

TRANSNORTHERN AVIATION

3350 Old International Airport Road
Anchorage, Alaska 99502

MINIMUM EQUIPMENT LIST

Beechcraft C-45H
"TURBOLINER"
B-18T

N404CK

Revision 1

Approved:

FAA-AAL-FSDO-03

Date: August 8, 2019

Accepted:

s/s Alan G. Larson

TransNorthern Aviation

Date: August 9, 2019

(Reference FAA Stamp - Control Page III)

This MEL has been compiled from, and is no less restrictive than, the Master Minimum Equipment List, Revision 8 (06/27/2009) as provided by the FAA.

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BEECHCRAFT Beech C-45H N404CK

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Control Page

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This MEL has been compiled from, and is no less restrictive than, the Master Minimum Equipment List, Revision 8 (06/27/2009) as provided by the FAA.

APPROVED			
FAA-AAL-FSDO-03			
		<i>s/s Alan G. Larson 8/9/2019</i>	
Principal Operations Inspector	Date	Operator Acceptance	Date

Highlights of Change

Original issue - All pages.

Highlights of Revision One

1. Preamble on page XII was missing a Paragraph break - Font found in the MMEL was utilized for this MEL.
2. Page XIII - this page was updated to reflect new MEL procedures and Deleted MEL Management Program information. MEL Management Program information is now contained in the Company General Operations Manual which must be present in the aircraft whenever the aircraft is operated in accordance with the provisions of this MEL.
3. In accordance with MMEL Policy Letter (PL) 25, Revision 21 GC the header for each of the items in this MEL was changed to reflect the ATA System Page description: "The ATA system page is divided into four columns and contains: item and repair Category; number installed; number required for dispatch; and the remarks of exceptions". Note PL also states that ITEMS be numbered sequentially.
4. Item 22-1 (M) Procedures were updated to specify electrical and mechanical procedures to be complied with for Autopilot. NOTE: Aircraft currently does not have an autopilot but company anticipates installation in the future. Hence note about Autopilot and Yoke Button not being MELable if not installed.
5. Item 23-2 - Added missing words.
6. Item 23-3 Static Wicks added number required for dispatch based upon number installed on our aircraft.
7. Item 25 - Deleted Passenger Seats - aircraft is operated as All Cargo.
8. Item 25 - Changed Sequent number for ELT and clarified Fixed ELT Installed.
9. Added Note on Item 27-1 to indicate why MEL differed from MMEL (for FAA).
10. Item 34-8 - Changed designation to match MMEL for ADF and changed language for its required installation.
11. Changed Sequence number for 11 & 12 to match order in MMEL and Changed System Name to Match MMEL. Added quantity installed for "Navigation Equipment"
12. The following definitions were added to the Definitions Section of this document IAW Policy Letter 25: Continuing Authorization, Operative, Takeoff - Note "Continuing Authorization" and "Takeoff" are not utilized in this MEL.

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Definitions - Effective 08/26/2008

1. System Definitions.

System numbers are based on the Air Transport Association (ATA) Specification and items are numbered sequentially.

a. "Item" (Column 1) means the equipment, system, component, or function listed in the "Item" column. Repair interval categories (A,B,C, and D) are listed on right side of column 1. Repair intervals are described in definition 22.

b. "Number Installed" (Column 2) is the number (quantity) of items normally installed in the aircraft. This number represents the aircraft configuration considered in developing this MMEL. Should the number be a variable (e.g., passenger cabin items) a number is not required.

c. "Number Required for Dispatch" (Column 3) is the minimum number (quantity) of items required for operation provided the conditions specified in Column 4 are met.

NOTE: Where the MMEL shows a variable number required for dispatch, the MEL must reflect the actual number required for dispatch or an alternate means of configuration control approved by the Administrator.

d. "Remarks or Exceptions" (Column 4) in this column includes a statement either prohibiting or permitting operation with a specific number of items inoperative, provisos (conditions and limitations) for such operation, and appropriate notes.

e. A vertical bar (change bar) in the margin indicates a change, addition or deletion in the adjacent text for the current revision of that page only. The change bar is dropped at the next revision of that page.

2. "Airplane/Rotorcraft Flight Manual" (AFM/RFM) is the document required for type certification and approved by the responsible FAA Aircraft Certification Office. The FAA approved AFM/RFM for the specific aircraft is listed on the applicable Type Certificate Data Sheet.

3. "As required by FAR" means that the listed item is subject to certain provisions (restrictive or permissive) expressed in the Federal Aviation Regulations operating rules. The number of items required by the FAR must be operative. When the listed item is not required by FAR it may be inoperative for the time specified by repair category. The term "14 CFR" may be substituted for "FAR" in MMELs or operator MELs.

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Definitions

4. Placard - Each inoperative item must be placarded to inform and remind the crewmembers and maintenance personnel of the equipment condition.

NOTE: To the extent practical, placards should be located adjacent to the control or indicator for the item affected; however, unless otherwise specified, placard wording and location will be determined by the operator.

5. "-" symbol in Column 2 and/or Column 3 indicates a variable number (quantity) of the item installed.

6. "Deleted" in the remarks column after a sequence item indicates that the item was previously listed but is now required to be operative if installed in the aircraft.

7. As used in MMELs, "ER" refers to Extended Operations (ETOPS) of an airplane with operational approval to conduct ETOPS in accordance with the applicable regulations.

8. "Federal Aviation Regulations" (FAR) means the applicable portions of the Federal Aviation Act and Federal Aviation Regulations.

9. "Flight Day" means a 24 hour period (from midnight to midnight) either Universal Coordinated Time (UCT) or local time, as established by the operator, during which at least one flight is initiated for the affected aircraft.

10. "Icing Conditions" means an atmospheric environment that may cause ice to form on the aircraft or in the engine(s).

11. Alphabetical symbol in Column 4 indicates a proviso (condition or limitation) that must be complied with for operation with the listed item inoperative.

12. "Inoperative" means a system and/or component malfunction to the extent that it does not accomplish its intended purpose and/or is not consistently functioning normally within its approved operating limit(s) or tolerance(s).

13. "Notes:" in Column 4 provides additional information for crewmember or maintenance consideration. Notes are used to identify applicable material which is intended to assist with compliance, but do not relieve the operator of the responsibility for compliance with all applicable requirements. Notes are not a part of the provisos.

14. Inoperative components of an inoperative system: Inoperative items which are components of a system which is inoperative are usually considered components directly associated with and having no other function than to support that system. (Warning/caution systems associated with the inoperative system must be operative unless relief is specifically authorized per the MMEL).

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Definitions

15. "(M)" symbol indicates a requirement for a specific maintenance procedure which must be accomplished prior to operation with the listed item inoperative. Normally these procedures are accomplished by maintenance personnel; however, other personnel may be qualified and authorized to perform certain functions. Procedures requiring specialized knowledge or skill, or requiring the use of tools or test equipment should be accomplished by maintenance personnel. The satisfactory accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as part of the operator's manual or MEL.

16. "(O)" symbol indicates a requirement for a specific operations procedure which must be accomplished in planning for and/or operating with the listed item inoperative. Normally these procedures are accomplished by the flight crew; however, other personnel may be qualified and authorized to perform certain functions. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as a part of the operator's manual or MEL.

NOTE: The (M) and (O) symbols are required in the operator's MEL unless otherwise authorized by the Administrator.

17. "Deactivated" and "Secured" means that the specified component must be put into an acceptable condition for safe flight. An acceptable method of securing or deactivating will be established by the operator.

18. "Visual Flight Rules" (VFR) is as defined in [FAR Part 91](#). This precludes a pilot from filing an Instrument Flight Rules (IFR) flight plan.

19. "Visual Meteorological Conditions" (VMC) means the atmospheric environment is such that would allow a flight to proceed under the visual flight rules applicable to the flight. This does not preclude operating under Instrument Flight Rules.

20. "Visible Moisture" means an atmospheric environment containing water in any form that can be seen in natural or artificial light; for example, clouds, fog, rain, sleet, hail, or snow.

21. "Passenger Convenience Items" means those items related to passenger convenience, comfort or entertainment such as, but not limited to, galley equipment, movie equipment, ash trays, stereo equipment, overhead reading lamps, etc.

Definitions

22. Repair Intervals: All users of an MEL approved under FAR 121, 125, 129 and 135 must effect repairs of inoperative systems or components, deferred in accordance with the MEL, at or prior to the repair times established by the following letter designators:

Category A. Items in this category shall be repaired within the time interval specified in the remarks column of the operator's approved MEL. For time intervals specified in "flight days", the day the malfunction was recorded in the aircraft maintenance record/logbook is excluded. For all other time intervals (flights, flight legs, cycles, hours, etc), repair tracking begins at the point when the malfunction is deferred in accordance with the operator's approved MEL.

Category B. Items in this category shall be repaired within three (3) consecutive calendar days (72 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the three day interval would begin at midnight the 26th and end at midnight the 29th.

Category C. Items in this category shall be repaired within ten (10) consecutive calendar days (240 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the 10 day interval would begin at midnight the 26th and end at midnight February 5th.

Category D. Items in this category shall be repaired within one hundred and twenty (120) consecutive calendar days (2880 hours), excluding the day the malfunction was recorded in the aircraft maintenance log and/or record.

An operator who has the authorization to use an MMEL also has the authority to approve extensions to the maximum repair interval for category B and C items provided the responsible Flight Standards District Office (FSDO) is notified within 24 hours of the MEL extension. The operator is not authorized to extend A and D items in the MEL. Misuse of the MEL extension authority may result in the operators OpSpecs/Mspecs being amended by removing the authority for the operator to use the MEL extension authority and/or use and MEL. See – Continuing Authorization #31.

23. Electronic fault alerting system – General

New generation aircraft display system fault indications to the flight crew by use of computerized display systems. Each aircraft manufacturer has incorporated individual design philosophies in determining the data that would be represented. The following are customized definitions (specific to each manufacturer) to help determine the level of messages affecting the aircraft's dispatch status. When preparing the MEL document, operators are to select the proper Definition No. 23 for their aircraft, if appropriate.

NO CUSTOMIZED DEFINITIONS OF FAULT ALERTING ARE APPLICABLE TO THE BEECHCRAFT MODEL 18 AIRCRAFT.

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Definitions

24. "Administrative control item" means an item listed by the operator in the MEL for tracking and informational purposes. It may be added to an operator's MEL by approval of the Principal Operations Inspector provided no relief is granted, or provided conditions and limitations are contained in an approved document (i.e. Structural Repair Manual, airworthiness directive, etc.). If relief other than that granted by an approved document is sought for an administrative control item, a request must be submitted to the Administrator. If the request results in review and approval by the FOEB, the item becomes an MMEL item rather than an administrative control item.

25. "****" symbol in Column 1 indicates an item which is not required by regulation but which may have been installed on some models of aircraft covered by this MMEL. This item may be included on the operator's MEL after the approving office has determined that the item has been installed on one or more of the operator's aircraft. The symbol, however, shall not be carried forward into the operator's MEL. It should be noted that neither this policy nor the use of this symbol provide authority to install or remove an item from an aircraft.

26. "Excess Items" means those items that have been installed that are redundant to the requirements of the FARs.

27. "Day of Discovery" is the calendar day an equipment/instrument malfunction was recorded in the aircraft maintenance log and or record. This day is excluded from the calendar days or flight days specified in the MMEL for the repair of an inoperative item of equipment. This provision is applicable to all MMEL items, i.e., categories "A, B, C, and D."

28. "Considered Inoperative", as used in the provisos means that item must be treated for dispatch, taxi and flight purposes as though it were inoperative. The item shall not be used or operated until the original deferred item is repaired. Additional actions include: documenting the item on the dispatch release (if applicable), placarding, and complying with all remarks, exceptions, and related MMEL provisions, including any (M) and (O) procedures and observing the repair category.

29. "Is not used" in the provisos, remarks or exceptions for an MMEL item may specify that another item relieved in the MMEL "is not used." In such cases, crewmembers should not activate, actuate, or otherwise utilize that component or system under normal operations. It is not necessary for the operators to accomplish the (M) procedures associated with the item. However, operational requirements must be complied with, and an additional placard must be affixed, to the extent practical, adjacent to the control or indicator for the item that is not used to inform crewmembers that a component or system is not to be used under normal operations.

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Definitions

30. Nonessential equipment and furnishings (NEF) are those items installed on the aircraft as part of the original type certification, supplemental type certificate, or other form of alteration that have no effect on the safe operation of flight and would not be required by the applicable certification rules or operational rules. They are those items that if inoperative, damaged or missing have no effect on the aircraft's ability to be operated safely under all operational conditions. These nonessential items may be installed in areas including, but not limited to, the passenger compartment, flight deck area, service areas, cargo areas, crew rest areas, lavatories, and galley areas. NEF items are not items already identified in the MEL or CDL of the applicable aircraft. They do not include items that are functionally required to meet the certification rule or for compliance with any operational rule. Operator's NEF process shall not provide for deferral of items within serviceable limits identified in the manufacturer's maintenance manual or operator's approved maintenance program such as wear limits, fuel/hydraulic leak rates, oil consumption, etc. Cosmetic items that are fully serviceable but worn or soiled may be deferred under an operator's NEF process.

31. Continuing Authorization – Single Extension. An aircraft operator who has the authorization to use an FAA-Approved MEL may also have the authority to use a continuing authorization to approve a single (one-time) extension to the repair interval for category B or C items in accordance with Operations Specification D095. Continuing Authorization – Single Extension is not authorized for repair category A and D items.

32. Takeoff – Takeoff is the act of beginning a flight in which the aircraft is accelerated from a state of rest to that of flight. For the purposes of MEL relief, this translates to the point at which the pilot physically begins to apply power to initiate the takeoff from the runway or takeoff surface.

33. Operative – An operative system and/or component will accomplish its intended purpose and is consistently functioning normally within its design operating limit(s) and tolerances(s).

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Preamble

(Effective 6/14/1989)

The following is applicable for authorized certificate holders operating under Federal Aviation Regulations (FAR) Parts 121, 125, 129, 135: The FAR require that all equipment installed on an aircraft in compliance with the Airworthiness Standards and the Operating Rules must be operative. However, the Rules also permit the publication of a Minimum Equipment List (MEL) where compliance with certain equipment requirements is not necessary in the interests of safety under all operating conditions. Experience has shown that with the various levels of redundancy designed into aircraft, operation of every system or installed component may not be necessary when the remaining operative equipment can provide an acceptable level of safety. A Master Minimum Equipment List (MMEL) is developed by the FAA, with participation by the aviation industry, to improve aircraft utilization and thereby provide more convenient and economic air transportation for the public. The FAA approved MMEL includes those items of equipment related to airworthiness and operating regulations and other items of equipment which the Administrator finds may be inoperative and yet maintain an acceptable level of safety by appropriate conditions and limitations; it does not contain obviously required items such as wings, flaps, and rudders. The MMEL is the basis for development of individual operator MELs which take into consideration the operator's particular aircraft equipment configuration and operational conditions. Operator MELs, for administrative control, may include items not contained in the MMEL; however, relief for administrative control items must be approved by the Administrator. An operator's MEL may differ in format from the MMEL, but cannot be less restrictive than the MMEL. The individual operator's MEL, when approved and authorized, permits operation of the aircraft with inoperative equipment.

Equipment not required by the operation being conducted and equipment in excess of FAR requirements are included in the MEL with appropriate conditions and limitations. The MEL must not deviate from the Aircraft Flight Manual Limitations, Emergency Procedures or with Airworthiness Directives. It is important to remember that all equipment related to the airworthiness and the operating regulations of the aircraft not listed on the MMEL must be operative.

Suitable conditions and limitations in the form of placards, maintenance procedures, crew operating procedures and other restrictions as necessary are specified in the MEL to ensure that an acceptable level of safety is maintained.

The MEL is intended to permit operation with inoperative items of equipment for a period of time until repairs can be accomplished. It is important that repairs be accomplished at the earliest opportunity. In order to maintain an acceptable level of safety and reliability the MMEL establishes limitations on the duration of and conditions for operation with inoperative equipment.

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Preamble

(Effective 6/14/1989)

The MEL provides for release of the aircraft for flight with inoperative equipment. When an item of equipment is discovered to be inoperative, it is reported by making an entry in the Aircraft Maintenance Record/Logbook as prescribed by FAR. The item is then either repaired or may be deferred per the MEL or other approved means acceptable to the Administrator prior to further operation. MEL conditions and limitations, do not relieve the operator from determining that the aircraft is in condition for safe operation with items of equipment inoperative.

When these requirements are met, an Airworthiness Release, Aircraft Maintenance Record/Logbook entry, or other approved documentation is issued as prescribed by FAR. Such documentation is required prior to operation with any item of equipment inoperative.

Operators are responsible for exercising the necessary operational control to ensure that an acceptable level of safety is maintained. When operating with multiple inoperative items, the interrelationships between those items and the effect on aircraft operation and crew workload will be considered.

Operators are to establish a controlled and sound repair program including the parts, personnel, facilities, procedures, and schedules to ensure timely repair.

WHEN USING THE MEL, COMPLIANCE WITH THE STATED INTENT OF THE PREAMBLE, DEFINITIONS, AND THE CONDITIONS AND LIMITATIONS SPECIFIED IN THE MEL IS REQUIRED.

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COMPANY PROCEDURES

In the metal box for the aircraft is a supply of "Aircraft Flight Log" sheets in the form of a bound volume and a supply of 1/2 X 3/4 inch bright yellow stickers.

The 'Aircraft Flight Log' is utilized to record aircraft discrepancies of any nature. Discrepancies that are not found on the following pages of this MEL prohibit flight until corrected per Company Operations Manual. Discrepancies that are listed on the following pages may be deferred as per specific instructions found herein.

It is imperative that the Pilot is completely familiar with all portions of this document before MELing any discrepancy.

Procedure for MELing an item:

1. Describe the item on the Discrepancy Column on the Aircraft Flight Log.
2. Locate the item on the following pages. Enter MEL number on the 'Aircraft Flight Log' and the day the discrepancy was noted (Day of Discovery). [Example: an inoperable CHT would be recorded in the discrepancy section as "MEL77-4 10/17/98".
3. Note the same information on the 1/2 X 3/4 self-adhesive sticker and place it on or immediately beside the inoperative component or its activating mechanism. - See Definition #4 - Placarding
4. Any item with a "(M)" in the Remarks column requires that a certified mechanic perform the task listed the first time an item is MELed. Any company mechanic may perform this task. If a MEL-able discrepancy occurs where no company mechanic is available the pilot must notify the Director of Maintenance or his designee for instructions as how to proceed. IF the Item is a (M) item, a mechanic must sign the Corrective Action Column of the Aircraft Flight Log the first time the item is MELed describing the work required. The Pilot may sign off subsequent MELing of the same item until it is repaired.
5. The pilot, through the authority of the approved MEL, may enter: "Deferred <Letter designator repair interval>" in the 'Aircraft Flight Log' "Corrective Action" column and continue operation of the Aircraft as long as the MEL authorizes continued operation in accordance with the Repair Interval listed for the item. (See Definitions)
6. The pilot must assure that the TNA Director of Maintenance or his designee is made aware of the discrepancy at the earliest opportunity. Personal verbal or text notification is required... not a note or memo.
7. The Records Department will carry forward Any items noted as a Discrepancy on each successive Log page until corrected by Maintenance. (Do NOT carry forward the 'Corrective Action' Notation.
8. The pilot is required before flight of an aircraft with uncorrected MEL items to assure that the "Repair Interval" as indicated by the Letter Designator of the MEL item has not been past. In the case of MEL items with in the "Repair Interval" the Pilot may enter "Deferred <Letter designator repair interval>" and continue operation of the aircraft. If the "Repair Interval" is past or the flight will cause the "Repair Interval" to be passed; the aircraft may not be dispatched until the item is corrected and appropriate signoff entered on the 'Aircraft Flight Log' page. (Reference GOM and GMM for appropriate signoff procedures for maintenance items)

MEL Management Program

The MEL Management Program for TransNorthern is found in the Company's General Operations Manual Section I, current Revision.

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1. ITEM & REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
SYSTEM & SEQUENCE NUMBERS	ITEM		
21 AIR CONDITIONING			
1. Bleed Air Shutoff Valves Turbine STC Only	C 2	1	(O)One may be inoperative provided: the inoperative valve is a) the inoperative valve is Verified in the Closed Position. This is accomplished by confirming that there is no no heated airflow in the cabin heating system b) Aircraft is not operated in known or forecast icing conditions.

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1. ITEM & REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
SYSTEM & SEQUENCE NUMBERS	ITEM		
22	AUTO FLIGHT		
1.	Autopilot System (Autopilot may or may not be installed)	C - 0	(M) May be inoperative provided that operations do not require its use. System must be deactivated by securing system circuit breaker(s) and inspection by a certified mechanic assure that no electrical or mechanical fault exists that would have an adverse effect on any flight control functions.
1)	Autopilot Disconnect (Yoke Button) (None installed on Aircraft that do not have Autopilot Installation)	C 2 1 B 2 0	One may be inoperative provided: a) Autopilot is not used below 1,500 feet AGL, and b) Operations do not require the use of the autopilot. May be inoperative provided Autopilot is not used.
2.	Flight Director	C 1 0	(M) May be inoperative if a certified mechanic has disabled the unit by safetying the circuit breaker and determined that no other fault exists and that flight operations do not require its use

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1. ITEM & REPAIR CATEGORY		2. NUMBER INSTALLED		3. NUMBER REQUIRED FOR DISPATCH		4. REMARKS OR EXCEPTIONS
SYSTEM & SEQUENCE NUMBERS	ITEM					
23 COMMUNICATIONS						
1.	Communications Equipment (VHF)	D	2	0		One may be inoperative provided: a) The aircraft is not operated in Instrument Flight Conditions Both may be inoperative provided: a) The aircraft is not operated in Class E Airspace in Weather below basic VFR b) The aircraft is not operated in Class A, B or C Airspace c) The aircraft is not operated in Class D or E Airspace at night or VFR over-the-top.
2.	Cockpit Speakers	C	2	1		May be inoperative as long as operative headsets are available to flight crew.
		C	2	0		Both may be inoperative provided: a) An operative Headset is used by the flight crew, and b) Aircraft is operated VFR.
3.	Static Discharge Wicks	C	10	9		One may be damaged or missing.
		C	10	8		Two may be damaged or missing provided: a) Damaged or missing static wicks are not adjacent, and b) Aircraft is operated in VMC

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1. ITEM & REPAIR CATEGORY		2. NUMBER INSTALLED		3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
SYSTEM & SEQUENCE NUMBERS	ITEM				
24 ELECTRICAL POWER					
1. Inverters	B	2	1		One may be inoperative for day VFR.
2. Batteries	B	2	1		One may be inoperative for day VFR provided: a) Inoperative battery switch remains in OFF position, and b) A GPU is used for starting.

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1. ITEM & REPAIR CATEGORY		2. NUMBER INSTALLED		3. NUMBER REQUIRED FOR DISPATCH		4. REMARKS OR EXCEPTIONS
SEQUENCE	ITEM					
25 EQUIPMENT/FURNISHINGS						
1.	Cockpit Shoulder Harness	B	0	0		Not installed or Required by Certification Basis (Part 23, 1969)
2.	Emergency Locator Transmitter (ELT) Fixed ELT	D	1	0		May be inoperative for: a) Scheduled flights by scheduled air carriers. b) Training operations conducted within 50 miles from depart arpt. c) When the aircraft is equipped to carry not more than one person. d) When the ELT is removed for repair inspection, or modification for up to 90 days. Maintenance log entry per 91.207(f) (i) is reqd. If the ELT is removed a placard be affixed in view of the pilot stating "ELT Not Installed"

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1. ITEM & REPAIR CATEGORY | 2. NUMBER INSTALLED
SYSTEM & |
SEQUENCE ITEM | 3. NUMBER REQUIRED FOR DISPATCH
NUMBERS

----- | 4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION |
1. Portable Fire B | 1 | 0 | May be inoperative for all cargo
Extinguisher | | | | Operations.
 | | | | The inoperative Fire Extinguisher is
 | | | | tagged INOPERATIVE, removed from the
 | | | | installed location and placed out of
 | | | | sight so it cannot be mistaken for a
 | | | | functional Unit.
2. Engine Fire C | 2 | 0 | May be inoperative.
Extinguisher System | | | |

TRANSNORTHERN AVIATION

MINIMUM EQUIPMENT LIST

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	(TURBOPROP)	DATE: 03/07/19	27-1

1. ITEM & REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
SYSTEM & SEQUENCE NUMBERS	ITEM		

27 FLIGHT CONTROLS

1.	Trim Tab Position Indicators (Rudder, Aileron, and Elevator)	C	3	0	May be inoperative provided: a) Tab is checked for full range of operation. b) Tab operation is not affected, and c) Tab positioned to neutral prior to each departure and neutral position is verified by visual inspection.
	(No electric Elevator Trim Installed)				

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1. ITEM & REPAIR CATEGORY		2. NUMBER INSTALLED		3. NUMBER REQUIRED FOR DISPATCH		4. REMARKS OR EXCEPTIONS
SEQUENCE NUMBERS	ITEM					
30	ICE AND RAIN PROTECTION					
1.	Pitot Heater	B	2	1		Right side may be inoperative provided a) SIC is not required, and b) Aircraft is not operated in known or forecast icing conditions.
		C	2	0		May be inoperative provided aircraft is operated VFR only.
2.	Stall Warning Vane Heater	C	1	0		May be inoperative provided aircraft is not operated in known or forecast icing conditions.
3.	Surface Deicer System (Wing, Vertical and Horizontal Stabilizer)	C	1	0		May be inoperative provided aircraft is not operated in known or forecast icing conditions.
4.	Propeller Anti-ice/Deice System	C	1	0		May be inoperative provided aircraft is not operated in known or forecast icing conditions.
5.	Windshield Anti-ice/Deice System	C	1	0		May be inoperative provided aircraft is not operated in known or forecast icing conditions.
6.	Engine Inlet Anti-ice Valve (Turbine STC Only)	C	2	0		*May be inoperative provided aircraft is not operated in visible moisture at or below 5 degrees Celsius.

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1. ITEM & REPAIR CATEGORY		2. NUMBER INSTALLED		3. NUMBER REQUIRED FOR DISPATCH		4. REMARKS OR EXCEPTIONS
SEQUENCE NUMBERS	ITEM					
31	INDICATING/RECORDING SYSTEMS					
1.	Clock with sweep second hand, or electric digital clock	C	1	0		May be inoperative for VFR operations.
2.	Flight Hour Recorder	C	1	0		(O) TNA pilots record actual flight and block times for all flights in the aircraft flight log. Flight Hour Recorder is used as a backup system

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1. ITEM & REPAIR CATEGORY SYSTEM & SEQUENCE NUMBERS	ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
32 LANDING GEAR				
1. Parking Brake	C	1	0	(O)The aircraft must be tied down and or wheel chocks applied at all times when there is no pilot occupying the pilot or copilot seat.

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1. ITEM & REPAIR CATEGORY		2. NUMBER INSTALLED		3. NUMBER REQUIRED FOR DISPATCH		4. REMARKS OR EXCEPTIONS
SEQUENCE NUMBERS	ITEM					
33 LIGHTS						
1.	Position Lights	C	3	0		May be inoperative for day operations.
2.	Landing Lights	C	2	0		Both may be inoperative for day operations.
		C	2	1		One may be inoperative.
3.	Anti-collision Beacon Light System	B	1	0		May be inoperative for day operations.
4.	Taxi Light	C	1	0		May be inoperative provided landing light is operative
5.	Cockpit and Instrument Lighting Systems	C	-	-		Individual Lights may be inoperative provided remaining Lights are: a) Sufficient to clearly illuminate all required instruments, controls, and other devices for which it is provided, b) Positioned so that direct rays are shielded from flight crewmembers eyes, and c) Lighting configuration and intensity is acceptable to the flight crew.
6.	Wing Ice Lights	C	2	0		May be inoperative provided: a) Aircraft is not operated in known or forecast icing conditions at night, and b) Ground deicing procedures do not require use of wing ice lights
		C	2	1		One may be inoperative provided: a) Left light is operative for Single Pilot operations, and b) Ground deicing procedures do not require use of wing ice lights

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1. ITEM & REPAIR CATEGORY		2. NUMBER INSTALLED		3. NUMBER REQUIRED FOR DISPATCH		4. REMARKS OR EXCEPTIONS
SEQUENCE	ITEM					
33	LIGHTS					
7.	Strobe Light System	C	1	0		May be inoperative.
8.	Cabin Light System	C	1	0		For Cargo Operations may be inoperative.

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1. ITEM & REPAIR CATEGORY		2. NUMBER INSTALLED		3. NUMBER REQUIRED FOR DISPATCH		4. REMARKS OR EXCEPTIONS
SYSTEM & SEQUENCE NUMBERS	ITEM					
34 NAVIGATION						
1.	Altimeter Barometric Pressure Adjustable	B	2	1	1	May be inoperative on right side for day VMC. NOTE: Where a servoed electric altimeter is installed, a functioning pneumatic indicator is required.
2.	Airspeed Indicator	B	2	1	1	May be inoperative on right side for day VMC. NOTE: Where a servoed electric airspeed is installed, a functioning pneumatic indicator is required.
3.	Gyroscopic Pitch and Bank Indicator System (Attitude ind)	B	2	1	1	May be inoperative on right side for day VMC.
4.	Gyroscopic Directional Indicator System	B	2	1	1	May be inoperative on right side for day VMC.
5.	Gyroscopic Rate of Turn/Slip Skid Indicator	B	2	1	1	May be inoperative on right side.
		B	2	0	0	May be inoperative provided aircraft is operated Day VFR.
6.	Vertical Speed Indicator	B	2	1	1	May be inoperative on right side
		B	2	0	0	May be inoperative provided aircraft is operated Day VFR.
7.	Radio Magnetic Indicator (RMI)	C	1	0	0	May be inoperative.

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1. ITEM & REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
SYSTEM & SEQUENCE NUMBERS	ITEM		
34	NAVIGATION		
8.	Automatic Direction Finder (ADF)	C 1 0	May be inoperative except when ADF in required for an instrument approach procedure.
9.	ATC Transponders and Automatic Altitude Reporting Systems	B 1 0	May be inoperative for flight in A, B, and C airspace and airports listed in FAR 91 App D
		B 1 0	May be inoperative in Class D or E Airspace or for individual flights provided prior authorization has been received from ATC. Far 91.215
10.	Marker Beacon	C 1 0	May be inoperative provided approach procedure does not require its use.
11.	Navigation Equipment (VOR/ILS, LORAN, RNAV, INS, GPS,)	C 3 0	May be inoperative provided enroute or approach procedure do not require its use.
1)	Navigation Databases	C 1 0	May be inoperative provided: <ul style="list-style-type: none"> a) Current Aeronautical charts are used to verify Navigation Fixes prior to dispatch, b) Pilot verifies status and suitability of Navigation Facilities used to define route of flight, and c) Approach Navigation Radios are manually tuned and identified.
12.	Distance Measuring Equipment (DME) System	C 1 0	Is required to be operational for approaches requiring DME OR for Flight above FL240.

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1. ITEM & REPAIR CATEGORY		2. NUMBER INSTALLED		3. NUMBER REQUIRED FOR DISPATCH		4. REMARKS OR EXCEPTIONS
SYSTEM & SEQUENCE NUMBERS	ITEM					
35 OXYGEN						
1. Oxygen System	C	1	0	0		Not Required if operating below 10,000 Feet
	C	1	0	0		Not require if operating between 10,000 to 12,000 feet for less than 30 minutes.
	C	1	1	1		Required for use by Pilot when operating at altitudes above 12,000.

Note: § 135.157 Oxygen equipment requirements.
 No person may operate an unpressurized aircraft at altitudes prescribed in this section unless it is equipped with enough oxygen dispensers and oxygen to supply the pilots under § 135.89(a) and to supply, when flying -

(1) At altitudes above 10,000 feet through 15,000 feet MSL, oxygen to at least 10 percent of the occupants of the aircraft, other than the pilots, for that part of the flight at those altitudes that is of more than 30 minutes duration; and

(2) Above 15,000 feet MSL, oxygen to each occupant of the aircraft other than the pilots.