

# Risk Management

According to the FAA PTS, there are 6 areas associated with Single Pilot Resource Management (SRM). One of those SRM items is Risk Management. The PTS reads as follows: Determine that the applicant can utilize risk management tools and models to assess the potential risk associated with the planned flight during preflight planning and while in flight. The applicant should (among other things) use a tool, such as the **PAVE checklist**, to help assess the four risk elements.

**P** (Pilot)

**A** (Aircraft)

**V** (enVironment)

**E** (External pressure)



## PILOT

- **Proficiency and experience**
  - How “current” are you? When is the last time you flew *this* type of aircraft under *these* circumstances? (Day – Night – Crosswind – MVFR – Busy Airspace – Turbulence - ?)
  - Familiar aircraft, route, terrain, airport, weather, etc.?
  - Been there – Done that? If not, additional planning and preparation required...
- **IMSAFE – Stressors**



Figure 9-3. Prior to flight, pilots should assess their fitness, just as they evaluate the aircraft's airworthiness.

Stressors
<b>Physical Stress</b> Conditions associated with the environment, such as temperature and humidity extremes, noise, vibration, and lack of oxygen.
<b>Physiological Stress</b> Physical conditions, such as fatigue, lack of physical fitness, sleep loss, missed meals (leading to low blood sugar levels), and illness.
<b>Psychological Stress</b> Social or emotional factors, such as a death in the family, a divorce, a sick child, or a demotion at work. This type of stress may also be related to mental workload, such as analyzing a problem, navigating an aircraft, or making decisions.

- **Documents and Currency**
  - Pilot and medical certificate, photo ID
  - Proper endorsements and certification for aircraft and mission
  - Flight review, 90 day currency, IFR current (if applicable)

# Risk Management

## AIRCRAFT

- Is this the **Best Aircraft** for this mission?
  - Payload, comfort, speed, range, performance, avionics, automation etc.?
    - Consider another aircraft?
- **Fuel**
  - Fuel required = Fuel available? Reserves?
- **Performance**
  - Take-off, climb, cruise, landing
- **Weight and Balance**
  - Within limits?
  - Documents and Currency
- **Airworthiness**
  - **PIC is responsible for determining the aircraft is airworthy: FAR 91.7**
  - Maintenance Inspections - AROWE Documents - Inoperative Equipment (what to do?)

## ENVIRONMENT

- **Weather**
  - Standard Weather Briefing
    - Adverse conditions, synopsis, current, forecast, TFRs, NOTAMS
    - Risk? Wind/Visibility/Ceiling. Been there - Done that?
    - Exit strategy? Plan A, B, C, D... ?
    - Been there – Done that? If not, additional planning and preparation required...
- **Airspace**
  - Clearance, Weather, Equipment, Pilot Requirements?
    - Been there – Done that? If not, additional planning and preparation required...
- **Terrain**
  - Farm fields or rugged terrain? Population or remote? Flight Plan required?
  - Survival gear?
  - Elevation Exit strategy?
- **Airport**
  - Where are you going (FBO) at destination? Runway incursion avoidance. Plan before you land.

## EXTERNAL PRESSURE

- **Passengers** – Helpful or handful? Experienced with GA? Contingency plan if cannot make destination.
- **Personal** – Don't box yourself in! Have plan A, B, C, D, E... If you can't make your make destination safely/confidently - Have a plan. Most accidents happen because pilot doesn't have alternative plan.