FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: 2024-01
SUBJ: Installation of TCW Technologies Integrated Back-up Battery System **Date:** February 13, 2024

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) is being issued to ensure that aircraft occupants are not exposed to smoke or fumes emitted from a thermal runaway (TR) event that could occur with the TCW Technologies LLC Integrated Back-up Battery System (IBBS) Models IBBS-12v-3ah-CRT, IBBS-12v-6ah-CRT, and IBBS-24v-3ah-CRT installed on aircraft in accordance with Supplemental Type Certificate (STC) SA04400NY, amended prior to June 29, 2023.

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

Background

Rechargeable lithium cells are capable of generating hazardous emissions when defective or subject to physical or operational abuse. Although the IBBS unit is protected from abusive failure conditions and includes a variety of fail-safe mechanisms, conditions may occur that could cause a TR event, which could result in the venting of smoke or fumes and/or liquid from the base plate mounting corners or from around the product fuse location. Although the FAA has received no reports of this occurring in the field, the FAA is issuing this SAIB for operator awareness and to prevent smoke/fumes exposure should a TR event occur.

Recommendations

The FAA recommends that all owners and operators using one of the aforementioned TCW Technologies LLC IBBS units in aircraft modified in accordance with STC SA04400NY, amended prior to June 29, 2023, should provide a sealed secondary metal IBBS enclosure with a vent port and vent hose to ensure aircraft occupants are not exposed to smoke or fumes emitted from a TR event. The enclosed IBBS unit must be installed in the horizontal axis with respect to the mounting base of the IBBS unit and the vent port must be routed to the bottom or side exterior of the aircraft via the vent hose.

The mounting area must provide sufficient clearance around the IBBS unit for the wiring harness and vent hose, and ensure sufficient clearance to fuel tanks, fuel lines, oxygen lines or any other critical systems and the mounting area is accessible to allow for future battery servicing. Enclosure installation details are provided in the TCW Technologies LLC *IBBS Installation Instructions,* Document No. 725.0047, Revision 1.5, dated September 18, 2023, or later revision. The IBBS Installation Instructions can be obtained from the TCW Technologies website: tcwtech.com/documentation.

It is recommended previous IBBS unit customers contact TCW Technologies LLC to purchase the suitable secondary metal enclosure with venting provision. Obtaining the secondary metal enclosure will entail the owners or operators sending their existing IBBS unit to TCW Technologies LLC to be installed into the secondary metal enclosure assembly, part number 980.0020. This will ensure that

the secondary metal enclosure is properly sealed and the IBBS unit meets the current standard of the IBBS-xx-xx-CRT-V for the current IBBS unit being shipped.

For Further Information Contact

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For Related Service Information Contact

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