MSA1000` above highest point within 5 miles of position.

Cruising Levelsabove 3000`
000º to 179º = ODD
180º to 359º = EVEN

IFR Tolerances
± 100ft Altitude
± 10º Heading
± 5º VOR - ± 5º NDB
MDA +100ft – 0ft
Speed within 10kts

ADF Tracking

Head of needle left of what your require – Steer Left

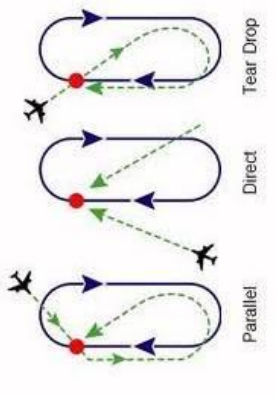
Head of needle right of what you require - Steer Right

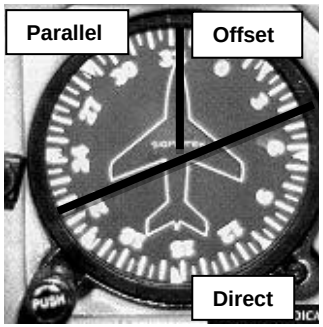
Before Initial Approach
ATIS
Altimeter QNH
Avionics, Set Up, IDENT
Approach Brief
How Long
How Low
Which Way
Airspeed – for Approach.

Final Approach Fix
Time – Start timer
Throttle – Reduce power
Talk – To Tower
Tyres – Landing Gear Down

Holds
Abeam ± 90° to Outbound Heading

Wind Gate&**Offset Entry** ± 30° to Outbound Heading





Radial / Outbound Heading determines which type of entry to the hold.

VOR Hold
60º to go you should be 10º off track (CDI Needle should move)

ADF Hold
90º to go = 75º to Inbound
60º to go = Inbound Hdg(due to ADF dip.)

On all holds use**3 X Drift** on Outbound.

Use **1x Single Drift** on Inbound

Enroute Wind Correction Angle For practical purposes assume max drift is at 60° to track.

For each 10kt of Wind
TAS 60 Kt = 10º max drift
TAS 90 Kt= 6º max drift
TAS 100 kt = 6º max drift
TAS 120 kt = 5º max drift
TAS 150 kt = 4º max drift

Head / Tail Wind Component
30º off = 9/10
45º off = ¾
60º off = ½
75º Off = ¼
90º off = Nil

To regain track. **Double** the degrees off track and **add** the wind correction.

If **more than 3 minutes** from station. Use minimum of 30º

Divide the altitude to lose (in Flight Levels) by 3 to determine **NM distance to start a 3° descent**

NM = Flight Level to lose / 3

1000ft = 3nm

ADF Flying – 1° deviation of the ADF needle is equal to 100ft per NM

Timed Turns
360º = 2 Mins
180º = 1 Min
90º = 30 Secs
30º = 10 Secs

To make a **6° change** in heading, use a rate 1 turn then immediately level the wings.

To make a **3° change** in heading use ½ a rate 1 turn.

VOR Reception Distance
1,000ft = 40nm
2,000ft = 55nm
3,000ft = 70nm
4,000ft = 80nm
5,000ft = 90nm
10,000ft = 125nm

IFR / VFR Quick Reference Card

www.TonyPool.com

10/20 Rule. A headwind of 10% takeoff speed will reduce ground roll by 20%

10/20 Rule. A 10% change in aircraft weight will result in a 20% change in takeoff distance.

10/20 Rule. A 10% change in airspeed will cause a 20% change in stopping distance.

Abort the takeoff if 70% of takeoff speed is not reached within 50% of the available runway.

TAS increase 2% for each 1000' in a climb.

TAS = IAS (kts) + FL / 2

Best Cruise climbspeed is the difference between Vx and Vy and add this to Vy.

For maximum TAS and Range, Load the airplane as close to the **aft** Centre of Gravity limit as allowable.

Enroute Wind Correction Angle

For practical purposes assume max drift is at 60° to track

WCA (max) = **Wind** Velocity / NM per minute

WCA (max) = Wind speed x 60 . / TAS

Maximum drift is when the wind is 90° to the track. **For practicalpurposes assume max drift is at 60°** to track.

Flight Plan Sequence

1.Type of Flight Plan
2. N – Registration
3. Type and Equipment
4. TAS
5. Departure Point
6. Departure Time
7. Altitude
8. Route
9. Destination
10. Time Enroute
11. Remarks
12. Fuel Onboard
13. Alternate
14. Name / Homebase
15. People on board
16. Colour of aircraft

A 3° Rate of Descent (ROD) = 5 x groundspeed .

Add 1 minute to your flight plan for every 1000′ climb to cruise altitude.

A slippery or wet runway may increase your landing distance by 50%.

For each knot of airspeed above Vref over the numbers, the touchdown point will be 100ft further down the runway.

Weight & Balance – An airplane will be **more stable** and stall at a higher airspeed with a forward CG location.

Density Altitude increases or decreases 120ft for each 1°C that varies from ISA
DA = PA + 120 (OAT – ISA)

Maximum **Glidespeed** = Minimum **Drag** = Maximum **Endurance**, remember this if low on fuel.

Most structural **icing** occurs between 0° to -10°

Difference in Dew point and temperature x 400ft is where you will find visible moisture. i.e. cloud base.

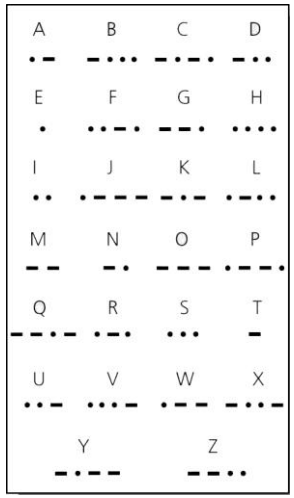
Light Signals

To Air
Steady Red Give Way
Red Flashes Do Not Land
Green Flashes Return for Landing
Steady Green You may Land
White Flashes Land after steady green

To Ground
Steady Red Stop
Red Flashes Clear Landing Area
Green Flashes Cleared to Taxi
Steady Green Cleared to Take Off
White Flashes Return to Start Point

Mandatory IFR Reports
. Vacating an altitude
. Changing altitude when VFR on top
. Unable, climb or descend 500fpm
. Missed approach
. Change in TAS 5% or 10kts
. Loss or impairment of radios
. Hazardous or unforecasted weather
. Time and Alt on reaching Holding fix
. Departing a Holding fix

Special Equipment Suffixes
/X – No transponder
/T – Transponder NO mode C
/U - Transponder with mode C
/D – DME, NO Transponder
/A – DME, Transponder Mode C
/Y – RNAV, NO Transponder
/C – RNAV, Transponder NO Mode C
/I – RNAV, Transponder Mode C
/G – RNAV – GPS Approach



Groundspeed (kts) / ETA (mins)

	60kt	70kt	80kt	90kt	100kt	110kt	120kt	130kt	140kt	150kt
1nm	1	1	1	1	1	0.3	0.3	0.3	0.3	0.3
2nm	2	2	1.3	1.3	1	1	1	1	1	0.3
3nm	3	2.3	2	2	2	1.3	1.3	1.3	1.3	1
4nm	4	3.3	3	2.3	2.3	2	2	2	1.3	1.3
5nm	5	4.3	4	3.3	3	3	2.3	2.3	2	2
10nm	10	8.3	7.3	6.3	6	5.3	5	4.3	4	4
20nm	20	17	15	13	12	11	10	9	8	8
30nm	30	25	23	20	18	16	15	14	13	12
40nm	40	34	30	27	24	22	20	18	17	16
50nm	50	43	37	33	30	27	25	23	21	20