

THE HOLD SHORT

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23 MAR - 29 MAR

NAVIGATING THE SKIES: UNDERSTANDING MOUNTAIN WAVES IN FLIGHT TRAINING

As pilots, we're familiar with the beauty and majesty of the Sierra Nevada mountains from above. However, beneath their serene appearance lies a hidden phenomenon that every aviator must be aware of: mountain waves. Understanding and identifying mountain waves are crucial skills for pilots, especially those training in mountainous regions like ours here in Reno.

So, what exactly are mountain waves, and why are they significant in flight training?

Mountain waves occur when strong, steady winds blow across mountain ranges, creating a series of oscillating waves downwind of the mountains. These waves can extend for hundreds of miles and reach significant altitudes, posing potential hazards to aircraft. Here's why being able to identify them is so important:

1. **Turbulence and Updrafts:** Mountain waves often result in turbulent conditions, characterized by abrupt changes in airspeed and altitude. Pilots must be prepared to encounter turbulence, which can affect aircraft stability and passenger comfort. Additionally, if not properly managed, mountain waves can generate powerful updrafts, potentially causing rapid altitude changes.
2. **Wind Shear:** Within mountain waves, wind shear—the abrupt change in wind direction or speed—can occur, posing challenges during takeoff, landing, and low-level flight. Recognizing signs of wind shear and responding appropriately is essential for safe operations, especially in mountainous terrain where terrain-induced wind shear is prevalent.
3. **Cloud Formation:** Mountain waves frequently produce unique cloud formations, such as lenticular clouds, cap clouds, and rotor clouds. These cloud formations serve as visual indicators of mountain wave activity and can help pilots identify regions of potential turbulence and updrafts. Understanding cloud patterns associated with mountain waves enhances situational awareness and aids in decision-making during flight.
4. **Navigational Considerations:** Pilots must account for mountain wave activity when planning routes through mountainous terrain. By identifying areas prone to mountain waves and associated turbulence, pilots can adjust their flight paths to minimize exposure and ensure a smoother, safer journey.

Remember, in aviation, knowledge is power. By understanding mountain waves and their impact on flight, you can make informed decisions and mitigate risks, ensuring every flight is conducted safely and professionally.

REMINDERS FOR THE UPCOMING WEEK

- Please take the GBA survey at <https://forms.gle/PpKPNG1YED41mGdr8>. Your feedback is important to us! **The survey will close on April 1st**
- If you would like to be part of the Study Group or Pilot Sharing What's Apps, please contact the office and we will add you.

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GBA STUDENTS TAKING FLIGHT



ANDY GLENN – SOLO

The smiley, weekend line tech warrior, Andy Glenn, is all the talk of the town this morning... and I'm not sure if it's just us, but it looks like he's walking with just a little extra pep in his step? I mean, what newly soloed pilot wouldn't! That's right everyone, Andy Glenn officially gained some cool points this morning by soling N670CS at KRTS on runway 26! Beating the afternoon winds, Andy came in calm and ready, and after inspecting the landing gear of CS, there appeared to be a sufficient amount of butter on them upon his return (). When Andy's not working hard at GBA, fearing for his life in the office (ask about his fear of snakes...), or being ogled at by his instructor, Nathan Morin, at the gym (kidding... but maybe not), you can find Andy playing lacrosse at Manogue, golfing, hunting, and fishing. All jokes aside, huge congratulations to Andy and his partner in crime, Nathan, on this wonderful success! That checkride is just on the horizon!

Derrick Craine is GBA's March pilot of the month! If you've ever seen a guy in the office or down at the line with a great personality, a big smile, and a prominent southern drawl, you might've just laid witness to none other than the fantastic Derrick Craine! Derrick has been working incredibly hard inside and out of the airplane these last couple of weeks.

Whether it's a daily ground session, a windy flight, or staying up to burn the midnight oil while doing his ground school, Derrick is an excellent example of having a vision and getting it done... seriously, we see the guy like every day. The next time you see this country fella, give him some of that southern hospitality and wish him a huge congratulations, he's certainly earned it!

Awesome job, Derrick!



**DERRICK CRAINE –
PILOT OF THE MONTH**