

The Sky's **THE LIMIT**

AVIATION PROGRAMS TEACH THE NEXT GENERATION OF
PLANE AND HELICOPTER PILOTS

WRITTEN BY TIM NEVILLE

A cockpit view of No Name Lake

PHOTO: JESSE POLAY PHOTOGRAPHY

It's a gorgeous, unreal day over Madras with the high desert canyons collapsing into the rolling expanses of sage and brittlebush, and Tanner Steele is at the helm of a Cessna 172. The pack of dials and gauges before him blink and spin in a language he has come to learn. There's the airport ahead. He banks. Mount Jefferson slides off his left wing. Mount Hood looms straight ahead. A sign in the cockpit reminds him to behave. No spins. No aerobatics. Steele, a Central Oregon Community College student enrolled in the school's two-year professional pilot program, is calm and focused; just a red-headed twenty-year-old a thousand feet in the sky. Me? I'm getting queasy.

"Look straight ahead," Steele tells me, helpfully. "Don't look down."

I close my eyes and that's when I notice the sound. Something's off. The constant drone of the engine has diminished to a worrisome sputter, and then a muscleless whisper. Is that an alarm going off? "Have you lost power?" I ask. "Oh no!" he says.

Steele gets to work. He sets the speed to about 65 knots which gives him an efficient nine-to-one glide ratio, meaning that for every nine feet he flies horizontally he'll lose only a foot in elevation. That should be more than enough to make it to the runway, but then he starts muttering in what sounds to me like run-on gibberish: "Roughly in a downwind turn a little bit more fine runway off the right wing gonna go straight into a right base for one-six." The runway drifts up slowly and with a squeaky bounce the plane comes to a stop on the ground. No fireball. No vomit.

"Like a boss!" says his instructor, Chris McNulty from behind him. Then the engine magically restarts and Steele does it all over again.

This is all fake—the weather, the airport, even the plane itself. What I just witnessed was a flight simulation boasting a remarkable layer of reality. We weren't high over





TOP: A computer projection simulates the view from a Cessna 172 cockpit for realistic flight training on the ground.

BELOW: Lab work as an aviation student includes hands-on learning in the sky.

Madras. There was no engine failure because there was no engine. Even Mount Jefferson, Mount Hood, and the desert around Madras, were all just a computer projection on a large, semicircle of a screen set before a model cockpit designed to feel and look exactly like the cockpit of a Cessna 172. About the only thing real here is Steele, my nausea and the fact that training like this—along with countless hours flying the real deal sitting outside on the Bend Municipal Airport tarmac—will mean one day very soon Steele will almost certainly be a pilot. When that happens, he'll be the guy anyone would want in the cockpit should a real emergency take place.

Steele is one of more than 200 students enrolled in COCC's aviation program that teams up with Leading Edge Flight Academy at the Bend Municipal Airport to teach the next generation of plane and helicopter pilots, as well as drone operators and managers. During the day he'll take classes in avionics (the study of the electronic systems used on aircraft) and aerodynamics, and then head out to the airport for a lab that includes flying real planes as well as time practicing in the simulator. In less than two years he's already mastered his private pilot and instrument-flying certifications and will soon have his commercial license, too. That puts him that much closer to realizing a dream of flying helicopters that offer emergency medical transfer. "I've wanted to fly since I was a kid," he said, adding he was going to transfer to Arizona State but then found COCC and Leading Edge. "I decided to stick around Bend."

TOP COURTESY OF CENTRAL OREGON COMMUNITY COLLEGE - TIMOTHY PARK PHOTOGRAPHY. BOTTOM COURTESY LEADING EDGE AVIATION



LOCAL SOLUTIONS TO A PILOT-SHORTAGE PROBLEM

There's a lot more going on here than just a kid following his dreams. As anyone who has flown recently or listened to the news knows, the country has a crippling pilot-shortage problem. American Airlines alone lost roughly eighteen percent of its pilots between 2020 and 2021—down to about 12,500 pilots—statistics show, and nearly a third of its pilots since 2019. In response, major airlines are hoping to hire 12,000 pilots this year alone, CNBC reported. The result has been record cancellations and soaring frustrations. "It's not just pilots but mechanics, and it extends to a worldwide situation," said Karl Baldessari, director of the aviation program at COCC.

The reasons for the shortage are myriad, from changes in aviation rules that have made it more expensive and time consuming for pilots to get the training they need, to a huge influx of pilots in the 1970s who have now reached the mandatory retirement age of sixty-five—projections show as many as 14,000 pilots will have to retire in the next four years. Meanwhile, Leading Edge and COCC are particularly active in addressing the issue thanks in part to a close relationship the community college has with federal programs that gives people who served in the military the funding they need to get flight training, which can cost \$50,000 to \$80,000 or more. In fact, nearly nine percent of COCC's 5,200 students have military experience, said Bonnie Jordan, the school's veterans program coordinator. It's the highest rate of community colleges in the state.

On a recent day, Jack Walker, Leading Edge's executive vice president, showed me how this is all playing out. Dozens of planes and helicopters sat in the sun while students went through their pre-flight checklists. They inspected the ailerons and alternator belts on the airplanes, and the rotor brakes and collectives on green Robinson training helicopters. The dizzying array of electronics inside each flying machine warranted a course onto themselves.

"Aviation has gone through its Kodak moment, and it's now in its Tesla/Apple/iPad moment," Walker said, adding that about half of the airplane students will go to work for the airlines, which have very high-tech cockpits, while the other half might go to the Alaskan bush and fly planes with very basic instruments. "So we have to have the right mix of old and new."

Meanwhile, the students seemed pretty stoked to fly for real. One military-affiliated COCC student, Joseph Kim, checked the fuel mixture before flying off to Eugene. Another student, Luc Persson, a former Air Force mechanic who worked on F-16s, was preparing to practice how to hover (one of the more difficult skills to master). "It's so cool to be able to fly around and just set it down wherever you like pretty much," he said. One day, he'd like to be a heli-ski pilot.

"Talk to me in ten, twenty years," he jokes. Then he hops into the machine and commands the blades to action. Soon, he's drifting along like a dream well on its way to becoming real. **LB**

AVIATION STUDENT SPOTLIGHT

ZOË DODEN, BEND
AGE: 18

HOW DID YOU BECOME INTERESTED IN LEARNING TO FLY?

"I don't know how a 2-year-old me found the interest, but I've wanted to fly for as long as I can consciously remember."

FIRST FLYING LESSONS:

"At Outlaw Aviation (in Sisters, Oregon), when I was 16 years old."

AGE YOU EARNED A PRIVATE PILOT LICENSE?

"Just after turning 18 and a few weeks before graduating from Summit High School."

FAVORITE (OR MOST CHALLENGING) PART OF FLYING?

"I love how you can never learn enough about flying, which is also what makes it a challenging thing to pursue. Flying is a constant learning experience."

WHAT IS YOUR ULTIMATE GOAL AFTER GRADUATION FROM THE AVIATION PROGRAM?

"I want to be an aerial firefighter in the long term but I also have a huge interest in backcountry flying and seaplanes."

Zoë starts the Leading Edge Aviation Program at Central Oregon Community College Fall 2022

