

## Rules and Acronyms for Instrument Flying

### **1-2-3 Rule**

- 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.

### **1 in 60 Rule**

- at 60 miles from the VOR, 1 degree deflection means you are 1 mile off course

### **TOMATOFLAMES – Equipment Required for day VFR flight (91.205)**

- T achometer
- O il Pressure Gauge
- M agnetic Direction Indicator (compass)
- A irspeed Indicator
- T emperature gauge for each liquid-cooled engine
- O il Temperature gauge for each air-cooled engine
- F uel gauge for each tank
- L anding gear position indicator
- A ltimeter
- M anifold Pressure gauge
- E LT
- S afety Belts

### **FLAPS – Additional Equipment for night flight**

- F uses
- L anding light (if for hire)
- A nticollision lights
- P osition Lights
- S ource of electrical energy

### **GRABCARD – Additional Equipment for IFR Flight**

- Generator or alternator
- Radios and Navigation Equipment appropriate to the ground facilities used
- Altimeter that you can set to current altimeter setting (sensitive altimeter)
- Ball (slip-skid indicator)
- Clock
- Artificial Horizon
- Rate of Turn Indicator
- Directional Gyro

**CRADS** – For Copying Clearances

Example: “CESSNA 3062X YOU ARE CLEARED TO MADISON AIRPORT AS FILED, MAINTAIN 3000, DEPARTURE FREQUENCY WILL BE 135.45, SQUAWK 0456”

C <u>madison</u>	(clearance limit)
R <u>as filed</u>	(route)
A <u>3000</u>	(altitude)
D <u>135.45</u>	(departure frequency)
S <u>0456</u>	(squawk code)

**5 T's** – When reaching a fix (holding fix, initial approach fix, basically any time you change heading or course

Time – start time  
Turn – the airplane  
Twist – the OBS  
Throttle - set  
Talk – radio call

**STUPL** – Upon reaching the final approach fix

S tart Down (descend)  
T ime (if your missed approach point is based on timing)  
U ndercarriage  
P ower/prop  
L ights (runway lights – have them on high so the REILs and RAILs are on!)

**ANDS** – Compass Error

Accelerate North  
Decelerate South

**SOS** – Compass Error

North Lags  
South Over Shoots