



## Rifle Rules

Garfield County Regional Airport in Rifle, Colorado is a unique mountain business jet airport that features a 7,000 foot grooved runway, ILS and GPS approaches and aircraft operations 24 hours a day. With a continual increase in jet aircraft operations each year the Airport Director has issued the following Rifle Rules as a reminder to pilots of some of the approach factors that they should consider.

### **Rule 1 Don't forget about the down hill slope of runway 26**

The FAA landing field length requirements for jet airplanes are specified in 14 CFR 25 and when you land on runway 26 please add a 1.2% down hill slope into your field length calculation. Other things to consider when landing down hill include: the effect of a contaminated runway by rain, snow or ice and the extra kinetic energy your aircraft may have if you come in heavy. All contribute to a longer landing and stopping distance than normal.

### **Rule 2 The glide path is steep at 3.5°.**

The glide slope is almost at the maximum allowable for jet aircraft, so recall any steep approach procedures for the type of aircraft you are in.

### **Rule 3 The Threshold crossing height (TCH) is high at 51 feet**

Remember that excessive height over the TCH will most likely result in a touchdown point well beyond the normal aiming point.

### **Rule 4 Watch your approach and landing airspeed speed!**

Any speed diversion from  $V_{REF}$  on final approach must be detected immediately and corrected. A common error we see is excessive approach speed associated with the steep glide path that carries through onto the runway. According to some aeronautical handbooks excessive airspeed over  $V_{REF}$  increases the stopping distance by 20-30 feet per knot on dry runways and 40-50 feet per knot on wet runways. A few aircraft have also come in too slow and then by necessity make flat approaches over the airfield field. A flat approach of  $2^\circ$  instead for  $3^\circ$  may add 500 feet to the landing distance as well.

### **Rule 5 Watch the flare!**

Holding your aircraft off the runway while flaring in an attempt to bleed off airspeed will greatly increase the landing distance. Remember that Runway 26 drops away from you

by approximately 12 feet for every thousand feet you travel down the runway. When you're landing and extend your flare, you could use up thousands of feet of runway really quick. A positive touchdown on your target point will help prevent an extended flare and give you more stopping distance.

**Rule 6      Safety First.**

The airport staff has placed aircraft and airfield safety as our top priority. Recent safety upgrades include, distance remaining signs, grooved runway, removal of visual obstacles from the A6 taxiway, remote communications outlet to Denver Center, new snow removal equipment, brooms, de-icers and snowplows, and annual recurrent ARFF training for the airport and local fire protection district employees. Future improvements include a 33 million dollar airport upgrade to a D-II airport standard that will eliminate the 1.2° slope, ODALS lighting system, runway cameras connected to the internet for pilots and dispatchers to see actual runway conditions and new ILS and GPS approaches to Runway 08 and 26.

We have also started a pilot awareness program to remind pilots of the many factors they should consider each time they land here at the Garfield County Regional Airport. We know that most pilots are able to fly a stabilized approach to our runway, even if one or two elements of the approach are off just a bit. We also know that once a pilot gets behind the curve on any of the Rifle Rules, the rest soon follow and we end up with an aircraft overrun off Runway 26. When we look at the causes of aircraft overruns we often find that most of the Rifle Rules were not accounted for and combined together causing an incident. We wish to inform all pilots of these conditions to avert further preventable incidents here at the Garfield County Regional Airport.

We welcome your comments and insight on additional safety items or programs we could implement at this airport for your safety and we look forward to your next visit with us.