



Flight Planning Guide

Segment:

- Create the segments for your flight plan
- You may want to separate your cruise due to RSWT divisions, or significant track changes

Tracks and distances:

- Measure the total distance from departure to destination
- If you have split your cruise sector into multiple parts, also split your distances so that you can see how much of the total distance is attributed to each split
- Measure tracks whilst remembering to apply appropriate averaging techniques

Altitude Capability

- Are you flying east or west?
- East: FL290, FL330, FL370
- West: FL280, FL310, FL350
- Find your est TOC GW and compare with each cruise thrust limit, remembering that your cruise thrust limit is for the cruise (ie FL350 use ISA deviation from RSWT FL340)
- If your est TOC GW and the cruise thrust limit is within approx. 500kg check the actual FBO for climb to that level using data from page 2-8, 2-9 and 2-10.

Climb data

- Extract climb data from pages 2-8, 2-9, 2-10 (round to the nearest ISA 5 degrees, using the RSWT from 2/3 the cruise level)
- Determine climb TAS: $ANM/ETI \times 60$
- Apply magnetic variation to 2/3 level RSWT wind and calculate wind component (WC)
- Determine effect of WC on climb distance: $ETI/60 \times WC$, TWC increases climb distance and HWC decreases climb distance
- Subtract zone fuel from SZW to find EZW

Descent data

- Calculate estimated LW: $BRW - [(distance \times 10) + 1600]$, and round the nearest 10t
- Using page 4-3 determine descent data
- Apply magnetic variation to 1/2 level RSWT wind and calculate wind component
- Determine effect of WC on descent distance: $ETI/60 \times WC$, TWC increases descent distance and HWC decreases descent distance

Cruise data

- Cruise distance is found by subtracting the ground cruise and descent distances from the total distance (or split cruise segments, just the climb from the first split distance etc)
- Find ISA deviation and OAT based off closest RSWT to cruise level, apply magnetic variation to wind
- Moving from left to right: calculate TAS from Mach-TAS equation, find wind component, find GS, find EMZW
- $EMZW = SZW - (dist \times SGR)/2$, rounded to the nearest 1000kg
- Extract cruise fuel flow from section 3 of the Handbook, +/- 1% per 3 degrees ISA deviation
- $Distance/GS \times fuel\ flow = zone\ fuel$, divide by 2 to check EMZW and actual MZW are the same
- If they are not the same we will need to recheck: if it stays the lower pick that figure, otherwise use the higher MZW
- Subtract zone fuel from SZW to find EZW