

Student Pilot and Pilots Memory Aids, Acronyms and Mnemonics

Compiled By Felix Van Campenhout.....

APTA TEN: Used in Position Report - Aircraft identification, Position name of the fix, Time crossing the fix, Altitude, Type of flight plan VFR or IFR, Estimated time of arrival at the next reporting point, Name of the next reporting point, Remark that is any remarks such as unforecasted weather conditions

ABCDE: Engine Out Emergency - Airspeed, Best place to land, Checklist for the emergency, Declare an emergency 121.5 if possible to do so and time to do so, Execute emergency landing

AFATMOOSE: Day VFR Requirements - Airspeed indicator, Fuel gauges, Altimeter, Seat Belt /Shoulder Harness, Tachometer, Magnetic Compass, Oil Pressure and Oil Temperature Gauges, Safety Gear, ELT

ALARMS: Emergency Engine Failure -- Airspeed, Landing Site, Air Restart, Radios, Mayday, Secure Plane

ANDS: Compass Changes: Accelerations causes the needle to Swing Northerly, Deceleration Southerly i.e. ACCELERATE NORTH, DECELERATE SOUTH

APES: Night VFR: Anticollision lights, Position lights, Electric source, Spare fuses or circuit breakers

ARROW: Required Documents Aboard and Aircraft: Airworthiness certificate, Registration, Radio license (if operated in Canada or Mexico), Operating manual and limitations (POH), Weight and balance information

ATOMATOFLAMES: Required VFR Day Instruments: Altimeter, Tachometer, Oil pressure gauge, Manifold pressure gauge, Airspeed indicator, Temperature gauge, Oil pressure gauge, Fuel gauge, Landing gear lights, Anti-collision lights, ELT, Seatbelts

ATOMS2FEA: Required for VFR Flight: Airspeed indicator, Altimeter, Tachometer (each engine), Temperature gauge (each air cooled engine), Magnetic compass, Manifold pressure gauge, Signaling device and floatation gear (when for hire beyond power-off gliding distance from shore) "@" is for all the previous letters twice + Fuel gauge (for each tank), ELT, Anticollision light system (and any additional equipment required by the POH)

AVIATE: Various Types of Inspections that must be current in a GA Aircraft: Annual inspection (once per year and that required ADs are reviewed and applied), VOR every 30 days for IFR Flights, "1" 100 hour inspection to maintain aircraft in proper flying condition, Altimeter and static air system (every 24 months - tested and inspected for IFR flights), Transponder (every 24 months so that VFR flights into class B and C also above 10000 feet), ELT every 12 months or after 1/2 the listed battery life or after 1 hour of continuous use.

AVEF: IFR Route for lost communications: Assigned, Vectored, Expected, Filed

BLITTS: Line-Up check: Boost pump on, Lights as required, Instruments set, Transponder on, Take-off time recorded, Tanks - fuel checked, Seats belts doors secured

BUMPFICH: Pre landing checklist: Breakers - check, Undercarriage check down and locked, Mixture rich, Propeller high or correct RPM, Flaps in landing configuration, Instruments directional gyro and compass checked, Carburetor heat set for landing pulled out when RPM is reduced, Hatches & harness secured

CAPER: Maneuvers Checklist: Clearing turns, Altitude, proper for maneuver, Power proper power and entry into maneuver, Execute maneuver, Recover from maneuver

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CAVU: General Usage - Ceiling And Visibility Unlimited

CCCC: Missed Approach Start - Cram it, Clean it, Cool it, Call it

CCCCC: Orientation Lost - Circle, Climb (if still unable to recover orientation), Communicate, Confess, Comply

CHARLIE GUMPS: Before Landing -- Carb heat, Gas (proper tank, mixture rich, etc.), Undercarriage, Prop set at correct RPM, Seat belts, Light switches set for landing

CIGARES: Before takeoff checklist -- Controls (free, full travel and correct), Instruments (engine and flight instruments, altimeter set), Gasoline (fuel selector and or fuel pump set correctly), Radios (COM and NAV frequencies set for departure), Emergency (passenger briefing), Safety (doors closed and locked, seatbelts and shoulder harness on)

CoPS WARS: Weather charts -- Constant pressure, Prognostics, Surface analysis, Weather prediction, Area forecast (FA), Radar summary (SD), Severe weather outlook (AC)

CRAFTS: Flight Clearance -- Clearance, Routing, Altitude, Frequency, Transponder, Special

DEC A RAT: IFR required equipment -- Directional gyro, Electric source, Clock, Attitude indicator, Radios, Adjustable altimeter, Turn and Slip coordinator

DECIDE: Elements for Decision Making -- Detect a change needing attention, Estimate the need to counter or react to change, Choose the most desirable outcome for the flight, Identify actions to successfully control the change, Do something to adapt to the change, Evaluate the effect of the action countering the change

FAMEP: IFR Flight mandatory reports --Fixes: arriving or leaving, Altitude changes, Missed Approach, Equipment: loss or problems, Performance: poor climb/descent, TAS changes

FAST: In-Flight Piston Restart -- Fuel, Air, Spark, Terminate

FLAPS: Required VFR Night Instruments -- Fuses, Landing lights, Anti-Collision lights, Source of power

FLARE: Getting Enroute -- Flaps set (if extended during and for takeoff) , Lights as required, Auxilliary fuel pump on (if on for departure), Radar transponder on, Engine (lean mixture when at altitude)

GOOSE A CAT: Day VFR Requirements -- Gas gauge, Iol temperature indicator, Oil pressure indicator, Seat belts, ELT, Altimeter, Compass, Airspeed Indicator, Tachometer

GRAB CARD: Required Instruments for IFR Flight -- Generator / alternator, Radio for VOR navigation, Attitude indicator, Inclinator (ball), Clock, Altimeter, Rate of turn, Directional / Heading indicator..... Note: NEED a combination of GRAB CARD, FLAPS, A TOMATO FLAMES

GUMPPSS: Before Landing -- NOTE this is a variation of GUMP and GUMPS -- Gas, Undercarriage, Mixture, Prop,Pump, Switches, Seat Belts and harnesses

HAMSACC: IFR Required Reported Items 91.183 -- Holding (time and altitude), Altitude changes, Missed approach, Safety of flight (if anything affects it), Airspeed changes (of 5% or 10KTS), Communications or navigation capabilities loss, Climb rate (when unable to maintain 500 FPM)

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HASELL: Aerobatics Maneuvers Checklist -- Height (sufficient to recover), Airframe (rated for the maneuver, flaps and landing gear as required, trimmed), Security (hatches and harnesses secure, no loose items in cockpit, gyros caged), Engine (running normally, fuel sufficient for maneuver, no carb icing), Location (clear of clouds, controlled airspace, airfields, built up areas, other aircraft), Look out (inspection turn you make sure area is clear around and below).

I'M AIR: Five Hazardous Attitudes and Antidotes --Invulnerability (It could happen to me), Macho (Taking Chances is foolish), Antiauthority (Follow the rules, they are usually right), Impulsivity (Think first, not so fast), Resignation (I can make a difference, I am not helpless).

IMSAFE: Personal Checklist for safe flight -- Illness, Medication, Stress, Alcohol, Fatigue, Eating -- Any of these adverse factors should be a clue that you might NOT BE FIT to fly

IPTAFNNR: IFR Position Report -- (I Play The Accordion For Nothing, No Reason OR I Place Time Above Type: Next Time, Next Remark --- (WOW remember all that ha ha) ID, Position, Time (minutes past the hour), Altitude, Flight type, Next report's place and time, Next next report, Remarks-- Example: Cessna 150UC, Mikeymose VOR, 22, 5000, IFR, Burlington, 45, Burlington next, In clear between layers....

LCA: Before takeoff -- Lights (strobes, navs, landing), Camera (Transponder so that ATC can "SEE" you) Action (any other action to be performed like boost pump on, control checks, flaps and trim set, etc)

LGGUMPS: Landing checklist -- Lights, Carb heat / cowl flaps, Gas, Undercarriage, Mixture, Prop/Power, Safety (belts harnesses)

MCPRAWN:(The Scottish Shrimp) Special Use Airspace: Military Operations, Controlled Firing, Prohibited, Restricted, Alert, Warning, National Security

MEA: IFR Route or Lost Comms -- Minimum, Expected, Assigned

MFACTS and MIDGET: After Landing Checklist -- Mixture set, Flaps up, Aux fuel pump OFF, Cowl flaps closed, Transponder set to standby, Switches (lights, pumps, pitot heat, strobes if night). When at parking spot: Master OFF, Ignition OFF, Doors and windows locked, Gust lock installed, ELT OFF, Tie-down the aircraft.

MIDDLR: Airport Sign Types -- Mandatory instruction, Information, Destination, Direction, Location, Runway distance remaining

MMMMM: The 5 M's: After Landing -- Music (Comm and NAV radios OFF), Magnetos (Verify short circuit is operating), Mixture (lean), Magnetos (OFF), Master Switch OFF

MPG: Final Approach -- Mixture SET, Propeller HIGH RPM, Green Landing gear ALL GREEN

PARE: Spin Recovery -- Power to idle, Aileron set to NEUTRAL, Rudder FULL opposite to direction of spin, Elevator PUSHED forward and then slowly pulled back to level off.

PAST: Multi-engine Aerodynamics, Identifying the critical engine -- Pfactor, Accelerated Slipstream, Spiraling Slipstream, Torque VMC certification requirements 23.149

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PAVE: Pilot Risk Elements --- Pilot identifying risks, Aircraft in safe operating condition, enVironment (weather and safe flying conditions), External pressures (GOTTO get there versus how SAFE is it to GET THERE)

P-FACTION: NTSB Notification -- Property damage more than \$250,000, Fire in flight, Accident, Collision in flight, Turbine Failure, Illness of crew member, Overdue aircraft, NO control (control failure of any sort)

PL(ease!) START: Engine OUT Emergency -- Pitch for best glide, Landing site choose a place for safe landing if possible, Seat belts fastened, Troubleshoot with checklists, Approach contacted, Radios set to 121.5 and declare emergency MAYDAY if appropriate, Turn OFF all non essential items.

PPT: Level off -- Pitch level off at cruising altitude / flight level, Powwer set for cruise, Trim the aircraft

PRICE: Oxygen System -- Pressure, Regulator, Indicator, Connector, Emergencies

RAWFAT: Preflight Requirements -- Runway lenghts, Alternate airports, Weather, Fuel requirements, ATC delays, Take off / landing distance data

RECIT: Before Flight -- Radios, Electrical, Controls, Inside, Trim

REMMM: Shutdown Checklist -- Remember to shut everything down -- Radios OFF, Electrical OFF, Mixture set to idle cut-off, Master Switch OFF, Magnetos OFF

SACrED WiNd: Weather Briefing -- Synopsis, Adverse Conditions, Current weather, Enroute Forecast, Destination terminal forecast, Winds aloft, Notams

SLIM: Quick Shutdown Checklist -- Switches all electrical OFF, Lean mixture idle to cut-off, Ignition magnetos OFF, Master SSwitch OFF

SMACFUM: The conditions for how Vmc is determined for an aircraft -- Standard day at sea level, Max power, AFT CG, Critical engine windmilling, Flaps / gear down/ up to 5%

TOMATO FLAMES: VFR Day Minimum Equipment 91. 205(b) -- Tachometer, Oil temperature gauge, Magnetic Compass, Altimeter, Temp gauge if liquid cooled, Oil pressure gauge, Fuel gauge(s), Landing gear position lights (if retractable gear) Airspeed indicator, Manifold pressure (if on aircraft so equipped), ELT in aircraft, Safety belts and harness

TTTTTT: IFR Crossing a Fix / Approach -- Turn to proper heading, Time hold or approach, Twist OBS knob to inbound course, Throttle adjustments as required, Talk procedure turn inbound, entering the hold, etc

TURN PALE: Aircraft Certification Categories -- Transport, Utility, Restricted, Normal, Provisional, Acrobatic, Limited, Experimental

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UNOS: Compass Turns -- Undershoot North, Overshoot South

WIRETAP: IFR Nearing Destination -- Weather get AWOS ATIS ASOS, etc, Instruments set, Radios tuned, Elevation check final approach fix altitude, Talk to ATC, Altitudes for decision heights or minimum descent altitude, Procedure for missed approach

WRIMTIM: IFR Approach briefing -- Weather, Radio comms and navs, Instruments, Missed approach point, time, Inbound course, Minimum altitude

WUFTDM: After Takeoff -- Wind direction, Undercarriage up when needed, Flaps up when appropriate, Time of departure, DG set correctly, Mixture set properly after departure and depending on flight level.

MEMORY AID SENTENCES make many things easier to remember, here are a few:

1) **AVIATE, NAVIGATE, COMMUNICATE:** Very famous and very important "rule". When flying do things in this order

2) **CLIMB, COMMUNICATE, COMPLY:** In-flight emergencies, what to do

3) **EAST is LEAST, WEST is BEST:** Compass variations, subtract easterly variations, add westerly variations

4) **HIGH to LOW LOOKOUT BELOW, LOW to HIGH CLEAR SKY:** Changing weather conditions: if the temperature or barometric pressure drops you will be lower than the altimeter indicates if you do not correct the change

5) **NEodd and SWeven** (Scandinavian fellows don't you know): Altitude for the direction of flight. Flying North and EAST fly ODD altitude plus 500 feet, Flying South and WEST fly Even altitudes plus 500 feet

6) **TRUE VIRGINS MAKE DULL COMPANY:** Computing True Course: TRUE heading minus VARIATION plus or minus MAGNETIC VARIATION plus or minus DEVIATION equals COURSE

7) **There is NO MORE RED PORT Wine LEFT:** This is one way to remember that the RED position light is on the LEFT side (PORT and LEFT have the same number of letters, GREEN and RIGHT also have the same number of letters)

8) **Muddy Hole (MH) + Rubber Boots (RB) = Muddy Boots (MB)**

9) **Multiply Groundspeed by 5:** To calculate the rate of descent required to fly a 3 degree glideslope example" GS 65 x 5 = 325 so Descend at 325' per minute