-130s. The Corps, in all its wisdom, sent us to jet training in preparation to fly the turboprop Hercules. It did, however, give me the opportunity to qualify on the carrier, Lexington, and do the other things that "fast movers" are wont to do. Great fun!

The Marine Corps gave me wonderful opportunities. I recently made a map of the places I have landed the old "Battle Here" and it surprised me. I did join the Corps to see the world, and I truly have. I feel that visiting countries and people around the world have given me some insight that some don't have, and it has also given me a great appreciation for what we've got in these United States.

In the entirety of my 26-year career in the Corps, I consider my best tour to

be as Commanding Officer of VMGR-252, one of the oldest and most decorated squadrons in the Marine Corps. During my stint as CO, it was my privilege to deploy the squadron to Desert Storm in 1991. The mettle and professionalism of the young men and women we took to war still, to this day, astound me!

All good things must end, and I "graduated" from the Marine Corps in October 1998. I still miss the discipline and comradery!

For several reasons with which I won't bore you, I decided to get into the insurance and investments business in civilian life. I had spent so much of my career in large metropolitan areas that Debby and I decided to settle in a small town. It has proven to be a good move; Henderson, Texas has been a great place to raise our two youngest daughters (our two older children, a son and another daughter, are both married).

Debby's parents lived on the East Coast — half a continent away from Henderson, so civilian aviation was

a way to bridge that chasm. While I had always been smitten by the looks and performance of the Comanche, my partner's dad had been the Cessna dealer for the East Texas region for many years, and he would be comfortable only with a Cessna. As a result, my first foray into civilian aviation was in a 1978 Cessna 210M. A humorous side note was that I was certified/rated in rotor wing, multi-engine, and turbojet aircraft; I didn't have my single-engine land rating. I had to take a checkride to fly my Centurion!

The Centurion proved to be a capable cross-country airplane, and I enjoyed flying it. It was heavy on the controls, much like my familiar C-130. Though capable, it also proved to be somewhat of a maintenance hog. When both of my younger daughters were in college at the same time, I bailed and sold my half to my partner.

Eight years elapsed between the Centurion and getting into flying once again. I have often said that more had changed in aviation in the eight years out of flying than in the previous 40 years combined! While the "stick and rudder" skills remain the same, the situational awareness offered by the Garmins of the world is simply amazing!

In looking for an airplane that matched my mission profile, and met the other criterion of looks, speed, the durability of design, and a modest entry fee, I settled on two aircraft: the V-tail Bonanza and the Comanche. Probably the only smart thing I did in the hunt for a new airplane is to join the Bonanza Society and the ICS. I was immediately impressed with both clubs. I was even more impressed when the sitting president of the ICS, Bob Cretney, personally stopped in to meet me only three days after I joined the ICS! About a month later, Debby and I attended the South Central Tribe fly-in at Natchitoches, Louisiana. We really enjoyed the people and the comradery. Comanche or not, that was a great group of folks.

Alas, the efficiency of the Bonanza Society proved to be its undoing! One of the offerings on their website is a weight and balance spreadsheet for each of the Bonanza models. When calculating the weight and balance for my proposed mission, I found that I was out of CG for about half of the missions I had planned to fly! After deciding on a Comanche, I began looking for an aircraft priced low enough that I could rework the panel and still keep the investment within reason. After flying for years in the Marine Corps, I was somewhat leery of high time airframes (which presented somewhat of a mutually exclusive conundrum).

# **The Dating Game**

I searched *Trade-a-Plane*, *Controller*, and several other sites for a Comanche that would take my breath away. I took several long trips to see the aircraft in person, but for one reason or another, I just wasn't "taken" by anything I looked at. (I did find that several who advertised "no damage" did, in fact, have damage.)

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After several months of looking, I finally spotted a Comanche that did take my breath away! And like an amateur at the dating game, I was bedeviled by a pretty face. It was half a continent away in upstate Michigan. The distance was a problem, but even more of a problem was my ignorance of the inspection and purchase process. I didn't fully appreciate the importance of a thorough pre-buy inspection. I ordered an annual inspection, and spent much time talking to the A&P inspecting the airplane. The lesson learned from that experience is not to let the A&P, who had been the previous inspector, do the pre-buy inspection or annual. In the end, I was lucky! While I didn't subsequently find issues that would have precluded a purchase of the airplane, I should have been made aware of several concerns of which I was not.

# Marriage

I bought N7719P, an early 1962 model Comanche 250 at the end of May 2014. Getting it back to Texas



The panel upgrade is finally underway.



So close to completion.



Before ...



... and after.





was an "interesting" experience. The ferry pilot was a flight instructor and purported to be fluent in Comanche. It was my intention to get a good, long lesson on all things Comanche on the way home. As it turned out, I knew more about Comanches than he did. Not only that but neither he nor the aircraft was current for IFR. The weather was bad, and I had to get back to the airport to host an airshow the next week — a recipe for disaster!

All's well that ends well, I guess. Back home on the deck, safe and sound, and ready to get to work on the airplane! Although my Comanche already had a decent panel: Six-pack setup with an S-Tee 50 autopilot, GX55 GPS, KY155 and 170, I wanted a panel similar to what I was "raised" with. Because of my background, it was my intention to keep the round gauges and add an HSI to the mix. I also wanted to update the avionics to include a Garmin GTN 750 to facilitate the long



eross-country flying we intended to do with the airplane. ADSB-Out compliance was also a priority. So in January 2015 I took my Comanche to Davis Field Aviation in Muskogee, Oklahoma for a panel upgrade.

It took four long months to complete, but Nathan Stephens did an outstanding job removing the old equipment (along with about ten pounds of old wiring that were tie-wrapped behind the panel) and installing the new. One of the highlights of the new panel is my JPI 900. Not only does it give very accurate readings of temperatures, pressures, and fuel flow, but it is also a primary instrument that takes the place of the dials and gauges on the right side of the panel, freeing that real estate up for a hard mounted iPad. It makes for a really sweet setup!

# Life with the Comanche

I have only recently begun to feel comfortable flying and landing my Comanche. The recent CPPP that I attended in Lancaster was a real boon to my knowledge and confidence in my airplane. It was well worth the time and effort to attend the course. I strongly recommend that all Comanche owners, young and old, take the time to attend one of these courses!

Debby and I have used our little Comanche as we had envisioned. We have been on many trips within Texas, and several out of state. We went to Jekyll Island, Georgia, and the adjoining states across the southern US; we flew the airplane to the ICS Fall Board Meeting in Nashville, Tennessee, and then to visit family in Virginia. It has been quite the magic carpet!

Looking forward to the future, I have to begin putting aside money for an engine overhaul. Between reading the article on panel upgrades written by Av Shiloh (September 2015 *Flyer*), and looking at some beautiful (glass) panels at the ICS convention, I have started

to re-think my original premise regarding round gauges. Glass panels offer more information and are more reliable than my steam gauge — another panel upgrade may be in the cards.

I am reminded of an article in the Aviation Consumer magazine reviewing Comanche aircraft. Dr. Bob Fox, our SC Tribe Chief, responded to a request for comment by Comanche owners. Of course, he talked about the advantages of owning a Comanche, but he also mentioned the comradery among Comanche owners. I am finding that to be the delightful truth regarding our Society of owners. Although new to this group, I revel in the pride of owning a Comanche and always look forward to the next opportunity to meet with the friends I've recently made through the ICS!

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# PROGRAM

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# From the Comanche Website Maintenance Forum

# ALTERNATIVES FOR FUEL SENDERS

he fuel gauges were acting wonky (not reading full with full tanks). The A&P established that the problem was with the senders, and not the other things in the chain. So we sent the senders out for overhaul by Air Parts. After they came back, on the bench the senders seem to be working fine (reading 30 ohms when "full" and zero when "empty"), so the A&P put them back in left it overnight, filled the tanks. And now one seems to have gone bad again. (Reads max 10 ohms, so the fuel gauge only reads about 1/3 full when the tanks are in fact full.)

So, the senders are being sent back to Air Parts for another look.

But it looks like, from the various threads on fuel gauges on the forums, fuel senders going bad seems to be a common problem.

So, is there a recommended solution? Are their replacement parts? Is continuously overhauling them when they do go bad the only solution? Is it legal to fly with a bad fuel gauge? (The plane has a Shadin Fuel Flow Gauge, so knowing how much fuel is left isn't a problem.)

The service manual calls out a specific manner to re-install fuel senders — do you know if this was done? You can read it under the Home page Tech Tab on service manual.

Also, is the ground good for the electronic connection?

The Twin's senders operate in accordance with FAA specs. I rely on visible inspection prior to flight, fuel flow and digital Shadin fuel computer for closer fuel management. I always track range and fuel consumption by tank.

Thanks for the reply. I will forward the service manual section to the A&P to make sure that this was done in an appropriate manner. And we did verify the ground connection, since that seemed to be a common problem.

But we are pretty sure it's the fuel sender itself. After Air Parts overhauled the sender in question, we tested it on the bench, and it performed the way it was supposed to. Then the A&P installed it in the tank, and it failed. So we pulled it out again, and retested the sender on the bench again, and this time it failed to work properly. So it is going back to Air Parts.

So, I too use a Shading fuel computer to monitor fuel flow and fuel remaining. That combined with a preflight check of the fuel gives me a good idea of how much fuel I have left.

But strictly speaking, that alone is not legal, as far as I understand the fuel gauge itself has to work properly. I hate to have to keep grounding the plane because of the fuel gauge. Are there sources of replacement fuel senders? Or do people just keep on overhauling them?

The manual has a drawing for a fixture to use to calibrate the fuel senders. An ohm decade box can be useful in trouble shooting the system. The micro switches at the fuel selectors are also known to have poor connections after years of use and wear.

I'm having the same problem with one of our main tank sending units. It only reads half full even when it's full of fuel. The resistance measurements on the sending unit are correct outside the tank. The other main tank reading was fine, so we switched sides hoping it was somewhere in the wiring/selector switch/gauge. But the problem followed the sender to the "good" main tank. We have a 260B with the single fuel gauge and four-position selector switch on the floor. The selector switch was replaced recently. The new parts were from Matt at Comanchegear.com.

We are shipping the sender to Air Parts tomorrow for rebuild. I'm not sure what the problem is though since it appears to be OK when we measure it outside the plane. There is side-toside movement in the arm, but that



didn't seem to make a difference on the resistance measurements.

We searched all over trying to find a replacement sender, but none are available. The only option is rebuilding your old unit.

I'd rather buy a new one and be done with chasing ghosts. I noticed McFarlane has new "thick film laser cut ceramic resistors" that are supposed to be better. Unfortunately they don't have them for PA-24s. Wonder if they would ever consider making them for us.

BTW I heard that the fuel quantity gauge is "legal" if it reads empty when the tank is empty. Don't quote me though. Still, I'm considering our plane grounded until the problem is fixed.

If the gages show half when the tank is full, it cannot be a problem of the connection, for half is 15 Ohm and full is 30 Ohm. Bad connection would show full at low level. Check your floater, if he is on the right level. If he has not enough uplift, he is too low in the fuel and shows too less fuel level. The floater can be too heavy or the specific volume is too low.

Good point. We spoke to the Air Parts folks and they said they will check the float.

We noticed the float was "repaired" before and re-installed on the arm backwards, but I'm not sure if that would affect anything.

I ended up sending the fuel sender back to Air Parts for overhaul. It came back and seems to be reading correctly for now (fingers crossed).

I don't know about the interpretation of the FARs regarding the fuel gauge. 23.1337(b)(1) says that the fuel gauge should have to read "zero" at level flight when the only fuel left in the tank is the "unusable" fuel. I think this is what everyone is referring to when they cite "has to read zero at empty" rule.

But 23.1337(b) says, "Fuel quantity indication. There must be a means to indicate to the flightcrew members the quantity of usable fuel in each tank during flight. An indicator calibrated in appropriate units and clearly marked to indicate those units must be used." 23.1337(b)(1) is an additional requirement on top of that. On its face, 23.1337(b) seems to require a properly functioning fuel gauge, not just one that reads zero when the tank car is empty.

From a safety perspective, I am reasonably comfortable with using the accurate Shadin fuel flow gauge (combined with pre-flight inspection) to gauge the actual fuel left. But, the Shadin fuel flow gauge wouldn't catch a leaking tank, for example. The other day, I noticed blue streaks coming from the area around the access door to the fuel cap, so now I think I have a minor fuel leak.

Back to the shop. Oh the joys of owning an old(er) plane.

(Great plane when it's not in the shop, though ...)

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 advice from an experienced, trusted source, such as your A&P or CFF-trained CFI, before applying any of the techniques or recommendations presented in these postings.

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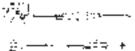




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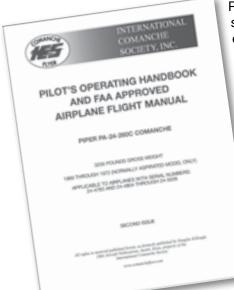






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Member: C.J. Stumpf ejstumpf@gmail.com (617) 816 8766 (e)

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ominations for ICS officers are now open to all members in good standing. Take this opportunity to become involved in your organization. You will find it rewarding and not as difficult as you might think. Please contact any of the Nominating Committee members listed above to be considered by the Committee for recommendation to an ICS officer's position. Nominations will close at 5:00 pm EST on January 16, 2016.

# **Nominees To Date:**

President — Av Shiloh Vice President — Bob Williams Secretary — LaVerne Stroh Treasurer — Bob Berry

In addition to candidates proposed by the Nominating Committee, any member in good standing of the Society shall be a candidate if he or she submits to the Chairperson of the Nominating Committee a letter agreeing to serve, if elected. He or she must also provide letters from three (3) other members in good standing, not more than one of whom is from the same tribe as the potential candidate, nominating the potential candidate, and attesting to the potential candidate's fitness for the position sought. The Chairperson shall immediately acknowledge each communication received from a member wishing to be a candidate or nominating and attesting to another member's fitness to serve.

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# Alex Zawaski

by Gloria Smith Zawaski

When Alex Zawaski's instructor told him never to forget to "fly the airplane" during his first lessons at Randall Airport in Middletown, New York, back in 1967, Alex took him at his word. He obtained his private pilot's license and didn't hesitate to fly wherever and whenever he could — for his business or pleasure. Today, he is based at Orange County Airport (MGJ) in Montgomery, New York, and has a well-worn, 6000 hour-plus logbook that reads like a travel log. It includes hours spent circumventing the globe in his 260B.



lex was a kid in 1946 when his Uncle John, a flight instructor during World War II, landed his Swift high on a hill overlooking Alex's grandfather's farm. The plane ride he took that day would plant the seed that grew into a lifelong passion for aviation — he immediately felt at home in the expansive sky, looking down on the Hudson River Valley below. He wondered what lay beyond the horizon.

Alex grew up on his family's produce farm. He worked with his brother and sister doing farm chores after school and on the weekends, always with an eye on the crop duster spraying methodically overhead. But it wasn't all work — he excelled at all sports in school, was captain of the football team and was homecoming king to boot.

He played football for a year at Northwestern University but didn't feel suited to academic life. He joined the Army and greatly preferred life as an enlisted man. The trip across the country to Fort Lewis in the State of Washington fed his wanderlust. He would be the last person on earth to say "it's a small world." The country, the world, and the universe felt unimaginably large and filled with infinite possibilities.

When he returned from the service to his hometown in Orange County, New York, his father and mother had retired from farming to start a trucking company. Alex and his brother would finish college locally then join the family business, expanding the company to a statewide enterprise of interconnecting US Postal Service routes. His farming background served him well — he and his brother had learned how to fix every possible kind of machine as they were growing up. As adults they were solid mechanics. New York State was a big place and getting to remote regions to repair truck engines or deliver paychecks presented a challenge. Alex saw that he could follow his dream of becoming a pilot and put it to good use as well — he would learn to fly.

He bought his first airplane, a Comanche 180, in 1968, shortly after completing requirements for his private pilot rating. He admits that he didn't really research the airplane. He was approached by a few pilots to enter a partnership. He was flattered to join them. They were much older and more experienced than he. Once he was a proud Comanche owner, he

was eager to completely learn about the plane. He joined the Comanche Society shortly thereafter, and is proud of his low membership number when he attends Comanche Conventions — 740.

He tackled his instrument rating and soon was the "go-to" partner for all mechanic issues involving the airplane. Today, he still enjoys doing all his own mechanical work under the watch of a longtime friend and A&P.

He logged a lot of local miles before deciding to travel to Myrtle Beach for the weekend. "That didn't take too long," he thought. The trip took just over four hours. He would soon spread his wings even further.

In 1972, Alex and his partners sold their Comanche 180 but kept their love of flying in the Comanche family — the new plane would also be a Comanche — a 260 B, the same plane that he flies today.

This "magic carpet" took his wife and him to Alaska in 1977. In 1982, they completed their first Trans-Atlantic trip to Europe. A World War II buff, Alex vividly remembers flying over the coast of Normandy and reflecting on all that was sacrificed for the sake of freedom. He never felt the meaning of freedom as intensely as he did that moment in the cockpit of his Comanche.

During the next few years, his life entered a period of intense IMC. His brother was killed in a car accident by a drunk driver — a few years later Alex divorced. He took over the trucking business and scaled it back to a regional rather than a statewide enterprise. He remembers being asked during a casual conversation: "What are you going to do for your next trip? Fly around the world?" Not a bad idea. He decided to do exactly that.

Alex met Roberta Alexander a few years later. She would become his partner and co-pilot. They saved and planned for years. To anchor the plan in reality, they chose the start date years in advance — October 6, 1991. Alex's

first task was to understand every inch of the airplane in case they had any problems. At the same time, he had to plan his route and obtain visas. The couple departed as planned on October 6, 1991. "It was just after the Persian Gulf War and the world felt good about America," he says. The Comanche was outfitted for the trip. Extra tanks of fuel sat behind them in the back seat, crowding their leg room. GPS was in its infancy. Alex frequently had to fly ADF and VOR at best; dead reckoning at worst. To keep to the rigorous schedule, they often had to fly at night, sometimes in inclement weather and often beyond the reaches of radar. But they made it without incident. They trusted the Comanche and it never let them down. They completed the trip in 82 days. "We weren't doing it for time, we were vacationing too," he says.

Flying Australia was perhaps his favorite part of the trip. According to Alex, members of the International Comanche Society treated the voyagers





like family, inviting them to stay at countless private homes of members throughout the county. According to Alex, navigating the red tape at countries worldwide was far more difficult than flying from airport to airport. But that didn't dampen their enthusiasm for stops along the way. He cherished landing at a number of historic sites in the South Pacific such as Guadalcanal, Truk Lagoon, Saipan, and Tarawa, where he would pay his respects to so many fallen soldiers.

Surprisingly, it was back on American turf — Hawaii — that the couple encountered their biggest hurdles. A travel bag was stolen that contained all the contact information from people they'd met along the way. Getting back into the country presented the biggest bureaucratic nightmares of all. The U.S. government agencies asked endless questions — but nothing took their focus off the 16-hour nonstop trip from Hawaii to Oakland ahead of them. They gave position reports as

they flew and received encouragement on the radio from commercial pilots shared that vast, star-splattered night. They flew the longest leg of the journey without a bathroom and never missed it, Zawaski swears.

Dubbed "Modern Day Magellans" by the local paper, Alex and Roberta were celebrated at Earthrounders — the 53rd pilots to complete the voyage in a single engine plane. They enjoyed many journeys together via Comanche 260 B to Alaska, Costa Rica, the West, the Bahamas and more before Roberta's untimely death in 1997.

Planes are like people to Alex, so when the Comanche 180 came up for sale again, he couldn't stand to see her go to someone else. He bought her back again and refurbished her. He also bought out his partners in the 260 B. He met his current wife, Gloria Smith Zawaski, when friends invited her along on one of Alex's many summer day trips or "lobster runs" to Bar Harbor, Maine.

She became a pilot at age 55 and bought into the 180 when she finished her requirements. She reluctantly shares it with him today.

The following summer, Alex and Gloria flew the 260 B across the country and up through Canada to the Arctic Circle. They would stop at outposts along the way — Churchill, Rankin Inlet, Beaver Lake, Yellow Knife and Norman Wells — rarely would they see another airplane. The next year, they were Siberia-bound once again in the Comanche 260 B, flying throughout Alaska before meeting up with American and Alaskan pilots in Nome. The group journeyed across the Bering Strait to spend days in Providencia, a Russian coastal town. The 260B led the way.

They have flown countless trips throughout the US and the Bahamas ever since, alternating between the 260B and the 180 — planes they lovingly refer to as their "Twin Comanches."



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# ICS 2016

# Queenstown, New Zealand March 22<sup>nd</sup> – 26<sup>th</sup>, 2016 www.ics2016.com

# by Alan Breen

# Registrations

Thile the early bird registration has finished, we are still taking registrations. You can go to the 2016 Convention website or use the form in the *Flyer*.

Remember payment can be made by PayPal via the convention website www.ics2016.com using your credit card. You don't need to have a PayPal account to pay via PayPal, all you need is a credit card.

I should also point out that Rydges, the convention hotel, is only holding rooms for us until January 20th. While we will happily accept registrations after this date, you will need to make your hotel reservations before this time to ensure you get a room at the special ICS rate.

The Direct Booking form can be downloaded via the following website *http://www.ics2016.com/* accommodation1.html. Just type/copy the address into your browser address bar. Alternatively you can copy the form from the *Flyer*.

This month's report focuses on convention activities.

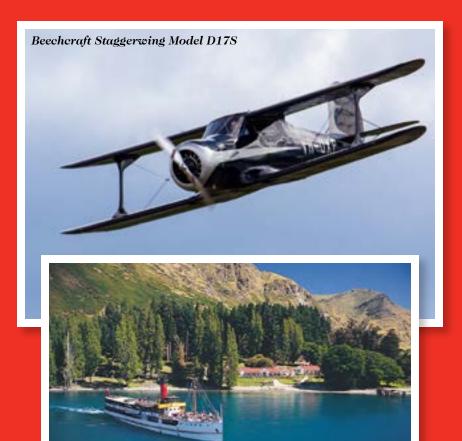
# Valuing the Future

The Convention theme is valuing the future. With that in mind, we want to stimulate discussion on how we maintain the value in the Comanche line of aircraft.

Value can be measured in many ways but in the end it boils down to how much our Comanches are worth on the used aircraft market. At some point in the future, most of us will part with our beloved Comanches and we will want to realise the best price for our pride and joy.

Some of the questions we can think about are:

- How do we maintain value in our Comanches?
- How do we promote the great features of the Comanche aircraft? What other aircraft combines the attributes of speed, payload, range, economy, etc. into one package like the Comanche does?
- How do we ensure we continue to have access to any type specific parts?
- What is the best way to upgrade our aircraft as we adopt modern avionics?



The grand TSS Earnslaw steamship near Walter Peak Station.



Just trying to catch a ride on the Milford Sound Boat Cruise

Consolidated PBY Catalina





One way to take in the beautiful scenery.







uses ducted fans

for lift.



# **ICS 2016 Convention Registration Form**

# **Hosted by the Australian Tribe**

# Rydges Hotel, Queenstown, New Zealand. 22nd to 26th Match 2016

	Attendee	Details			
Name:			ICS No.		
Spouse:			ICS No.		
					•
Address		Н	ome Phone		
City			Mobile		•
State			Email		-
Country					
ZIP					
Guest					
Guest					
	Arrival Info	ormation			
	Date Time			_	
Comanche to NZQN		Tail No.		Model	1
Airline to NZQN		Flight No.			
Car		·		_	
I/We will require transport From	/To Queenstown Airport	No.			
Transport will be provided between	en the airport and hotel or	n Tuesday 2	2nd and Su	nday 27th	
	Registratio	n Details			
			No.	Price	Total
Early Bird Registration before 22	December 2015			\$ 800.00	\$ -
Registration after 22 December 2	.015			\$ 850.00	\$ -
Tuesday					
Welcome Dinner				Included	
Wednesday					
Airport Day				Included	
Skyline Gondola Lunch				Included	
TSS Earnslaw Cruise ar	nd Walter Peak Station BBQ	l		Included	
Thursday (Note: Please choose o	nly one option per person)		No.	_	
Milford Sound		Either		\$ 420.00	\$ -
Croydon Aircraft Co &	The Moth	Or		\$ 120.00	\$ -
Friday		·		_	
Seminars, AGM, Lunch				Included	
Convention Dinner, Gu	est Speaker and Awards			Included	
Saturday					
Warbirds Over Wanak	a - Silver Pass.			Included	
		Tota	al Payment		\$ -
Payment can be made by Pay Pa					
Email this form to alan_breen@x	tra.co.nz or fax it to +64 7	854 7499			

We will send you a payment request via Pay Pal

 How do we help Comanche owners keep their Comanches well maintained?

These are some of the questions that we hope will be discussed; no doubt there are others. If you have more questions, please email me.

There will be no one answer, but if we think and talk about these and other questions we can go some way to Valuing the Future of our fantastic Comanche aircraft.

### **Convention Activities**

We have several great activities planned during the ICS 2016 Convention. Here is an outline of them:

# Tuesday, March 22nd

# Arrival and registration

Make your own way to Rydges Hotel Queenstown or arrange for a shuttle to pick you up at Queenstown Airport. Registration will be in the hotel lobby.

# Welcome Dinner

An informal buffet dinner at Rydges Hotel where you can meet new Comanche friends and renew old friendships.

# Wednesday, March 23rd

# Airport Visit

Everyone gets the chance to inspect and compare the Down Under Comanches.

Skyline Restaurant — www.sky-line.co.nz/queenstown/

Ride the Gondola to Bob's Peak to get a panoramic view of the Queenstown area while having lunch. For the more adventurous among us, there is the optional Luge ride.

# TSS Earnslaw and Walter Peak Station — www.realjourneys.co.nz/

In the early evening on Wednesday, we board the TSS Earnslaw for a cruise up Lake Wakatipu to Walter Peak Station for a gourmet BBQ dinner followed by a short farm show.

Walter Peak was developed in the 1880s and, at its peak, the station was one of New Zealand's most famous with 170,000 acres; 40,000 sheep; and up to 50 full-time employees. Today it is best known as a tourist attraction where you can take a walking tour of the farmyard

which includes feeding the sheep and deer, and even getting up close to the Scottish Highland Cattle. You will also enjoy the vista of the surrounding area when you dine at the homestead. It also gives a glimpse of the activities of a sheep station.

Launched by New Zealand Rail in 1912, the TSS Earnslaw is the last surviving and grandest steamship to have ever graced Lake Wakatipu. Named after Mount Earnslaw (the highest peak in the region), she is 168 feet in length, 24 feet across the beam, and weighs 330 tonnes. Originally built by J. McGregor & Co. in Dunedin at a cost of \$20,850 (\$32,150 USD), the TSS Earnslaw was dismantled and transported by rail to Kingston at the lake's southern tip for reassembly and launching.

For anyone interested in machinery and how it operates, a trip on the TSS Earnslaw is truly a fascinating experience. You can see into the boiler room and view the stokers feeding the boiler fires; you can see all of the workings of the steam engine and the signalling systems between the bridge and the boiler room.

The TSS Earnslaw has since served the remote farming communities around Lake Wakatipu, including the original Walter Peak Station. Her working roles have included cargo ship, livestock carrier, passenger transporter, and pleasure steamer.

Nearly scrapped in 1968, she was rescued and purchased by Real Journeys (a family owned tourism business) and put to work once again carrying passengers around the Lake. Since then the TSS Earnslaw has been painstakingly restored to its original condition—everything you see is pretty much like it was 100 years ago. Today, the TSS Earnslaw is the only coal-fired steamship in operation in the southern hemisphere, making her one of the most unique experiences in the world.

The TSS Earnslaw has been featured in several movies including a cameo in "Indiana Jones and the Kingdom of the Crystal Skull" as an Amazon River boat. Parts of the trawler, SS Venture, in Peter Jackson's "King Kong" were inspired by the TSS Earnslaw. Famous

composer Ron Goodwin composed a piece of music inspired by the rhythm of the TSS Earnslaw's engines.

You get a marvellous view of the scenery that surrounds Lake Wakatipu from the cabin of the boat. The Bar-B-Que dinner is in the beautifully restored and modernised homestead of Walter Peak Station.

After dinner, there is a short farm show where the skills and intelligence of the farms sheep dogs are used to round up sheep. Note, these dogs do not bark at the sheep, they control them by eyesight. The dogs respond to voice and whistle commands from their shepherd owners, and keep the sheep in a group and bring them back to the shepherd. There is also a short and informative sheep shearing demonstration. We will have an opportunity to spend time in the station's souvenir shop.

# Thursday, March 24th

We have two excursion options to choose from: 1) A scenic flight and cruise on Milford Sound or 2) a coach trip to the Croydon Aircraft Co., the Croydon Aviation Heritage Trust, and The Moth Restaurant Cafe & Bar.

Originally we were only going to have the excursion to Milford Sound, but as it was a relatively expensive excursion and many of the Australian tribe had already been to Milford Sound, we looked for another choice.

The Croydon Aircraft Co. at Mandeville was something that we thought was interesting and topical. Our convention theme is "Valuing the Future" and Croydon Aircraft are all about valuing the future of de Havilland aircraft albeit aircraft of a different vintage.

# Milford Sound Scenic Flight and Boat Cruise

www.milford-sound.co.nz/

https://www.en.wikipedia.org/ wiki/Milford\_Sound\_Airport

The Milford Sound trip includes a flight across the Southern Alps to Milford Sound Airport, a boat cruise on the sound before flying back to Queenstown.

The flight takes in some amazing scenery as you fly across the Southern Alps. The approach and landing at Milford Airport are of great interest to any group of pilots. The approach to the airstrip as you fly up Milford Sound is truly breathtaking. It is a trip I used to recommend when I worked in the tourism industry.

Here's a little bit of background on Milford Sound. It is New Zealand's most famous tourist destination. It enjoys some of the most spectacular, wild, untamed, and unspoiled scenery in New Zealand.

Milford Sound has been voted the most got-to-do place by tourists in New Zealand and is rated internationally as one of the world's top travel destinations.



The Milford Sound Cliffs should definitely be on your "places to see" list during your trip.

The sound is a 15-kilometre (approx. 9 miles) inlet from the sea with a fresh water layer on top. On either side, steep mountain sides rise dramatically in sheer cliff faces to more than 1,200 metres (3,900 feet). Among the peaks is The Elephant at 1,517 metres (4,977 feet)—it's said to resemble an elephant's head. And The Lion at 1,302 metres (4,272 feet) is said to be in the shape of a crouching lion.

Lush rain forests cling precariously to these cliffs while seals, penguins, and dolphins frequent the waters; whales can sometimes be seen as well.

Milford Sound is an incredibly wet area with a mean annual rainfall of 6,813 mm (268 inches) on 182 days a year. With nearly 7 metres of rain a year, Milford is one of the wettest inhabited places on earth. Rainfall can reach 250 mm (10 inches) during a span of 24 hours.

Milford Sound has two permanent waterfalls all year round: Lady Bowen Falls and Stirling Falls. The intense rainfall creates dozens of temporary waterfalls easeading down the cliff faces, some reaching a thousand metres in length.

Smaller falls from such heights may never reach the bottom of the sound, drifting away in the wind. Rainwater drenched moss feeds these temporary waterfalls, and they last at most for a few days once the rain has stopped.

# Croydon Aircraft Co. Mandeville — http://www.croydonaircraft.com/

Croydon Aircraft Company is a facility that rebuilds vintage aircraft specialising in de Havilland aircraft. Their workmanship is second to none and owners from all around the world have sent their vintage aircraft to Croydon Aircraft to be rebuilt.

They have the original de Havilland drawings and can manufacture many parts. Apparently so long as you can supply a genuine data plate they can rebuild an aircraft around the data plate.

One aircraft they are currently working on is a DH 88 or Comet. This model was designed and built for the 1934 MacRobertson Air Race that went from Mildenhall, England to Melbourne, Australia. A DH 88 won the race in 71 hours, 18 seconds. Only five were ever built. The experience gained in building the DH 88 was used in the building of the famous WWII fighter bomber the DH.98 Mosquito.

While Croydon Aircraft specialises in de Havilland aircraft, they also undertake restorations on other vintage aircraft. One of the aircraft being featured at Warbirds Over Wanaka this year is a Beech Staggerwing VH-UXP. It was restored by Croydon Aircraft between 2007 and 2012.

As well as visiting Croydon Aircraft Co., we will also visit the Croydon Aviation Heritage Centre. It boasts the largest collection of de Havilland vintage aircraft in the southern hemisphere. The four main aircraft on display are the Fox Moth, Dominie Rapid, Dragonfly, and Tiger Moth. The Dragonfly is one of only two flying examples in the world. These types of de Havilland aircraft were instrumental in the early pioneering days of air transport in New Zealand.

There is also a Percival Proctor and the only replica of the Pither Monoplane. For those interested, there will be an opportunity to take a flight in a Tiger Moth or possibly the Dragonfly. Lunch will be at The Moth Restaurant. Both excursions will have everyone back in Queenstown by mid to late afternoon.

### **Tribe Dinners**

There is a good selection of restaurants to choose from within an easy walking distance of the hotel.

# Friday, March 24th (Good Friday) Convention 2016 Business Day

All convention meetings and workshops will take place at Rydges Hotel. Workshops, seminars, and the AGM will take place during the day. Morning and afternoon tea, as well as lunch, is provided. More information on the workshop and seminar content will be provided in the weeks immediately before the convention. (This article is being written in November.)

The Convention Awards Dinner will take place in the evening. There will be a guest speaker as well.

# Saturday, March 25th

Warbirds Over Wanaka Airshow — http://www.warbirdsoverwanaka.com/

The Warbirds Over Wanaka Airshow is held every second year in the nearby resort town of Wanaka. It takes place over four days and is the largest warbirds airshow in the Southern Hemisphere, and among the top five warbirds airshows worldwide.

We will travel by coach to the airshow. This trip will provide another opportunity to see the autumnal beauty of the Otago region.

Wanaka Airport is nestled among the mountains beside a wide river valley. The scenery provides a spectacular backdrop to the flying displays. We have reserved Silver passes that give access to uncovered seating. Bring your sun hat and sunscreen, but also bring a warm jacket as there can be a cool breeze. This is a day not to be missed.

While the full lineup of aircraft is yet to be announced, the following aircraft among many others have been confirmed: Buchon Messerschmitt Bf 109, Supermarine Mk IX Spitfire, Goodyear FG-1D Corsair, Consolidated PBY Catalina, Boeing C-17 Globemaster III, Martin Jetpack, Beechcraft Staggerwing Model C17B.



38-54 Lake Esplanade, P.O. Box 454 Queenstown, New Zealand Telephone: (03) 442 7600 Facsimile: (03) 442 9653

E-Mail: reservations\_queenstown @rydges.com

# DIRECT BOOKING FORM FOR

# International Comanche Society Convention Tuesday 22nd March – Sunday 27th March 2016

Please return completed form to our reservations team via fax or email.

Fax: +64 3 442 9653 or Email: reservations\_queenstown@rydges.com

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Add	ress:		
Pho	ne: (	) Fax: ( )	
Ema	ail:		
	val Date:	Departure Date:	
		Please note that standard check in time is 2.00 PM & standard check out time	e is 11.00 AM.
Nun	ber of Adult	s occupying the room:	
RUN RUN	OF HOUSE R Single Double Twin Share  Extra (thing Special R ease guarant	OOM Incl Bfast for one @ \$ 180.00 incl GST per room per night OOM Incl Bfast for two @ \$ 200.00 incl GST per room per night  Name of sharer Name of sharer  Id) person @ \$35 incl GST per night equirements  tee my booking with the credit card number listed below. departure. Should another party be paying for your stay directly prior to your arrival	Note that payment will be
Card	Type and N	umber:	_ Exp Date:
Sign	ature:		_ Date:

# Conference accommodation information:

- Cancellation policy: cancellation fees may apply (please check with reservations)
- All requests are subject to availability
- Room block will be released on 21st January 2016 (60 days)
- If a credit card is not available, please forward the total accommodation cost (including GST) to confirm this booking

PLEASE NOTE THAT YOUR BOOKING IS NOT GUARANTEED UNTIL YOU HAVE RECEIVED AN EMAIL CONFIRMATION FROM OUR RESERVATIONS TEAM. THIS SHOULD BE RECEIVED WITHIN TWO WORKING DAYS OF SENDING THIS FORM. IF YOU HAVE NOT RECEIVED YOUR EMAIL CONFIRMATION, PLEASE CONTACT OUR RESERVATIONS TEAM DIRECTLY ON:

+64 3 442 7600 or reservations\_queenstown@rydges.com

# Comanche Panel Options — Part One

by Zach Grant

Making your Comanche as close to a new airplane as you can without actually buying one.

t is often said that when buying an airplane, you buy an engine, avionics, and get a free airframe thrown in to keep everything together! Unfortunately for those that already own aircraft with legacy radios, this is going to keep driving the real price of those aircraft down. Let's face it if you spent \$20,000 on computer equipment in the late '80s you wouldn't expect it to be worth much to anyone today would you? The same can be said for avionics. The funny thing about avionics, unlike computer equipment, is that if you bought radios anytime from the late '70s to today, you can probably still use most of those radios, if they still work (Loran receivers and 360-channel radios being major exceptions), and go flying. You may be limited in where you can shoot an approach due to not having an approach-approved GPS, but if you want to fly in most places in the national airspace system, between two relatively large airports with radar coverage and ILS approaches, you can still do that. But ... the time is coming when you will be forced to have a WAAS receiver onboard and an ADSB

out solution at the very minimum. Already, significant portions of foreign airspace have vacated Victor and Jet routes for GPS-based "O" and "T" routes. It is only a matter of time before the same takes shape in the US airspace. With that being said, many are taking the opportunity not just to comply with basic requirements, but they are adding significantly to their planes' capability. What is involved, where do you start, and what options are available are all questions I will address in this three-part series of articles. I will also "flight test" multiple current units and hopefully take much of the mystery out of your new avionics project. I will break this series down into "The Plan," "The Execution," and "The Results." I hope you enjoy the read and will find information that is useful in your future decisions.

# The Plan - Part 1

So you have an airplane you love; in fact, most people with Comanches love them. They are a perfect cross-country IFR platform with stout airframes. Unfortunately, all of us will have to visit

the avionics shop sometime in the next four years if we want to continue to use the aircraft for what it was designed to do. Our airplanes all have different equipment and layouts. Some have close to original panels with maybe a newer radio or two stuck here or there. Others look like they just came out of the factory with the latest and greatest avionics in a very modern looking flat metal panel. Others are somewhere in between. So what do you do if you want to own one of those planes that everyone will drool over at the next fly-in? What do you do if you just want to add some capability to your bird, or what do you do so you can just keep flying in the national airspace system past December 31, 2019? The ADS-B mandate will essentially relegate you to airspace that you do not need a transponder in unless you add the proper equipment.

I suggest you start with this question. What do you want your panel to be? Unless you spend a lot of time in your hangar just looking at the outside of the plane, the panel will be the part of the aircraft you look at the most! It is important that you like what you're looking at, it's functional, and it meets your mission.

A panel project is one where you absolutely need the big picture first. A good master plan is essential. This is pie in the sky planning for most folks, but get everything possible into the plan it will be cheaper in the long run if you choose to add other items later. Once you have your "dream sheet," figure out what you need, what you want and what you have already. What is your mission? This is a big consideration for what you "need." Are you flying VFR in the Great Plains, or are you hard IFR in the northeast corridor most of the time? Different missions have different solutions. Do you want the newest glass panel touch screen integrated cockpit, or are you one that is more comfortable with analog displays and dedicated knobs and buttons? Are you looking to impress your friends or impress yourself? Chances are, once you start to answer some of these questions, you will realize you may have much of what you want and need already serviceable and installed somewhere in your panel. Radios such as the Bendix King Silver Crown line (once the benchmark of modern radios) are still very attractive options for nav/ coms and HSI systems. Many times, a simple reallocation of panel real estate for those items will yield great rewards in modernizing the look and feel of the panel. Most people start a process like this with a hard budget. With the multitude of options out there, I suggest that you do not start with the dollars, but rather figure out where you want to be in the end, and then work on the cost. If you are like most owners, the cost will be the ultimate determining factor in the end result; to limit the options too early in the process usually yields poor results.

Now, to really get started. Let's be honest, most owners can accomplish a relatively successful oil change, or tire change, or lube job. A new panel, well that is something that is probably best left up to experts! I do know some who have done the job themselves, but I have always maintained that when it comes to big business, women, and electricity, it is best to leave it to the experts!

So, finding a shop is the next step. Good avionics shops come in all shapes, sizes, and capabilities. Bigger shops usually have better availability and can usually move a project along quicker, but smaller shops sometimes have better prices due to lower overhead. My suggestion is not to look outside about a two-hour flight radius for your prospective installer, and I will get into the reasons for that later. Compile all of the shops that you think could do the job, spend some time talking to the people at the shop, get referrals, and narrow your choice down to a couple of different options. Sit down with each and talk your plan through. I have always liked shops that show some creative thought behind projects. It is important that your prospective shop presents different options, not just a solution they are comfortable with doing. A shop that can talk about marrying several generations of radios into a single, workable solution is going to offer you many more potential paths to your ultimate goal than one that simply says they only want to build it from scratch. Don't fall into the trap of information overload. Remember, quotes are free. Expert help in deciding how you get to your ultimate goal is free. Being comfortable that your job will be done right, on time, and on budget is priceless!

# The Plan - Part 2

Once you make your decision on a shop, the hard work begins. Unless you are a close relative of the Rockefellers, chances are the first swipe at the plan is going to yield significant sticker shock! It is not hard to come up with a new panel that tops \$70,000 in today's world. This is a pretty big pill to swallow, especially if you bought the plane years ago for \$30,000. But times have changed, and avionics capabilities are so much greater than they were just a few years ago. But now you must make the plan fit the budget.

So, how do you arrive at your perfect panel? Getting the layout right is necessary before you start cutting metal. The radios you have and have decided to

(continued on page 33)



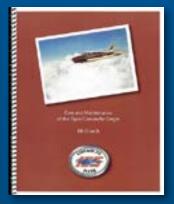




Landing

**Gear DVD** 

**Tips Manual** 



**Creech Manual** 











Decal, Patch





**Lapel Pins** 





**3 Button Placket Shirt** 

**Stone Washed Denim Shirt** 

Code	Item	Price	Qty	Total
ICS11	<b>Tips Manual</b> Easy to use, fold flat spiral bound, 365 pages. Updated version due soon.	\$65.00		
ICS23	Care and Maintenance of the Piper Comanche Single (Creech Manual) Donated by Maintenance Director and life-long member, the late Bill Creech. Tips on care and maintenance of your Single Comanche. 2013 edition revised by Cliff Wilewski	\$25.00 RI	EVIS	ED
ICS35	Landing Gear DVD Watch complete gear removal from the airplane and 1000 hour gear AD performed and hosted by Hans Neubert and George Mahurin. 2 hours.	\$25.00		
ICS09	Mens White Polo Shirt with pocket Circle selection: Single S M L XL XXL Twin S M L XL XXL Both S M L XL XXL	\$35.00		
ICS14	Ladies Light Blue Knit Polo Shirt Circle selection: S M L XL XXL Circle selection: Twin Both Single	\$35.00		
ICS24	Mens Light Blue Knit Polo Shirt with pocket Circle selection: Twin: S M L XL Single: S XL	\$35.00	SUF	PLY
ICS27	Mens Ultramarine Polo Shirt with Pocket Circle selection: Single: S M L XL XXL	\$35.00		
ICS28	Stone Washed Denim Shirt Circle selection: S M L XL XXL Circle selection: Single Twin Circle selection: Long Sleeve Short Sleeve	\$35.00		
ICS36	Men's (New Style) Light Blue Polo Shirt Easy Care 60/40 cotton/poly blend, stain release, wrinkle resistant, uv protection, curf free collar, 6.7 ounce, 3 button placket, bone horn buttons, straight bottom, rib knit collar & cuffs, reinforced side vents, taped neck & shoulders.	\$38.00		
ICS32	Ball Cap Circle selection: Tan Blue Circle selection: Twin Single	\$14.00		
ICS34	Visor Ultramarine (blue) Sun Visor with ICS logo. Hook and loop type closure. 100% cotton.	\$14.00		
ICS26	Coffee Mug Circle selection: Single Twin	\$7.50		
ICS10	<b>Lapel Pin</b> Circle selection: Single Twin Logo	\$5.00		
ICS05	Decals (price for 2)	\$5.00		
ICS06	Cloth Patch	\$6.00		
Item	USA Canada Foreign	TOTAL		
	Michiga r Tips Manual \$4.00 \$16.00 \$31.00 please add 6	n residents % sales tax		
Decal or		Handling		\$6.00
		Shipping		

Item	USA	Canada	Foreign
Creech or Tips Manual	\$4.00	\$16.00	\$31.00
Decal or Patch	\$1.00	\$1.25	\$1.25
Any Other Item	\$5.50	\$15.00	\$26.00

SUB TOTAL	
Michigan residents please add 6% sales tax	
Handling	\$6.00
Shipping	
TOTAL	

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US: (888) 300-0082 Other: (231) 946-3712 Fax: (231) 946-6180

http://www.comancheflyer.com/buy-merchandise.php

include, and those you have decided to purchase need a home! Remember, there are going to be some other details that need to be addressed with any new panel. One of these is going to be the lighting scheme, and the other in the Comanche series is going to be a glare shield. Post lights, ring lights, and flood lights all have pros and cons. Unless you have gone completely glass, there will probably need to be lighting "zones" necessitating additional dimming circuits. I have seen different options for glare shields as well, ranging from the "Ashby" fiberglass style available from Aircraft Spruce to the homegrown styles based on the later model Cherokee designs, attached to the top of the panel as opposed to a complete overlay. These should not be forgotten in the final plan. Good shops will make sure you don't forget them in your quote.

At some point, you will reconcile your wants/needs with your budget. Now that you have figured out the items that will be included, there are three things you need to remember. First, you are probably not the first to do a mod with this equipment. Second, there are general aviation conventions that should be followed that have been generated over millions of hours of experience by many people smarter and more experienced than you. Last but not least, remember you actually have to use the stuff so try to make sure that it makes sense to you. Put the switches and controls in a logical place where you will be able to see them/feel them/ move them without having to think much about it. Human factors should be considered when doing any panel mod. Look at pictures of other modern panels. Note the layout, the equipment, and the colors. These have all been researched extensively. Use your research to help generate your decision.

Once you have the general ideas, mock the panel up. There are some terrific computer programs out there these days that will generate a color picture, which is dimensionally correct, for your specific model of aircraft. Most good shops have these programs and will draw your panel. Take it to the plane, sit in front of it, and make changes! You can even go life-size with a cardboard box cut to size and a magic marker! Most people go through about ten versions before settling on "the one." At this point, your aircraft will need a new piece or pieces of metal cut so that the layout can be modernized and accommodate the new generation of displays. Many shops can do this in-house, or Ron and John's Comanche service can get you a fully STC'd custom-cut panel. Look for their ad in the *Flyer* for more information.

With all of the equipment on the way, a price you can stomach, and metal getting cut, it is now time to turn your baby over to the shop for the big transformation. Remember that two-hour rule I mentioned at the start? Well, this makes it so you can keep an eye on the progress now, as you probably have some friend who wants to go flying and have his or her gas paid for, or you can probably drive it in a reasonable time if necessary. The other reason for the two-hour rule comes later in the series.

The next installment: Execution



# FROM THE TRIBE CHIEFS

DATE	TRIBE	EVENT/LOCATION	INFO SOURCE/HOST
Mar 12	NE	Lunch Fly-In Charly's Airport Restaurant (in FBO) Williamsburg, VA (JGG)	Ron and Lynn Ward ronandlynn33@gmail.com Register at: http://www.quietcornerbands.org/ Forms/ICS-NE Flyin RegForm.htm
Mar 22-26	ICS	2016 ICS Convention Queenstown, New Zealand	Australia Tribe
Apr 16	NE	Lunch Fly-In Sugar Buns Airport Café and Bakery Easton, MD (ESN)	Ron and Lynn Ward ronandlynn33@gmail.com Register at: http://www.quietcornerbands.org/ Forms/ICS-NE Flyin RegForm.htm
May 14	NE	Lunch Fly-In II Paradiso Restaurant (just outside the gate) Ellenville NY (N89)	Ron and Lynn Ward ronandlynn33@gmail.com Register at: http://www.quietcornerbands.org/ Forms/ICS-NE Flyin RegForm.htm
May 16-23	ICS	ICS Fly-In Havana and Grand Cayman	Av Shiloh avshiloh@verizon.net, (215) 740-5558
June 11**	NE	Lunch Fly-In (Lil' Red Baron Mexican Restaurant being updated) Nearby restaurant via FBO transportation Newport, NH (2B3)	Ron and Lynn Ward ronandlynn33@gmail.com Register at: http://www.quietcornerbands.org/ Forms/ICS-NE Flyin RegForm.htm
July 16	NE	Lunch Fly-In Owls Head Transportation Museum Rockland, ME (RKD)	Ron and Lynn Ward ronandlynn33@gmail.com egister at: http://www.quietcornerbands.org/ Forms/ICS-NE Flyin RegForm.htm
July 28-31	WC	Dauphin Fly-In Dauphin, Manitoba, Canada	Don Dewar ddewar@goinet.ca, (204) 638-8433
Aug 13	NE	Annual Officer Election Meeting Sky Manor Airport Pittstown, NJ (N40)	Ron and Lynn Ward ronandlynn33@gmail.com Register at: http://www.quietcornerbands.org/ Forms/ICS-NE Flyin RegForm.htm
Sept 10	NE	Lunch Fly-In Martha's Vineyard Edgartown, MA (1B2)	Ron and Lynn Ward ronandlynn33@gmail.com Register at: http://www.quietcornerbands.org/ Forms/ICS-NE Flyin RegForm.htm
Oct 15	NE	Lunch Fly-In DeNunzio's Italian Chophouse Latrobe, PA (LBE)	Ron and Lynn Ward ronandlynn33@gmail.com Register at: http://www.quietcornerbands.org/ Forms/ICS-NE Flyin RegForm.htm
Nov 12	NE	Lunch Fly-In Arena's at the Airport Georgetown, DE (GED)	Ron and Lynn Ward ronandlynn33@gmail.com Register at: http://www.quietcornerbands.org/ Forms/ICS-NE Flyin RegForm.htm

<sup>\*</sup> Indicates rain day will be the following day.

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# **NORTHEAST TRIBE**

# **Lunch Fly-Ins**

March 12, 2016 Charly's Airport Restaurant Williamsburg, VA (JGG)

Williamsburg-Jamestown Airport is a beautiful, privately owned airfield that is easily reached by our Southeast Tribe friends. Charly's is a bakery and sandwich shop in the FBO, with a good view of the landing traffic. There are many attractions for a family weekend stay such as Colonial Williamsburg, the Jamestown Plantation, and Six Flags

# April 16, 2016 Sugar Buns Airport Café and Bakery Easton, MD (ESN)

Easton/Newnam Field Airport is located on the upper Chesapeake, just east of the Washington, DC, ADIZ. Sugar Buns Café offers great food. Nearby attractions: Amish Country Farmers Market, Audubon Center, and Art Museum.

# May 14, 2016 Il Paradiso Restaurant Ellenville, NY (N89)

Joseph Y. Resnick Airport is in a nice valley just to the west of the Hudson River and northwest of the West Point Military Academy. Il Paradiso, an excellent Italian restaurant, is just outside the gate. Nearby lodging: Honor Haven Resort and Spa. Those arriving from the southern coastal states should enjoy using the Hudson River Corridor—see New York City from 1200 feet!

# June 11, 2016\*\* Restaurant near airport Newport, NH (2B3)

Parlin Field Airport is an airport gem located in the Lakes Region of New Hampshire and has been a popular ICS/NE fly-in site for years. The FBO will provide transportation to a nearby restaurant while the Lil' Red Baron is being upgraded. The airport has onfield camping and "loaner" bicycles

<sup>\*\*</sup> At these fly-ins we will attempt to set up Young Eagles Flights with the local EAA chapters. All attending Comanche pilots are encouraged to participate.

to explore nearby hiking trails, the covered bridge, and a swimming hole in the Sugar River.

### July 16, 2016 Owls Head Transportation Museum Rockland, ME (RKD)

Knox County Regional Airport is located on the coast of Maine, north of Portland and south of Bar Harbor, and is home to the Owls Head Transportation Museum. The museum features exhibits of all modes of transportation — automobiles, trucks, farm equipment, and aircraft. On specific days, they actually fly their reproductions of vintage aircraft. When it's not a flying day, you can taxi to the museum and park to display your "antique" aircraft. Enjoy the many other "Down East" area activities and possibly stay over to relax in nearby Rockland.

### August 13, 2016 Annual Officer Election Meeting Pittstown, NJ (N40)

Sky Manor Airport is once more our yearly officer election meeting location. The airport is owned by a local group of pilots and has excellent service, great fuel prices, and a fine restaurant. Its central New Jersey location makes it easily accessible to our members.

### September 10, 2016 Martha's Vineyard Edgartown, MA (1B2)

Katama Airpark is a grass strip airfield on the eastern edge of Martha's Vineyard. Bring your beach toys and taxi south to park just yards from one of the best beaches on the Vineyard. Or taxi to the north by The Right Fork Diner, within walking distance of Edgartown's many shops.

### October 15, 2016 DeNunzio's Italian Chophouse Latrobe, PA (LBE)

Arnold Palmer Regional Airport is a towered field in western Pennsylvania, with DeNunzio's excellent restaurant overlooking the ramp.





### Editor's Note: Tribe Chiefs and Fly-In

Coordinators, remember to send in your calendar of fly-ins and more detailed information, as it becomes available, so it can be published in the Flyer.

### November 12, 2016 Arena's at the Airport Georgetown, DE (GED)

Once again we return to Coastal Delaware (Sussex County Airport), a popular location near the Atlantic coast. Arena's at the Airport restaurant is in the FBO. While at GED, visit the Delaware Aviation Museum and see the B-25 "Panchito" up close and personal.

### **SOUTH CENTRAL TRIBE**

### Weekend or Saturday Lunch Fly-Ins

One of the most enjoyable aspects of owning and flying your Comanche is the ability to travel to Comanche functions and experience the camaraderie and knowledge of other owners. Some events are purely social, others include seminars (mostly technical and/or knowledge-based), and the remaining are a combination of both with attractions for the entire family. If it is difficult for you to attend a full weekend fly-in, you may find a Saturday lunch gathering with that same Comanche camaraderie of sharing flying stories, hangar talk, and lunch more to your liking. Make plans to attend as many of these events as you can. Whether your own Tribe or any of the other Tribes is hosting it, you are welcome to attend. The friendships you will make at these events will be lasting memories. And if you have a favorite destination in your region, think about hosting one of these events yourself. If not in your region, just contact the fly-in coordinator in that particular region and discuss it with him/her. Should you need a little help getting started and/ or tips on organizing either type of flyin, please contact Bruce Thumann at bruce@contractbuilderssupply.com or (713) 875-3056.

### Tribe Email Updates

If you are not receiving the South Central Tribe's Fly-In and/or Tribespecific email notices and would like to, please email Bruce Thumann at bruce@ contractbuilderssupply.com. He will make sure to amend the SC Tribe email list to include your address. Most updates will be for upcoming events that will also be located in the ICS National Newsletter. Some, however, may be important last-minute details not appropriate for the National Newsletter.

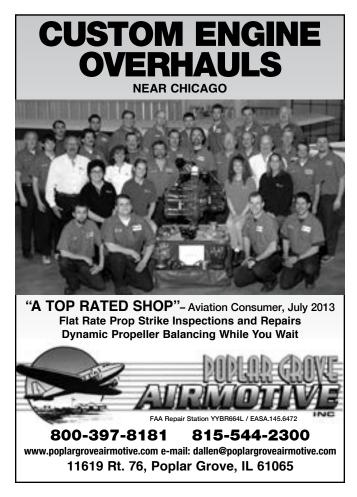
### **SOUTHEAST TRIBE**

### South Carolina Breakfast Club

This is still a great low-commitment fly-in. We will continue to join the South Carolina Breakfast Club (for breakfast) on occasion. The meal is about \$7.00 — this is a well-organized event. If you have not been to one give it a try, they are a lot of fun. Here is the link: http://www.flyscbc.com/. Hope to see you there.

Phillip Hobbs ICS SE Tribe Chief Matthews, NC (704) 651-9417 Phobbs1@carolina.rr.com









[Author's Note: I wrote this 47 years ago and hope that you will forgive my early writing style (or lack thereof). This originally appeared in the September 1968 edition of Private Pilot Magazine.]

y son and I were soaking up heritage at an aviation museum. Brian studied each archaic device with awe, wondering how pilots of bygone days had the courage to fly such ill-equipped and seemingly fragile-machines.

Soon we reached an area displaying engines of the past. The center of attention was an engine that triggered fond memories.

"Dad," he asked, "Did you really use these weird-looking engines?"

I nodded and realized just how far we had come since aviation's dawn at Kitty Hawk.

"But Dad," he continued, now more bewildered than before, "How did this thing work?" "Well," I began, "There's a half-dozen coffee-can-shaped thingamabobs moving back and forth in holes inside that big iron block." I continued with verbal diagrams of valves, spark plugs, cam shafts, and other complicated aspects of the obsolete, reciprocating, piston engine.

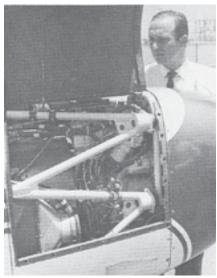
This reverie describes what I really thought it would be like to someday take my son to an aviation museum. After my first exposure to a turboprop engine in a small, single-engine airplane, I had thought that the future of the reciprocating engine was doomed. But it was not to be so. The piston engine thrives and survives. Despite the advantages of turbine engines, the cost of manufacturing, maintaining, and

operating them will have to improve dramatically if they are to displace piston engines in small, general aviation airplanes.

My first experience with a turboprop-powered single was in 1968. This is when I was invited by the Garrett/ AiResearch Corporation to fly their experimental Piper Comanche 600, a Comanche 400 modified with their TPE-331 turboprop engine.

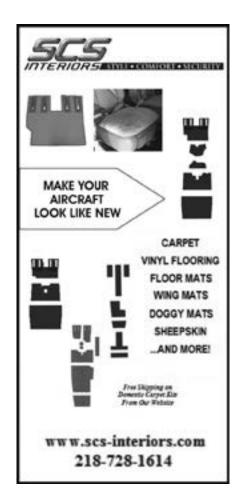
AiResearch told me that the unmodified Comanche fuselage was chosen as an early test bed for its turboprop engine because of its relatively high redline airspeed of 250 mph. This choice had nothing to do with the Piper Aircraft Company and did not mean that Piper intended to produce a turbine-powered Comanche.

The one-of-a-kind aircraft, N8401P, and its veteran test pilot, Jack Womack, achieved public recognition on May 15, 1968 when they established a new world altitude record of 41,320 feet for that class of turboprop aircraft. The previous record of 34,173 feet had been held by Pierre Bonneau of France in a SIPA (French) aircraft.



Author eyes the single-shaft engine, which develops 605 equivalent shaft horsepower on takeoff and 529 eshp max continuous although it weighs only 335 pounds with its shoes on.

JANUARY 2016



The TPE-331 is a lightweight, single-shaft, production engine available in power ratings of 575 to 715 shp (shaft horsepower). The one in the Comanche had 575 shp but could put out 605 eshp (effective shp) during flight.

Even though AiResearch's Turbine Comanche 600 and the stock Comanche 400 had identical fuselages, it would be unfair to compare their performance. The engines were worlds apart, eliminating the significance of any visual similarity between the two airplanes. The 8-cylinder, 400-hp Lycoming engine weighed 597 pounds (dry) while the TPE-331 turbine weighed a little more than 300 pounds and produced 50 percent more power. In other words, the Lycoming engine produced only 0.67 horsepower per pound of engine weight while the turboprop engine enjoyed a 2.0 hp/lb ratio. Pound for pound, therefore, the turbine was almost 3 times as powerful as the 8-cylinder engine.

Although the turboprop engine does amazing things to an otherwise



fine aircraft, AiResearch insisted that the Comanche fuselage was not designed or modified to accommodate a turbine engine. If an aircraft of the Comanche class were designed from the get-go to utilize turboprop power, the performance would compare to the Comanche 600 as a tiger does to an anemic house cat.

The Comanche 600 was based at AiResearch's Phoenix Division. It looked like any other Comanche except for its unique nose section. The cowling had been redesigned to house the smaller powerplant. Because the turboprop weighed considerably less than the piston engine, the propeller was extended 9 inches forward to preserve the original center of gravity. A large, stainless-steel exhaust stack was molded to each side of the cowling and directed the spent gases beneath each wing so as not to interfere with normal airflow about the wing roots. If the exhaust were to flow through a single-channel exhaust stack, an additional 30 hp of jet thrust could have been realized. The propeller was an 82-inch, 3-bladed Hartzell and was both reversible and featherable. The longer blades placed the propeller tips closer to the ground, requiring caution while taxiing on gravel.

After a quick look at this unusual Comanche, I was introduced to Womack who knew most about the project. He had been with AiResearch since 1948 and involved with the development of the turboprop engine since its first flight in a Martin B-26 Marauder test bed in February, 1964. He was the original test pilot of the Comanche 600 beginning with its maiden flight on July 16, 1965.

I asked Womack, "Because AiResearch is so deeply involved in turboprop development, why is the company equally aggressive in marketing turbochargers? It would seem that turbochargers and turboprop engines compete with one another."

Standing under the Arizona sun, Womack folded his tanned arms across his chest and said, "By selling turbochargers, more people will be exposed to the advantages of flying in the middle altitudes — between 12,000 and 20,000 feet — a regime where the turboprop engine is truly master. This will help to create a demand for pressurized aircraft. When these finally become available, we'll have aircraft properly designed for turboprop engines."

Womack showed me how to preflight the engine for internal damage. If the propeller can be rotated effortlessly and freely without binding or unusual noises from the engine, then everything is normal. He suggested also that I look into the air inlet duct while turning the propeller to check the compressor blades for damage. A small sensor located within the duct also was inspected. This probe sent inlet-air

temperature and pressure signals to the fuel controller, which metered the proper amount of fuel to the engine, depending on the position of the power lever in the cockpit.

The tanks were filled with 130 gallons of jet fuel (kerosene). Although the engine holds 8 quarts of turbine oil, it was almost ludicrous to check quantity before every flight. The TPE-331 may require a quart every month or so, but the engine can almost always be flown from oil change to oil change without adding any.

Satisfied with the preflight, Womack motioned me into the left seat.

Having many hours in a Comanche, I felt comfortable although some changes had been made to the instrument panel. Instead of the manifold pressure gauge and tachometer were an engine torque meter redlined at 44 psi, a small exhaust-gas temperature gauge, an equally small tachometer that indicated turbine rpm in percent (redlined at 105 percent).

An engine control pedestal mounted at the center of the instrument panel contained a robust, stainless-steel power lever, one that a pilot could really get a grip on.

The other, smaller one was a condition lever that controlled propeller pitch.

Starting the engine was dirt simple: 1) Turn on the master and inverter switches; 2) Turn on the fuel and ignition switch (this armed the circuits for activation later in the start process): and 3) Tap the spring-loaded start switch and release. That is all there was to it. The remainder of the start process was automatic.

The engine began to whine and within a few seconds, engine rpm reached 10 percent. This activated the circuits that caused the fuel valve to open and the 2 spark plugs to spray high voltage into the engine's burner section. EGT rose rapidly, peaking at about 700 degrees C with the engine accelerating through 30 percent rpm. The whine became more intense and the propeller, rotating in flat pitch, began to make a neat whooshing sound.





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Modified power quadrant and addition of a "new breed" of engine gauges on panel alter the cockpit only slightly.

We watched EGT carefully; if it continued climbing rapidly to 780 degrees or above, a hot start would have occurred (probably due to low battery voltage and weak engine cranking power). We would have had to shut down the engine. Instead, the engine continued to wind up. At 55 percent rpm, the starter disengaged and the ignition turned off automatically. (Once combustion had begun with a steady flow of fuel, ignition was no longer required.) The engine stabilized at 65 percent with the EGT at 350 degrees.

One hundred percent rpm is equivalent to 41,730 engine rpm and 2,000 propeller rpm. The propeller is geared down 20.9 to 1.

One of many early problems faced by AiResearch was providing 24 volts to the starter while the rest of the aircraft needed 12 volts. The solution was simple. Two 12-volt batteries were installed in the Comanche. When the engine was not running, the batteries were in series producing 24 volts for the starter. But at 55 percent rpm — when the starter disconnected — a relay operated to place the batteries in parallel and produce 12 volts for flight.

Without further ado, we were ready for takeoff. The propeller (condition) lever was left in the aft or low rpm position for ground operations. Womack pointed out that the condition lever should be kept in the ground-idle position while taxiing. Pulling back on the big T-shaped throttle, the propeller went into reverse pitch, which was used to save wearing out the brakes or to back up, literally.

Womack had me push the condition lever forward, out of the ground-idle detent and into the flight-idle position. He also cautioned me not to retard the throttle into reverse pitch when airborne because of possible tail buffeting that could result from the use of reverse thrust in the air. He emphasized that the Comanche was not designed to operate in this configuration. The Pilatus Porter, though, was designed to accommodate airborne reversing to enhance its unusual maneuvering requirements.

As we taxied to Runway 26R, I was shown how an engine fire (outside the engine but under the cowling) activated the fire-warning system and which button to push to spray fire-extinguisher agent into the engine area.

Propeller feathering was accomplished by a pulling a red vernier-type knob that allows oil to drain from the propeller dome. A flick of the unfeathering switch pumps oil back into the dome should the pilot want to windmill the propeller in preparation for an airborne start.

There were no engine checks to make at the runup pad. Nor did the turbine engine need to be warmed up.

The rpm (condition) lever was advanced to the flight idle, high-rpm position.

As we waited in position on the runway for takeoff clearance, Womack pointed out that the engine was canted 3 degrees right to compensate for left-turning tendencies. This correction was obvious when looking over the Comanche 600's long nose.

Although the engine can put out 605 eshp under standard conditions at sea level, power demanded from N8401P's turbine was limited to less than 450 shp. Womack explained that the aircraft structure was not designed to accept the stress and strain of so much power. The application of full throttle could have caused structural twisting and failure aft of the firewall. "But," Womack said, "All 450 shp is available up to 18,000 feet. At higher altitudes, available power decreases."

The clearance to go crackled through the eabin speaker and by advancing the power lever, I commanded the fuel controller to pump 45 gph into the fiery pits of the engine's burner section (engine torque was about 44 psi). The large propeller took huge bites out of the desert air and hurled the Comanche forward. Acceleration was incredible. The strong and steady pull of the turboprop engine was smooth, and we used much less runway than I had anticipated.

I rotated the nose at 80 mph. After raising the gear, I asked Womack about reducing to climb power. "Forget it," he stated flatly. "The power has already been reduced (from 605 to 450 eshp). Hold the airspeed at 140 mph and let's see what happens."

The climb angle was steep and the vertical-speed indicator showed more than 2000 fpm on the way up to 5000 feet. "She'll climb even better at 120 mph," Womack said, "but the steep attitude makes some pilots uncomfortable."

It was a hot day, and we still climbed to 20,000 feet in only 17 minutes. Thirty thousand feet, I was told, usually requires only 26 minutes. Once at 30,000 feet on a standard day, climb rate is still a respectable 1,000 fpm.

At 20,000 feet, N8401P cruised at 250 mph while burning 30 gph. At economy cruise, the Comanche 600 flew at 215 mph with a consumption of 21.5 gph. This was less fuel per mile than was possible with the piston engine. The range under these conditions (allowing for taxi, takeoff, climb, descent, and a 10 percent fuel reserve) was an impressive 1225 sm.

Cavorting about the Arizona skies in this marvelous machine gave me a privileged feeling, as though I was flying a futuristic airplane, and I suppose that was true. The airplane had a heavy, solid feel, and the sound of the engine was exciting. It exuded strength and capability; it did not scream or vibrate to attract my attention. If the turbine could talk, it might have said, "Watch what I can do in my own quiet way; ignore the bellowing roar of lesser engines."

An irritating characteristic, however, was the need to change elevator trim with even the slightest power change.

Upon entering the pattern for a few touch and go's, I retarded the power lever to idle, but the Comanche showed little inclination to slow down. This was because even when idling, the engine still produced 80 hp.

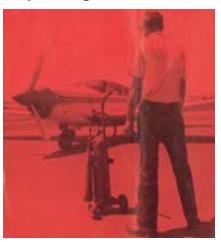
A gear-warning-horn cutout button on the power console preserved my sanity while the lengthy slow-down process took place.

I lowered the flaps and landing gear at placarded speeds, stabilized the Comanche in a normal approach slot, and added sufficient power to maintain 90 mph.

The flare and landing were routine. As soon as the wheels touched, I depressed two small buttons under the grip of the power lever. This unlocked the lever and allowed me to pull it aft and into reverse pitch. The aircraft stopped smartly without having to use the conventional toe brakes.

I was impressed, and Womack knew it. He said that "if the airframe could take it, the use of all available horse-power would result in a sea-level cruise speed of at least 300 mph. A 3,000 fpm climb rate also could be expected. Now imagine how an airplane designed for high-speed flight would perform with this engine. We would expect a cruise speed of 350 mph."

After taxiing back to the AiResearch hangar, I gave considerable thought to this brief glimpse into the future and realized that this was the way flying would be someday. No other conclusion was possible.







# Journey to More New Places The St. John's Experience —

## **Part Two**

## by Ken Mori

he fly-in, from all accounts, was a resounding success. Twelve aircraft and 36 people attended. Five Twin Comanches flew from the UK, three from Western Canada, one from Eastern Canada, and one from the US (two "Brand X" aircraft were present — a Cessna 404 and a Piper Cheyenne, a bigger Twin Comanche). The attendees were international, and the Brits sure know how to throw a party! They came from the UK, US, Argentina, and Canada. A great group of people that included:

- David and Jennifer Buttle, the hosts. Barkham, England, UK Twin Comanche: G-SIGN
- Barrie and Sheila Taylor. Barrie flew with D. Buttle to CYYT. Fakenham, England, UK
- 3. Keith and Mary Taylor. Keith flew with D. Buttle back to the UK. Hereford, England, UK

- 4. Trevor and Gill Laundy. Both flew to and from the UK. Peterborough, England, UK Twin Comanche: D-GPEZ
- Robert and Tracey Limb. Both flew to and from the UK. Oxfordshire, England, UK. Twin Comanche: N7EY
- Peter Greenyer. Graham Balls flew with Peter. Essex, England, UK. Twin Comanche: G-LARE
- Torquil Clyde and Tommy Sinclair. Orkney, Scotland, UK Twin Comanche: N4297A
- 8. Graham Balls and Lynn Shelby. UK
- 9. Bill and Judy Schnauffer. Rockford, IL, USA
- 10. Wolfgang and Annette Felhaber plus daughter, Anna, and friend. Port Orange, FL, USA C404: N404NE

- 11. Don Dewar and Kelly Ganchar. Dauphine, MB, Canada Single Comanche: C-FXGD
- 12.Don and Carol Ostergard. Drumheller, AB, Canada Single Comanche: C-FLHV
- 13. Bill and Rosemary Eisele Laporte, IN, USA Cheyenne: N3TA
- 14. Friedrich and Monica Rehkopf.Provincia de Cordoba, Argentina
- 15.John Van Bladeren and Kathy Baker. Portland, OR, USA
- 16. Robert Williams and Marti Calderwood. Akron, OH, USA Single Comanche: N5974P
- 17. Ken and Ena Mori. Vernon, BC, Canada Twin Comanche: C-FWYC
- 18.Chris Elgar. Burlington, ON, Canada Single Comanche: C-FYHU



(back row) Don Ostergard, Wolfgang Felhaber, Carol Ostergard, Keith & Mary Taylor, Jennifer & David Buttle. (front) Kelly Ganchar, Don Dewar.



Sightseeing at Signal Hill—(l to r) Barrie & Sheila Taylor, Bill Eisele, Rosemary Eisele, Robert Limb.



Our fly-in hosts, Jennifer & David Buttle, at Get Stuffed restaurant. Torquil Clyde (r) in deep thought to drink or not to drink.

It was interesting to note that two of the Comanches had flown around the world: Trevor Laundy in his twin Comanche, D-GPEZ; and Chris Elgar (and Dave McElroy) in a single Comanche, C-FYHU.

The story of Trevor Laundy is that he started his journey from the UK, but by the time he reached New Zealand, he decided he needed to top up his finances. Being a medical doctor (kidney specialist), he joined a locum in Blenheim, NZ, and stayed for two years. His wife, Gill, a nurse joined him.

Chris Elgar and Dave McElroy completed their round the world trip in July 2015 as part of a fundraiser for Toronto's SickKids Hospital and Scotland's Charity Air Ambulance.

Monica Rehkopf was a former EU Tribe Chief but now lives in Argentina. Friedrich and Monica travelled the farthest. They flew commercially to Chicago and hitched a ride to St. John's with Bill and Rosemary Eisele, in Cheyenne N3TA.

We flew into St. John's, NL one day earlier (Tuesday, July 14). The planned date of arrival was Wednesday, July 15. A tropical storm was moving up the Atlantic towards Newfoundland. It turned out to be a good decision because, on Wednesday, even the commercial flights were neither arriving nor departing St. John's. For those who had arrived on Tuesday, we all met at the bar in the Marriot Hotel and later for dinner. It was an orientation type meet and greet social.

Wednesday was a free day to explore St. John's on our own. Jennifer Buttle



Friedrich & Monica Rehkopf, Bob Williams & Marti Calderwood, Ena Mori, Tracey Limb, Annette Fehlberg, Anna Fehlberg & her friend.



The ladies with American icon Amelia Earhart—(back l to r) Carol Ostergard, Tracey Limb, Lynn Shelby, Ena Mori, Rosemary Eisele, Monica Rehkopf. (front l to r) Sheila Taylor, Kathy Baker, Annette Felhaber, Jennifer Buttle, Marti Calderwood, Mary Taylor, Kelly Ganchar, Gill Laundy.



Peter Greenyer (far right) wondering how the heck you land here with a rock bluff at one end of the runway.

provided a list of places to visit or shop. In the evening, dinner was at the Get Stuffed restaurant. There was a good selection of food, especially seafood such as lobster, scallops, seafood chowder soup, etc. — it was all excellent.

On Thursday, July 16, we got onto tour bus coaches to see the local sights. We went to Cape Spear, the most easterly point of North America. While there we saw the historic lighthouses, gun emplacements, and whales. At first it was a bit foggy, but that only added to the ambiance. We travelled to a small fishing village called Quidi



(third from right) Trevor Laundy, Peter Greenyer (center), Tommy Sinclair (r)

(continued on next page)





































In the Quidi Vidi fishing village, we enjoyed lunch at the nearby Mallard Cottage Restaurant.



These colorful Victorian row houses in St. John's are known as "Jellybean Row."



Peter Greenyer is all smiles with the pre-flight of G-LARE for departure to the UK.



View of the runway with rock bluff behind it.





Vidi Village Plantation. It is a place to shop for local homemade textiles, jewelry, ceramics, and apparels, and visit the Quidi Vidi Brewing Company. We had a wonderful lunch at Mallard Cottage. Then, it was onto Signal Hill—not only does one see the historic tower on Signal Hill, but one gets a panoramic view of the city of St. John's, the harbour entrance, and the harbour itself. Dinner was at Bridie Molloy's and Celtic Hearth, where everyone enjoyed a wonderful meal. And, of course, more stories were told.

Friday, July 17 was a travel day to more distant destinations. We went to Heart's Content, the location of the Cable Station. As we toured the Cable Station, watched a video on the history of laying the transatlantic telegraph

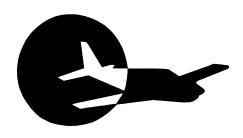
cable, and viewed the equipment used to transmit and receive messages, one has to be in awe of the advancement in communication technology. Back then, it required a houseful of equipment; today it merely requires an iPhone, smartphone, iPad, etc. which fits into one's pocket and does a thousand tasks such as talk, send messages, take photos and instantly send them, surf the internet, etc. We then travelled to Harbour Grace and the historic airfield. This is the airfield from which Amelia Earhart launched her flight across the Atlantic on May 20, 1932. There is a rock bluff at one end of the grass runway, and with the prevailing winds favouring an approach over/around the rock bluff, it would be a challenging approach. There are

placards marking the event, and there is a statue of Amelia Earhart in the town of Grace Harbour. Again, dinner was to "cap off the day." It was at the YellowBelly micro-brewery.

On the morning of Saturday, July 18, it was time to do a pre-flight inspection for aircraft returning to the UK while others had some free time. By late morning though we were headed to the Buttle's residence located in the town of Portugal Cove-St. Philips (a rural seashore community located on the eastern Avalon Peninsula), just outside of St. John's. David and Jennifer opened their beautiful vacation home, overlooking the water, for a final social gathering. BBQ'd roast beef and crab legs with all the trimmings were on the menu. Many thanks to them for hosting such a wonderful fly-in.

A few final thoughts from Bob Williams about the St. John's experience: "All I can add is that actually visiting places like Signal Hill, where Marconi received the first cross the ocean radio signals, Heart's Content and the first transoceanic cable terminus, and Harbor Grace Airport, the departure point for early transoceanic flights, should be on everybody's bucket list of historic locations. There is so much significant history in such a small area!

While at the Buttle's house for the Saturday gathering, several of us took the trek from the house to the shore on a path that David had cut through the woods. It was quite a hike. Marti donned a pair of mukluks that Jenny had ready for just such a trip. The trail was just as nature provided, and the view from the shore was worth the hike."



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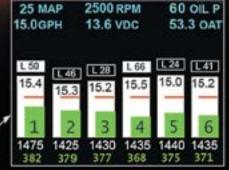
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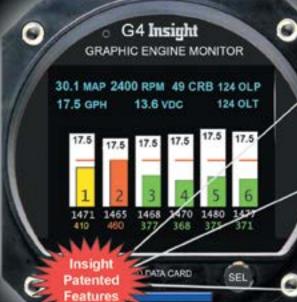
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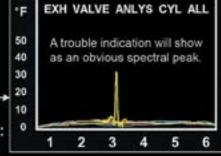




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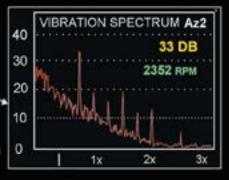
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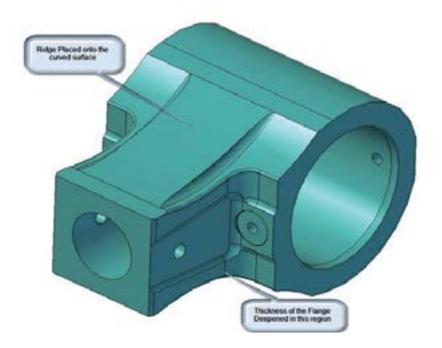
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