MEMORANDUM OF RECORD

NTSB Accident Number: ERA12FA127, Fort Lauderdale, Florida

The following is excerpted from a Cessna flight test results paper (Report FT650-13) prepared on June 16, 1982, in regards to meeting FAR 25.671 requirements for control system malfunctions:

Spoiler Failure

"The spoiler failure was simulated by commanding (at the actuator) the #8 [right] spoiler to the full up position and holding the spoilers down with the spoiler hold down switch. When the spoiler hold down was removed, the #8 spoiler went full deflection and the #1 spoiler was enabled as a normal roll spoiler….

The aircraft was…slowed from 350 knots through stick shaker speed (102 KCAS) with the failed #8 spoiler. Twenty degrees of flaps were extended at 180 knots and landing flaps and gear were extended at 140 knots….

A roll rate of 25 degrees/second could be produced at 115 KCAS with flaps at 20 degrees and gear extended, and 30 degrees/second with flaps fully extended and gear extended….

The last hardover was commanded on approach to landing and the approach continued through the landing. The wind given by the tower was 50 degrees adverse crosswind at 22 knots. Approach speed was 125 KCAS. Throughout the hardovers the failed spoiler was easily controlled with aileron and rudder….

The spoiler hold down function was found to be a satisfactory way of dealing with spoiler hardover….

Probable control malfunctions on the Model 650 have minor effects on control system operation and are capable of being readily counteracted by the pilot."

Paul R. Cox
Senior Air Safety Investigator