

# Fabulous Mountain Flying

August 2010

*What a great time of the year to go mountain flying!!!* Recently, I did a **Mountain Flying** PowerPoint presentation for our local 99s chapter. When two members heard about this, (one already a client), and also that there would be a fly-in to Bridgeport two days later on June 19th, they decided to do a mountain checkout together. Since we would be flying a C182, along with this mountain checkout, they would each receive a high performance endorsement as well.



At West Valley Flying Club, (and there is probably a similar standard for most flying clubs/schools), the mountain checkout consists of: *flight to/from a mountainous area, executing 2 full-stop landings at each of 3 different airports, (2) of which must be above 4000' MSL. The third one should be above 2000' MSL and include "challenging" surrounding terrain. All airports must have a runway length of at least 3000'.*

Because we had to be at the fly-in destination of Bridgeport at noon for lunch, this called for some careful planning to allow each pilot two full stop landings at 3 different airports without requiring numerous seat changes. The airports chosen were Mammoth (MMH), Bridgeport (O57), Bishop ((BIH), and Mariposa (MPI).

With Mammoth sitting at 7135' MSL and Bridgeport at 6468' MSL, as expected, the density altitude affected landing and takeoff distance, as well as overall performance. I think the most surprising thing for these pilots was the true airspeed difference on approach and over the runway. With the calculation being an increase in TAS of 2% for every 1000' of density altitude, it appeared we were screaming in over the ground when flying at 8000' - 9000' density altitude...which we probably were! But, you still have to fly "by the numbers" as the indicated airspeed is the actual airflow over the wings and is what keeps the airplane flying.



In addition to a great training flight, good food at Hayes Street Café in Bridgeport, we encountered some spectacular views enroute with lots of snow still blanketing the mountains.

There are many elements of mountain flying to review prior to actually flying into the mountains. Some of the more important points are:

the change in  $V_x$  and  $V_y$  with an increase in altitude, weight and balance, performance at different altitudes and different weights, runway length and condition/contamination, leaning procedure for takeoff and flight, narrow and box canyons, updrafts and downdrafts, and of course weather, weather, weather.

If you are interested in flying to high altitude airports and/or in and around mountainous terrain, consider getting some training first. Please contact me and I would be happy to plan a mountain flight/checkout with you.

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