

TRANSNORTHERN AVIATION
APPROVED AIRCRAFT INSPECTION PROGRAM
Volpar B18T - N404CK

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PROGRAM ADMINISTRATOR:

The Approved Aircraft Inspection Program for Volpar Turboliner II S/N AF-297 -- Registration Number -- **N404CK** operated by TransNorthern Aviation. It is administered by the Operator's Director of Maintenance and maintained by the Company's Records Department.

FAA Approved Inspection Program

Volpar Turboliner

Manual # _____

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Procedures to Revise Program

Any revisions to this program, (initiated by the Operator or the FAA), will require the effected pages to be review and approved by the FAA. The operator is responsible for making required or requested changes, reviewing any changes with the companies Director of Maintenance, and providing copies of all changed pages to its Principal Maintenance Inspector or Principal Avionics Inspector for review. Each affected page that has been changed by an approved FAA approval will contain the Page Number, Revision Number, Date of Approval and Revision Line(s) (described in next paragraph). After approval the FAA will provide an updated signed "List of Effective Pages" for insertion in this document.

Areas with revision are identified by a vertical line in the page border. This line is deleted in subsequent revisions.

RECORD OF REVISIONS

DO NOT REMOVE THIS SHEET FROM THIS MANUAL

Rev No.	Rev. Date	Revised Pages	Inserted By	Rev No.	Rev. Date	Revised Pages	Inserted By
1	4/5/19	1, 3, 4, 8, 10, 14	A. Larson	11			
2				12			
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GENERAL INFORMATION

The AAIP is designed to maintain Beech C-45H modified in accordance with various STCs to a Volpar B18T designation aircraft as utilized by the operator listed above, per 14 CFR § 135.419. The aircraft make/model is also sometimes referred to as a “Beech Model 8T”, a “Volpar” or a “Turboliner”. The inspection program consists of 150 hour, 300 hour, avionics inspection, lubrication check list, and servicing instructions. Additionally it incorporates Maintenance and Inspections required by Federal Aviation Regulations and Federal Airworthiness Directives. Any other inspections, maintenance or overhaul/replacement requirements by manufacturers or the FAA will be tracked by the company on individual Task Sheets and contained in the Continuous Airworthiness binder described herein.

This program is FAA Approved and Controlled through the "List of Effective Pages".

A complete inspection (consisting of a 150 hour inspection, a 300 hour inspection and a separate 24 month Avionics check) must be accomplished within a 24-month period. The 150 hour inspection and the 300 hours inspections may be performed at “due time plus or minus 10 hours” to allow the operator to schedule maintenance around flight scheduling and still be considered as completed on schedule. (See definition of Scheduling Window below) Note: The 300 hour check must be accomplished before the last day of the 24th calendar month. Inspections performed within the scheduling window DO NOT change the the inspection schedule.

Note: When an aircraft inspection is initiated it must be completed. This is NOT a "flying inspection". When an inspection has begun, it must be completed in its entirety. An inspection will not be performed in separate sections. Use of the 'scheduling window' tolerances will not allow an increase (escalation) of the inspection intervals.

The normal method to apply this AAIP to a new aircraft is to complete the entire inspection program. It is permissible to apply for a “Bridge” (if an aircraft is currently on a similar AAIP) from the company’s Principal Maintenance Inspector (PMI). Each Bridge requested will be individually applied for via letter to the PMI and shall remain part of the aircraft’s permanent maintenance record if approved.

DEFINITIONS

The terminology pertaining to the inspection procedures and their use are explained in this manual and in accordance with Federal Aviation Regulations, Part 1, 43, and 91 issued by the Federal Aviation Administration. These terms are defined as follows:

Block Time - Flight time shall mean the time that the aircraft begins to move under its own power for the purpose of flight until it parks at its intended destination. This time is also called “Block to Block” time and is primarily utilized to record Flight Crew Time.

Flight Time – is also referred to as “Time in Service”, as used in computing the flight time of aircraft, component, maintenance and inspection time records. This time is calculated as the actual time that the aircraft is airborne during a flight.

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Cycle – is utilized to calculate component life that is ‘cycle’ limited. A cycle is considered a startup, application of takeoff power, landing and shutdown. Each cycle must include all 4 components of a cycle... i.e. A startup, takeoff, 3 landings and a shutdown is considered only 1 cycle.

Landing – A landing is considered each time that the aircraft transitions from flight to ‘wheels on the ground’ with insufficient forward speed to sustain flight. Each “Touch and Go” is counted as a Landing.

Scheduling Window - Scheduling windows represent a built-in inspection tolerance in an AAIP, which allows for scheduling flexibility. In this program Scheduling Windows specifically apply to the 150 hour and 300 hour inspections. Each of these inspections may be performed plus or minus upto 10 hours of their scheduled inspection time and be considered as if there were performed on exactly the scheduled aircraft inspection time. This method allows an operator to comply with an inspection up to 10 hours before or 10 hours after the scheduled time without being penalized. Example: If the maximum allowed 10 hour excess is used, the next inspection is due 140 hours from the completion of the phase. Ie. 150 Hr Inspection completed at 160 hours, 300 Hr Inspection is due at 300 hours. If an inspection is completed a maximum 10 hours early, the next inspection due time is calculated as +150 hours from the due time of the scheduled inspection. Example: 150 Hr Inspection completed at 140 hours, 300 Hr Inspection is due at 300 hours.

NOTE: If an inspection is completed more than 10 hours early, the next inspection due time is calculated as +150 hours from the completion of the last inspection. Example: 150 Hr Inspection is completed at 135 hours, 300 Hr Inspection is then due at 285 hours. This situation ‘resets’ the scheduled inspection times for all future 150 and 300 Hr Inspections. This scheduling window does not apply to the calendar inspection criteria applicable to this AAIP.

Pilot-in-Command - Pilot-in-Command shall mean the pilot responsible for the operation and safety of the airplane during the time counted as flight time. For Commercial Flight Operations the Company must designate a Pilot in Command for each Flight. All required Flight Crewmembers must be recorded on the Load Manifest required by 14 CFR 135.63

Preventative Maintenance- is defined as simple or minor preservative operations and the replacement of small standard parts not involving complex assembly operations.

Return to Service – In the case of an aircraft maintained in accordance with an AAIP means, that any time maintenance is performed on the aircraft an appropriately rated aircraft mechanic must certify that in so far as the work performed is concerned that the aircraft is in condition for safe operation and that no known conditions exist that would render the aircraft as unairworthy.

Definations continued next page.

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Task Sheet – This program incorporates computer generated Task Sheets that describe individual maintenance items to be performed. The Program is a subscription service to FSII© and it incorporates record generation, historically created Maintenance schedules and off site, secure data backup. The company records department generates Task Sheets as maintenance comes due and provides these sheets to the mechanic assigned to the Task. When the task is complete the mechanic “Returns the Aircraft to Service” by his signature in the area provided. Component parts tags, 8130’s, vender certifications, and other documentation describing the work performed are attached to the Task Sheet. Current Task Sheets describing each individual task is maintained in the Aircraft “Continuous Airworthiness” Document file.

Calendar Items – The AAIP covers Inspection Items as described in 14 CFR §91.417. Operators must be aware that it does NOT cover all items that are required to be inspected, overhauled and or calibrated to comply with ALL Federal Aviation Regulations for a specific operation. The Operator utilizes the FSII system to document compliance with these items with the Task Sheet system. Maintenance of these items may or may not be completed in conjunction with the checks outlined in this AAIP.

A Operational Check is when a person trained and qualified to operate a specific type of equipment evaluates its operation during working conditions. 14 CFR §21.127 describes Operational Checks for trim, controllability, flight instrument readings, etc. Other examples may be a VOR check, Overspeed governor check, of flight check after major modifications to an Aircraft. These checks may be made by any person that the company has specifically trained for the task... it be a pilot, mechanic or person who holds both certifications.

A Function Check is defined as a test to determine, that in addition to the items defining an Operational Check, the equipment is functioning to its designed parameters. Function Checks utilize procedures set by the manufacturer. A function check will therefore require, in the case of navigation radios, that a signal generator or a known position to a radio aid is used. For a transponder, the proper code and ident must be tested by an avionics repair station, or verified by ATC on the ground if possible, or as an air check if necessary. Function checks must be performed by persons with appropriate calibrated equipment. Function checks are often performed by FAR Part 145 Repair Stations when the Operator doesn’t maintain appropriated calibrated test equipment for the specific test.

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DOCUMENTS AND MANUALS

This inspection program has been designed in outline form with a brief description for each inspection task. The input for the inspection is derived from manufacturer's maintenance manuals and one or more of the following Supplemental Type Certificates (including ICA for each STC):

STC SA111WE	STC SA01229SE	STC SA832SW
STC SA1832WE	STC SA788GL	STC SA995WE
STC SA1636WE	STC SA457GL	STC SA2736WE
STC SA2204WE	STC SA370WE	STC SA1351WE
STC SA2958WE	STC SA1171WE	
STC SA1821WE	STC SA895SW	

The following manuals are applicable to this program and may be utilized for servicing instructions as appropriate:

Beechcraft Maintenance Manual P/N 414-180161 B10	Beech Illustrated Parts Manual
Beech Structural Repair Manual	Volpar Illustrated Parts Manual P/N D-103
Volpar Maintenance Manual P/N D-110	Volpar Service Letters 1-9 & 1T-5T
Volpar Service Bulletins 1-2 & 1T-16T	Dee Howard Report DH2-17E
Beechcraft Service Bulletins	Cleveland 199-127
Honeywell Maintenance manual MM72-00-92	
BF Goodrich ATA 30-10-31	
Allied Signal Turboprop Engine Maintenance Manual P/N MM72-00-92	
Allied Signal Turboprop Engine Service Bulletins (including SB 72-0019 and SB 72-0402)	
Hartzell Propeller Manual #139, 180, 182, 183, and SB Index 031412	
Volpar Tricycle Landing Gear Operations and Service Manual	

THE INSPECTION PROGRAM WILL CONSIST OF:

- A preflight inspection performed by the pilot before each takeoff in accordance with the Airplane flight Manual P/N D-109.
- A 150 hour Inspection (No.1) to be completed 150 hours after the previous 300 hour Inspection (No.2) plus or minus 10 hours.
- A 300 hour Inspection (No.2) to be completed 300 hours after the previous 300 hour Inspection (No.2) plus or minus 10 hours. Additionally it must be completed within 24 calendar months of the previous 300 hour inspection.
- A 24 month Avionics Inspection to be completed independently of the 150 hour (No .1) and 300 hour (No.2) inspections. There is no "Late grace" provision of this inspection however it may be accomplished at any time prior to it due date, in which case the 24 month due date is reset.
- Scheduling Windows apply to the 150 and 300 hour inspections.
- Discrepancies, On Condition Items, and Time life components shall be maintained in a continuous airworthiness condition by periodic and progressive maintenance, and are appropriately described in the applicable Maintenance Manuals, as amended, and other Manufacturer's referenced therein as amended.
- An Approved Aircraft Inspection Program does NOT specify or alter Time Life Component intervals. Operators are required to adhere to FAA Issued Ops Specs, Manufacturer's SB, FAA Ads, Maintenance Manuals, Shop Manuals or other applicable service information.

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GENERAL PROCEDURES AND FORMS

INITIAL INSPECTION

In order for an aircraft to be operated under the inspection provisions of this AAIP:

1. It must be specifically identified on the title page and the header of each page of the program.
2. It must receive a complete initial inspection which includes all elements of:
 - a. A 150 hour (No.1) inspection
 - b. A 300 hour (No.2) inspection
 - c. A 24 month Avionics Inspection.
3. **AND** It must also have been specifically approved by the FAA for the operator to use this program

COMPONENT CONTROL

Component Control is accomplished by means of Computer Generated Task Sheets with the Fleet Status II © Aircraft Recordkeeping Program. Each Controlled item shall be entered into the program with its approved Inspection/Overhaul Limits. The Records Manager shall be responsible to track Component Control thru its records department. As each Inspection is completed the Mechanic completing the work shall forward the paperwork so that the Records Department can record the next maintenance time due on the Aircraft Flight Log so that Flight Crew Members can determine the amount of time remaining on the aircraft before the next item is due.

TBO: ENGINE & ACCESSORIES

Overhaul Times and/or time limitations shall be adhered to in accordance with Ops Spec D101.

TBO: PROPELLER

Overhaul Times and/or time limitations shall be adhered to in accordance with Ops Spec D101.

MAINTENANCE RETURN TO SERVICE ENTRY ON AIRCRAFT FLIGHT LOG

When a discrepancy is recorded on the aircraft flight log and after maintenance, and before return to service, the person approving the aircraft for return to service shall make an entry (i.e. sign-off) on the daily flight log. The entry must include certificate number and type of work performed. A signature by a certificated mechanic or repairman on the Aircraft Flight Log constitutes that:

- (i) The work was performed in accordance with the Company's AAIP;
- (ii) All items that were required to be inspected were inspected by an authorized person who determined that the work was satisfactorily completed;
- (iii) No known condition exists that would make the aircraft unairworthy; and
- (iv) In so far as the work performed is concerned, the aircraft is in condition for safe operation.

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INOPERATIVE EQUIPMENT

All installed equipment must be operational for aircraft inspected under this program except as provided by an FAA Approved Minimum Equipment List. For Specific information regarding equipment that may be inoperative consult the Approved MEL for this aircraft.

MAINTENANCE AWAY FROM HOME BASE

Procedures for maintenance away from home base are contained in the Company General Operations Manual which is required to be available to flight crews during the operation of the is aircraft.

MAINTENANCE PERSONNEL REQUIREMENTS

Reference the company's General Maintenance Manual for specific information regarding the qualification requirements of personnel who perform inspections, maintenance, repair and/or overhaul of the aircraft.

USE OF CHECK SHEETS

Mechanics shall utilize the check lists contained in this document while conducting 150 hour, 300 hour and 24 month Avionics inspections. The Check list appropriate to the inspection is provided by the company with the Task Sheet showing the Return to Service of the aircraft after the inspection and any discrepancies are completed. After the specific check sheet is completed the Task Sheet for that check will be completed and signed by appropriately rated personnel. Both the Task Sheet and the completed check list shall be filed with the company until superseded.

PROGRAM BRIDGE

A Bridge is not required to maintain an aircraft under an AAIP. The FAA permits operators to develop a "Bridge Letter" (must be approved by the FAA) in order for this program to be deemed compatible with another Operators "AAIP" and initiate an initial starting point somewhere other than completely redoing identical current inspections. This Bridge Letter must outline any differences between this program and another, previously AAIP that need to be addressed in order for an aircraft move from one AAIP to another similar program. A copy of any approved Maintenance Bridge Letter shall be maintained with this AAIP. The existence of a "Bridge Letter" has no bearing on the validity of this AAIP and is considered a separate issue; it is included here for completeness only.

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MAINTENANCE DEPARTMENT SQUAWK SHEET

Whenever discrepancies are noted, either by the pilot or a mechanic performing an inspection associated with the continuous airworthiness of a Company Aircraft the Discrepancy Correction Form shown below may be utilized to document the discrepancy, corrective action and return to service. When completed the form (4 possible entries per page) are filed in the aircraft discrepancy record as a permanent part of the aircraft maintenance records. This form is typically used when multiple discrepancies are corrected. It is acceptable to correct Discrepancies discovered by the Flight Crew on the Flight Log Form only. Discrepancy records are maintained as a permanent part of the aircraft record file.

Note: Discrepancies noted on the aircraft flight log require signoff and return to service even if the same discrepancy is noted, corrected and returned to service on the Discrepancy Correction Form

TransNorthern Aviation - Discrepancy Correction Form

Aircraft:

Aircraft Total Time:

Date:

Number:	Description of Discrepancy or work reqd:			
Entered by:				
Corrective Action or Work:				
	Part # OFF	S/N OFF	Mechanic Signature:	Inspector Signature:
	Part # ON	S/N ON	Cert#	Cert #

Number:	Description of Discrepancy or work reqd:			
Entered by:				
Corrective Action or Work:				
	Part # OFF	S/N OFF	Mechanic Signature:	Inspector Signature:
	Part # ON	S/N ON	Cert#	Cert #

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AIRCRAFT FLIGHT LOG FORM

The flight log form is utilized to:

- Record Aircraft and Component Time in Service
- Record Trent Monitoring
- Record Discrepancies and Corrective Actions
- Record Seating Configurations(if applicable)
- Record Scheduled Maintenance Status
- Record Engine Oil Consumption
- Record the Status of the VOR Check required by 14CFR 91.171 for IFR operations.

Detailed instructions for completing the Company's Aircraft Flight Log Form are found in the General Operations Manual.

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INSPECTION INTERVALS

ITEM	DESCRIPTION	INTERVAL	METHOD
14 CFR 91.207(d)	ELT	Every 12 Months	Function Check
14 CFR 91.207(d)	ELT Batteries	Reference Battery Maintenance Doc	Replacement
14 CFR 91.411	Altimeter System	Every 24 Months	Test & Inspect
14 CFR 91.413	Transponder Test	Every 24 Months	Test & Inspect
Fire Bottle	IAW CMM26-20-202	Every 5 Years	Hydrostatic Pressure Test
Oxygen Bottle	IAW DOT-3HT 1850	Every 5 Years	Hydrostatic Pressure Test
Preflight Check	Daily before start of Flight Assignment		POH
150 Hour (No. 1) inspection		within 150 hours of No. 2	AAIP Check List
300 Hour (No. 2) Inspection		Every 300 Hours	AAIP Check List
24 Month Inspection		within each 24 Months	AAIP Check List
For 135 Operations comply with 135.185		Every 36 Months	Actual Weighing of Aircraft
Hand Held Fire Extinguisher		As Placarded	As Placarded
Hand Held Fire Extinguisher		Hydrostatic Test	49CFR 178
VOR Test (reqd for IFR ops only)		within Proceeding 30 days	VOT, Airborne Ck
Fire Extinguisher Squibs		Every 5 Years	Replace
Engine and Propeller		Various	IAW Manufacturer Service Info.

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AIRWORTHINESS DIRECTIVES

All one-time and recurring Airworthiness Directives applicable to any installed component of the aircraft or its appliances become a part of the inspection program.

The company shall maintain a list of all one time Airworthiness Directives and Mandatory Service Bulletin compliance with the Aircraft Log Books.

The company shall maintain the current status of all Recurrent Airworthiness Directives by utilizing the Fleet Status II program to product Task Sheets and file completed Task Sheets in the Aircraft's "Continuous Maintenance Status" Binder.

The company will file and make available all records at the principal base of operations.

All maintenance, repairs, or component changes will be entered on a Company or Contractors Discrepancy Form for record keeping purposes and proper maintenance release.

Any avionics component change or repair will require an operational check of the system and/or component before release for service.

Transponder component changes will require a system check per 14 CFR 43 Appendix F, and 14 CFR 91.413 (if applicable) as part of the ground function check required prior to release to service.

Tests required by 14 CFR 91.411, 91.413 will be performed within 24 calendar months.

No 1 (150 Hr.), No 2 (300 Hr.) and 24 Mo. Avionics Check Sheets

The following pages contain the check sheets to be utilized by maintenance personnel when conducting No1, No 2 and 24 Months Avionic Checks.

Page 27 contains the Engine Run-up Form.

Note: Any time a discrepancy is discovered while performing the tasks of a check list the mechanic must record the discrepancy on a Discrepancy Form. Each discrepancy must be corrected and the check list completed before the Task Sheet indicating the Inspection is completed is Signed and the Aircraft Returned to Service.

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Turobliner AAIP Inspection No. 1 (150 hr. check)

Aircraft N: _____ ACTT: _____ ACTC: _____

Date: _____

SECTION	MECHANIC	
	LEFT	RIGHT
I. NACELLES, POWERPLANT AND PROPELLER		
1. Inspect cowling of engines, nacelles, structure and skin.		
2. Inspect engine mount, mount bolts, and rubber bushings.		
3. Inspect oil cooler for condition and security.		
4. Inspect all plumbing for dents, leaks, chaffing and wear aft of the firewall.		
5. Inspect electrical conduits, wires, fittings and cannon plugs in the engine compartment and aft of firewall.		
6. Visually inspect fire extinguisher system.		
7. Check fire extinguisher for correct pressure. Pressure/Temperature Chart is affixed to bottle		
8. Check all drain vents for obstructions and leakage.		
9. Inspect exhaust systems for cracks, distortion and leaks.		
10. Check turbine oil jet assembly for leakage.		
11. Check compressor inlet and turbine exhaust for foreign material, obstructions, damage or oil leakage. 1st stage compression impeller for foreign object damage.		
12. Check P2-T2 sensor for security and evidence of leakage.		
13. Check propeller governor and pitch control for security and evidence of oil leakage.		
14. Check fuel control and fuel pump for condition, security, and evidence of fuel leakage.(NOTE: SB73-0131 must be c/w)		
15. Check the following for evidence of fuel leakage: Fuel solenoid valve, flow divider, drain valve, and fuel nozzle manifold.		
16. Remove and clean fuel filter elements.		
17. Remove and inspect oil filter element. Install new filter. Check oil filter by-pass indicator.		
18. Take oil and filter sample for SOAP		
19. Change oil as applicable. (Check FSII 900 hour intervals)		
20. Remove and inspect igniter plugs record as discrepancy if not SAT		
21. Inspect oil cooler for condition and security.		
22. Remove spinner and inspect for cracks or defects.		
23. Inspect propeller blades for nicks and cracks.		
24. Inspect dome and hub for cracks or defects.		
25. Lubricate blade clamps through zerk fittings (care should be taken to avoid blowing out clamp gaskets-remove opposite zert before greasing)		
26. Inspect propeller de-icing equipment, boots, wiring, and back plate. Check de-ice brushes for wear.		
27. Remove starter generator. Check brushes for length. Inspect and lubricate splines. Reinstall.		
28. Inspect propeller feathering cable and linkage for condition and security.		
29. Check compensating resistor temperature correction- values (72-00-00 page 611)		
30. Check input gearbox drain. Use air to check drain port passage to prevent damage to the crossover duct.		
31. Operate airframe emergency feather/fuel shutoff systems to determine if engine feathering valves have actuated. (72-00-00 page 629)		

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SECTION

	MECHANIC		
	LEFT		RIGHT
II. LANDING GEAR/BRAKES/WHEEL WELLS			
1. Service hydraulic brake reservoir in nose wheel well.			
2. Inspect nose gear shock strut for condition and inflation.			
3. Inspect nose gear truss, scissors, worm gear, shimmy damper assembly, and retract nut for security and condition.			
4. Inspect nose gear doors and actuating mechanisms for security and condition.			
5. Inspect nose gear electrical equipment and wiring.			
6. Inspect alcohol tank if installed for security and leakage.		N/A	
7. Inspect flight brake for condition and security.			
8. Inspect tires for condition, wear, & pressure. (65# Nose /80# Main -Nitrogen)	LM	N	RM
9. Inspect nose wheel bearings. Lube as required.			
10. Inspect main wheel bearings. Lube as required.			
11. Inspect brakes for excessive wear, condition, and leakage Reference Cleveland manual # 199-127, page 16 "Limits"			
13. Inspect torque link bolts for security and condition.			
14. Inspect main gear attach fittings and drag links for security and condition.			
15. Inspect landing gear retract nuts for excessive wear.			
16. Inspect main gear doors for security and condition.			
17. Inspect drag links and trunnions for condition and security.			
18. Inspect main and nose gear retract springs for condition and security.			
19. Inspect fuel shut-off and by-pass valves for condition, security, leakage, and operation.			
20. Inspect landing gear idler chain for security and condition.			
21. Inspect de-icing timer and regulator for condition and security. Timer located in left wheel well.			
22. Inspect general condition of lines, cables, wiring, shuttle valve, and structure for leakage, fraying, loose rivets, and corrosion.			
23. Inspect landing gear motor dynamic brake relay for condition and proper operation.			
24. Inspect landing gear safety switches and limit switches for proper operation.			
25. Inspect landing gear motor for condition and security.			
26. Inspect landing gear, gear box, for security, condition, and leakage.			
27. Inspect emergency landing gear extension assembly for security condition, and lubrication.			
28. Inspect landing gear clutch for adjustment and lubrication (as per Beech 18 maintenance manual or applicable Volpar S/B)			
29. Inspect parking brake assembly for condition, security and leakage.			
30. Inspect brake master cylinders for condition, security. Leakage.			
31. Inspect flap motor gear box for condition, security and proper lubrication.			
32. Inspect general condition of lines, cables, wiring, control columns rudder pedals and attaching hardware and structure for: leaks, fraying, loose rivets and corrosion.			
33. Inspect flap switches, 90 degree drives and flap shaft universal joints for security and condition.			

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SECTION

II. LANDING GEAR/BRAKES/WHEEL WELLS (cont.)	LEFT	RIGHT
34. Place aircraft on jacks. Perform landing gear functional checks in accordance with the following instructions		
35 (a) Check retraction system for operation of all components through at least two complete cycles. Check for unusual noises or binding. Check that main gears are synchronized with one another and the nose gear. Check gears for down and lock. Check that the nose gear retract nut does not contact the face of the gear box with gears in full down and locked position. Check that the main gear retract nuts do not contact the gear boxes with gear full up. Check emergency gear extension system for proper operation.		
(b) Switches-Check up-limit, down-limit, safety switches and position switches for proper adjustment and operation. Check wiring of switches for condition, security, and tightness of connections.		
(c) Indicator lights-Check for proper operation and for condition security, and connection of wiring.		
(d) Clutch adjustment-Check clutch for preload, check gear for mesh and tension.		
(e) Door rigging, nose and main gears-Check fit of all doors. Check down stop bolts on door retract bracket for adjustment and that an overcenter condition exists on door connecting rod. On main gear doors check up-stop screw adjustment for signs of interference with door operation. On nose gear doors check door actuator roller adjustment for engagement with fork of torque tube. Check bushings, bolts, and tubes for wear or other damage and for proper operation. Check actuating linkage of main gear doors for binding, corrosion and lubrication.		
(f) Retract chains-Check for proper operation and correct installation on sprockets. Check that nose gear retract chain does not contact the idler assembly cover during retraction and extension of the nose gear. Check for adequate tension. Nose gear retract chains are only installed on the short model aircraft.		

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SECTION

III FUSELAGE		
1. Inspect pitot tube for condition, security, and obstruction. Check static ports for obstructions.		
2. Inspect connectors, solenoids, relays, wiring, switches, and drains for condition and security. Check electrical compartments for cleanliness.		
3. Inspect vacuum system hoses for deterioration and for security.		
4. Inspect windshield wiper motor, blades, cables and radios for security and condition.		
5. Inspect nose section of aircraft for loose rivets, corrosion, damaged or buckled skin.		
6. Inspect all windows and windshields for cracks, distortion and for being clean.		
7. Inspect antennas for condition and security.		
8. Inspect forward surface of aircraft fuselage for distortion, cracks, missing or loose rivets, external leakage and corrosion.		
9. Inspect rear cargo door for damage of door frame. Hinges and latches for security, condition and operation.		
10. Remove, inspect and lubricate cargo door hinge bolts.		
11. Inspect forward latch and any required emergency exits for latch operation and seal condition.		
12. Inspect instruments for proper markings, security and for condition.		
13. Inspect seat belts for condition and security.		
14. Inspect radios for condition and security.		
15. Inspect cockpit area for proper placards, lighting, operations manual, airworthiness certificate, and registration certificate (in metal box).		
16. Inspect cabin area for torn lining, general condition and proper placarding.		
17. Inspect voltage regulators for damage, overheat, and security.		
18. Inspect cabin light for operation, security, and condition.		
19. Inspect control column for condition, attachment, and operation.		
20. Remove panels as necessary to inspect cables, pulleys, electrical wiring, oxygen bottle and fittings.		
21. Inspect structure for corrosion, loose rivets, damage and general condition.		
22. Inspect cargo restraint system for condition and security.		
23. Inspect ELT for security (Ops ck is calendar item)		
24. Check Fire Extinguisher for mounting security and date check Reweight check is calendar item...		
25. Inspect battery installation as follows:		
(a) Inspect battery cases for condition and that lids are properly secured.		
(b) Inspect structure under batteries for traces of electrolyte or corrosion. (Clean and/or repair as required)		
(c) Inspect battery vent tubes for kinks, obstructions, and security of attachment.		
(d) Inspect vent fittings and inlet and outlet fittings for obstructions, corrosion, and security of attachments.(Clean an/or secure as required)		
26. Service Batteries (capacity check if Sealed or Nicad Batteries Installed)		

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SECTION		MECHANIC
IV EMPENNAGE		
1. Inspect rudders, elevators, stabilizers, and trim tabs for condition of fabric, loose rivets, corrosion, cracks, damage and freedom of operation.		
2. Inspect de-icer boots for security and conditional		
3. Inspect fairings, inspection doors and plates and drain holes for obstructions, condition, and security.		
4. Remove tail cone and inspect cables, wiring, pulleys, and bellcrank assemblies for condition, security, and corrosion.		
5. Open inspection doors and panels on horizontal stabilizers and inspect: cables, bellcranks, hinges, and structure for loose rivets, condition, security and corrosion.		

SECTION		
V. WINGS	LEFT	RIGHT
1. Inspect wings for damage, dents, loose rivets, wrinkles and corrosion.		
2. Inspect fuel tanks, caps and sumps for leakage, contamination, security and placard installation.		
3. Inspect aileron and flap hinges for excessive wear and security. Inspect flap drives and actuators for condition and security. Inspect ailerons and flaps for general condition.		
4. Inspect all drain holes for obstructions.		
5. Inspect all bonding and static discharge wicks for security and condition.		
6. Inspect aileron tab and drive mechanism for security and condition.		
7. Inspect aileron bellcrank assemblies for condition and security.		
8. Check all inspection plates and doors for security and fit.		
9. Inspect wing tip, navigation lights and landing light for security.		
10. Inspect de-icer boots for condition and security.		
11. Remove inspection panels as necessary to inspect all cables, pulleys and internal structure.		

SECTION		MECHANIC
VI. LUBRICATION/SERVICES		
Lubricate the following items:		
1. Nose gear assembly.		
2. Nose gear steering ring.		
3. Nose gear doors.		
4. Torque link bolts.		
5. Retract chain main gear.		
6. Landing gear motor and gear box.		
7. Emergency landing gear chain.		
8. Flap motor gear box.		
9. Flap jack. screws, and cross shafts.		
10. Flap 90 degree drives and universal joints.		
11. Main landing and gear doors.		
12. Aileron hinges, bellcranks, and tabs.		
13. Tail cone assembly.		
14. Elevator hinges and tabs.		
15. Rudder hinges, bellcranks, and tabs.		
16. Rudder pedals.		
17. Control column bearings and chains.		

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SECTION

VII. OPERATIONAL CHECKS	
1. Check operation of:	
Navigation lights.	
Rotating beacon(s)	
Strobe lights (if installed)	
Landings lights.	
Taxi lights.	
2. Check operation of	
Pitot heat.	
Windshield alcohol or hot plate.	
4. Check all controls for proper travel and freedom movement.	
5. Perform engine run-up in accordance with Garrett run-up form TTF-0052. (Page 27 of this document)	
6. Perform engine flame out check in accordance with the engine maintenance manual.	
7. Check operation of wing and tail de-icer boots.	
8. Check operation of propeller de-icer system.	
9. Inspect all inspection panels and plates for security.	
10. Confirm that all discrepancies have been completed or properly deferred	
11. Insure all AD's have been complied with.	
12. Complete FSII Task Sheet for No. 1 - 150 Hour Inspection	
13. Return all completed paperwork to Records Department	

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Aircraft N: _____ ACTT: _____ ACTC: _____

Date: _____

SECTION

	MECHANIC	
	LEFT	RIGHT
I. NACELLES, POWERPLANT AND PROPELLER		
1. Inspect cowling of engines, nacelles, structure and skin.		
2. Inspect engine mount, mount bolts, and rubber bushings.		
3. Inspect oil cooler for condition and security.		
4. Inspect all plumbing for dents, leaks, chaffing and wear in the engine compartment and aft of the firewall.		
5. Inspect electrical conduits, wires, fittings and cannon plugs in the engine compartment and aft of firewall.		
6. Visually inspect fire extinguisher system.		
7. Check fire extinguisher for correct pressure. Pressure/Temperature Chart is affixed to bottle		
8. Check all drain vents for obstructions and leakage.		
9. Inspect exhaust systems for cracks, distortion and leaks.		
10. Check turbine oil jet assembly for leakage.		
11. Check compressor inlet and turbine exhaust for foreign material, obstructions, damage or oil leakage. 1st stage compression impeller for foreign object damage.		
12. Check P2-T2 sensor for security and evidence of leakage.		
13. Check engine control linkage for travel. Check for security of locking features. Check for proper alignment of control rods, arms and levers for damage. Check bolts and screws securing levers and arms to serrated shafts. Lubricate rod end bearings if binding is noted.		
14. Check propeller governor and pitch control for security and evidence of oil leakage.		
15. Check fuel control and fuel pump for condition, security, and evidence of fuel leakage.		
16. Check the following for evidence of fuel leakage: Fuel solenoid valve, flow divider, drain valve, and fuel nozzle manifold.		
17. Remove and clean fuel filter elements.		
18. Remove and inspect and install new oil filter. Check Filter bypass Indicator.		
19. Send out oil sample and filter for SOAP.		
20. Change oil (900 hr. service life or oil change see FSII Task Sheet).		
21. Remove, clean and inspect igniter plugs.(74-10-01)		
22. Remove spinner and inspect for cracks or defects.		
23. Inspect propeller blades for nicks and cracks.		
24. Inspect dome and hub for cracks or defects.		
25. Inspect propeller for oil leaks.		
26. Lubricate blade clamps through zerk fittings (care should be taken to avoid blowing out clamp gaskets-remove opposite zerk before greasing)		
27. Inspect propeller de-icing equipment, boots, wiring, and back plate. Check de-ice brushes for wear.		
28. Starter Generator - See FSII - Inspect/Lube 500 hr OH 1000 hr TIS		
29. Inspect propeller feathering cable and linkage for condition and security.		
30. Check compensating resistor temperature correction- values (72-00-00 p611)		
31. Check input gearbox drain. Use air to check drain port passage to prevent damage to the crossover duct.		

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Date: _____

SECTION	MECHANIC	
	LEFT	RIGHT
I. NACELLES, POWERPLANT AND PROPELLER (cont.)		
32. Operate airframe emergency feather/fuel shutoff systems to determine if engine feathering valves have actuated. (72-00-00 page 629)		
33. Remove and inspect the chip detector. For two piece unit, remove knurled plug and perform visual inspection. (79-30-01)		
34. Remove flow divider, clean and inspect for damage and separated screen.		
35. Remove fuel manifold purge system ten micron filter, clean and inspect. (73-10-13)		
36. Remove plenum valves, and test for closing and opening. (72-00-05)		
37. Replace fuel nozzles with new or clean nozzle assemblies. (72-00-00)		
38. Inspect and lubricate tach generator drive. (72-00-00)		
39. Magnesium Inspection: Nose Case (72-10-09). Intermediate Gearbox Assembly (72-10-13). Accessory Drive (72-10-20).		
40. Remove, disassembly, clean and inspect air anti-ice valve. (75-10-1)		

SECTION	MECHANIC	
	LEFT	RIGHT
II. LANDING GEAR/BRAKES/WHEEL WELLS		
1. Service hydraulic brake reservoir in nose wheel well.		
2. Inspect nose gear shock strut for condition and inflation.		
3. Inspect nose gear truss, scissors, worm gear, shimmy damper assembly, and retract nut for security and condition.		
4. Inspect nose gear doors and actuating mechanisms for security and condition.		
5. Inspect nose gear electrical equipment and wiring.		
6. Inspect alcohol tank if installed for security and leakage.		
7. Inspect flight brake for condition and security.		
8. Inspect tires for condition, wear, and correct pressure. (65# Nose / 80# Main)		
9. Inspect nose wheel bearings. Lube as required.		
10. Inspect main wheel bearings. Lube as required.		
11. Inspect brakes for excessive wear, condition, and leakage		
12. Inspect main gear struts for condition, leaks, and leakage		
13. Inspect torque link bolts for security and condition.		
14. Inspect main gear attach fittings and drag links for security and condition.		
15. Inspect landing gear retract nuts for excessive wear.		
16. Inspect main gear doors for security and condition.		
17. Inspect drag links and trunnions for condition and security.		
18. Inspect main and nose gear retract springs for condition and security.		
19. Inspect fuel shut-off and by-pass valves for condition, security, leakage, and operation.		
20. Inspect landing gear idler chain for security and condition.		
21. Inspect de-icing timer and regulator for condition and security. Timer located in left wheel well.		
22. Inspect general condition of lines, cables, wiring, shuttle valve, and structure for leakage, fraying, loose rivets, and corrosion.		
23. Inspect landing gear motor dynamic brake relay for condition and proper operation.		
24. Inspect landing gear safety switches and limit switches for proper operation.		
25. Inspect landing gear motor for condition and security.		
26. Inspect landing gear, gear box, for security, condition, and leakage.		

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Aircraft N: _____ ACTT: _____ ACTC: _____

Date: _____

SECTION

	MECHANIC	
	LEFT	RIGHT
II. LANDING GEAR/BRAKES/WHEEL WELLS (cont.)		
27. Inspect emergency landing gear extension assembly for security condition, and lubercation.		
28. Inspect landing gear clutch for adjustment and lubrication (as per Beech 18 maintenance manual or applicable Volpar S/B)		
29. Inspect parking brake assembly for condition, security and leakage.		
30. Inspect brake master cylinders for condition, security. Leakage.		
31. Inspect flap motor gear box for condition, security and proper lubrication.		
32. Inspect general condition of lines, cables, wiring, control columns rudder pedals and attaching hardware and structure for: leaks, fraying, loose rivets and corrosion.		
33. Inspect flap switches, 90 degree drives and flap shaft universal joints for security and condition.		
34. Place aircraft on jacks.		
35. Perform landing gear functional checks in accordance with the following instructions.		
35 (a) Check retraction system for operation of all components through at least two complete cycles. Check for unusual noises or binding. Check that main gears are synchronized with one another and the nose gear. Check gears for down and lock. Check that the nose gear retract nut does not contact the face of the gear box with gears in full down and locked position. Check that the main gear retract nuts do not contact the gear boxes with gear full up. Check emergency gear extension system for proper operation.		
(b) Switches-Check up-limit, down-limit, safety switches and position switches for proper adjustment and operation. Check wiring of switches for condition, security, and tightness of connections.		
(c) Indicator lights-Check for proper operation and for condition security, and connection of wiring.		
(d) Clutch adjustment-Check clutch for preload, check gear for mesh and tension.		
(e) Door rigging, nose and main gears-Check fit of all doors. Check down stop bolts on door retract bracket for adjustment and that an overcenter condition exists on door connecting rod. On main gear doors check up-stop screw adjustment for signs of interference with door operation. On nose gear doors check door actuator roller adjustment for engagement with fork of torque tube. Check bushings, bolts, and tubes for wear or other damage and for proper operation. Check actuating linkage of main gear doors for binding, corrosion and lubrication.		
(f) Retract chains-Check for proper operation and correct installation on sprockets. Check that nose gear retract chain does not contact the idler assembly cover during retraction and extension of the nose gear. Check for adequate tension. Nose gear retract chains are only installed on the short model aircraft.		

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Aircraft N: _____ ACTT: _____ ACTC: _____

Date: _____

SECTION

SECTION	MECHANIC
III FUSELAGE	
1. Inspect pitot tube for condition, security, and obstruction. Check static ports for obstructions.	
2. Inspect connectors, solenoids, relays, wiring, switches, and drains for condition and security. Check electrical compartments for cleanliness.	
3. Inspect vacuum system hoses for deterioration and for security.	
4. Inspect windshield wiper motor, blades, cables and radios for security and condition.	
5. Inspect nose section of aircraft for loose rivets, corrosion, damaged or buckled skin.	
6. Inspect all windows and windshields for cracks, distortion and for being clean.	
7. Inspect antennas for condition and security.	
8. Inspect forward surface of aircraft fuselage for distortion, cracks, missing or loose rivets, external leakage and corrosion.	
9. Inspect rear cargo door for damage of door frame. Hinges and latches for security, condition and operation.	
10. Remove, inspect and lubricate cargo door hinge bolts.	
11. Inspect forward hatch and any required emergency exits for latch operation and seal condition.	
12. Inspect instruments for proper markings, security and for condition.	
13. Inspect seat belts for condition and security.	
14. Inspect radios for condition and security.	
15. Inspect cockpit area for proper placards, lighting, operations manual, airworthiness certificate, and registration certificate.	
16. Inspect cabin area for torn lining, general condition and proper placarding.	
17. Inspect voltage regulators for damage, overheat, and security.	
18. Inspect cabin light for operation, security, and condition.	
19. Inspect control column for condition, attachment, and operation.	
20. Remove panels as necessary to inspect cables, pulleys, electrical wiring, oxygen bottle and fittings.	
21. Inspect structure for corrosion, loose rivets, damage and general condition.	
22. Inspect cargo restraint system for condition and security.	
23. ELT - Check FSII for Annual check and Battery Life Status	
24. Inspect cockpit fire for security and inspection tag currency. Check FSII task sheets for annual inspection due date.	
25. Inspect battery installation as follows:	
(a) Inspect battery cases for condition and that lids are properly secured.	
(b) Inspect structure under batteries for traces of electrolyte or corrosion. (Clean and/or repair as required)	
(c) Inspect battery vent tubes for kinks, obstructions, and security of attachment.	
(d) Inspect vent fittings and inlet and outlet fittings for obstructions, corrosion, and security of attachments. (Clean and/or secure as required)	
26. Service batteries.	
27. Capacity Test Batteries if Sealed or Nicad batteries installed.	

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SECTION		MECHANIC	
IV EMPENNAGE			
1. Inspect rudders, elevators, stabilizers, and trim tabs for condition of fabric, loose rivets, corrosion, cracks, damage and freedom of operation.			
2. Inspect de-icer boots for security and condition			
3. Inspect fairings, inspection doors and plates and drain holes for obstructions, condition, and security.			
4. Remove tail cone and inspect cables, wiring, pulleys, and bellcrank assemblies for condition, security, and corrosion.			
5. Open inspection doors and panels on horizontal stabilizers and inspect: cables, bellcranks, hinges, and structure for loose rivets, condition, security and corrosion.			

SECTION		MECHANIC	
		LEFT	RIGHT
V. WINGS			
1. Inspect wings for damage, dents, loose rivets, wrinkles and corrosion.			
2. Inspect fuel tanks, caps and sumps for leakage, contamination, security and placard installation.			
3. Inspect aileron and flap hinges for excessive wear and security. Inspect flap drives and actuators for condition and security. Inspect ailerons and flaps for general condition.			
4. Inspect all drain holes for obstructions.			
5. Inspect all bonding and static discharge wicks for security and condition.			
6. Inspect aileron tab and drive mechanism for security and condition.			
7. Inspect aileron bellcrank assemblies for condition and security.			
8. Check all inspection plates and doors for security and fit.			
9. Inspect wing tip, navigation lights and landing light for security.			
10. Inspect de-icer boots for condition and security.			
11. Remove inspection panels as necessary to inspect all cables, pulleys and internal structure.			
12. If equipped, function check fuel dump valves. With hose long enough to reach over top of wing, installed on dump valve outlet pipe, open and close dump valve to check for proper operation.			

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SECTION

VI. LUBRICATION/SERVICES	MECHANIC
Lubercate the following items:	
1. Nose gear assembly.	
2. Nose gear steering ring.	
3. Nose gear doors.	
4. Sevice alcohol tank if installed.	
5. Torque link bolts.	
6. Retract chain main gear.	
7. Landing gear motor and gear box.	
8. Emergency landing gear chain.	
9. Flap motor gear box.	
10. Flap jack. screws, and cross shafts.	
11. Flap 90 degree drives and universal joints.	
12. Main landing and gear doors.	
13. Aileron hinges, bellcranks, and tabs.	
14. Tail cone assembly.	
15. Elevator hinges and tabs.	
16. Rudder hinges, bellcrands, and tabs.	
17. Rudder pedals.	
18. Control column bearings and chains.	

SECTION

	MECHANIC
VII. OPERATIONAL CHECKS	
1. Check operation of:	
Navigation lights.	
Rotating beacon(s)	
Strobe lights (if installed)	
Landings lights.	
Taxi lights.	
2. Check operation of:	
Pitot heat.	
Windshield alcohol or hot plate.	
4. Check all controls for proper travel and freedom movement.	
5. Perform engine run-up in accordance with Garrett run-up form TTF-0052. (Page 27 this document)	
6. Perform engine flame out check in accordance with the engine maintenance manual.	
7. Check operation of wing and tail de-icer boots.	
8. Check operation of propeller de-icer system.	
9. Inspect all inspection panels and plates for security.	
10. Refer to all squak sheets to insre all items have been cleared.	
11. Insure all AD's have been complied with.	
12. Complete FSII Task Sheet for No. 2 - 300 Hour Inspection	
13. Return all Paperwork to Records Department.	

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GARRETT TURBINE ENGINE RUN-UP FORM TTF-0052

AIRCRAFT N#	RUN DATE:	ACTT	DATE:
L/H TSO:	LH CYCLES:	S/N	Ck preformed by:
R/H TSO:	RH CYCLES:	S/N	

O.A.T. _____ ALTITUDE _____

OPERATION	POS S/L	POS P/L	IDEAL RPM		BETA LIGHT	RPM	FUEL FLOW	TEMP.	TORQUE	OIL PRES.	OIL TEMP.
OSG	H	T.O.	103.5 104%	L	OFF		PROP ON START LOCKS. DO NOT EXCEED 105%				
				R	OFF						
USG RESET	L	REV	MIN 90%	L	ON		CAUTION DO NOT BOG ENGINE DOWN				
				R	ON						
F.I.W.f.	L	F.I.	APPR. 88%	L	OFF						
				R	OFF						
USGL	L	MIN Wf	65%	L	ON						
				R	ON						
USGH	H	AR	97.0 TO 97.5	L	ON						
				R	ON						
PGH/T.O. DO NOT EXCEED MAX TEMP/ TORQUE	H	AR	100.0 TO 100.5%	L	OFF						
				R	OFF						
PGL (CRUISE)	AR	AR	95.50%	L	ON						
				R	ON						
REVERSE	H	REV	MIN 95.5%	L	ON						
				R	ON						
RESPONSE RATE TO REVERSE	H	REV		L	MOVE POWER LEVER QUICKLY FROM F.I. TO REVERSE AND NOTE RATE OF RESPONSE						
				R							
NORMAL SHUTDOWN	L	G.I.	OPERATE AT GROUND IDLE FOR 3 MINUTES.								

GLOSSARY

S/L	SPEED LEVER	T.O.	TAKE OFF
P/L	POWER LEVER	REV	REVERSE
OSG	OVERSPEED GOVERNOR	F.I.	FLIGHT IDLE
USGL	UNDERSPEED GOV LOW	G.I.	GROUND IDLE
USGH	UNDERSPEED GOV HIGH	MIN	MINIMUM
PGL	PROP GOV LOW	AR	AS REQUIRED
PGH	PROP GOV HIGH	L	LOW
Wf	FUEL FLOW	H	HIGH
F.I.W.f.	FLIGHT IDLE FUEL FLOW	POS	POSITION

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AVIONICS INSPECTION FORM

General Testing Procedures.

The following procedures are to be followed when conducting the Avionics Inspection IAW this AAIP.

Inspections are to be performed per the applicable manufacturer's Maintenance Manual.

Utilize Ground Power Equipment tuned to 28VDC for all tests.

Many of these tests are to be performed with portable ramp test equipment using a radiated signal in accordance with the instructions provides by the equipment manufacturer.

An IFR 600A, IFR 401 (or equivalent) and a Pitot/Static Test set are required when performing these tests.

Aircraft equipped with auto pilot systems, shall have these systems functionally tested in conjunction with this inspection using the procedures, standards and tolerances outlined in ATA Chapter 22 of the applicable MM.

Prior to commencing the Avionics Inspection the technician will check the Aircraft Flight Log and Deferred List for discrepancies or malfunctioning equipment or systems. These items are to be repaired prior to conducting the inspection.

Function Checks must be accomplished utilizing appropriate, currently certified test equipment operated by qualified individuals holding authority for inspecting and returning individual components to service IAW 14CFR § 43.7. Typically this work is preformed by Repair Stations certified under 14CFR Part 145.

NOTE: Items denoted by an Asterisk need to be Function Checked only if Operational Checks are unsatisfactory or suspected following briefing by flight crew, or if a difficulty is encountered during the operational Check. Operational Checks do not typically require specialized test equipment or the services of a Repair Station. Operational checks may be accomplished by company pilots or mechanics that are trained and qualified in the operation of equipment being evaluated. For instance, DME Equipment may be Operationally Checked by comparing it to installed GPS equipement. Some of the Operational Checks may be conducted by ground or flight checking by the flight crew in conjunction with the normal flilght operations.

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Turboliner AAIP Inspection Avionics Check

Aircraft N: _____ ACTT: _____ ACTC: _____

Date: _____

AVIONICS SECTION

Checked
By:

ANTENNAS

1. Check all antennas for proper security and mounting. Check all units for damage, corrosion and erosion.

***AUDIO SYSTEMS**

1. Check pilots and Copilots control heads, microphones and speakers for proper operation.
2. Check cockpit interphone for proper operation between crew stations.
3. Check P.A. System for proper operations from both pilot and copilots positions.

NOTE: Assure all cabin speakers are functioning properly.

***COMMUNICATIONS**

1. From the pilots station check the operation of the VHF Transceivers by contacting a local facility. During the check note for proper sidetone, receiver clarity, volume and the squelch action.
2. From copilots station check the operation of the VHF Transceivers for items noted in setp one above.
3. Check operation of both audio control panels for proper switch selection.

***ADF SYSTEM**

1. Using local ground stations check the ADF system(s) on for audio quality, FBO operation and proper azimuth indication.

***GLIDE SLOPE SYSTEM**

1. Using the appropriate ramp test equipment, check each glideslope system for proper operation.

***LOCALIZER SYSTEM**

1. Using the appropriate ramp test equipment, check the system for operation.

***RADIO ALTIMETER SYSTEM**

1. Perform self test functions on system as outlined in applicable manufacture's Maintenance Manual. Tolerances shall be those specified in the maintenance manual.

ALTIMETER(s) and STATIC SYSTEM

NOTE: This test may be omitted upon verification of altimeter certification per FAR 91.411 within the previous 24 months.

TRANSPONDER(s)

NOTE: This test may be omitted upon verification of transponder(s) certification per FAR 91.413 within the previous 24 months.

MAGNETIC COMPASS

1. Check compass for proper fluid level and for leaks. Calibration Card should be readable and in at least 30 degree headings.

***FLIGHT DIRECTORY SYSTEM**

1. Perform Operational Ground Check of all flight director equipment and functions, including electric trim, in accordance with Manufacturer's Ground Check Procedures and/or AFM/POH.

Type System: _____ Procedures Reference: _____

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AVIONICS SECTION

***DME SYSTEM**

1. Using appropriate ramp test equipment, check and record the following data on NAV freq. 108.00

Checked
By:

Simulated Range NM	DME #1 Readout	DME #2 Readout	+/- Tolerance
1			0.2
10			0.4
50			2
100			4

Simulated Speed	DME #1 Readout	DME #2 Readout	+/- Tolerance
100 Kts			8 Kts
200 Kts			10 Kts
300 Kts			12 Kts

***MARKER BEACON SYSTEM**

Using ramp test unit check the following and indicate satisfactory operation by a check.

Receiver Audio	#1	#2	#3	
Outer Lights	_____	_____	_____	
Middle Lights	_____	_____	_____	
Inner Lights	_____	_____	_____	

***AUTO PILOT SYSTEM**

Perform operational ground check of all Autopilot equipment and functions, including electric trim, in accordance with manufacturer's ground check procedures of AFM/POH.

System Type: _____ Procedures Reference: _____

***WEATHER RADAR**

CAUTION: When performing this check, assure the aircraft is not heated, not in a metal hangar or other close metal objects which cause reflected RF energy.

Perform a complete Operational Test of all modes including the test pattern, tilt operation, gain control ground returns, etc. per manufacturer's specifications.

***REMOTE COMPASS SYSTEM**

The heading of the aircraft must be determined prior to checking this system. This can be determined by placing the aircraft on a known heading or by use of a magnetic compass. Check all RMI and HIS Heading cards for +/- 4° differential between any indicator and master compass and +/- 8° differential between any two indicators.

AIRCRAFT AC ELECTRICAL/INVERTER SYSTEM

1. Check for proper operation as specified by the applicable aircraft manufacturer. Check for proper voltage(s) and frequency using appropriate test equipment.

26 VAC SYSTEM: 26 + Volts, 400 HZ +/- 3% 115VAS SYSTEM: 115 +/- 6 Volts, 400 HZ +/- 3%

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Date: _____

AVIONICS SECTION

GPS SYSTEM

1. Perform test functions on system as outlined in applicable manufacture's Maintenance Manual. Tolerances shall be those specified in the Manufacturer's Maintenance Manual.

System Type: _____ Procedures Reference: _____

**Checked
By:**

RNAV SYSTEM (VOR/DME)

1. Activate VOR/DME
2. Using appropriate ramp test equipment, set up the following problem:
 - A) Waypoint Radial 0°
 - Waypoint Distance 140 NM
 - VOR Bearing 90°
 - DME Distance 140 NM

Turn RNAV on. The D-Bar should center with and OBS reading 45 +/-2.5 and the distance to station should be 198 +/- 4 NM. The TO/FROM indicator should read to.

- B) Waypoint Radial 150°
- Waypoint Distance 50NM
- VOR Bearing 30° TO
- DME Distance 50 NM

The D-Bar should center with an OBS reading of 90° +/-3° and the distance should be 50 NM +/- 1.2NM.

Complete FSII Task Sheet for Avionics Inspection