



Interagency Aviation Accident Prevention Bulletin



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Subject: A Pilot's Guide to In-Flight Icing Online Course

Area of Concern: Flight Operations

Distribution: All Aviation Activities

Discussion: NASA's online **Pilot Guide to In-Flight Icing**, (http://www.cfmediaview.com/lp1.aspx?v=8_87739320_3228_17), offers information on the science behind ice creation, how it effects handling and performance related to flight operations and a host of exit strategies. The course is broken down into a number of categories that revolve around understanding the basics of ice formation, its impact on aircraft aerodynamics, and how best to consider icing hazards from weather briefings.



The course provides an in-depth look at specific examples of icing cues. In addition to a number of videos shot inflight and interviews with pilots discussing their icing encounters, the course offers quizzes to help pilots think through the process of what happens next. The course ends with a close-up look at the differences in aircraft handling characteristics related to ice induced wing stall versus ice induced tail stall. The guide also offers an extensive resource section including websites, databases, and other readings related to icing. The course provides a tremendous amount of information and it may not be possible to absorb it all in one session.

Who should take this course?

All pilots and aircrew exposed to potential in-flight icing.

What is covered in this course?

The course includes tools to deal with in-flight icing with an emphasis on avoidance, detection and exit. The effects of ice accretion on performance and handling, in addition to the particular icing hazard related to Super-cooled Large Droplets (SLD), is also covered.

How long will it take?

This course is fairly comprehensive. The entire course from beginning to end, including exploring the accident links, pilot testimonials and other related information takes roughly 4-6 hours.

For additional information on carburetor icing see DOI Safety Alert 11-01 *The Ice Man Cometh*.
<http://oas.doi.gov/safety/library/alerts/FY2011/DOISA1101.pdf>

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