

Power Hour Lessons

Preparing Students for Emergencies

- Train the response and the factor in the startle factor.

Overview

General Considerations

1. There isn't always a light or alarm.
2. Developing a running checklist - FREEDA
3. Systems knowledge lets you identify problems, solutions, and outcomes.
4. Memory items.
5. Recency isn't enough in most cases. Flight reviews and airplane checkouts are far between for most pilots.
6. Airlines and Charter are typically on six month recurrent training and proficiency checks for pilots.
7. The startle response - Panic, Denial, Acceptance. Very individual. It is reduced by drilling the response.
8. Make a flight review about being operational - Why evaluate a steep turn? Emergencies and operations at airports and LOC should be 80% of the review.
9. Specific Emergencies - Vary with the Complexity and ergonomics of the airplane. Old Barons had a switch for the gear right next to the flaps. Throttles and propeller levers were reversed.

Engine failures

1. 90% fuel related - Fuel, Primer, mags.
2. Overshooting is more likely in a planned approach.
3. Maximum and minimum glide angles should be taught with reference to the horizon.
4. Engine failures on takeoff - Firm push required - Teach at altitude or in an AATD.
5. Ruts, rocks, and soggy soil are difficult to see until very low - like tire marks on a runway.
6. Ditching - Almost every ditching resulted from a fuel problem.
7. Teach partial power failures. Determine the vibration level and if the engine should be shut down.

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Fuel system problems

1. If you want to work for an airline, you won't make a difference there either. You are not paid on merit.
2. Everyone at an airline is always looking for the next upgrade, base, etc. too.
3. You will get burned out there, too, but you'll be paid better and have more time off.
4. You are young, and so are your co-workers.

Electrical system problems

1. What is normal behavior?
2. Before starting - Voltage battery value or less, ammeter discharging.
3. After starting with the alternator on, the Buss voltage is higher than that of the battery, and the ammeter shows a high rate of charging.
4. As time progresses - the ammeter shows a slight charge or zero.
5. The ammeter shows a continuous high rate of charge—overcharging. Boiling acid and battery rupture/fire are possible.
6. Alternator or belt failure - Ammeter discharging. Buss voltage equal to or less than the battery.
7. Corrective actions using the checklist.

G1000 failures

1. Garmin's instructions on loss of primary flight instruments only addressed a display failure, not an AHRS or ADC failure.
2. Use an AATD to develop recognition and pilot proficiency.
3. G1000 PP Covers
4. https://drive.google.com/file/d/1bhyUwOZv9Br00Jdg3DQBSVdDGuEbv-yP/view?usp=drive_link
5. Autopilot failures.

Fires

1. Outside- Shut off the fuel and land. Attempt to put out.
2. Wing fire - slip to move the flames away. Land - Avoid descending at airspeeds above V_a - structural problems.
3. Cabin fire—extinguisher. Using the extinguisher will impact one's ability to see—initially close vents. After the extinguisher and fire stop, ventilate the cabin.
4. Electrical fire - Master off, extinguish the fire, and vent the cabin.

Power Hour Lesson Outlines

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Power Hour Lesson Outlines

Created by Power Hour lessons and their specific instructor training
Presented by CFI Bootcamp



Power Hours:

April 6th - Teaching Unusual Attitudes and Upset Recovery.
- By Upset Expert Marc Kramer..

April 13th - Taking the next steps towards a new rating..
- What to consider - Panel Discussion.

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Initial CFI Classes:

1. April 15th | Las Vegas and Online | 3 Seats open - 4 Live Stream Spots Available.
2. May 6th | Miami or Online | 4 Seats open - 4 Live Stream Spots Available.
3. June 3rd | Palo Alto or Online | 4 Seats open - 4 Live Stream Spots Available.

Instrument Flight Instructor – CFII – Classes:

4. April 23rd | Online - Remote | 3 Seats open - 4 live Stream Spots Available.
5. May 13th | Miami or Online | 7 Seats open - 4 Live Stream Spots Available.
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Locations in Palo Alto, CA (San Francisco Bay Area) and Miami Beach, FL
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