

DA vs MDA

DA = Landing is possible (not assured) or go missed right away

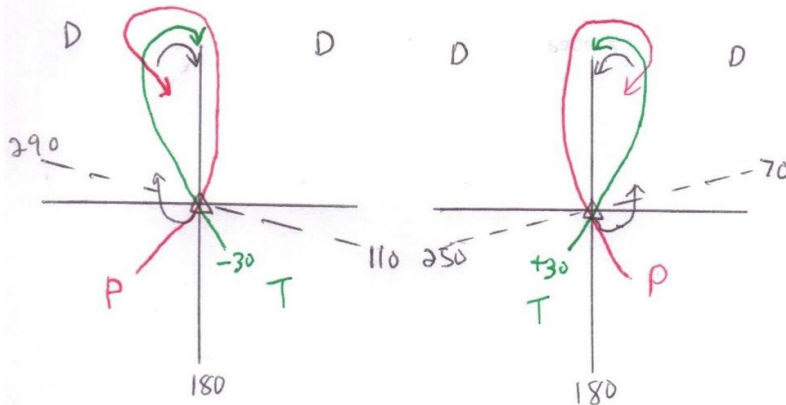
MDA = Landing is possible (not assured) or level off

VORs

FROM R -, FROM L +, TO R +, TO L -

2° per dot...200 ft per dot per NM...1 dot, 30 NM then you are 1 NM left or right

Arc = Opposite of Airplane Heading (bottom of Heading Indicator) – Outbound Radial



Single VOR **air** check +/- 6°, Single VOR **ground** check +/- 4°, Dual VOR air check +/- 4°

VOT all signals FROM R360 (from the north), TO R180 (to the south) +/- 4°

91.171 (d) **D**ate, place (**L**ocation), bearing **E**rror, and **S**ign the aircraft log or other record **S**LED

1-2-3 Alternate Rule for Filing Flight Plan

For +/- 1 hour, if less than 2000 feet and/or 3 SM visibility then you need an alternate

Alternate must have VFR, 600/2 for precision, or 800/2 for non-precision

When you **arrive** at the alternate, the minimums can be approach minimums

IFR Fuel For destination, then alternate, then 45 minutes

Standard Rate Turns

Standard rate is 1 minute 180 deg...3 degree per second

If speed increases, then bank angle must increase

Climb Rate

(Ground Speed/60) x ft per NM req = climb rate needed

Example: 120 kts is 2 NM/min x 435 ft/NM = 870 ft/min

Standard: is 200 ft/NM to 400 ft but check ODPs/SIDs...if not able req VCOA

§ 91.177 Minimum altitudes for IFR operations

Mountainous area **2,000** feet above the highest obstacle within a horizontal distance of **4** NM

Otherwise, **1,000** feet above the highest obstacle within a horizontal distance of **4** NM

§ 91.185 Comm failure

Altitude: **M**inimum on chart **E**xpected **A**ssigned Route: **A**ssigned **V**ectored **E**xpected **F**iled

Nav equipment errors ILS GS error => use LOC mins use MDA...GPS error => exec MAP