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## ***FIL.2017-T4 Rev. 1***

### **OPERATING IN ICING CONDITIONS**

October 2025

**Dear TBM and Kodiak owners, operators and Network members,**

This updated Flight Information Letter (FIL) provides guidelines related to operations in icing conditions for TBM and Kodiak airplanes. It cancels and supersedes FIL.2017-T4, published in January 2017.

- Flight Into Known Icing (FIKI) certification
  - The TBM 700 was certified for FIKI in 1990 with the TBM 700 version. This certification applies to all TBM-series aircraft.

In 2011, Daher performed additional tests and analysis in response to an FAA aviation industry request concerning aircraft susceptibility to Ice Contaminated Tailplane Stall (ICTS) - referring to events that involve flow separation from the horizontal stabilizer due to ice accretion. Testing confirmed that the TBM demonstrated no susceptibility to ICTS in any flap configurations, or with aerodynamic surface contamination (natural ice and artificial ice shapes).



*TBM 700 with artificial ice shapes*

- The Kodiak 100 and Kodiak 900 are certified for FIKI - both when equipped with the optional TKS© ice protection system. During tests, the Kodiak was found to have susceptibility to ICTS in the full-flap (35°) configuration at normal approach speeds and with aerodynamic surfaces contaminated by ice. Therefore, both the Kodiak 100 and Kodiak 900 versions are limited to a maximum of 20° flaps for landing with ice suspected on the airframe, or when operating in icing conditions.

FIKI certification establishes a tested capability within defined limits; it does not eliminate the risks associated with icing. Discipline and decision-making are the defining marks of mastering FIKI.

Pilots must strictly adhere to the Airplane Flight Manual (AFM)/Pilot's Operating Handbook (POH) limitations and procedures associated with cold weather operations and icing conditions:

- TBM Pilot's Operating Handbook: Section 2 - Limitations; Section 4.4 - Amplified Procedures (Preflight Inspection); Section 4.5 - Particular Procedures; and Section 8.10 - Utilization in Cold Weather;

- Kodiak 100/Kodiak 900 Airplane Flight Manual: Section 2 - Limitations; Section 4.4 - Amplified Normal Procedures (Preflight Inspection); Section 4.5 - Cold Weather Operations; Section 8.5 - Servicing; and Section 9 - Supplements (TKS Ice Protection System).

- Icing risk management and mitigation

- Conduct a detailed preflight analysis of icing reports and forecasted conditions along the planned route. Keep in mind that icing predictions are not always accurate, and severe icing could exist in areas where moderate icing was predicted.

- Prior to departure, all aircraft ice protection equipment must be operational (fully functional and tested); otherwise, the pilot is required to cancel or reroute to avoid FIKI conditions.



*Pneumatic deicing on the TBM*



*TKS© fluid on the Kodiak*

- Before takeoff, adhere to the “Clean Aircraft” concept, and ensure that no frost, ice or snow adheres to the aircraft. A tactile inspection may be required to detect contamination.
- Remove any contamination with ground deicing/anti-icing operation using only manufacturer-approved fluids (Type I or III are authorized for the TBM; no ground de-icing fluid is authorized for the Kodiak. Brooming off a layer of snow will not suffice to remove the thin layer of ice underneath.
- The only alternative may be limited to placing the aircraft in a warmed hangar to perform the cleaning process.

- Monitoring and proactive management

When flying in icing conditions, the pilot should never become complacent about icing:

- Before entering icing conditions, the pilot must activate the airplane’s ice protection systems and continuously evaluate their performance;
- An in-flight failure of the ice protection system will require the pilot to leave the area of FIKI conditions, and avoid FIKI conditions for the remainder of the flight.

Exit icing conditions by changing the route of flight, and/or altitude, when:

- The ice accretion rate is such that ice protection systems fail to remove the accumulation of ice, and/or:
  - Ice accretion occurs in areas not normally prone to icing, such as aft of the protected surfaces; and/or
  - Freezing rain or freezing drizzle are encountered.

- Airspeed, configuration and performance management

Aerodynamic performance and flight characteristics can be impacted when an aircraft is contaminated with ice. Ice accretion translates into a stall speed increase, as well as an increase in the weight of the aircraft.

There is a reduction in the max lift coefficient (ice-induced reduction in the critical angle of attack) and a drag increase due to ice accretion.



*AC 91-74B Pilot Guide: Flight in icing conditions*

- It is critical that the pilot knows and follows the model-specific AFM/POH limitations and procedures related to FIKI conditions. Among the limitations, there are recommended minimum speeds that provide a margin of safety during flight.
- The airplane must be operated according to the manufacturer's recommended flap settings, and never flown below associated minimum icing speeds.
- Climbing with a high pitch angle would help to expedite crossing an area of icing conditions. Ice accumulation increasing stall airspeed (due to profile shape deterioration), following ice accretion detection sound judgement would be to decrease the angle of attack which turns into an airspeed increase. How much of an increase depends on the amount of ice. Upon reaching an anemic rate of climb, the pilot should no longer attempt to climb.
- Because the Kodiak 100 and Kodiak 900 use a fluid-based ice protection system, there also are maximum speed limits which must be observed to ensure the effectiveness of the TKS© ice protection system in flight.
- When exiting icing conditions, the pilot must follow the manufacturer's recommended procedures for continued operation of ice protection systems

to ensure the full recovery of performance. Pilots should remain aware of areas of the aircraft not visible from the cockpit, and assume ice may remain even if it is not apparent elsewhere.

In addition to the airplane AFM/POH and this FIL, pilots should consider other information sources, such as:

- 14 CFR Part 25: [Appendixes C and O](#)
- [AC 91-74B Pilot Guide: Flight in Icing Conditions](#)
- [FAA/NASA YouTube video \(2016\): Ice Induced Stall Pilot Training](#)
- [FAA Holdover Time Guidelines - Winter 2024-2025](#)
- [Givrage document de synthèse DGAC \(in French\)](#)
- [SIMCOM / CAE Icing Quick Reference Cards](#)
- [SL70-53-30 Revision 3 - Deicing / Anti-icing procedure on ground](#)

List of all Flight Information Letters issued as of today is available in Technical Documentation file on MyTBM.aero:

- FIL.2015-T1: Stabilized Approach Criteria
- FIL.2015-T2: TBM cabin pressure messages and warnings (Rev.1)
- FIL.2016-T3: Uncoordinated / Asymmetric Flight
- FIL.2017-T4: Ice contamination, speed, and flap awareness
- FIL.2019-T5: When turning the Autopilot ON
- FIL 2020-T6: Flight Control Trim
- FIL.2021-T7: Weight & Balance
- FIL.2022-T8: Inadvertent activation of the HomeSafe™
- FIL.2022-T9: Utilization of flaps
- FIL.2022-T10: Flight Control Trim System
- FIL.2022-T11: Emergency landing gear extension procedure
- FIL.2023-T12: Go-around
- FIL.2023-T13: Kodiak Bleed Air Heat Malfunctions
- FIL.2024-T14: Circling approaches
- FIL.2025-T15: OFF Airport Operations

*This letter is part of Flight Information communications transmitted to TBM and Kodiak pilots & operators, and focuses on specific flying tasks. It neither replaces nor overrides any POH or Pilot Guide which are the only official documentation. This letter is for information only.*



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