

		MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)		Form Approved OMB No. 2120-0020	
				For FAA Use Only Office Identification	
INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act 1958)					
1. Aircraft	Make SOCATA		Model TB20GT		
	Serial No.		Nationality and Registration Mark United States		
2. Owner	Name (As shown on registration certificate)		Address (As shown on registration certificate)		
3. For FAA Use Only					
4. Unit Identification				5. Type	
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	----- <i>(As described in item 1 above)</i> -----				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				
6. Conformity Statement					
A. Agency's Name and Address (name & address of A&P/IA)		B. Kind of Agency		C. Certificate No. (IA Cert #)	
		<input checked="" type="checkbox"/> U.S. Certified Mechanic <input type="checkbox"/> Foreign Certified Mechanic <input type="checkbox"/> Certified Repair Station <input type="checkbox"/> Manufacturer			
D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.					
Date			Signature of Authorized Individual		
7. Approval for Return to Service					
Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is <input type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	<input type="checkbox"/> FAA Fit Standards <input type="checkbox"/> FAA Designee	<input type="checkbox"/> Manufacturer <input type="checkbox"/> Repair Station	<input type="checkbox"/> Inspection Authorization <input type="checkbox"/> Person Approved by Transport Canada Airworthiness Group	Other (Specify)	
Date of Approval or Rejection	Certificate or Designation No.	Signature of Authorized Individual			

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

1.) **INTRODUCTION:** Socata TB20 REG. NO: SERIAL NO:

KLN 94 installed by aircraft manufacturer with IFR enroute and terminal approval etc. Installation meets the requirements for IFR installation with the inclusion of the attached AFMS.

2.) **DESCRIPTION:**

- A. Nothing removed
- B. Nothing installed
- C. Unit is interfaced to the following installed equipment:
 - i. KFC225 autopilot
 - ii. SN3500 HSI
 - iii. Shadin fuel totalizer
 - iv. KMD550 MFD
 - v. KEA130A.
- D. This installation meets the requirements of AC20-138A. All GPS system displays and annunciators are within the pilots normal field of view and all GPS system controls are within easy reach of the pilot. The system switches, annunciators, displays and flight director/ autopilot and instruments are compatible with this aircraft.
- E. A ground and flight evaluation was conducted and the system meets the requirements of AC20-138A Paragraph 22 and 23. GPS is adequately isolated from the harmonic interference caused by VHF transmitters. A report of the flight evaluation is attached.
Flight evaluation conducted by:

Name: _____

US Private Pilot Certificate Number XXXXXXXX

Signature: _____

- F. Removed Placard "GPS APPROVED FOR BRNAV, SID/STAR AND APPROACH MODE PROHIBITED" and installed Placard "GPS NOT APPROVED FOR IFR PRECISION APPROACH or RNAV SID, STAR, ODP". See AFM Supplement for limitations.
- G. This aircraft is equipped with other approved and operational means of navigation appropriate to the route being flown.
- H. The equipment was tested and found to function properly with no interference to any other system or flight control.

[X] Additional Sheets Are Attached

3.) **CONTROL/OPERATIONAL:** An Approved Flight Manual Supplement (AFM) dated _____ is required to be in the aircraft. See AFM Supplement for limitations.

4.) **SERVICING INFORMATION:** N/A

5.) **INSTRUCTIONS FOR CONTINUED AIRWORTHINESS:** See section 1.9 INSTRUCTIONS FOR CONTINUED AIRWORTHINESS from the Bendix King install manual 006-10599-0004 Rev 4 Jan 2003: "The instructions for continued airworthiness given in the TC or STC approvals for this product supplements or supersedes the instructions for continued airworthiness in this manual.

Most Honeywell products are designed and manufactured to allow "on condition maintenance". On condition maintenance is described as follows; There are no periodic service requirements necessary to maintain continued airworthiness. No maintenance is required until the equipment does not properly perform its intended function. When service is required, a complete performance test should be accomplished following any repair action. Consult the appropriate unit Maintenance/Overhaul Manual for complete performance test information."

6.) **TROUBLESHOOTING INFORMATION:** Basic electrical troubleshooting procedures apply to the wiring and connector installation.

7.) **REMOVAL AND REPLACEMENT INFORMATION:** The KLN94 unit is a slide in / slide out unit. Care should be taken to ensure proper mating of connections in tray and on unit upon installation.

8.) **DIAGRAMS FOR ACCESS:** N/A

9.) **SPECIAL INSPECTION REQUIREMENTS:** N/A

10.) **APPLICATION OF PROTECTIVE TREATMENTS:** N/A

11.) **SPECIAL HARDWARE DATA:** N/A

12.) **LIST OF SPECIAL TOOLS:** N/A

13.) **COMMUTER AIRCRAFT INFORMATION:** N/A

14.) **RECOMMENDED OVERHAUL PERIODS:** No changes as a result of this installation.

15.) **AIRWORTHINESS LIMITATION SECTION:** The Bendix-King KLN94 unit remains airworthy provided it operates as specified in the Approved Aircraft Flight Manual Supplement and has the appropriate current database installed.

16.) **REVISION INFORMATION:** To revise these Instructions for Continued Airworthiness, a letter is to be sent to the local FSDO with a copy of the revised FAA Form 337 and revised ICA. Upon receipt, the FSDO will reply as necessary for approval.

[X] Additional Sheets Are Attached

GPS IFR FLIGHT TEST REPORT
(10-27-97)

GPS Model: KLN94 SN 4331 Software: G103
 Aircraft Model: TB20 SN XXXXXXXX Registration: XXXXXXXX

	Initials
Conduct a functional flight evaluation by the installer covering the following items:	
1. Verify overall operation of the installed GPS equipment, including interface with other equipment in the aircraft.	<u>PH</u>
2. If coupled, verify the effect(s) of GPS equipment failure (open circuit breaker), including autopilot/flight director response.	<u>PH</u>
3. If interfaced with an autopilot and / or flight director, verify proper steering response while the auto pilot and /or flight director is coupled to the GPS equipment.	<u>PH</u>
4. Displayed GPS navigation parameters on all interfaced cockpit instruments.	<u>PH</u>
5. The effects(s), if any, of switching and transfer functions, including electrical bus switching, pertaining to the GPS installation.	<u>PH</u>
6. Evaluation to determine satisfactory electromagnetic compatibility (EMC) between the GPS installation and all other onboard equipment, including harmonic interference of VHF communication transceivers.	<u>PH</u>
7. Evaluation of the accessibility and visibility (day and night conditions) of all controls pertaining to the GPS installation and if coupled, its compatibility with other equipment.	<u>PH</u>
8. Verify continuity of navigation data during 360 degree left and right turns at 30 degrees bank. At no time during these maneuvers shall the GPS fail to provide navigation data.	<u>PH</u>
9. Monitor displayed cross-track error during enroute, and if applicable, approach transition and approach operations to verify FTE is less than 1.0 nmi (enroute and approach transition) and 0.25 nmi (approach), both with and without use of the autopilot and flight director (if installed).	<u>PH</u>

FOR EQUIPMENT APPROVED FOR APPROACH:

CONDUCT THREE PUBLISHED GPS INSTRUMENT APPROACHES USING APPROACH FIXES OBTAINED FROM THE INTERNAL DATABASE AND VERIFY PROPER OPERATION OF THE EQUIPMENT DURING APPROACH ENVIRONMENT.

APPROACH #1 NAME	<u>EGKA RNAV 02</u>	RESULTS	<u>SATIS.</u>
APPROACH #2 NAME	<u>EGKA RNAV 20</u>	RESULTS	<u>SATIS.</u>
APPROACH #3 NAME	<u>EGMP RNAV 21</u>	RESULTS	<u>SATIS.</u>

I certify that the above recorded test flight information is correct and that the GPS equipment as installed meets the above listed performance requirements.

Installers Signature: FACTORY INSTALL Date: 2002
 Pilot Signature: _____ Date: 4/4/2012
 Pilot License: _____

end