

VFR Flight Planning Spreadsheet

Version 1.5

1 Features

- Simple, clear, single page format.
- Automatic calculation of wind-corrected heading, ground speed and leg time.
- Optional entry of destinations by longitude and latitude for automatic calculation of track and distance between two points.
- Fuel consumption helper
- Radio frequency table with Morse code decoder for NAV aids.



2 Disclaimer

This spreadsheet/accompanying programs and documentation is not guaranteed fit for any particular purpose. Its use for flight planning should always be backed up with other tools and techniques. Reliance on this spreadsheet alone is prohibited. I can't guarantee that it's free from errors / omissions. In other words, you use it at your own risk. Finally, a sound knowledge of VFR flight planning techniques is required to use this spreadsheet, remember Garbage In, Garbage Out.

3 Quick start tutorial

The spreadsheet comes pre-loaded with some example waypoints which can be seen on the "Places" sheet. For tutorial purposes, our example flight will be a short local flight around Denham Aerodrome (EGLD).

The empty Flight Plan sheet should be showing. (If not, select it from the list of sheets near the bottom of the screen)

- 1. Enter a true air speed in the TAS column at the top of the spreadsheet. Enter just the numbers, the units will be added for you:
- 2. Our flight starts at DENHAM so enter "DENHAM" in the FROM column on Line 1.

	Α	В	С	D	E	N	0	Т	U	V	V
1											
2		VFR FLIG	HT PLAN	– Versio	n 1.4	RL=1 GC=0	1	TAS:	96	kts	

- 3. Next our flight will go direct to BNN VOR, so enter BNN into the TO column on line 1. Notice that the Track and Distance between these two points are automatically filled in! This is because these waypoints are in the "Places" sheet.
- 4. From BNN we will go to MAPLE CROSS so enter this into the TO column of line 2. Notice again the track and distance are automatically calculated.
- 5. Finally we will go back to DENHAM so enter this into the TO column of line 3.
- 6. Select a suitable safety altitude for each leg.
- 7. Enter a suitable wind for each leg. Notice that a wind-corrected heading is automatically calculated along with the ground speed and estimated time en-route (ETE).
- 8. Enter the magnetic variation.

The flight plan should now look something like this:

	VFR FLIG	HT PLAN	- Versio	n 1.4	RL=1 GC=0		TAS:	96	kts		Head	ding	Time
	From	То	Safety Altitude	Planned Altitude	WIND		Trk (°T)	Hdg (°T)	Var (W)	Hdg (ºM)	G/S	Dist	ETE
1	DENHAM	BNN	1000	1100	270	06	350	347	+4	351	95	8.3	5
2	BNN	MAPLE CROSS	1000	1100	270	06	163	167	+4	171	98	6	4
3	MAPLE CROSS	DENHAM	1000	1100	270	06	188	191	+4	195	95	2.5	2
4	DENHAM												

You should fill out the remaining information, such as radio frequencies etc then check it over and copy the route onto your chart.

4 Adding new waypoints

The sheet comes pre-loaded with some example waypoints. Chances are, you'll want to add your own and doing this is straight forward.

- 1. Select the Places sheet.
- 2. On an empty row, begin by entering the type of waypoint, (e.g. VOR, TOWN, A/D (Aerodrome), VRP (Visual reference point), etc.
- 3. Then enter a name for the waypoint. You can choose any name but you must use this name on your flight plan.
- 4. Finally, enter the geographical position (Longitude and Lattitude) of this waypoint in degrees, minutes and seconds. You can read this information straight off a chart.
- 5. The columns to the right will automatically show this in radians these are used internally for the track and distance calculations so they should be left alone.

5 Radio Data

The flight plan features a table for storing radio information for use en-route. This data stored in the "Radio Data" sheet and can be entered onto the flight plan simply by filling in the station name. Try it! For example:

Station		Туре	Freq		Morse
BNN		VOR		113.75	
DENHAM		AFIS	130.725		
BENSON		MATZ		120.9	
,	26				

Morse code for VORs is automatically generated.

6 Acronyms

The meaning of the acronyms used on this spreadsheet is as follows:

Acronym	Meaning				
TAS	True Air Speed (Cruising Speed)				
Trk (°T)	Track (Degrees True). This is the track as drawn on a chart.				
Hdg (°T) Wind-corrected heading (Degrees True). This is the trace					
	rected for wind as drawn on a chart.				
Var (W) Local magnetic variation (West is positive)					
Hdg (M)	Heading (Degrees Magnetic)				
G/S	Ground Speed				
ETE Estimated Time En-route (Minutes)					
Hdc ©	Heading Corrected for Compass error. This is the corrected head				
	ing but because I write this down in the air, the ©is there to				
	remind me to add the compass offset!				
Time Set Hdg	Time you started on this leg.				
ETA	Estimated Time of Arrival (Time Set Hdg + ETE)				
RTA	Revised Time of Arrival				
ATA	Actual Time of Arrival				
F.R.E.D.A	Fuel, Radio, Engine, Direction, Altitude				
BUMFCH (Bumfitch)	Prior to landing: Brakes, Undercarriage, Mixture, Fuel switch,				
	Carb heat, Harness.				

7 Feedback

If you find this useful, or you have any constructive feedback then please take a moment to write me a comment on the project page at :

http://paulbanks.org/projects/vfrplan/

Also I'd love to know about your trips! You can write about them there too.