GLOBAL LEADER IN AIRCRAFT AND COMPONENT REMANUFACTURING

### **GE H75-100 Engine STC Information Sheet**

STC# SA01902CH, Textron King Air C90A, Please Contact Nextant Aerospace at 216-261-9000 or engineering@nextantaerospace.com for STC and Kit Pricing and Availability.

#### • STC# SA01902CH allows for:

- 1. The replacement of existing Pratt & Whitney PT-6 engines with either of the two engines listed below:
  - A general electric H75-100 with an electro-mechanical fuel control, which operates through mechanical throttle cables.
  - H75-100 BC01E, which is an H75-100 except it has an electric fuel control and an electronic engine control (EEC). This engine is controlled electronically by means of an RVDT connected to the throttles.
- 2. Interfacing to the Garmin 1000, i.e. Engine Instrument Display configuration that is covered by this STC and, addition of other non-engine related gauges to the Garmin MFD.
- 3. The installation of MD302 Digital 3-1 Standby Instrument.
- 4. The upgrade of existing cockpit annunciators, switches, and lighting to LED.
- 5. The removal of the existing prop feather pump.
- 6. The installation of new exhaust stacks.
- 7. The necessary cowling modifications to facilitate H75-100 or H75-100E engine.
- 8. The installation of a new cabin pressure control system.
- 9. The installation of a vapor cycle air conditioning system which includes installing two cabin evaporator units.
- 10. The installation of a Garmin Radio Altimeter.
- 11. The installation of a Garmin TCAS I system.
- 12. The installation of a Garmin Wi-Fi Datalink system which includes maintenance data logging capabilities.
- 13. The installation of a Garmin GSR 56 Iridium Satellite Radio system interfaced to the Garmin (GDL 59) Wi-Fi Datalink system.
- 14. High & Low RPM propeller speed selection. In the event of a power loss this reverts back to high propeller speed.
  - Only applicable to H75-100 BC01E engines\*
- 15. The replacement of existing propeller feather levers with guarded prop feather switches.
  - Only applicable to H75-100 BC01E engines\*
- 16. The replacement of mechanical throttles to electronic power controls using RVDT connected to each throttle lever which sends electrical signals to an EEC.
  - Only applicable to H75-100 BC01E engines\*
- 17. The installation of a propeller synchronizer system.
  - Only applicable to H75-100 BC01E engines\*
  - Requires installing magnetic sensor on prop housing.
- 18. Garmin ground test "Demo Mode" flight simulation.

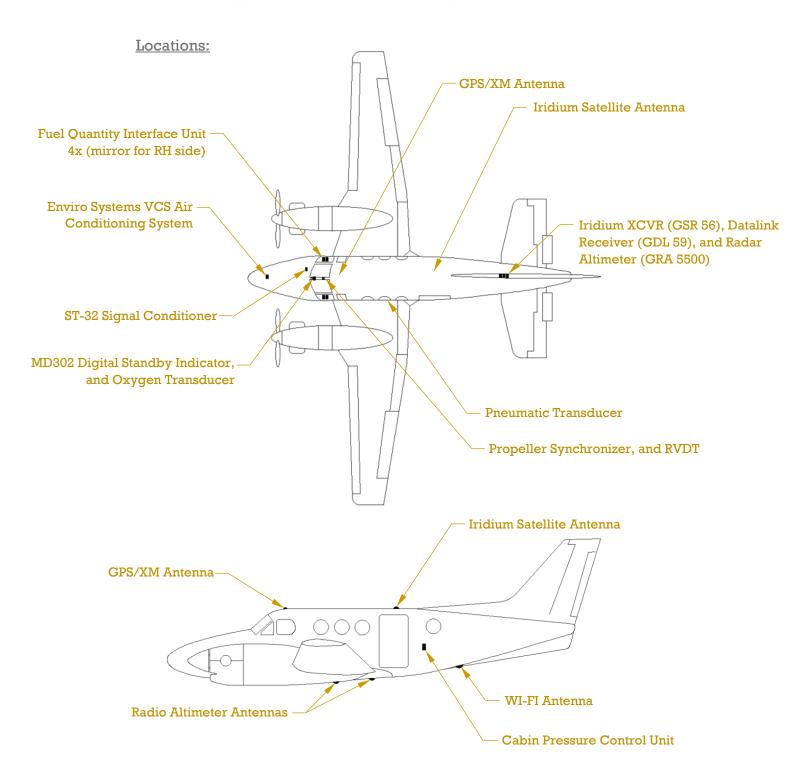
GLOBAL LEADER IN AIRCRAFT AND COMPONENT REMANUFACTURING

#### • <u>Aircraft Configurations (Equipment installed in table below):</u>

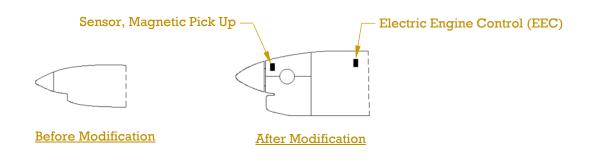
- 1. Basic installation with GE H75-100 engines.
- 2. Basic installation with GE H75-100 BC01E engines with single lever power control, electronic engine fuel control and propeller synchronizer.

Equipment Description	Part number	QTY	Config
Electronic Engine Control (EEC)	517440-1	2	2
Sensor, Magnetic Pick Up	3015A	2	2
Propeller Synchronizer	P-8SP-1	1	2
Fuel Filter (LH)	90005-1743640-29	1	1, 2
Fuel Filter (RH)	90005-1743640-19	1	1, 2
Oxygen Transducer	APTE-420KBS-2500SG	1	2
Pneumatic Transducer	APTE-74-1000-25A	1	1, 2
Fuel Quantity Interface Unit	10818B02Y00	4	2
ST-32 Signal Conditioner	ST-32	1	1,2
GPS/XM Antenna	CI-428-410	1	1, 2
Cabin Pressure Control Unit	52811-411or 52812-411	1	1, 2
MD302 Digital 3-1 Standby Instrument	6420302-1	1	1,2
Iridium Transceiver (GSR 56)	011-02268-00	1	1,2
Iridium Satellite Antenna	CI490-1	2	1,2
Datalink Receiver (GDL 59)	010-00666-00	1	1,2
Radar Altimeter (GRA 5500)	010-00946-00	1	1, 2
Radar Altimeter Antenna	03-00378-00 or S67-2002	2	1,2
	1150630-1, 1150680-1,		
Enviro Systems VCS Air Conditioning System	1150710-1, 1150720-1,	1	1,2
	1150730-1, or 1150850-1		
Rotational Variable Differential Transducer RVDT, Single Channel	3A1351A	2	2

GLOBAL LEADER IN AIRCRAFT AND COMPONENT REMANUFACTURING



GLOBAL LEADER IN AIRCRAFT AND COMPONENT REMANUFACTURING



- <u>Pre-requisites:</u>
  - $\circ$   $\;$  The aircraft must have the following installed either before or in conjunction with this STC.
    - ✓ Garmin G1000 installed per STC (STC# SA01465WI-D).
    - ✓ Hartzell 4 blade straight prop installed per STC (STC# SA3593NM).
    - ✓ Luma Tech LED Annunciation system installed per AML STC (STC# SA02133SE).
- <u>STC Data Package</u>:
  - Letter of Authorization (LOA)
  - FAA STC Certificate
  - o Master Data List (MDL)
  - Instructions for Continued Airworthiness (ICA)
  - o Airplane Flight Manual Supplement (AFMS)
  - o Weight and Balance Supplement
  - Electrical Load Analysis (ELA)
  - Wiring Diagrams
  - Structural/Installation Drawings