

Flight Decent Rate

How to calculate decent rate

To calculate the descent distance in miles, a common rule of thumb is to use the "rule of three" or "3:1 rule," which suggests that for every 1,000 feet of altitude you need to descend, you should plan for 3 nautical miles of distance. This is based on a 3-degree glideslope, a standard descent angle used in aviation.

For this example, pretend you ascend to 9200 feet AGL. Then you want to decent to 2200 feet AGL. To arrive at your destination airport.

1. $9200 - 2200 = 7000$ feet altitude difference
2. In thousands of feet: $7000 / 2200 = 3.18$
3. Nautical miles: $3.18 * 3 = 9.54$ miles distance
4. To convert to Statue miles: $9.54 * 1.15 = 10.971$

Meaning you will decent for the distance of 9.54 nautical miles to reach 2200 feet AGL.

