

Flight Levels

UPDATE

For Owners and Operators of Twin Commander Aircraft

## NOAA Commanders Go Low and Slow to Measure Snow

By Dale Smith

It's late February, a bit northwest of Caribou, Maine, and a lone Commander 1000 JetProp, wearing the livery of the National Oceanic and Atmospheric Administration (NOAA), lopes along at 110 knots just 500 feet above the trees. No, they're not searching for a downed aircraft or lost hiker. This NOAA Commander is using sophisticated instrumentation to measure the water content of snow packs. And it's the perfect airplane for the mission.

"We are conducting Snow Surveys for the National Operational Hydrologic Remote Sensing Center, under the National Weather Service," explained LCDR Catherine Martin, pilot for the agency's airborne snow survey program. "We are measuring water content in the snow pack to help create spring flood and water supply forecasts."

Using sophisticated Airborne Gamma Radiation equipment, the NOAA Commanders—they also operate a Shrike—fly above snow-covered regions in the U.S., southern Canada, and Alaska to measure both the water contained in the snow and the saturation level of surrounding



NOAA's Commander is equipped with sophisticated instrumentation to measure snow water content. The data is used to predict and control spring flooding.

ground moisture. The information is then relayed back to the National Weather Service and NWS River Forecast Center. When the spring thaws come, they can get a head start on spotting areas that may be prone to flooding.

NOAA started doing aerial snow surveys in 1978, and has been using Twin Commanders since the early 1980s when they put their first Shrike Commander into operation.

"The Commanders are the perfect airplane to meet the mission profile we fly," LCDR Martin said. "They have excellent slow-speed handling qualities and their high wing is very beneficial flying close to the ground. We always fly

VFR with our eyes outside. The visibility is great.

"We take a lot of photos during a mission," she said. "The copilot will take pictures of anything of hydrological importance whether it's a river, snow build-up, an ice jam or whatever may be of interest to the researchers. The high wing and large windows are great for that."

### TURBO COMMANDER 695A UPGRADE

LCDR Martin said that the Commanders fit NOAA's profile so well that the agency upgraded their older 690A to a 695A JetProp 1000 in 2005.

"It was built in 1984 and has 7,000 hours on it now, but it was the newest and greatest at the time," she said. "When we took ownership we

did a complete upgrade. We stripped it down and refurbished it to our needs.

"When we redid November Forty-Five Romeo Foxtrot, the Meggitt EFIS was the newest and best system going into the Commanders at the time. Because we fly so low, we were looking to provide our pilots with the greatest situational information available in the flight station (cockpit)," LCDR Martin said. "The Meggitt system delivered that for us. We also have dual Garmin 530s and a Honeywell MFD."

She pointed out that the Commander also has electronic engine displays, which makes

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## EAGLE CREEK: A QUARTER-CENTURY AT THE TOP

In the 25 years that Eagle Creek Aviation Services has been owned and operated by Matt Hagans, it has evolved from a dormant Twin Commander service center to the most active facility in Twin Commander's worldwide network of authorized service centers. Eagle Creek is the undisputed leader in Twin Commander sales, service, and upgrade activity, including Grand Renaissance conversions.

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## SimCom Up and Running With Commander Sims and Pilot Training Programs

SimCom Training Centers reports that all three of its Twin Commander simulators—a non-motion 690A, a full-motion 690B, and a full-motion 1000—are now operational at its new training center just north of Dallas-Ft. Worth International Airport. SimCom is now booking customers for pilot initial and recurrent training courses using all three simulators.



SimCom offers three Commander simulator options

SimCom acquired the two motion sims from FlightSafety International in September 2011, and after a lengthy refurbishment and FAA re-qualification process, both have been restored

to their previous Level A qualification status. (Landings cannot be logged in Level A sims.)

SimCom's Twin Commander training covers all turboprop models including the

690 / 690A / 690B / 840 / 900 / 980 / 1000. The non-motion Flight Training Device (FTD) for the Model 690 is programmed with Dash 10 engine performance and operation, and has a high-definition 180-degree wraparound visual system that allows for realistic training for circling approach procedures in day and night conditions. The FTD is equipped with a

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The full-motion 690B-configured simulator is programmed with TPE331-5 engine performance. A Garmin 530/430 is installed and operational and the outside visual display duplicates both day and night conditions. A visual display in the pilot's side window makes circling approaches possible. The third simulator option is a full-motion device configured as a Twin Commander 1000 with TPE331-10 engines, Garmin 530, and day and night outside visuals. Training courses include a five-day initial, three-day recurrent, three-day

second-in-command recurrent and a two-day advanced refresher. The two-day advanced refresher is intended for more experienced Twin Commander pilots.

The FAA is evaluating SimCom's proposed Part 142 training curriculum. Once approved, the Part 142 curriculum may be adopted by Part 135 operators for their training, pending approval of the operator's Principal Operations Inspector (POI), according to SimCom. FAA approval of the Part 142 training curriculum is expected within the next 30 to 60 days, SimCom said.

For more information on SimCom's Twin Commander training options and availability, contact the company at 800-272-0211, or visit SimCom's website at [www.simulator.com](http://www.simulator.com). ✈️