TBM-PPP Standard Operating Principles
Daher TBMXXX

The purpose of this document is to provide guidelines for single-pilot operation of the Daher TBMXXX. This is not a replacement for, or supplement to, the Pilot Operating Handbook.

Scope & Applicability

These Operating Practices do not replace the FARs or the manufacturer's operating handbook. Some redundancies may exist to stress operational procedures or regulatory limitations.

This document is expected to focus on the most relevant accident scenarios. The focus is on making an impact on reducing accidents and hence will focus initially on approach and landing, the highest risk phases of flight.

General Procedures

Daher POH-derived checklist should be followed for all phases of flight. The following sections draw specific attention to additional items that should be considered during flight operations. The checklist should be immediately available to the pilot.

Sterile Cockpit & Areas of Vulnerability

The FAA codifies sterile cockpit procedures for operators under Part 121 (FAR 121.542) and Part135 (FAR 135.100) to minimize or avoid diverting the flight crew's attention from the task of flying. These regulations prohibit crew members from performing non-essential duties or activities when the aircraft is involved in taxi, takeoff, landing, and all other flight operations conducted below 10,000 feet AGL, except cruise flight. Taxi is defined as the movement of the aircraft under its own power on the surface of an airport.

An Area Of Vulnerability (AOV) is any period of high workload (for example, takeoff, altitude capture, instrument approach, landing etc.) where a flight path deviation occurs or where there is increased severity of consequences if such a deviation occurs. The PIC should anticipate AOVs and work to minimize unrelated tasks (such as avionics programming etc.) until the AOV is completed.

Before reaching 10,000 AGL, the PIC should advise passengers that the aircraft is approaching landing and refrain from distracting the flight crew. Passengers should be asked to ensure that all baggage is stowed and that tray tables, seat backs, seat positions etc. should be returned to their normal positions for landing, and their seat belts and shoulder straps are in position.

It is unrealistic to expect a pilot to fly with others and never discuss anything other than flying the aircraft. The sterile cockpit rule makes it clear when to set aside non-essential communication and concentrate on job one – flying the aircraft.

Approach

No Instrument Approach Procedure will be executed unless the reported weather minimums are at or above FAA published minimums. While FAR Part 91 does not require this, it is common sense and good practice. If the weather is below FAA published minimums, the PIC will divert the aircraft to the alternate.

Stabilized Approach

Have you heard “stabilized approach” before? Well, it’s not just a buzz term in aviation safety. It’s a critical lifesaving way to approach every flight. Data analysis shows from airlines to GA operations that flying a Stabilized Approach dramatically reduces the risk of a landing mishap. This section includes the changes made to Daher’s Stabilized Approach Criteria FIL.2015-T1 as implemented by Me and My TBM.

Stabilized Approach Criteria:

Landing Gear at 1000’ (IMC), 500’ (VMC)
Landing Flaps Extended at 1000’ (IMC), 500’ (VMC)
On Speed at 500’ (80-95 kts)
Min Torque from 500’ to 50’ (minimum 10%)
Descent Rate from 500’ to 50’ (less than 1000 fpm)
Landing Attitude 3 degrees or greater

Advisory Criteria:

Attitude at 50’ -2 to +3
IAS at 50’ 80-90 kts

Missed Approach

There is a Stabilized Approach Decision Gate at 200' AGL – If not stabilized at 200' – Pilot must go around. A missed approach or go-around procedure should be executed if the approach or approach to landing cannot be continued with the aircraft performing normal maneuvers or if the runway is not visible at the decision height/missed approach point or if SAC gate limits are exceeded.

A missed approach will be flown to its completion. A pilot may see a hole in the clouds; however, we won't abort the missed approach instructions and replace them with a visual approach.

Landing

The PIC should fly the final stage of the approach to landing in compliance with the Stabilized Approach Criteria defined in Daher FIL 2015-T1 (Stabilized Approach Criteria). 50' GATE - Final approach at 50' AGL should be made at Vref or 1.3 x Vso adjusted for conditions, may be achieved with a flat (zero degree) attitude, monitoring an AOA, or through calculations using the approach weight to determine Vso.

The PIC should plan to fly the final approach to landing, paying attention to pitch angle, IAS, AOA, and other clues to assure touchdown at greater than 3 degrees.

If attitude at touchdown is trending to less than 3 degrees, then GO AROUND!

Post-Flight Analysis

As soon as convenient after the flight, the PIC should review the flight as flown and assess any variances from the pre-flight plan and any errors or omissions made during the flight. Recommended to capture these variances by writing them down in the Post-Flight Log for future review and analysis as a key part of the continuous improvement process of the SMS. Review the flight in the Flight Data Management tool of your choice (Flysto, Me & My TBM, TBM Report).

Pilots are encouraged to file NASA ASRS reports whenever a significant error has been made during the flight, regardless of whether FAA regulatory deviations have occurred. Review of errors should be made not for self-castigation but as a learning exercise to determine how, when, and why the error occurred and what could be done in the future to prevent reoccurrence.

TBM-PPP members shall identify a TBM-PPP Safety Buddy to share data with and review progress regularly. Flights with a SAC compliance lower than 80% should be reviewed with the Safety Buddy as soon as practical to further learning and continuous improvement.