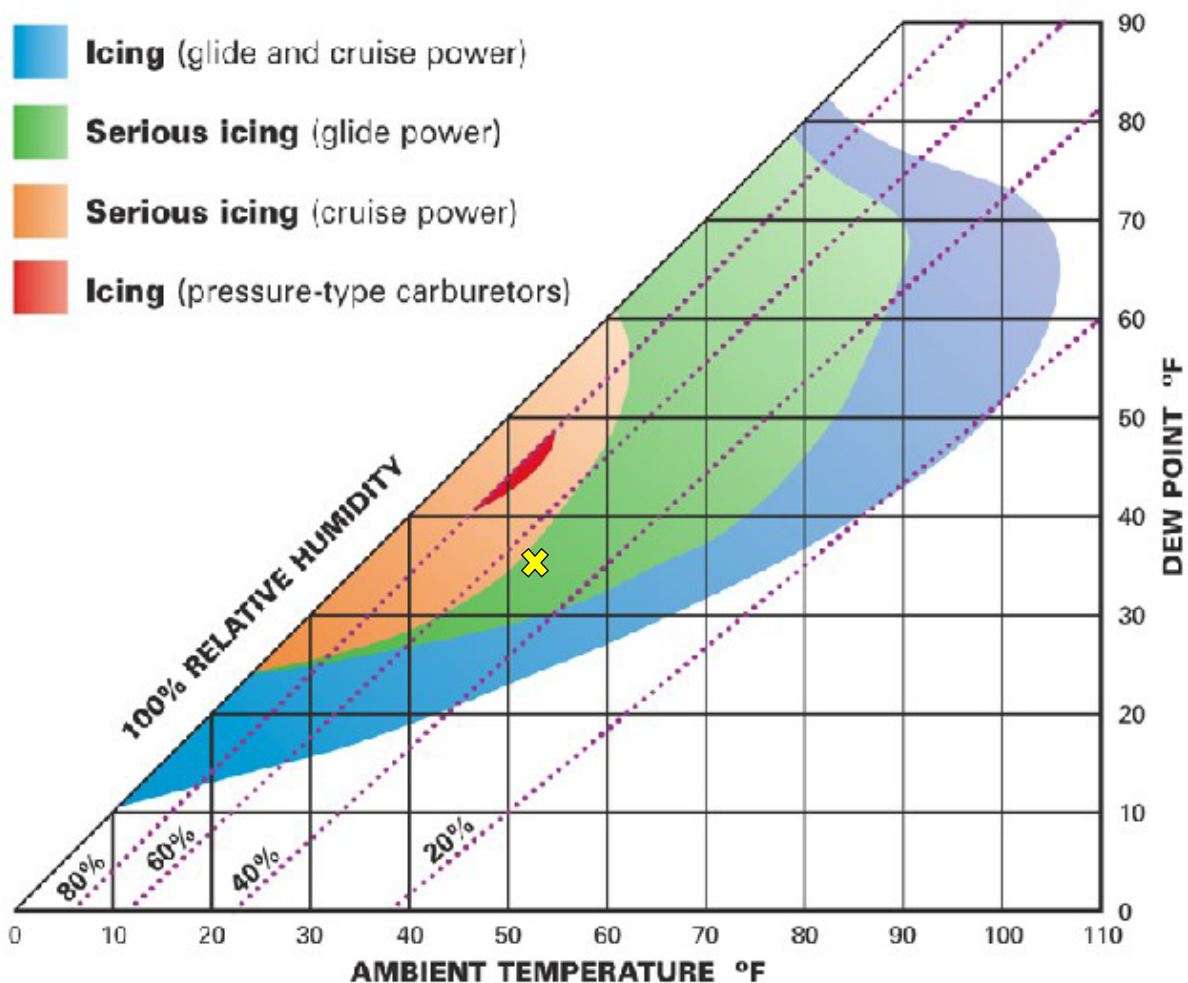




CARBURETOR ICING PROBABILITY CHART

Jason Aguilera
Air Safety Investigator
Central Region

Below is the Carburetor Icing Probability Chart located in the FAA's Special Airworthiness Information Bulletin CE-09-35, *Carburetor Icing Prevention*, dated June 30, 2009. The estimated temperature and dew point for the accident airplane is annotated on the chart.



PISTON ENGINE ICING

FOR GENERAL AVIATION PILOT

SAFETY PROMOTION LEAFLET



3. ENGINE FACTORS

- a. Carburettor icing is more likely when MOGAS is used, because of its volatility and water content.
- b. Reduced power settings make engines more prone to icing. Induction temperatures are lower, and the partly closed butterfly can be restricted more easily by the ice build-up. This is a particular problem if the engine is de-rated, as in many piston-engined helicopters and some aeroplanes.
- c. A rough carburettor venturi surface is likely to increase carburettor icing severity.
- d. Water-cooled engine bodies tend to cool less quickly when power is reduced, which reduces the severity of carburettor icing. If coolant is directed around the carburettor body, the venturi temperature may remain above freezing.