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TECHNICAL BULLETIN

Subject: Temperature Sensors

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Temperature sensors are required on type certified aircraft that employ nickel-cadmium batteries for starting engines or auxiliary power units to comply with the requirements stated in FAR 23.1353, 25.1353, 27.1353, and 29.1353. There is no similar requirement for lead-acid batteries.

Concorde's temperature sensors are designed to mate with the aircraft systems that require a response from the temperature monitoring system installed for the nickel-cadmium battery. They allow the replacement of the nickel-cadmium battery with no changes in the aircraft or in the pilots operating instructions.

Type certificated aircraft with valve regulated lead-acid batteries may also completely eliminate battery temperature monitoring systems. The FAA has approved Supplemental Type Certificates (STC) for the conversion of aircraft originally certified with nickel cadmium batteries to valve regulated lead-acid batteries. The battery temperature monitoring circuits have been dealt with in various ways under these STC's including:

1. Removal of the battery temperature monitoring circuitry and equipment.
2. Disconnecting the temperature sensor at the battery and tagging the connector, circuit breaker, and any instruments for reading battery temperature as being "Inoperative" and placarding the instrument.
3. Moving the temperature sensor from inside the nickel cadmium battery to the battery tray for valve regulated lead acid batteries.

Concorde batteries with temperature sensors eliminate the need to modify the aircraft. This means that the operator may convert from nickel-cadmium batteries to lead-acid batteries by merely installing the new battery with the appropriate temperature sensor and making a log book entry.