

Flight Test Report

Antenna Installation on AFT Upper Fuselage Of Bombardier CL-600

December 15, 2004

This report describes the test results of the repeat experimental flight test flown supporting the Supplemental Type Certificate project to install an antenna on the AFT upper fuselage of a Bombardier CL-600 aircraft. The flight test plan supporting this project is the Kruse Aerospace Corporation Report Number THA/KAI-04/07-1 Rev. D, dated December 15, 2004.

This flight test repeated several flight test cards from the previous flights to correct certain test points for weight and center of gravity locations. The flight test was conducted out of Peachtree-Dekalb Airport in Atlanta, Georgia December 14th and 15th, 2004. All test points were satisfactorily completed in two flights.

All test points with the antenna installed were accomplished satisfactorily; no adverse effects were observed at any test point. All stalls, both straight ahead and turning, were accomplished in accordance FAR 25. Positive nosedown pitching moment was observed in all stalls and there was no tendency for roll-off or natural. All stalls were accomplished at aft cg and within the weight tolerance range of maximum takeoff gross weight except the 45 degree flap configuration. These were conducted within the weight tolerance range of maximum landing weight.

All lateral-directional stability points demonstrated strong positive stability in both directions and no unusual characteristics were observed. V_{MCA} was not achieved due to encountering stick shaker first. A single-engine go-around was flown and it was determined that the aircraft direction could be easily maintained with less than full rudder/5 degrees of bank. No adverse handling characteristics were observed.

Four APU starts were made with perfect success with no hesitation or abnormalities in the startup sequence. The air conditioning/pressurization system functioned perfectly throughout the test flight.

No additional tests to further prove airworthiness are recommended.

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Attachment

Appendix D, Flight Test Cards