

A Message From The Local Los Alamos Flight Instructors:

Fellow Pilots

Don't Become An Accident Statistic. Be Aware Of The Hazards When Operating In And Out Of The Los Alamos Airport.

- **High Density Altitude**
- **Strong Gusty Winds**
- **Rising Terrain**

The Los Alamos Airport can be a challenging airport to fly in and out of because of factors such as density altitude, strong gusty winds, terrain, and reduced aircraft performance. The density altitude at Los Alamos is often well above the field elevation of 7171' MSL. This can reduce aircraft performance by more than 50 %. The local terrain is mountainous with numerous canyons and mesas that often produce strong gusty crosswinds. Add at least 5 knots to the reported x-winds for an idea of their effect on your aircraft due to gusts and turbulence. The terrain rises from east to west in the airport vicinity. Takeoffs to the west are not permitted. If you takeoff to the east with a tailwind, be advised that your takeoff distance will increase by 10% for each 2 knots of tailwind. Go-arounds can be quite challenging at low altitude, so make your decision early, preferably at 300 feet AGL or higher. Go-around to the north only, the canyon is 500' deep and provides an instant altitude buffer. Feel free to contact any of the CFIs listed below for more information:

Will Fox - 505 690-7132

Robert Gibson – 505 662-3159

Maurice Sheppard - 505 662-3801

Brian Smith – 505 662-5207

Additional information:

The Los Alamos Airport is located on a mesa running east to west at an elevation of 7171 feet above Mean Sea Level (MSL). It has canyons on three sides and a housing development and rising terrain to the west. The terrain to the west of the airport begins a rapid rise about three miles from the airport with mountains that are over 10,000 feet MSL only seven miles to the west. Runway 27 slopes up at a 1.5% grade. All takeoffs are to the east and all landings are to the west because of the rising terrain and housing development on the west end of the airport. Restricted Area - R5101 is immediately to the south of the airport (It starts on the south boundary of the airport) and prevents operations on that side of the airport.

Density Altitude:

The density altitude at Los Alamos on a hot day can reach 11000 feet MSL. A good rule of thumb is to double your takeoff and landing distances when operating out of Los Alamos when compared to sea level with no wind. Similarly assume your climb rate and climb angle will be approximately half that at sea level, except on a hot bumpy day, where it may be considerably less.

Weather:

The wind is often out of the west and tailwind takeoffs to the east are at the pilot's discretion. A good rule of thumb is to add 10% to your takeoff distance for every 2 knots of tail wind. In other words, a 10 knot tailwind will increase your takeoff distance by 50 percent. **Do not attempt a takeoff to the west.** The rising terrain combined with turbulence from the wind coming across the mesas and over the mountains has caused several accidents.

It is common to have gusty south winds in the afternoons during the summer. These winds, combined with the canyons to the south, produce considerable turbulence on approach. A reported 10 knot crosswind will feel more like a 15-20 knot crosswind in this situation.

Because of the mountainous terrain, the local winds during the summer are often calm in the early morning, easterly by midmorning, southerly by noon, westerly in the late afternoon, and calm by dusk. The weather can change rapidly, so if you don't like the winds at Los Alamos, wait 15 to 30 minutes to see if they change. It is not uncommon for local pilots to land in Santa Fe for a couple of hours to wait for the winds to die down.

Mountain Wave activity does occur in the vicinity of Los Alamos. Wave activity can produce severe turbulence, and strong up and down drafts. Mountain wave

activity is usually associated with the passage of a cold front, strong winds aloft that are perpendicular to the mountains, and a stable air mass. Most commonly it is noticed as strong up and down drafts that are periodic in nature when flying towards or away from the mountains. Because of the dry air, the typical signs of mountain wave activity in the form of lenticular clouds or rotor clouds, may not be visible. If a strong downdraft is encountered, flying perpendicular to the mountains will provide the quickest exit.

Afternoon thunderstorms are common during the summer months of July and August. These storms can produce strong microbursts as well as hail and rain. Operations in and out of the airport with thunderstorms in the vicinity can be very hazardous. The storms usually dissipate in an hour or two, so consider waiting them out rather than taking off or landing while they are active.

Go-Arounds:

"Wheels on the ground don't go-around". This is the rule of thumb for many local pilots because the rising terrain, turbulence, density altitude, and lack of performance of most non-turbocharged aircraft, makes a successful go-around highly questionable once the aircraft has touched down. Consider riding out a bumpy landing rather than plowing into the jet blast barrier at a much higher speed during a failed go-around. On the other hand, a decision to go-around early in the approach, at or above 300 feet AGL, is fairly straight forward. So make your go-around decision early if things don't feel right. Always turn right (north) when going-around. The canyon to the north is 500 feet deep, instantly increasing your altitude and providing some additional safety margin. If a strong south wind is blowing, the air flowing over the south side of the canyon may cause the aircraft to descend as you fly over the canyon, however the reverse occurs as you approach the other side.

Making Good Decisions:

Density altitude, weather, and terrain, can all conspire to make operations challenging if not impossible out of Los Alamos at any given time. Most pilots can deal with one of these factors, but when they start stacking up **Watch Out**. Ask a local pilot or the airport manager for information about the airport and local operations, or give one of the instructors listed below a call. If the weather is bad, it is better to wait it out than to take a chance. The weather usually changes quickly and most of the time it good VFR flying.

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