

# Instrument Pilot

## II. Preflight Procedures

<b>Task</b>	<b>A. Airplane Systems Related to IFR Operations</b>
<b>References</b>	14 CFR parts 61, 91; FAA-H-8083-2, FAA-H-8083-15; AFM; AC 91-74
<b>Objective</b>	To determine the applicant exhibits satisfactory knowledge, risk management, and skills associated with anti-icing and de-icing systems.
<b>Knowledge</b>	The applicant demonstrates understanding of:
<i>IR.II.A.K1</i>	The general operational characteristics and limitations of applicable anti-icing and deicing systems, including airframe, propeller, intake, fuel, and pitot-static systems.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
<i>IR.II.A.R1</i>	Pilots with little or no experience with flight in icing conditions.
<i>IR.II.A.R2</i>	Limitations of anti-icing and deicing systems.
<b>Skills</b>	The applicant demonstrates the ability to:
<i>IR.II.A.S1</i>	Demonstrate familiarity with anti- or de-icing procedures or information published by the manufacturer that is specific to the airplane used on the practical test.

### Anti-Ice vs Deice systems

1. Anti-icing equipment is turned on before entering icing conditions and is designed to prevent ice from forming.
2. Deicing equipment is designed to remove ice after it begins to accumulate on the airframe.

What equipment does a 172 or Piper Cherokee have?

1. Pitot tube heater: De-Ice
2. Carb Heat: De-ice
3. Stall Warning Vane on Pipers: De-Ice
4. Possibly could include Window Defrost.

For a plane to fly into known icing, it must be certified for flight into known icing. Even then, an aircraft's icing equipment may not be able to keep up in severe icing.

Non-certified aircraft are to evacuate from icing conditions upon an inadvertent entry.

Non-certified aircraft are not allowed to fly into known icing conditions.