

Leg#1: **Goderich YGD** Elev: **712** Freq: **122.7** DeptPt-DIST: **7** TIME: **4** CH: **354**

Departure Point Port Albert	MP / RPM: 2300	Climb / Taxi, T/O & Land Time 5 / 10 min	ALT: 5500	IAS: 99
Wnd Agt TT	WIND DIR 285	WIND SPD 15	OAT -7	EN ROUTE DIST / TIME=Rvsd GS 20 120 10
026	285	15	102	018 028 58 104 34 030
WCA	Spd Cor	Cps Var +70	A/C Dev +2	Enter new GS in Rvsd GS-box 120 29 035
ENG ON: 17:48 Z	ENG OFF: 18:35 Z	DEPT TIME: 18:00 Z	ETA: 18:34 Z	ATA: 18:29 Z

DEPARTURE SECTION

The example information provided is NOT intended for navigational purposes. This guide is for reference only. This flight planner is designed for ease of use and understanding. Information is concentrated only in the areas where it is needed and it is in a compact foldable knee board format. Most of the flight planner sections are in the same format that you have been familiar to. Use the Departure side for your takeoff, establish course and to revise heading and time to destination. Use the Destination side when you get close to your landing site or waypoint. Use the middle section from TT to CH across for the initial calculation, the upper and lower DIST to CH section are for the revised calculations.

En Route: Calculate actual ground speed

In the en route section during your flight, enter the distance to a known point along the flight path that you have selected and the time it took to get there. Use your flight computer or E6-B to calculate ground speed. Then enter the revised ground speed in the Rvsd section and from the total distance, calculate Time. Example: 10 min for 20 NM=120 knots GS, then enter below 58NM at 120 knots=29 min, Rvsd flight time.

While on route, establish engine RPM and altitude, then determine from IAS if your ground speed maybe different than planned.

You can incorporate or separate your climb time into your flight to departure point time.

Notes:

	Total Leg & Departure Point Time		
	Total Climb, Taxi, T/O & Land Time		
	TOTAL TIME		
FD Wind	3000 Ft	6000 Ft	9000 Ft
17-27Z	Dir/Spd/Temp	Dir / Spd / Temp	Dir / Spd / Temp
Wiar	270,14	290,16,-9	290,28,-14
Tor	280,12	290,17,-8	270,38,-17

Distance, Time and Heading to Your Departure Point

Airport / Waypoint Wiar	Radio Freq 122.2	Appt Elev 729
ATIS, PRO NOTAMS Rwy 05/23 Closed - Air Show		Grnd Time 1 HR
Runways / Nav Aids Rwy 05/23 & 11/27, NDBs/w 326, VOR 117.7		
MET/TAF	Wind Dir	Wind Spd
Wiar	265	10
	Visibility	Precip
	15	None
	Cloud	Temp/Dew
	Few 6500	4/-3
	Alt Set	
	30-34	

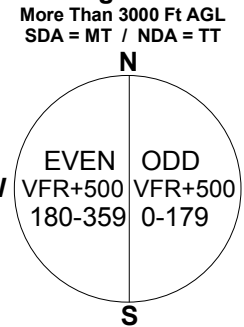
DESTINATION SECTION

The Destination section of each leg is used for landing purposes or way point position (VOR, NDB or landmark can be used). Also supplied is a quick reference chart below for cross wind component and cruising altitudes.

En Route: Calculate off course intercept

Choose one of the course correction methods. (If more than half way use the Open and Close Method) For this example use the Double Track Method. Note the time traveled and enter it in the Flytime box. Enter your off course angle and multiply it by 2. Enter your original compass heading. Add or subtract the closing angle from the compass heading. To turn right to intercept your course, add your closing angle to the compass heading. To turn left to intercept your course, subtract your closing angle from the compass heading. Turn your aircraft on the intercept course and fly for the same amount of time as you have flown during your off course flight time. Enter your original compass heading and add or subtract the original off course angle for revised compass heading and enter the value in your Rvsd flight leg Departure section. If you prefer in the course correction methods write "L" for left turn and "R" for right turn beside each value. For the most part these calculations can be performed in your head, the boxes are intended to keep track of your information.

Cruising Altitudes



Off Course Correction Methods

Open & Close Angle	Double Track
If beyond Half Way Point Use This Method	Off Crs Angle X2 = 5° L
	Closing Angle = 10° R
Off Crs Angle	CH + 030
Closing Angle +	Intercept Course = 040
	FlyTime (Equal) 10min
	CH 030
CH +	Off Crs Angle + 5° R
Revised CH =	Revised CH = 035

Wind Angle	Cross Wind Component			
	10 Kt	20 Kt	30 Kt	40 Kt
10<	2	3	5	7
20<	3	7	10	14
30<	5	10	15	20
40<	6	13	19	26
50<	8	15	23	31
60<	9	17	26	35
70<	9	19	28	38
80<	10	20	30	39
90<	10	20	30	40

Wind Directions for METAR / TAF / FD are TRUE

LEG#1: Goderich YGD		Elev:	712	Freq:	122.7	DeptPt-DIST:	7	TIME:	4	CH:	354
Departure Point Port Albert		MP / RPM:	2300	Climb / Taxi, T/O & Land Time 5 / 10 min		ALT:	5500	IAS:	99		
Wnd Agl	WIND DIR	WIND SPD	OAT	EN ROUTE DIST / TIME=Rvsvd GS →					Enter new GS in Rvsvd GS-box		
TT/MT			-7								
	026	285	15	102	018	028	58	104	34	030	Calc
WCA			Spd Cor	Cps Var	A/C Dev			120	29	035	Rvsvd
ENG ON:	17:48 Z	ENG OFF:	18:35 Z	DEPT TIME:	18:00 Z	ETA:	18:34 Z	ATA:	18:29 Z		

LEG#2: Wiarton YVW		Elev:	729	Freq:	122.2	DeptPt-DIST:	12	TIME:	6	CH:	140
Departure Point Owen Sound		MP / RPM:	2300	Climb / Taxi, T/O & Land Time 3 / 10 min		ALT:	5500	IAS:	99		
Wnd Agl	WIND DIR	WIND SPD	OAT	EN ROUTE DIST / TIME=Rvsvd GS →					Enter new GS in Rvsvd GS-box		
TT/MT											
	147	295	15	102		151	67	115	34	152	Calc
WCA	+4	mag	Spd Cor	+13	Cps Var	A/C Dev	+1				Rvsvd
ENG ON:	19:45 Z	ENG OFF:	20:40 Z	DEPT TIME:	20:00 Z	ETA:	20:34 Z	ATA:	20:34 Z		

Diversion:

You can calculate diversions the way you were trained with or use the chart on side 2 or just use the chart to verify. Determine your course (magnetic or true) and distance on your map. Use the upper wind information in the FD section or your own observations for wind speed and direction (magnetic or true). Calculate for left or right wind angle by the difference between true track and true wind or magnetic track and magnetic wind depending on your choice. Look on the chart on page #2 for wind correction angle and speed correction and enter in the fields (you might have to calculate in between values on the chart for your application, on example Page#3). Subtract or add wind correction angle and speed corrections, depending on positive or negative values and enter in TH box for True values or MH box for magnetic values and complete the rest of flight plan for the leg. If you use true track and wind directions for diversions, don't forget to adjust for compass variation for your heading indicator and compass rose on your map.

Notes:		Total Leg & Departure Point Time	1:18	
Add 1 hr for ground time -		Total Climb, Taxi, T/O & Land Time	1:28	
		TOTAL TIME	2:46	
FD Wind	3000 Ft	6000 Ft	9000 Ft	12000 Ft
17-21Z	Dir/Spd/Temp	Dir / Spd / Temp	Dir / Spd / Temp	Dir / Spd / Temp
Wiar	270,14	290,16,-9	290,28,-14	270,38,-17
Tor	280,12	290,17,-8	280,30,-11	270,44,-14

Wind Directions for METAR / TAF / FD are TRUE

LEG#1 Destination	Airport / Waypoint	Radio Freq	122.2		Aprt Elev	729
ATIS, PRO NOTAMS	Rwy 05/23 Closed - Air Show				Grnd Time	1 HR
Runways / Nav Aids	Rwy 05/23 & 11/27, NDBs/w 326, VOR 117.7					
MET/TAF	Wind Dir	Wind Spd	Visibility	Precip	Cloud	Temp/Dew Alt Set
Wiar	265	10	15	None	Few 6500	4/-3 30-34

LEG#2 Destination	Airport / Waypoint	Radio Freq	123.3		Aprt Elev	935
ATIS, PRO NOTAMS	Circuit Hgt - 1700 ASL				Grnd Time	Stop
Runways / Nav Aids	Rwy 15/33 08/26, VOR TOR 112.15-310°12 nm					
MET/TAF	Wind Dir	Wind Spd	Visibility	Precip	Cloud	Temp/Dew Alt Set
TOR	275	8	15m	None	Sct 6500	4/-3 30-32

TIPS:

- In the Departure section ENG ON and ENG OFF, you can enter the actual time (either local or UTC), the Hobbs meter or start a timer from zero. It can also be actual time or planned time, your choice.
- Departure and arrival time can be local or UTC or a timer set from zero.
- Departure time should be the actual time you start your leg from either the airport or departure point.
- ATA can either be the revised ETA or the actual leg time completed.
- If you are not conducting a flight to a departure point, disregard those entries.
- The total leg times box times can be entered with or without stops depending on you preference.
- More information of the leg times can be entered in the Flight Plan / Itinerary section.
- If you require more information about your first departure airport on LEG#1, just leave the Departure section blank and fill out the LEG#1 Destination section. Then use LEG#2 as your first Leg.
- If you want alternate airports, leave the next Departure section blank and fill out the information in the Destination section on the next leg.
- If more space is needed for airport information, just use the next leg Destination section for additional information.
- If you use different pen or pencil colors, it will seem less congested and easier to follow.
- Other unused boxes in each section can be used for additional information.
- For weather in the Destination section enter the TAF, METAR, PIREP, Weather Channel, WX Radio or other reliable source in the airport section depending on your needs and available information.
- FD weather information depending on your preference, enter multiple locations for the same time or multiple times for the same location.
- Print on both sides of the paper to keep the planner on one sheet.
- If you find this 8 ½ X 11 sheet too small, either print to a larger size of paper or increase the scale and print the Departure side and the Destination side on separate sheets of paper.

TAS 115 (+ or - 25) KT Airspeed Range						
Wind Angle	10 KT Wind		20 KT Wind		30 KT Wind	
	WCA	Spd Cor	WCA	Spd Cor	WCA	Spd Cor
0<	0	-10	0	-20	0	-30
10<	1	-10	2	-20	3	-30
20<	2	-9	3	-19	5	-29
30<	2	-9	5	-18	7	-27
40<	3	-8	6	-16	10	-25
50<	4	-7	8	-14	12	-22
60<	4	-5	9	-11	13	-18
70<	5	-4	9	-8	14	-14
80<	5	-2	10	-5	15	-9
90<	5	0	10	-2	15	-4
100<	5	+1	10	+2	15	+1
110<	5	+3	9	+5	14	+7
120<	4	+5	9	+9	13	+12
130<	4	+6	8	+12	12	+17
140<	3	+7	6	+15	10	+21
150<	2	+9	5	+17	7	+25
160<	2	+9	3	+19	5	+28
170<	1	+10	2	+20	3	+29
180<	0	+10	0	+20	0	+30

Use alike True or Magnetic for Heading and Wind directions

Wind angle is the angle between true track or magnetic track and of left or right true or magnetic wind direction. Use the chart for various airspeeds but wind correction angle and ground speed accuracy decreases as deviation from 115 KT increases. In the diversion example page 2; (Wind Angle of 148° and Wind Speed of 15 KT), the above wind angle of 150° is used and a WCA of 4° and a speed correction of 13 KT is determined. For wind speeds above 30 KT, just divide the wind speed by 2, then use that number to find corrections on the chart. Then multiply them by 2 to find the approximate WCA & Speed correction.

To calculate the remaining A/C range at the same altitude and flight conditions, subtract the total fuel from A/C usable fuel and divide by the fuel rate and subtract 20%.

You can also study the WCA / Speed Correction chart to get a better understanding of your cross wind flight characteristics and the patterns.

Calculate pressure altitude and density altitude to obtain A/C performance data from your POH. The negative and positive values must be maintained. Pressure and density altitude are general and not exact calculations. If you use a flight computer or altitude setting in your aircraft, you can just record them in the last boxes of the calculations.

Pres/Density Alt	
Std P	29.92
Pres	- 30.34
	= -42
	X 1000
	= -420
Alt	+ 5500
P Alt	= 5080
OAT	-7
Std T	- 4
	= -77
	X 120
	= -1320
P Alt	+ 5080
D Alt	= 3760

FUEL	Leg 1	Leg 2	Leg 3	Leg 4
TIME				
FUEL RATE				
SUB TOTAL				
Taxi T/O Land				
Climb / Dep Pt				
Reserve				
TOTAL				
+ 20 %				
A/C Fuel Usable:	Total Fuel:			

Fold Along Dotted Line
Set Altimeter to 29.92 for Press Alt
Not for Resale, Free for All Pilots for Copy and Use, By Anthony Pilling

FLIGHT PLAN / ITINERARY

Check box reminders for opening and closing your flight as well as the station and phone number or frequency of your preferred contact. Just scan / copy the completed flight planner when you leave your itinerary with a responsible person.

OPENED
CLOSED

FILING TIME	ORIGINATOR	CONTACT / STATION & PHONE / FREQ	
		FSS 126.7	
SPECIFIC IDENTIFICATION OF ADDRESSEE AND/OR ORIGINATOR			
3 MESSAGE TYPE	7 AIRCRAFT IDENTIFICATION	8 FLIGHT RULES	TYPE OF FLIGHT
9 NUMBER	TYPE OF AIRCRAFT	WAKE TURB. CAT.	10 EQUIPMENT
13 DEPARTURE AERODROME	TIME		
15 CRUISING SPEED	ALTITUDE	ROUTE	
16 DESTINATION AERODROME	TOTAL EET DAY HR MIN	SAR HR MIN	ALTN AERODROME 2ND ALTN AERODROME
18 OTHER INFORMATION			
19 ENDURANCE HR MIN	PERSONS ON BOARD	EMERGENCY RADIO UHF VHF ELT ELT TYPE	
E/	P/	R/	U V E
SURVIVAL EQUIP POLAR DESERT MARITIME JUNGLE		JACKETS LIGHT FLUORES UHF VHF	
S / P	D M J	J / L	F U V
DINGHIES NUMBER CAPACITY COVER COLOUR	AIRCRAFT COLOUR AND MARKINGS WHEELS SEAPLANE SKIS AMPHIBIAN		
D /	C		
REMARKS			
N /			
AN ARRIVAL REPORT WILL BE FILED WITH:			
NAME AND PHONE NUM OR ADDRESS OF PERSONS TO BE NOTIFIED IF SAR INITIATED			
PILOT-IN-COMMAND		PILOT'S LICENCE NO.	
C/			
A/C TAKEOFF DIST		A/C LANDING DIST	
Grnd Roll / IAS		Grnd Roll / IAS	
50 Ft Obs / IAS		50 Ft Obs / IAS	
Leg 1			
Leg 2			
Leg 3			
Leg 4			