**FAA**
**Aviation Safety**

# SPECIAL AIRWORTHINESS INFORMATION BULLETIN

**SAIB:** CE-13-29

**SUBJ:** Aircraft Fuel Systems- Fuel System Ice Inhibitors **Date:** April 17, 2013

*This is information only. Recommendations aren't mandatory.*

## Introduction

This Special Airworthiness Information Bulletin (SAIB) advises pilots, operators, and manufacturers of airplanes of the results that can occur if airplane flight manual (AFM) limitations, instructions, or placard information for adding fuel system ice inhibitors (FSII) are not adequately highlighted and closely followed for airplanes that require these additives for safe operation.

At this time, the airworthiness concern is not considered an unsafe condition that would warrant airworthiness directive (AD) action under Title 14 of the Code of Federal Aviation Regulations (14 CFR) part 39.

## Background

The following information was taken from NTSB Accident Report PB2011-910405:

"On March 22, 2009, about 1432 mountain daylight time, a Pilatus PC-12/45, N128CM, was diverting to Bert Mooney Airport (BTM), Butte, Montana, when it crashed about 2,100 feet west of runway 33 at BTM. The pilot and the 13 airplane passengers were fatally injured, and the airplane was substantially damaged by impact forces and a post-crash fire. The flight departed Oroville Municipal Airport, Oroville, California, on an instrument flight rules flight plan with a destination of Gallatin Field, Bozeman, Montana. Visual meteorological conditions prevailed at the time of the accident.

The National Transportation Safety Board determines that the probable cause of this accident was (1) the pilot's failure to ensure that a fuel system icing inhibitor was added to the fuel before the flights on the day of the accident; (2) his failure to take appropriate remedial actions after a low fuel pressure state (resulting from icing within the fuel system) and a lateral fuel imbalance developed, including diverting to a suitable airport before the fuel imbalance became extreme; and (3) a loss of control while the pilot was maneuvering the left-wing-heavy airplane near the approach end of the runway."

The NTSB concluded that "if the pilot had added a fuel system icing inhibitor to the fuel for the flights on the day of the accident, as required, the ice accumulation in the fuel system would have been avoided, and a left-wing heavy fuel imbalance would not have developed."

## Recommendations

<u>For Airplane Manufacturers</u>

Although the FAA is not considering a change to existing related regulations at this time, we recommend that airplane manufacturers review the NTSB report and consider implementing the following for both new and existing airplanes that require the use of FSII:

- Highlight this limitation by a warning in the Limitations Section of the AFM. Include this highlighted warning in the AFM for future airplanes. If not already in the AFM for existing airplanes, update existing AFMs to include this highlighted warning.

- Install a placard adjacent to the fuel filler openings that notes this limitation and refers to the AFM for specific information about the limitation. Incorporate this as a requirement for newly manufactured airplanes, and issue service bulletins to update existing airplanes.

For Pilots

We recommend that pilots be aware of and closely follow AFM limitations and instructions and placard information regarding FSII. It is recommended that pilots read the NTSB report.

**For Further Information Contact**

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**For Related Information**

NTSB report PB2011-910405, Loss of Control while Maneuvering Pilatus PC-12/45, N128CM Butte, Montana March 22, 2009, can be accessed at http://www.ntsb.gov/doclib/reports/2011/aar1105.pdf. To purchase this publication, order report number PB2011-910405 from: National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161.