

# PROFESSIONAL PILOT

OUR 44<sup>th</sup> YEAR

MARCH 2010

UTILITY WORK AHEAD

**Wilson Construction**

Electrical utility work keeps this mixed fleet operator busy. (Front L-R) CEO Don Wilson, Chief Pilot Helo Jim Hattan, Chief Pilot FW Jeff Ward, VP Finance Stacy Wilson, (back L-R) Exec VP & General Counsel Jeff Johnson and Senior Helo Production Pilot William Olson with powerline support equipment, Citation CJ1, MD500E and King Air 350 at UAO.

LR jets, EVS credits

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FLIGHT DEPT PROFILE



## **Wilson Construction builds profits with aviation assets**

**High-precision electrical power line support in remote areas is standard practice for Oregon-based contractor.**

**By Grant McLaren  
Editor-at-large**

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**(L-R) Senior Helo Pilot Federico Landaeta, Senior Mechanic Eric Waite, Exec VP & General Counsel Jeff Johnson, Pres & CEO Don Wilson, VP Finance Stacy Wilson, fixed-wing maintenance provider Management West Dir of Mx Tom Anders, Chief Pilot Helos Jim Hattan, Senior Helo Pilot William Olson, Chief Pilot FW Jeff Ward and Logistics Mgr Tony Helbling with assorted powerline utility equipment. Backdrop includes Citation CJ1, MD500E and King Air 350 at UAO (Aurora OR).**

Over the past 58 years Wilson Construction has developed and fine-tuned a unique business niche in supporting a wide range of electrical transmission power projects. Today, with a fleet consisting of a Cessna Citation CJ1, Hawker Beechcraft King Air 350 and C90GTi plus 5 MD Helicopters MD500Es and 1 MD530F, this Canby OR-based contractor with 450 employees and more than 1000 pieces of construction equipment offers one-stop solutions to electric utility companies throughout the US and overseas.

"Our primary business is building power lines and we can do quick response jobs probably better than anyone in the industry," says CEO Don Wilson. "Having our own aircraft to position crews and to operate on site has been very successful for us and a huge selling point for our customers.

With our own helicopter and fixed-wing fleets we're able to bid on jobs we may not have been able to bid on otherwise and we're in much better control of the overall process and safety." Helicopter missions range from delicate high-wire acts at locations across the US to months-long operational stints at assorted remote locales.

Meanwhile, Wilson Construction's fixed-wing fleet supports everything from management site visits to shuttling entire crews of linemen from one job to another. As jobsites are often near small towns, the company's Raisbeck equipped King Airs allow practical all-weather access to locations such as 33S (Ritzville WA) with its 3635-ft strip.

**Pilot Andrea Somma holds an MD500E steady while a lineman makes a "tower top transfer" to a post insulator on a job near Ketchikan AK.**

Seven full-time helicopter pilots and 6 mechanics support company helo ops and they're on the road working out of everything from Best Western hotels to floating helo bases deep within Alaskan fjords. Last summer the group supported 1700 hrs of helo ops, working off a floating base camp in Alaska, while supplying the operation with personnel, supplies and helicopter parts aboard fixed-wing runs from the UAO (Aurora OR) home base.

Rotor wing pilots and mechanics lived on the remote barge for 3 week shifts while the King Air 350 handled crew changes and even delivered a replacement Allison 250-C20B+ engine to an



AOG MD500E deep in the wilds of Alaska. Fixed-wing fleet is piloted by CEO Don Wilson, VP Finance Stacy Wilson and Chief Pilot Jeff Ward.

### **Rotor ops**

Wilson Construction helicopter pilots do things as SOP many a rotor wing pilot would not even want to consider! It takes special skills to excel and survive in this job says Chief Pilot Helicopters Jim Hattan, a 27,000-hr pilot who joined the team in 2004.

### **CEO Don Wilson (L) and VP Finance Stacy Wilson at the controls of the company King Air 350.**

Rotor wing pilots here work on an intimate basis with electrical power lines—dropping linemen off on power cables and transmission towers and ferrying crews between suspended platforms. This is the Cirque du Soleil of high-wire helo flying and many well-qualified new-hire prospects simply turn around and say “no” when they see what’s involved during the hiring process.

“Pilots are normally taught to avoid wires but here we need to be able to embrace power lines and feel comfortable flying in a wire environment,” says Hattan, whose fleet of 6 MD helicopters work intimately with assorted networks of above-ground electrical cabling. “We’re a different breed of cat out here and it’s not the same as executive or EMS flying.

We have to know where we are in relation to existing wires even though we may not be able to see them. It’s a matter of being in absolute control of our space and we’re very particular on hiring well-experienced pilots with good depth perception and solid longline skills.

We’re constantly moving linemen between towers and our pilots must give confidence to linemen who step off a helicopter as high as 300 ft AGL.” Helicopters not only enhance efficiency in power cable support work—perhaps completing a job in 3 min vs hours to position from the ground—but there’s also a payoff in terms of linemen retention says Don Wilson.

“Being able to save linemen 20–30 minutes to climb transmission towers and then easily commute from tower to tower—or putting them on a longline for 30 minutes to work among the wires—has been something of a recruiting tool in hiring and retaining linemen,” he says.

“A guy on a platform can often do the work of many on the ground. There are also important benefits in using helicopters within environmentally sensitive areas such as national parks with restricted access. We can fly crews in and out without touching, or affecting, the ground.”

Exec VP & General Counsel Jeff Johnson is a member of HAI’s utilities, patrol and construction committee and works closely with the committee on advancement and safety of the civil helicopter industry. “Safety is always our number 1 focus,” he says, “and we’re much better able to control all aspects of operational safety with our own inhouse aviation assets and procedures.”

**In Alaska, an MD500E finishes delivering parts to workers on a “baker board” while they are “dead-ending” a conductor into an insulator. The helicopter moved both men, all the tools and the board to this elevated position from a barge several miles away.**

Wilson Construction helicopter crews typically work 3 weeks on with 2 weeks off and live all over the country. RONs can number 150– 170 nights in total away from home a year at



everything from Hilton Hotels to makeshift barge heliports. Personality and psychological makeup are important factors in the hiring process.

This is not a white-glove environment and pilots must be comfortable being away from home for extended periods and working as a team, with perhaps just a single mechanic, at remote locales. Routine activities may involve putting 1 skid on a log stump to drop off technicians in a small clearing to a recent case of replacing sections of damaged wires after a California fire.

## **High-precision electrical power line support in remote areas is standard practice for Oregon-based contractor.**

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### **Chief Pilot FW Jeff Ward was Wilson Construction's first professional pilot. He is also a commercial instrument rated helicopter pilot.**

"The ground was still smoking down below and the Forest Service had barred all land access to the area," recalls Hattan. "Firefighting operations were still going on in the vicinity and our pilots were constantly monitoring multiple radios." Routine jobs include repairs and maintenance to power lines which can only be taken off grid during small windows of time.

In such cases linemen are constantly shuttled between towers or positioned on carts which hang from the wires and are supported by helicopter. "We're much more efficient with helicopters and can literally do miles of spacer replacements within those small windows," says Johnson.

Life here can also be dramatic for the 6 full-time helicopter mechanics who never know where they may be based next. When an MD500E went AOG, due to engine bearing failure, at a small clearing in the remote Alaskan wilderness, a replacement engine was dispatched from UAO aboard the company King Air 350.

"We camped out at that clearing overnight, working on engine replacement, and were on the alert as grizzly bears were in the area," says Dir Helicopter Maintenance Charlie Duren. "Fortunately, we never had to use the firearms issued for protection on this remote job!"

Company helicopter pilots wear orange flightsuits on the job and this can be somewhat problematic when dropping in at remote communities. "Our flightsuits look similar to outfits that escaped prisoners are often seen in," says Hattan. "One pilot landed in a small community and was pushing a shopping cart in a grocery store when a lady came around the corner, saw him, abandoned her cart right there and started running!"

### **Fleet evolution**

Prior to 2004 Wilson Construction chartered helicopters and hired ad-hoc pilots for power line projects. "But we couldn't get the scheduling we needed or the quality of pilots we were looking for," says Wilson.

"We quickly realized that we could use our own helicopters to augment our work and be more productive." The company acquired its first helicopter, an MD500E, in 2004 and hired Hattan. MD500Es were selected primarily due to compact rotor diameter and nimble abilities in power line environments.



"There was no clear second choice," says Don Wilson. "Eurocopter AStar 350s, and even the smaller EC120s, are too big to work close to the lines and multiblade systems give us a more stable platform than the 2-bladed Bell 206s/406s.

The MD500E, with its fully articulating rotor system, vs semirigid system on the 206, is also faster and more efficient for side pulling power lines. For the foreseeable future we plan to stay with MD500s—they're powerful, nimble and do everything we want at the best price."

**Dir Helicopter Maintenance Charlie Duren is supported by 5 inhouse mechanics. He has been pleased with maintainability of the MD fleet.**

Wilson Construction recently acquired an MD530F, because of its "hot-and-high" capabilities, for use on certain higher altitude jobs up to 8000 ft ASL.

All company helicopters are equipped with Garmin GPSMAP 496 and dual VHF but the goal is to keep these machines as light as possible. On the fixed-wing front Don Wilson acquired a single-engined Piper aircraft in 1978 primarily to avoid a road commute between GEG (Spokane WA) and UAO.

This was upgraded to a Piper Seneca, then to a King Air C90, a Baron and then a King Air C90A. Current fleet features a 2000 Citation CJ1, 2008 King Air 350 and 2009 King Air C90GTi that log a total of about 800 hrs annually. Jeff Ward is the only company professional pilot—however, Don and Stacy Wilson also regularly operate from the left seat.

Don Wilson is qualified aboard all company fixed and rotor wing aircraft while Stacy Wilson flies the C90GTi. Ward was hired in 2007 as the company's first professional pilot and keeps up a busy schedule and over 550 annual flying hours. Don Wilson considers the King Air 350 a most effective workhorse aircraft and without any clear replacement alternative in terms of useful load.

It's an economical aircraft and can be loaded up with 9 passengers for nonstop ops UAO-KTN (Ketchikan AK). The 350 will also shuttle engines and helicopter support parts, move linemen between jobs and field executive missions one-stop as far afield as TEB. The C90GTi was acquired last year to support shorter missions and ops into shorter and snow-covered fields.

Both King Airs have Rockwell Collins Pro Line 21 flightdecks and are equipped with many Raisbeck components. Don Wilson says, "The Raisbeck Epic equipped C90GTi—with its 93-in Raisbeck/Hartzell 4-blade props—gives us additional useful load, shorter takeoff distance and a quieter cabin.

We're also very happy with the new, more spacious Raisbeck Crown wing lockers." While the CJ1 has been a successful aircraft for Wilson Construction, and supported missions as was away as EYW (Key West FL), HOU (Hobby, Houston TX) and MDW (Midway, Chicago IL), management is currently evaluating a faster, longer-range upgrade.

Don Wilson says, "We like to buy well-proven traditional aircraft and we'd prefer to have a faster, more capable aircraft as we continue to expand nationwide. We're looking at the CJ3, CJ4 and Bombardier Learjet 45XR."

**Maintaining the fleet**

Wilson Construction subcontracts nearly all fixed-wing maintenance to Management West at UAO. The support provided by Tom Anders and his Management West crew has been critical to

keeping the planes going over the years. Ward reports that product support from both Cessna and Hawker Beechcraft has been good.

Company fixed-wing aircraft are all relatively new and have had no significant reliability issues. All maintenance, inspections, component changes and limited sheet metal work on the MD fleet is accomplished in-house under the direction of Duren.

Company helicopters—with the highest-time unit just 5300 hrs—are maintained in pristine condition. All MD500s have been upgraded with Garmin 496 GPS as well as Allison 250-C20B+ with enhanced compressors, improved temperature margins and better altitude performance.