

Aviation Acronyms and Phrases

(www.mattbeyer.com)

Phrases

“East is Least, West is Best”

- For magnetic variation math. Subtract easterly variation and add westerly variation when converting a charted True Course to a Magnetic Course

“Alt static air, ASI and ALT report dangerous direction”

- When using the Alternate Static source from inside the cockpit, the Airspeed indicator will read higher than actual and the Altimeter will read higher than actual due to the lower pressure inside. Both instruments give you readings that are more dangerous.

“Red over White you are alright. Red over Red you are dead. White over White you will fly all night.”

- When flying an approach with a VASI or PAPI, 2 or 4 whites will indicate relationship with correct glide path.

“Pitch, Power, Trim”

- During Climbs or Descends you will need to adjust in this order. Pitch, Power, Trim.

“Aviate, Navigate, Communicate”

- In any situation, Fly the airplane first. Worry about communication last. This applies to all situations or high workload situations or high stress situations.

“The Fastest GroundSpeed will be the steepest bank angle”

- Applies to all ground reference maneuvers, to maintain track the steepest bank will be when the groundspeed is the fastest (so you don't get blown off course).

“Hot, High, Humid, Hurts”

- Any of the following will DECREASE performance, High temperature, High altitude, Humid climate.

“Configure the Area, Configure the Airplane”

- Before any practice maneuver, first configure the area with clearing turns, pick a forced landing area, ensure altitude never to be below 1500agl.
- Configure the airplane and maneuver, enter at or below V_a , pick a heading or visual reference point, set flaps and carb heat and As appropriate. THEN perform maneuver.

“If It's written, its true”

- In many cases, written wind directions are based on true north. This includes winds aloft, METAR/TAF.

“Prop on Top”

- When adjusting the propeller RPM or the manifold pressure of a constant speed propeller system, ensure the RPM stays above manifold pressure. Keep the propeller RPM above MP.

“Pitch for the Pylon”

- Commercial maneuver only: If pylon moves back, pull back. If pylon moves forward, push forward.

“From High to Low Look out Below” “From Hot to Cold Look out Below”

- When flying from a high pressure to a low pressure area without correcting the altimeter setting, you will be CLOSER to the ground than you think (Danger)

“Same Side Safe”

- On a VOR being used to identify an intersection, if the heading you are flying is on the same side of the VOR as the CDI is deflected, you haven't reached the intersection yet
- ***Need to add Same Side Safe for VOR hemisphere's.

“All Read Worse”

- When using Alternate Static air source from inside cockpit, “All instruments read the unsafe/Worse”. Airspeed will read faster than actual. Altimeter will read higher than actual. VSI will lag.

“1-2-3 Rule” (IFR)

- IFR if Alternate airport required
- You must file and alternate unless,
 - from at least 1 hour before to 1 hour after the estimated time of arrival,
 - the ceiling will be at least 2000 ft above airport elevation
 - and the visibility will be at least 3 miles.

“800-2 and 600-2” (IFR)

- For filing alternates only. JUST for filing purposes.
- Question 1: If the wx is forecast at your ETA at alternate is below VFR for MEA to descent to landing, then these rules apply.
- Question 2: If the desired alternate airport has a precision approach (ILS or PAR) then the forecast wx must be better than 600ft ceiling and 2sm visibility. If the desired alternate airport only has non-precision approaches, the wx must be forecast at this alternate ETA to be better than 800ft ceiling and 2sm visibility,
- Question 3: If both criteria above are met, then refer to ANY of the instrument approaches and read if there is an A, and then go read the “Alternate Mins section”, it may have additional criteria.

Rule Of Thumb

Crosswind: 30degrees off nose, half the total wind is the xwind component

Sectional distance

Degree intercept

Roll out half your bank angle

Standard Rate turn is 360 degrees in 2 minutes

- 3 degrees per second
- Standard rate turn = 30 seconds for 90degrees

VSI Rule of thumb

- Make altitude change double the altitude error
- e.g. If off by 100ft, use 200fpm on VSI
- VSI is primary when 'returning to altitude'

Leveling off from a Climb

- Lead the altitude by 10% of the VSI
 - 500fpm = 50ft lead
 - 1000fpm = 100ft lead

Turns to Heading

- For small heading changes, use a bank angle that does not exceed the number of degrees to be turned.
- Lead by $\frac{1}{2}$ the number of degrees
- Each tick is 5degrees on the DG.
- When >180degrees : Subtract 200 then add 20
- When <180degrees : Add 200 then subtract 20 (not sure I like this one)

Unusual Attitudes

- Nose HIGH
 - Full Power, Lower Nose, Level Wings
- Nose LOW
 - Remove Power, Level Wings, Raise Nose

Good Habits

- Keep Scan Moving, don't 'Fixate', 'Omission', 'Emphasis'.
- Keep Coordinated and in Trim.
- Fly with Primary controls, then trim. Do Not Fly Trim.
- Make Small corrections sooner instead of big corrections later.
- Small corrections can be done with rudder.

Acronyms VFR and IFR

Required Documents 91.201, 91.9(b)(1) 91.203??: **ARROW**

Air Worthiness Visible to passengers
Registration
Radio Operators License (If outside USA)
Operators Handbook (Approved Flight Manual AFM)
Weight and Balance (current)

Pre-Landing Check: **CCGGUMPPSS or CCGUMPSS or CGUMPSS**

Cowl Flaps (closed on landing)
Carb Heat (on for landing)
Gas (fullest tank, boost pump on)
Gauges (engine all green)
Undercarriage (gear down, 3 green)
Mixture (set or full rich)
Propeller (full forward)
Switches (lights, air conditioning, autopilot)
Seatbelts (and harnesses)

Day VFR required equipment 91.205(b): **TOMATO FLAMES**

Tachometer
Oil pressure
Manifold pressure
Altimeter
Temperature sensor (liquid-cooled)
Oil temperature (air cooled)
Fuel gauge
Landing gear position
Airspeed indicator
Magnetic compass
ELT
Seat belts

Night VFR 91.205(c): **FLAPS**

Fuses (spares) or circuit breakers
Landing light (if for hire)
Anticollision lights
Position lights
Source of electricity

Required Inspections: **AVIATE**

A Annual Inspection
V VOR Test, 30 days
1 100 hour, if for hire
A Altimeter - Pitot/Static, 24 month
T Transponder, 24 month
E ELT, 12 month Inspect. ELT Battery replaced, 1/2 battery life or 1 hour of continuous use

If you are Lost **'CCCCC'** (5 C's)

Climb (Better radio range)
Communicate (FSS, 121.5)
Confess (Ask for help)
Comply (Follow advice)
Conserve (Fuel-slow down)

Engine-out emergency: **ABCDE**

Airspeed	PITCH for best glide speed, trim
Best place to land	
Checklist	Run through engine restart or emergency checklist if time permitting
Declare	On Freq or 121.5, mayday mayday....., 7700 ident on transponder
Execute	Plan to land, open doors, prepare for fuel and spark off, seatbelts...

Compass Turning Errors: **UNOS**

Undershoot	so start rollout early, 30deg when ending on a northerly heading
North	stop turn before 30degrees of North
Overshoot	so start rollout late, 30deg when ending on a southerly heading
South	continue turn 30degrees beyond

also SOS: South Over Shoots

Compass dip: **ANDS**

Accelerate	
North	
Decelerate	
South	

VFR Altitudes to Fly **ONE**

Odd	
North	
East	Fly Odd thousands if North or East heading
	Plus 500ft (7500, 9500) for 0-179 degree headings

Spin Recovery: **PARE**

Power	idle
Aileron	neutral
Rudder	full opposite
Elevator	relax or briskly forward

Personal Checklist **I'M SAFE**

Illness	
Medication	
Stress	
Alcohol	
Fatigue	
Emotion	

Magnetic Compass Errors **MONA VD**

Magnetic Dip	
Oscillations	
North/South Errors	
Acceleration Errors	
Variation	True versus magnetic variation
Deviation	Disturbances in the cockpit to the magnetics

Decision Making **DECIDE**

Detect (problem)	
Estimate (need for action)	
Choose (desired outcome)	
Identify (actions to create outcome)	
Do (the action)	
Evaluate (the effect)	

Airport sign types: **MIDDLR**

Mandatory instruction
Information
Destination
Direction
Location
Runway distance remaining

Shutdown

SLIM

Switches (turn off all switches)
Lean (the mixture)
Ignition (off)
Master (off)

or

3 M's

Mixture
Mags
Master

Preflight information required for flights away: **RAW FAT**

Runway lengths
Alternates
Weather
Fuel requirements
ATC delays
Takeoff/landing distance data

Special use airspace:

MCPRAWN (the Scottish shrimp!)

Military Operations
Controlled Firing
Prohibited
Restricted
Alert
Warning
National Security

After Landing Checklist:

FACTS

Flaps
Aux Fuel Pump
Cowl Flaps
Transponder
Switches

NTSB Notification: (NTSB 830)

P-FACTION

Property damage more than \$25,000
Fire, in flight
Accident
Collision, in flight
Turbine failure
Illness of crew member
Overdue aircraft
No control: control failure of any sort

Acronyms IFR Specific

Communications Failure (Lost Comm):

- What **ALTITUDE** to fly (Fly the highest of) **“MEA”**:
 - **“MEA”** – Minimum IFR altitude or,
 - Altitude **A**ssigned in last clearance or,
 - Altitude **E**xpected in further clearance (like 9000, expect 10000 in 10 min)
- What **HEADING** to fly (routing in Priority) **“AVE F”**:
 - Fly **A**ssigned route from ATC or,
 - Fly **V**ectored route if vectors given (like being vectored to V4) or,
 - Fly **E**xpected route (like “Clear to XYZ fix, expect ABC later) or,
 - As **F**iled in the flight plan

IFR Crossing any Fix / Approach

TTTTTT

(IFR)

- Turn - turn to proper heading
- Time - time hold or approach
- Twist - twist OBS knob to inbound course
- Throttle - adjust poert as needed
- Talk - procedure turn inbound, entering the hold, etc.
- Track - track the course

VOR tuning and using

TITS

(VFR)(IFR)

- Tune to frequency
- Identify morse code
- Test, spin 360 degrees and ensure CDI moves and to/from flips
- Set correct radial

IFR mandatory reports:

FAME Performance

(IFR)

- F**ixes: arriving or leaving
- A**ltitude changes
- M**issed approach
- E**quipment: loss or problems
- P**erformance: poor climb/descend, TAS change

IFR required equipment:

GRAB CARD

(IFR)

- G**enerator
- R**adios (as appropriate for facilities used)
- A**ttitude indicator
- B**all
- C**lock (with sweeping second hand or digital)
- A**ltimeter (sensitive/adjustable)
- R**ate of turn indicator
- D**irectional gyro

IFR Flight Clearance:

CRAFT

(IFR)

- C**learance
- R**outing
- A**ltitude
- F**requency
- T**ransponder
- S**pecial

Other, less useful

Weather briefing:

Synopsis
Adverse conditions
Current weather
Enroute forecast
Destination terminal forecast
Winds aloft
Notams

SACrED WiNd

Weather charts:

Constant pressure
Prognostic
Surface analysis
Weather depiction
Area forecast (FA)
Radar summary (SD)
Severe weather outlook (AC)

CoPS WARS

Aircraft certification categories:

Transport
Utility
Restricted
Normal
Provisional
Acrobatic
Limited
Experimental

TURN PALE

Other

Transponder Codes:

77 go to heaven. 76 Radio Fix. 75 man with knife