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# THE RAISBECK WING



## An Extraordinary Raisbeck Dealer

### WOODLAND AVIATION ENHANCES A LARGE CHARTER FLEET

There are many Raytheon Corporate Aviation Centers in this country, but few, if any, can compete with the 24/7 on-demand charter fleet of Woodland Aviation. According to "Charter Christy" (that's how she answers the phone—really) and her three other charter booking colleagues, they manage to keep Woodland's fleet of 18 charter aircraft and four privately owned aircraft in their management program airborne nearly 5,500 hours annually.

While their fleet ranges from Barons to a Hawker 800A, King Airs dominate the ramp. Among the King Airs, there are two B200s, eight C90s, one F90, and one 300. Most utilize Raisbeck Systems to increase productivity. "There's no question about the fact that the Raisbeck-equipped King Airs fly more," says Charter Christy, "especially in the skiing season." Customers requesting King Airs with Wing Lockers know they will be able to take all of their belongings while still enjoying the uncompromised comfort of the plush interiors offered by Woodland.

Centrally located to serve California's Bay Area and Central Valley, Woodland Aviation was established in 1963, and is still operated by its founding family. Their facilities have expanded to include a large hangar/office complex at nearby Yolo County Airport to handle their turbine maintenance. Under President Bruce Watts' leadership, steady growth in aircraft sales, maintenance, avionics, parts sales and aircraft management has increased the staff to 125 people.

To thank the loyal customers responsible for their growth, Woodland Aviation is hosting the First Annual Customer Appreciation Golf Tournament on Friday, September 20th. Open to anyone who might be interested in some form of association with the company, golfers will gather at the Yolo Fliers Club. The club, which has hosted such luminaries in the past as Amelia Earhart and Charles Lindbergh, will treat guests to a relaxing day of fun on the links.

Raisbeck Engineering is sponsoring one of the holes in the tournament, knowing that many of the participants will be flying in with King Airs, their golf bags neatly packed in Raisbeck Wing Lockers.

Woodland Aviation has an excellent sense of direction and superb record of accomplishment. Their facilities are worth a visit if you're anywhere in northern California or northern Nevada.

Give Woodland a call at  
(800) 442-1333,  
or visit their website at  
[www.woodlandaviation.com](http://www.woodlandaviation.com).



Woodland Aviation has a large fleet of King Airs and keeps them busy.

Summer 2002

## CEO's Message

### TO HAVE BEEN A PART OF IT

This fall marks my 48th year with engineering and aviation involvement.

I am very fortunate to have been involved with the innovative side of aircraft design at a time when the general, corporate and business aviation owners and operators could well benefit from the infusion of commercial aircraft technology into their existing fleet. This has included the product lines of Cessna, Piper, Beechcraft, Learjet, and Sabreliner.

Today, the application of advanced technology into the newly designed corporate jets on the market far surpasses anyone's wildest dreams of 30, 20, and even 10 years ago. This new technology is spread across a broad front including computers, avionics, composite structures, high by-pass ratio turbo fan engines, and, yes, even

aerodynamics. It has therefore become harder and harder for us entrepreneurs to find technical holes in those new designs which need plugging.

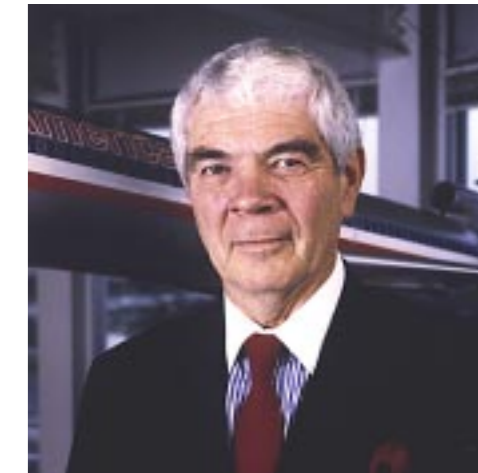
And yet the vast majority of the world's airplanes flying today were in fact designed many decades ago. In the case of the airlines, Boeing's fleet (upwards of 12,000 airplanes) contains relatively few of their 777s, which alone truly represent state-of-the-art technology from Boeing.

The same can perhaps be said about the general aviation fleet. (Do the Cessna 182 and Beechcraft Hawker truly represent tomorrow's technology?)

So, it will be ever thus: For every problem there is an opportunity; for every solution there is a satisfied customer (and profit!).

As for me, I will be eternally grateful

Editor, Randall Deal



James D. Raisbeck  
CEO, Raisbeck Engineering

for the opportunities the airplane industry has afforded me to uniquely satisfy customers' needs, on airplanes all the way from the Cessna 150 to the Airbus A320.

And hopefully, there is more to come.

## Ram Air Recovery

### IMPROVING THE PERFORMANCE ENVELOPE

The Raisbeck Ram Air Recovery System, for the King Air 200/B200, replaces the basic particle separation and ice protection system in each nacelle inlet. The system includes:

- a dual-airfoil fixed turning vane;
- a turning airfoil on the moveable ice vane;
- an ice shedder screen of 60% greater porosity; and
- more effective seals for the inlet plenum and nacelle.

Raisbeck's Ram Air Recovery System efficiently turns air up and into the engine inlets, providing "round air to a round engine"

During normal conditions with Raisbeck's ice vanes stowed, the increase in available horsepower at equal engine ITT increases cruise speeds, engine efficiency and saves up to 11 percent in block fuel.

During climb and cruise in icing conditions, the Raisbeck-equipped aircraft's engines pull more torque at the same engine ITT with ice vanes deployed than basic aircraft's engines deliver with their ice vanes stowed. The result? Greater climb rate and quicker climb through icing conditions, to an initial cruise altitude some 4000 feet higher, above inclement weather.

Raisbeck's ice vanes can be deployed

even for taxi and takeoff at temperatures up to ISA plus 27° C. With Raisbeck's ice vanes deployed before engine start and stowed during climb out, with redeployment before final approach, the chance of foreign object damage is virtually eliminated.



Raisbeck RARS provide a cooler engine, more horsepower, and fuel savings



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# Raisbeck Dealers' Meeting

...EXPERIENCING INFORMATION UNLIMITED



Left to right: Randy Deal of Raisbeck Engineering; Andy Bajc of Duncan Aviation in Lincoln, NE; Steve Mickle of Stevens Aviation in Greenville, SC; Russ Williams of West Star in Grand Junction, CO; Jerry Howard of Air Care in Rocky Mount, NC; and James Raisbeck.

No one shows up at Raisbeck's International Headquarters without knowing something about the excellent line of products now adorning nearly half the King Air fleet. It's a given, however, that when they leave they will take with them knowledge and understanding of the benefits Raisbeck products offer. Most have installed a Ram Air Recovery System, for example. But when CEO James Raisbeck gets through explaining how it works and why those workings improve performance, attention turns to enthusiasm.

The same transformation occurs with Hartzell/Raisbeck Quiet Turbofan Propellers, Enhanced Performance Leading Edges, Dual Aft Body Strakes, High Floatation Gear Doors, Nacelle Wing Lockers, and the Learjet Aft Fuselage Locker.

The dealer reps that made the trip to Seattle this spring went home with a new appreciation for Raisbeck's comfort and performance enhancements for both King Airs and Learjets.

Participants flew in on Friday and met for dinner to establish new contacts. On Saturday morning, they toured the Raisbeck facilities, learned what's on the drawing board for tomorrow's products, as well as what Raisbeck's Raiders are doing for the airlines. Then James Raisbeck led the session explaining the aerodynamics and resulting benefits of each system. Class ended at 4:00 p.m. and following a tour of the Raisbeck Automobile collection, the attendees went out for some gourmet dining in one of Seattle's finest restaurants. Sunday they flew home, carrying with them a valuable new level of knowledge on why installing Raisbeck is a win/win operation for dealers and owners alike.

Raisbeck Dealer Meetings are open to all dealer management and mechanics. For more information on the next gathering, contact Randall Deal at (800) 537-7277 or email him at [randall@raisbeck.com](mailto:randall@raisbeck.com). Enlightenment from the Source is a good investment.



James covers a lot of information in these dealer meetings.

# Outstanding Operators

WHAT A DIFFERENCE "FULL RAISBECK" MAKES

When Patrick O'Dell, CEO for Humboldt Group, purchased his B200 in 1993, he made the complete Raisbeck Systems installation a part of his paint and interior package. Humboldt's Chief Pilot, Tom Deckard, came onboard in 1995. He understands and appreciates the difference Raisbeck made in their operations.



This fully Raisbeck equipped B200 has been a revenue-returning servant of two masters.

"I frankly don't know how we'd have responded to some of the situations we've been in without Raisbeck," he commented. "The aircraft is simply more efficient at altitude. We made flights where we were able to pass on a refueling stop because we get better range. Takeoff noise is significantly reduced, which is a real plus for some of the highly noise-sensitive airports we flew into. The cockpit and cabin, of course, are quieter too."

"Those lockers too, generate revenue. When people want to transport skis, golf clubs, fishing equipment, or when we fill every seat in the aircraft, there's just no substitute for that extra storage space. Ski trips would be a hassle, and probably illegal without the lockers. The lockers and all the rest of the Raisbeck Systems significantly extend the operating envelope for our B200."

Tom is pleased about another aspect of the Raisbeck Systems: "We've never had a maintenance problem with anything. The Stack Fairings, Strakes, and Leading Edges are idle items. Once they're installed, nothing happens to them. The Ram Air Recovery System, High Floatation Gear Doors, and Wing Lockers are so cleverly engineered and operate so smoothly, that the mechanics can essentially ignore them. I guess that's why Raisbeck has never had an AD or even a Mandatory Service Bulletin issued. They're bulletproof."

# Meet The Raisbeck Team

INTERNS JEFF RODRIAN AND JOSH RIEHLE MAKE THE GRADE

Purdue University students Jeff Rodrian and Josh Riehle made the cross-country trek from Indiana to participate in the Raisbeck Summer Intern Program at their engineering complex in Seattle. James Raisbeck, a Purdue graduate, developed the program "to introduce the students to the real world where textbooks aren't always as effective as a pair of dirty hands."

Jeff, a student under Purdue University's Design/Build/Test Program, is pursuing a Master of Sciences in Astronautics and Aeronautics Engineering. Josh, the tenth Raisbeck Scholar in Purdue's Aeronautical Technology program, plans to receive his Bachelor of Science and A&P license in 2004.

Once they arrived, it didn't take long before they were immersed in the ongoing projects at Raisbeck Engineering. The "practical" learning curve, according to both, was dramatic.

Jeff was looking for "hands on" engineering experience and reports he got a lot of it. "Raisbeck Engineering is a very dynamic company. I was able to track a number of design projects from inception to conclusion with practical considerations that just don't come up in the University," he said. "At school, there's no contact with the FAA, no certification, no engineering revisions. I learned quickly that interfacing with real people, who focus on real airplanes and real certification requirements, is important also."

Tom's experiences are typical of operators who fly a King Air that's owned by a corporation; in this case, Turnbull Wine Cellars, part of the Humboldt Group. Tom flies about 200 hours a year for Mr. O'Dell, and another 150 hours of charter flying before they decided to sell their prized jewel.

**"We wouldn't have even considered the purchase if the aircraft didn't have the full complement of Raisbeck Systems."**

Now comes Todd Vance. Todd needed a good King Air for his charter fleet at Excel Aviation in San Carlos, California. He heard about Humboldt's B200 and was impressed and motivated by the fact that the aircraft has "full Raisbeck."

"The acquisition occurred quickly and smoothly, due principally to the fact that a B200 with Raisbeck is worth far more to charter operations than one without," said Todd. "We wouldn't have even considered the purchase if the aircraft didn't have the full complement of Raisbeck Systems."



Dual Aft Body Strakes have a positive effect on yaw dampening



High-floatation Gear Doors contribute to speed and range.

- To contact Excel Aviation, phone (650) 654-0100.

- To learn more about the Raisbeck Systems that are currently enhancing Excel Aviation's B200, visit [www.raisbeck.com](http://www.raisbeck.com).

Josh wound up spending a considerable amount of time in a new field for him: marketing and sales. Working with Randall Deal, a graduate Purdue Raisbeck Scholar currently responsible for sales of King Air and Learjet products, Josh conducted several market research studies, revised sales materials, compiled mailing lists, tabulated sales figures and learned how to read and revise flight manuals. Describing his internship as "absolutely wonderful", Josh admits that the learning curve was steep, beneficial and pragmatic. "I learned about areas I'd never even thought about. Raisbeck puts school book theory in its proper context."

And as for the company CEO, James Raisbeck added, "These two young men have brought us a fresh perspective, lots of energy and the kind of ideas that can only come from a young mind. They were, in a word, priceless."

Now in its fifth year, the Intern Program with Purdue University continues to be a win/win proposition for both students and Raisbeck Engineering alike.



Jeff & Josh have learned a lot about the real world of engineering at Raisbeck.

# Marilyn Monroe and the Hartzell/Raisbeck QUIET TURBOFAN PROPELLERS

"Brilliant," said one respondent; "they sure get your attention," said another. The comments, heard over the phone from people inquiring about Hartzell-Raisbeck Quiet Turbofan Propellers, are typical of the reactions coming in from people who have seen the new series of ads in Professional Pilot, featuring Hollywood's most famous leading lady, Norma Jeane Baker—aka Marilyn Monroe.

The benefits to installing the four-bladed Turbofan propellers designed and certified in 1984 together by Raisbeck Engineering and Hartzell Propeller are overwhelming. With the large number of aircraft required to comply with the steel hub replacement AD 96-18-14, there is no better time to upgrade to these modern technology Quiet Turbofans.

Eradicating the problems with the old steel-hubbed propellers isn't the only reason to consider the Quiet Turbofans. They substantially reduce cockpit and cabin noise, bringing the cockpit and cabin noise levels down by 7 to 9 decibels. Quieter operation also allows aircraft to depart noise sensitive communities with minimal impact, and be truly "neighbor-friendly".

Utilizing an airfoil that extends all the way into the spinner, more root-to-tip twist, re-engineered twist distribution and more blade area, the Hartzell-Raisbeck Quiet Turbofan Props truly transform the aircraft.

Or, to quote one of our customers, Steve Smith, Chief Pilot for Empire Distributors: "Take off performance was noticeably improved. Acceleration was much quicker and the reduction in take off roll was obvious. Climb was improved by 500 to 800 fpm, allowing us to cruise 2,000 to 4,000 feet higher.

This allows a significant reduction in fuel consumption while not giving up any performance. Cruise at 1600 RPM is a pleasure and noise levels were reduced to very comfortable levels. It was so noticeable that our passengers made immediate comments. Finally, the landing roll with ground idle only, was less than with using both reverse and braking with three-blade props. The Quiet Turbofan Propeller has truly improved our operation and the value of our aircraft."



For performance & comfort there is no equal.



Norma Jean Baker, aka Marilyn Monroe, still draws a lot of attention.

**The Hartzell/Raisbeck Quiet Turbofans just make good business sense!**