



Hanscom Aero Club Safety Meeting

23 December 2021



Outline

- **Avoiding hangar rash and new hangar floor precautions**
- **Cold-weather maintenance and mechanical**
- **In-flight mechanical troubleshooting experience and lessons learned**



Avoid Hangar Rash: New Hangar Floor Precautions

- **The new floor is very slick**
 - So much that the planes will slide if both wheels not chocked
 - Ensure some extra clearance
 - Use a 2nd person when possible, push forward on the wing where you step
- **When the floor is wet, "Walk like a duck" and take it slow**
 - Post-flight snow melt
 - Slips and falls hurt and are preventable
 - Don't succumb to "get-there-itis," starting in the hangar and continuing in the air



To avoid hangar rash, give extra clearance and chock both wheels when using tugs



Cold Weather Maintenance and Mechanical

- **Many areas of the airplanes are lubricated to ensure ease of movement**
- **In some particular areas, cold weather can “stiffen” the grease**
 - Flap retraction on ground
 - Primer
 - Yoke
- **These issues usually easily fixed if you report it to our A&P mechanics**
 - Scott
 - Mark Vallencourt
 - Dave Kitrosser

If seeing any mechanical movement issues in preflight, ask one of the mechanics. They can often fix it for you in minutes, but only if they know about the issue!



Nate's Recent Inflight Mechanical Troubleshooting Experience

- **Training flight last week with Dave Noonnes**
- **After takeoff, handed controls off, and discovered extreme left turning tendency**
- **Aviate**
 - Although difficult, was still able to turn in desired directions and had pitch control
 - We didn't fixate on just solving our control problem
- **Navigate**
 - Dave suggested a 300 heading, so we could work the problem and get out of heavy traffic area
 - Kept SA on position via GPS, avoiding Class B, R-4102 and Nashua airspace
- **Communicate**
 - No need to communicate our difficulty yet until we characterized the problem
 - Internally, began discussing observations and possible causes
 - No actions taken without discussion first (no sudden or surprise movements)



In-flight troubleshooting steps taken

- **Rudder trim**
 - Appeared very “left,” cranking right helped alleviate the problem
- **Possible cable or other issue**
 - Dave mentioned shortly after takeoff he heard a noise, possibly something moved out of place during takeoff
- **Acceptance**
 - Our training flight plans were out the window at this point, safely landing was #1
- **Measure airplane controllability**
 - While had plenty of altitude and time, decided to try basic slow-flight maneuvers
 - Better prepared for any compensation during landing if required
 - No extreme movements, just enough to characterize controllability for landing
- **RTB**
 - Returned to Hanscom, normal landing without incident
 - Grounded the airplane and wrote-up the issue, advised Steve



Post-flight Findings and Recommendations

- **Mechanics discovered rudder trim placard in wrong position (offset)**
 - Actual “neutral” was not aligned with the label
 - Moved the label, and performed functional check flight after thorough cable/linkage inspection

- **Key takeaways**
 - Slow down and think about any actions you’ll take before you do them
 - Remember, Aviate, Navigate, Communicate (in that order)
 - If you have fuel remaining and altitude, you have time
 - Slow-flight is a great simulator of control effects while at altitude
 - Priorities: safe landing always trumps whatever your previous plans were