MANDATORY SERVICE BULLETIN

NUMBER: SB-009
DATE: 4/20/2009

SUBJECT: GARMIN AHRS VIBRATION TEST

CONCURRENT REQUIREMENTS
None

BACKGROUND
The GARMIN G1000 System is equipped with a vibration test that will allow KODIAK operators to determine if the GARMIN System AHRS units will fault under normal vibration levels. The vibration test is built into the AHRS which can be accessed from the GARMIN Configuration Screen. Follow the instructions listed in this Service Bulletin to perform a one-time GARMIN AHRS Vibration Test.

ACTION
Perform a one-time Engine Run Vibration Test to check the Garmin AHRS units for vibration faults. Following the test procedure in this Service Bulletin, the Garmin AHRS units will either pass or fail the test. Please contact Quest Aircraft Company by one of the two following options:
   • Fax copy of log book entry showing completion of this Service Bulletin to Quest Aircraft.
   • Supply Quest with an e-mail from the individual that conducted the test.

EFFECTIVITY
KODIAK Aircraft Serial Numbers 100-0001 thru 100-0009

COMPLIANCE
Quest Aircraft recommends that this inspection be done at the earliest opportunity, not to exceed 25 hours flight time after receipt of this Service Bulletin.

INDUSTRY SUPPORT INFORMATION
None

MANPOWER
The instruction contained in this Service Bulletin will take approximately 20 minutes to run.

COMPLETION
Upon completion of this Service Bulletin, enter the maintenance performed into the appropriate aircraft maintenance records.

IMPORTANT SERVICE BULLETIN

SB-009 Avionics; GARMIN AHRS Vibration Test

INSPECTION INSTRUCTIONS

ENGINE RUN-UP VIBRATION TEST

Task	Instruction
1	Start the aircraft engine following the procedures in the PIlots Operating Handbook.
2	After aircraft engine startup, taxi the aircraft to a suitable area for engine run-up.
3	Restart all three displays in Configuration mode by first pulling the circuit breakers for each. Then push and hold the **ENT** key on each display while applying power. Release **ENT** key after **INITIALIZING SYSTEM** appears in the upper left corner of the display.
4	Go to the **GRS** page group on PFD #1, **GRS/GMU CALIBRATION** page.
5	Enter pass code: softkeys 9, 10, 11, 12 by pressing each softkey sequentially.
6	Select GRS 77 #1. Then select **ENGINE RUN-UP TEST** and press the **ENT** key.
7	Follow the checklist items displayed on the PFD, and press the **ENT** key as each one is completed and confirmed.
8	When the **CALIBRATE** field is blinking, press the **ENT** key to begin the procedure.
9	The PFD display instructs the operator to gradually increase power in small increments from idle to takeoff power and back to idle over a period of one to two minutes. ** Perform this engine run test in accordance with standard operating procedures, not exceeding any engine or aircraft limitations.
10	When the operator has completed the engine run-up and the engine is back to an idle setting, press the ENT key to indicate that the process is complete. When this is done, the TEST COMPLETE field stops blinking.
11	The PFD informs the operator if the installation has passed or failed the vibration test. If the test fails, the specific measurements causing the failure are identified and numeric values are displayed on the PFD. Use the FMS inner knob to scroll through and view the entire list of failed measurements. If failures are indicated, the engine run-up test may be repeated up to three times. If the test does not pass after three attempts, then the installation must be corrected; contact Quest for further instruction.
12	Repeat **Steps 6-11** for GRS 77 #2.

COMPANY: _____

KODIAK SERIAL NO: _____

TEST PASSED (CIRCLE RESULT):

YES   NO

If test fails, record numbers displayed below:

Engine Run No.	Number Displayed