AOPA Summit 2009

Seminar Notes

Tampa, FL

CONTENTS

These notes were taken during the 2009 AOPA Summit in Tampa, FL. While the author (Gary Baluha) believes that the information contained within is accurate and correct, these notes should not be used as training material, nor are they an endorsement to operate outside of the aircraft limitations, FAR/AIM rules and regulations, or personal minimums.

Night Flying Safety
What Your CFI Didn't Tell You

Presented By: Max Trescott

- Dangerous Myth: Flight at night is no different than during the day.
    - **WRONG**

- Some things to keep in mind:
    1. Dark (moonless) nights are the *most dangerous*
        a. Contains some unique takeoff and landing accidents
        b. CFIT dangers
    2. Our senses lie to us
        a. Knowing about this isn't enough
        b. **Verify positive rate on takeoff**
    3. Instrument proficiency helps
    4. Plan night flights more carefully

Why fly at night?
- Beautiful
- Better aircraft performance
- Less turbulence
- Easier to spot traffic
    a. But often harder to avoid

Tasks that are more difficult
- Pre-flight
- Finding switches
- Reading maps
- Taxiing & landing
    a. You can get lost in a sea of lights
- Poor cockpit lighting in many aircraft

- Also
    a. Navigating can be more difficult
    b. Spatial disorientation
    c. Fatique/Circadian rhythms
    d. VFR-into-IMC 10 times more likely!

- 21% of all fatal accidents happen at night
    - *But account for <5% of all flying*
- Accidents vary by region
- **Night accidents twice as likely to be fatal**

- 66% of all IFR accidents are at night
    - Choosing to land with a slight tailwind might be better than a circle-to-land approach

- 90% of all night accidents are on dark nights
- Statistic: "The killing zone": between 50-350 hours total time

Safe Flying
- More careful planning is required
- Have a willingness to do a 180 if conditions aren't favorable
- Maintain instrument proficiency (or add an instrument rating)

❖ Legal vs. Safe? Current vs. Proficient?

"Night" definitions
1. Sunset - Turn on navigation lights
2. Civil Twilight - Start logging night time
3. 1-hour After Sunset – Logging for night currency

We need more emphasis on the following
- Highlighting the accident risks
- Night illusions
- Scenario-based training
- Personal minimums

❖ Somatogravic illusions are the most dangerous during the takeoff climb / MAP
- False climb illusion at night

- Black hole illusion: Pilots tend to fly a path to keep the runway angle the same (the angle between the two ends of the runway). Compare to during the day when the approach angle remains constant, but the angle between the runway ends gets larger.
    - Fly a normal pattern and stay close to the field
    - Don't do a long final (more than 2 miles)
    - Don't do a straight-in approach *without* VASI/PAPI/ILS

Planning Considerations
- Route: Fly over airports / highways
- Altitude: MEF or OROCA
- PAVE Checklist: Consider only flying with ¼ moon or more
- Flashlights: *As many as possible*

Preflight
- Perform during the day if possible
- Check all internal and external aircraft lights
- Special passenger briefing (no camera flashes, bright lights, etc)

Taxiing
- Beware of spinning props (they are much harder to see at night)
- Stop engine to embark/disembark passengers
    - Or if leaving the engine running, position the plane *so the passengers' instinct is to walk toward the back of the plane!* (i.e. Have the back of the plane point toward the gate).

Cruise

- Be aware of false-horizon illusions
- Refer to instruments in hazy/dark conditions
- Terrain awareness tools help

Landing

- Avoid flaring high due to referencing lights
    - Reference a stationary object instead, such as a building, etc.
- Consider landing only on long runways at unfamiliar airports

How To Pass Any Checkride

Presented By: Jason Blair

Purpose of any checkride: To determine if you have *safely learned* the material

Oral portion: Think of it as a conversation

- ❖ Be sure you are ready
  - Make sure all requirements are met
  - Be able to perform all the maneuvers *consistently* and better than the PTS

- Know what you are being tested on (i.e. the PTS)
- Get to know the examiner

- ❖ Choose your weather
  - Don't let the weather cause you to bust
- ❖ If the weather for the exam is below your *personal minimums* but still legal, you should stick to those minimums for the checkride

- Know the aircraft
  - What capabilities it has, where all the switches are, etc
- Bring current materials (charts, FAR/AIM, etc)

- Consider travel time
  - You want to be at the airport before the examiner

- Checkrides are not spectator sports
  - Don't invite friends/family to come along to watch (puts added pressure on you)

- Don't rush on the checkride
  - Perform the whole maneuver and take the time to set them up
  - When clearing an area, make sure the area you are maneuvering over *is the same area* that you cleared

- Strive for your best performance, not just to meet the PTS
  - If you are off, correct and explain what happened

- Use the examiner as a regular passenger

- ❖ Don't guess!
  - You don't need to know everything, but you do need a good, broad understanding of the material

- You *will* make mistakes
  - If a mistake was bad enough to fail, the DPE will tell you *at that point*

- Watch what you say during a checkride (e.g. “Oops”)
    - In other words, don’t draw attention to your mistakes
- Don’t scare the examiner
    - E.g. Don’t let go of the controls if you are PIC

- Even some examiners may have failed a checkride themselves
    - They are human

Tips From Controllers

Moderated By: Steve Hansen
With: Eric Carter (San Francisco Tower),
Steve McKenzie (Indianapolis Center),
Dale Wright (Dir. Safety & Technology)

- Filing direct is OK, even though you probably won't get it

- What affects communication?
  - Pilot/Controller confidence
  - Knowledge of required information
  - Pilot preparation
  - Pilot/Controller attitude
  - Controller's knowledge of aircraft equipage
  - Quality of communication equipment

- Landing at major airports
  - Signage may not be GA-friendly

- Reliever airports
  - Be prepared for non-direct routing to circumvent nearby major airports
  - You may be assigned lower altitudes for longer

- Enroute controller weather radar not as good as approach

- Be prepared for:
  - Routings with non-radar areas
  - Vectors in high-density traffic areas
    - And reroutes due to traffic or weather

- TIS future availability uncertain

- Flight following
  - Center-to-Center handoffs:
    - " , N1234 <altitude>"
    - Keep it brief: giving too much information causes many air traffic controllers to start thinking you asking for your initial request
  - Requesting flight-following
    - "<ATC facility>, N1234 flight-following request"

- Useful if you mention "low time", "student", etc in the Remarks section

- If approach is keeping you up high for an approach, <u>tell ATC</u>