Departure → **Arrival** | **Aircraft Type** | **Aircraft ID**

Departure Airport Information (*From Airport/Facility Directory*) Airport: _____

1. COMM Frequencies

ATIS/AWOS	
Clearance Del	
Ground	
CTAF/Tower	
UNICOM	

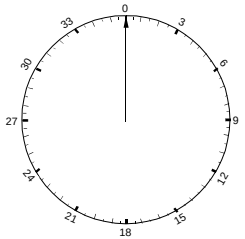
3. Pattern traffic direction and alt _____ MSL
4. Field Altitude: _____ MSL
5. Runway Info:

Arrival Airport Information (*From Airport/Facility Directory*) Airport: _____

1. COMM Frequencies

ATIS/AWOS	
Approach	
CTAF/Tower	
Ground	
UNICOM	
FSS	

3. Pattern traffic direction and alt _____ MSL
4. Field Altitude: _____ MSL
5. Runway Info:



Pre-Flight Calculations and Planning

In-Flight Navigation

WayPoint	SkyVector.com					Calculations															In-Flight Navigation			
Departure Airport	1 Total Miles: To WP	Remain	2 MC	3 Var E / W	4 TC	5 ALT	6 IAS	7 CAS	8 Wind Dir	9 Wind Vel	10 OAT	11 Press ALT	12 TAS	13 GS	14 WCA -L +R	15 MH	16 Dev	17 CH	18 Time To WP	19 Tot Fuel / Fuel To WP	20 Time To WP	21 Est. Time To Next WP	22 GS	23 Fuel Remain
	a	b																			Time Off:		Estimated Time To First WP:	
A																								
B																								
C																								
D																								
E																								
F																								
	Highest Obstacle Enroute: _____ MSL																	Total Time Enroute:	Total Fuel Enroute:		Time Down:		Total Fuel Enroute:	

A. Collect aircraft data from Pilot Operators Handbook (POH)

1. Crusing Speed (V_{no}) = _____ IAS
2. Crusing RPM = _____ RPM
3. Max RPM = _____ RPM
4. Max HP = _____ HP
5. Ceiling Alt = _____ MSL
6. Max Weight = _____ LBS
7. Best Rate of Climb (V_y) = _____ KIAS
8. Best Angle of Climb (V_x) = _____ KIAS
9. Rotation Speed (V_r) = _____ KIAS
10. Best Glide Speed (V_g) = _____ KIAS
11. Optimal Climb Rate = _____ FPM
12. Usable Fuel in Aircraft = _____ US Gals
13. Fuel Allowance for Start, Taxi, Ramp = _____ US Gals
14. Fuel Rate at Cruise = _____ GPH
15. Fuel Mileage at Cruise = _____ MPG
16. Flight Time at Cruise = _____ HRS
17. Range = _____ NM

Climb Performance Chart (from POH)

TOC	GS (V_y)	Time (Min)	Distance (NM)	Fuel (Gal)
2000				
3000				
4000				
5000				
6000				
9000				
12000				

B. ATIS Report *Note: ATIS reports Magnetic Direction for winds*

_____ airport information _____, _____ Zulu.
Winds: _____ at _____.
Visibility: _____.
Sky Conditions: _____.
Temperature: _____.
Dew Point: _____.
Altimeter: _____.
ILS Runway: _____ in use.
Landing and departing runway: _____.
NOTAM: _____
_____
_____.

C. Winds Aloft Report (*Winds are True Directions*)
Use TRUE North for all wind calculations

Possible Alts	Wind Dir	Wind Vel KTS	OAT °C
Surface			
3000			
6000			
9000			
12000			

Surface Wind = ATIS Wind +E -W Var

D. Enroute Altitude Calculation

Lowest Enroute Alt = Highest Obstacle Enroute + 1500 = _____ MSL

Even *(MC: 180-359)*	**Odd** *(MC: 0-179)*
2500	3500
4500	5500
6500	7500
8500	9500
10500	11500

Best Enroute Altitude = [to box 5]

E. Climbout Calculations (Row A, *Cols 5-19*)

6. **$IAS_{ClimbOut}$** = Best Climb Rate/Or Angle *(from POH)* = [to box A6]
7. **$CAS_{ClimbOut}$** *(from POH)* = [to box A7]
8. Interpolated **$Wind\ Dir_{ClimbOut}$** to Top Of Climb = [to box A8]
9. Interpolated **$Wind\ Vel_{ClimbOut}$** to Top Of Climb = [to box A9]
10. Interpolated **$OAT_{ClimbOut}$** to Top Of Climb = [to box A10]
11. **Press ALT** = **ALT** + (29.92 - **Altimeter**) * 1000 = [to box A11]
12. **$TAS_{ClimbOut}$** = E6B(**PressALT**, **$OAT_{ClimbOut}$**, **$CAS_{ClimbOut}$**) = [to box A12]
13. **$GS_{ClimbOut}$** = E6B(**$WindDir_{ClimbOut}$**, **$WindVel_{ClimbOut}$**, **TC**, **$TAS_{ClimbOut}$**) = [to box A13]
14. **$WCA_{ClimbOut}$** = E6B(**$WindDir_{ClimbOut}$**, **$WindVel_{ClimbOut}$**, **TC**, **$TAS_{ClimbOut}$**) = [to box A14]
15. **$MH_{ClimbOut}$** = **MC** –L/+R **$WCA_{ClimbOut}$** = [to box A15]
16. **Dev** *(from aircraft compass card)* = [to box A16]
17. **$CH_{ClimbOut}$** = **$MH_{ClimbOut}$** +/- **Dev** = [to box A17]

* **Cruise Dist To WP** = **Dist To WP** *(box $A1_a$)* _____ - **Dist To TOC** *(from Climb Performance Chart)* _____ = _____ NM

18. **Time To WP** = **Time To TOC** *(from Climb Performance Chart)* _____ + E6B(**Cruise Dist To WP**, **GS**) = [to box A18]

* **Cruise Ti me To WP** = **Time To WP** - **Time To TOC** = _____

19. **Fuel Onboard** = [to box 19]

A19. **Fuel To WP** = **Start/Taxi/Ramp Fuel** *(from POH)* _____ + **Fuel To TOC** *(from Climb Performance Chart)* _____ + E6B(**Fuel Rate at Cruise** *(from POH)* _____, **Cruise Time To WP** = [to box A19]

F. Cruise Calculations (*Rows B-F*, Cols 5-19)
Compute the following for each WayPoint (B-F)

6. **Cruise Speed** *(from POH)* = [to box 6]
7. **CAS** *(from POH)* = [to box 7]
8. **Wind Dir** *(at ALT)* = [to box 8]
9. **Wind Vel** *(at ALT)* = [to box 9]
10. **OAT** *(at ALT)* = [to box 10]
11. **Press ALT** = **ALT** + (29.92 - **Altimeter**) * 1000 = [to box 11]
12. **TAS** = E6B(**PressALT**, **OAT**, **CAS**) = [to box 12]
13. **GS** = E6B(**WindDir**, **WindVel**, **TC**, **TAS**) = [to box 13]
14. **WCA** = E6B(**WindDir**, **WindVel**, **TC**, **TAS**) = [to box 14]
15. **MH** = **MC** –L/+R **WCA** = [to box 15]
16. **Dev** *(from aircraft compass card)* = [to box 16]
17. **CH** = **MH** +/- **Dev** = [to box A17]
18. **Time to WP** = E6B(**Miles to WP**, **GS**) = [to box 18]
19. **Fuel used to WP** = E6B(**Fuel Rate at Cruise**, **Time To WP**) = [to box 19]

Notes: