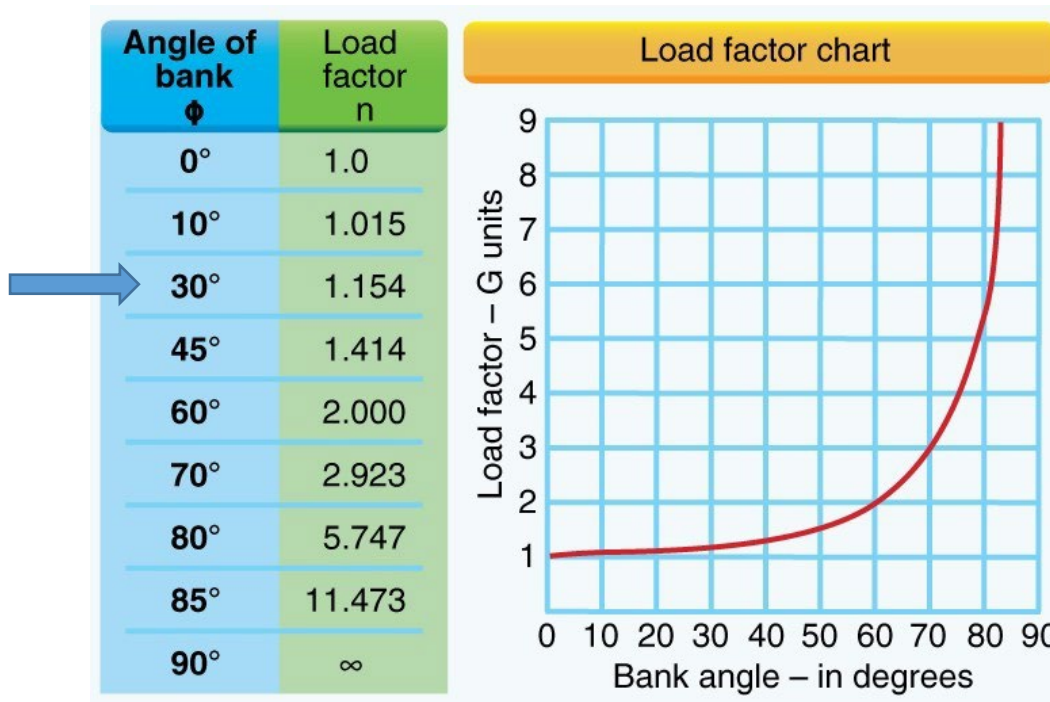


SkillsUSA Maryland

Commercial Drone sUAS State Competition Update (3/7/25)

RPIC and VO must perform the following tasks as a team:

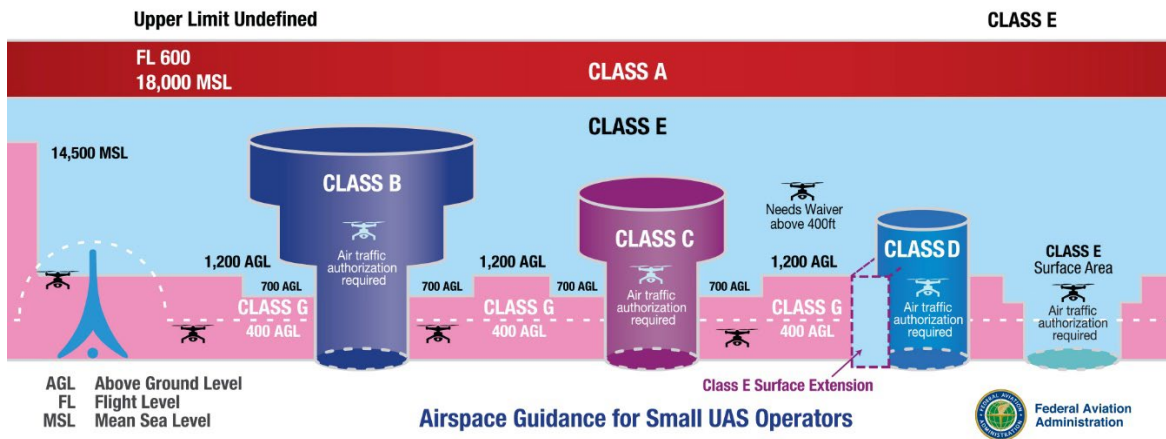
1. Pre-Flight Planning and Crew Resource Management.
 - a. Plan for a mission that requires controlled takeoff/landing and obstacle negotiation.
 - b. Perform load calculations for 30 degree bank. Weigh aircraft.



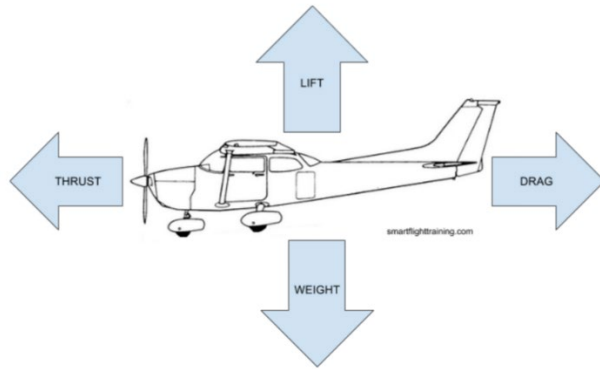
- c. Discuss exterior weather conditions geography with instructor. What is wind-speed/direction? What kind of moisture is in the air? Understand what a prohibited area looks like. What kind of airspace are we in right now? Where is the nearest group of towers, and what altitude. At what altitude is BWI?



d. Identify cloud formations, or lack thereof. What kind of airspace are we currently in (BWI Class B Airspace: 2 Blue Solid lines 0-10,000ft. MSL).



e. Understand 4 forces of flight.



2. Maneuvering and Troubleshooting. RPIC must...

- a. Controlled burst takeoff and non-automated landing.
- b. Wear safety glasses when propellers are in operation.
- c. Perform Yaw adjustments of 90 degrees, and 180 degrees.
- d. Perform Altitude adjustments of 1' and 2'.
- e. Roll right, and left 6"
- f. Pitch forwards, and backwards 6"
- g. Negotiate 3 ring obstacles without collision.
- h. Collect 1 .jpeg asset of VO.
- i. Collect 1 .mp4 asset of VO.
- j. Switch propellers of sUAS.
- k. Connect, and disconnect propeller guards of sUAS.
- l. Unpack, and Pack drone and remote to prepare for flight.
- m. Swap batteries, and identify the potential hazards of lithium ion batteries.
- n. Remove and re-attach lens cap of sUAS
- o. Maintain secure data link between sUAS and remote.
- p. Switch anti-collision lights on and off.

3. Google Form Assessment: FAA Part 107 Regulations. 35 Questions. 0-500 points.
4. Create a flyer for a mock pool company, and mock roofing company. Stock images will be provided.