



March 17, 2003

U.S. Department of Transportation
Docket Management System
Plaza 401, 400 Seventh Street, SW.,
Washington, DC 20590-0001

Docket number **FAA-2002-14081**

Dear Sir or Madam:

Avionica, Inc. has developed a transponder lock solution that permits compliance with the proposed transponder rule with minimal acquisition, installation, and downtime costs. The Avionica transponder lock is a small device that mates directly to the existing transponder cockpit controller, using the existing aircraft wiring, and usurping the existing controller's function when necessary. The lock is engaged by channeling 7500 on the existing controller, depressing the existing controller's IDENT and FUNCTION TEST buttons simultaneously, or by depressing an added discrete EMERGENCY switch. The first two methods require no new wiring or installation on the aircraft. Once engaged, the transponder lock removes power from the existing cockpit controller, giving the crew clear indication that control is lost over the transponder. The transponder lock also provides a means for powering the transponder and transponder lock from an auxiliary power source, when wiring for an auxiliary source is added.

The Avionica transponder lock fulfills the majority of desired functionality with no alteration of the aircraft wiring. Installation and checkout of the transponder lock onto existing wiring can be accomplished quickly, typically in less than one hour and without aircraft schedule disruption. Because of the simplicity of our approach, acquisition costs fall considerably below the projected \$3000/ship. The one function that the transponder lock cannot accomplish without wiring changes is auxiliary power.

Towards the end of maximizing the benefit versus expense associated with the transponder lock, Avionica encourages the FAA to stipulate compliance in two phases. Because the majority of benefit can accrue quickly, the first phase could have a tight compliance schedule and affect the changes that can be accomplished without additional wiring. The second phase, timed to coincide with other planned extended aircraft maintenance, could add the auxiliary power and, thus, complete the proposed functionality.

Additional information regarding the Avionica transponder lock can be found on the internet at <http://www.avionica.com> and I can be reached via e-mail at segredo@avionica.com.

Respectfully,

A handwritten signature in black ink that reads "Raul D. Segredo".

Raul D Segredo
President

avionica, inc.

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