DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A00009WI
Revision 25
Textron Aviation Defense LLC
3000
December 13, 2019

TYPE CERTIFICATE DATA SHEET NO. A00009WI

This Data Sheet, which is part of Type Certificate No. A00009WI prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Textron Aviation Defense LLC
9709 East Central
Wichita, Kansas 67206

Type Certificate Holder Record: Raytheon Aircraft Company transferred to
Hawker Beechcraft Corporation on March 26, 2007

Hawker Beechcraft Corporation transferred to
Beechcraft Defense Company, LLC on April 12, 2013

Beechcraft Defense Company, LLC transferred to
Textron Aviation Defense LLC on April 5, 2017

I. Model 3000 (PT, PF, PG, PI Series) (Military T-6A) (Acrobatic Category) (See NOTE 12 for restrictions) Approved July 30, 1999

Engine: One Pratt and Whitney of Canada, Ltd. of United Technologies Corp. Pratt and Whitney Division PT6A-68 (turboprop).

Fuel: JP-4, JP-5, JP-8, JET-A, JET-A1, and JET-B.

Anti-Icing Additive per MIL-I-85470 is required in concentration of .10% - .15% by volume.

Oil (Engine and Gearbox): Pratt and Whitney Service Bulletin No. 18001 lists approved brand oils.

Engine Limits

	Shaft horsepower	N_1 Gas Generator Speed (%)	Prop Shaft Speed (RPM)	Maximum Permissible Turbine Interstage Turbine (Deg. C)
Take Off	1100	104%	2000	820
Maximum Continuous	1100	104%	2000	820
Ground Idle	-	51% min.	-	750
Starting	-	-	-	1000 (5 sec.)
Transient	1447 (20 sec.)	104%	2200	870 (20 sec.)

All other engine limits noted in Engine TCDS E26NE

I. Model 3000 (PT, PF, PG, PI Series) (cont'd)

Propeller and Propeller Limits

One (1) Hartzell HC-E4A–2 Hub with E9612 Blades
Diameter: 97 Inches (Maximum):
Minimum allowable for repair: 96 inches
No further reduction permitted.
Pitch Settings at:

Low Pitch Stop	15.1° ± .2°
Feathered	86 ± .5°

Propeller limits as per TCDS P10NE

Airspeed Limits (KIAS)

Maximum Operating Speed	316
Maximum Operating Mach No.	0.67
Maximum Flap Extension Speed	147
Landing Gear Extended	147
Maneuvering Speed	236

C.G. Range (Landing Gear Extended

Allowable Forward C. G. up to 5212 lbs -F. S. 163.8
Allowable Forward C. G. up to 6200 lbs -F. S. 164.8
Allowable Forward C. G. up to 6500 lbs -F. S. 166.8
Allowable Aft C. G. up to 6500 lbs -F. S. 169.4

Empty WT C.G. Range

F.S. 163.9 to F.S. 165.0

Maximum Weight

Ramp	6550 lbs
Takeoff	6500 lbs
Landing	6500 lbs
Zero Fuel	5500 lbs

Minimum Crew

One (1) Pilot

No. of Seats and Loading

Pilot	(F. S. 162.8)
Passenger	(F. S. 218.9)

Maximum Baggage

80 lbs. (F. S. 271.0)

Fuel Capacity

TANK	CAP. GAL.	USABLE GAL.	ARM IN.
LH	92.0	90.0	+169.9
RH	92.0	90.0	+169.9

See NOTE 1 for data on unusable and undrainable fuel.

Note: Fuel tanks are interconnected and function as one tank. Fuel is free to flow between tanks. Total usable fuel 90.0 + 90.0 = 180 gallons.

Oil Capacity

18 Quarts total at F. S. 89.4
See NOTE 1 for data on undrainable oil.

Maximum Operating Altitude

31,000 feet

Control Surface Movements

Rudder	Right 24 °	Left 24 °
Rudder Tab	Right 6 °	Left 11 °
Elevators	Up 18 °	Down 16 °
Elevator Trim Tab	Up 5.5 °	Down 22 °
Ailerons	Up 20 °	Down 11°
Aileron Trim	Biased Centering Spring	
Wing Flap	Takeoff 23 °	Landing 50 °
Speedbrake	67.5 °	

I. Model 3000 (PT, PF, PG, PI Series) (cont'd)

Serial Nos. Eligible	PT-4 and after PF-1 and after PG-1 thru PG-25 PI-1 and after
Datum	Firewall Location F.S. 118.1
Leveling Means	Inclinometer on canopy rail measuring -6.00 degrees
Certification Basis	14 CFR Part 23 effective February 1, 1965 as amended by Amendment 23-1 through 23-47;14 CFR 23.201, 23.203, 23.207 as amended by Amendment 23-50; 14 CFR Part 34 effective September 10, 1990 as amended by Amendment 34-3 effective February 3, 1999; 14 CFR Part 36 effective December 1, 1969, as amended by Amendment 36-21 effective December 28, 1995; the Noise Control Act of 1972; Exemption No. 6869; and Special Conditions 23-98-03-SC and 23-98-02-SC. Equivalent Safety findings have been granted as follows: 23.562; 23.777(d); 23.785(d); 23.807(b)(5); 23.841(b)(5); 23.841(b)(6); 23.1305(c)(5); 23.1549(b); 23.1555(e)(2). See NOTE 29. Application for Type Certificate was dated January 15, 1996. A one (1) year extension of Type Certification date was granted via FAA letter dated January 26, 1999. The Model 3000 Type Certificate was obtained by Raytheon under Delegation Option Procedures under authority of 14 CFR Part 21, Subpart J.
Production Basis	Production Certificate No. PC-8. S/N PT-4, PT-5 and PT-8 not produced under PC-8. Authorized to issue airworthiness certificates under Organization Designation Authorization ODA-230339-CE.
Equipment	The basic required equipment as prescribed in applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. (See Limitations Section of FAA Approved Airplane Flight Manual (AFM) for Kinds of Operation equipment list). All pilots and passengers must receive Textron Aviation Defense (TA Defense) approved egress training and wear TA Defense approved flight apparel per the AFM.

II. Model 3000 (PN, PM Series) (Military T-6B, T-6C, T-6D) (Acrobatic Category) (See NOTE 12 for restrictions) Approved August 6, 2009

Engine	One (1) Pratt and Whitney of Canada, Ltd. of United Technologies Corp. Pratt and Whitney Division PT6A-68 (turboprop).
Fuel	JP-4, JP-5, JP-8, JET-A, JET-A1, and JET-B. Anti-Icing Additive per MIL-I-85470 is required in concentration of 10% - .15% by volume.
Oil (Engine and Gearbox)	Pratt and Whitney Service Bulletin No. 18001 lists approved brand oils.

II. Model 3000 (PN, PM Series) (cont'd)

Engine Limits

	Shaft horsepower	N_1 Gas Generator Speed (%)	Prop Shaft Speed (RPM)	Maximum Permissible Turbine Interstage Turbine (Deg. C)
Take Off	1100	104%	2000	820
Maximum Continuous	1100	104%	2000	820
Ground Idle	-	51% min.	-	750
Starting	-	-	-	1000 (5 sec.)
Transient	1447 (20 sec.)	104%	2200	870 (20 sec.)

All other engine limits noted in TCDS E26NE

Propeller and Propeller Limits

One (1) Hartzell HC-E4A–2 Hub with E9612 Blades
Diameter: 97 Inches (Maximum):
Minimum allowable for repair: 96 inches
No further reduction permitted.
Pitch Settings at:
Low Pitch Stop 15.1° ± .2°
Feathered 86 ± .5°
Propeller limits as per TCDS P10NE

Airspeed Limits (KIAS)

Maximum Operating Speed	316
Maximum Operating Mach No.	0.67
Maximum Flap Extension Speed	150
Landing Gear Extended	150
Maneuvering Speed	227

Fueled C.G. Range (Landing Gear Extended)

Allowable Forward C.G. up to 5850 lbs at F.S. 164.67
Allowable Forward C.G. from 5850 lbs at 164.67 to 6900 lbs at F.S. 165.45
Allowable Forward C.G. from 6900 lbs up to 6950 lbs at F.S. 165.45
Allowable Aft C.G. up to 6950 lbs at F.S. 169.35

Zero Fuel C.G. Range (Landing Gear Extended)

Allowable Forward C.G. up to 5850 lbs at F.S. 164.80
Allowable Aft C.G. up to 5850 lbs at F.S. 169.22

Empty Weight C.G. Range (Landing Gear Extended)

Allowable Forward C.G. up to 5225 lbs at F.S. 164.92
Allowable Aft C.G. from 4850 lbs at F.S. 164.92 to 5225 lbs at F.S. 165.22

Maximum Weight

Ramp	6950 lbs
Takeoff	6900 lbs
Landing	6900 lbs
Zero Fuel	5850 lbs
Empty Weight	5225 lbs

Minimum Crew

One (1) Pilot

No. of Seats and Loading

Pilot	(F. S. 162.8)
Passenger	(F. S. 218.9)

Maximum Baggage

80 lbs. (F. S. 271.0)

II. Model 3000 (PN, PM Series) (cont'd)

Fuel Capacity

TANK	CAP. GAL.	USABLE GAL.	ARM IN.
LH	92.0	90.0	+169.8
RH	92.0	90.0	+169.8

See NOTE 1 for data on unusable and undrainable fuel.

Note: Fuel tanks are interconnected and function as one tank. Fuel is free to flow between tanks. Total usable fuel 90.0 + 90.0 = 180 gallons.

Oil Capacity

18 Quarts total at F. S. 89.4
See NOTE 1 for data on undrainable oil.

Maximum Operating Altitude

31,000 feet

Control Surface Movements

Rudder	Right 24 °	Left 24 °
Rudder Tab	Right 6 °	Left 11 °
Elevators	Up 18 °	Down 16 °
Elevator Trim Tab	Up 5.5 °	Down 22 °
Ailerons	Up 20 °	Down 11°
Aileron Trim	Biased Centering Spring	
Wing Flap	Takeoff 23 °	Landing 50 °
Speedbrake	67.5 °	

Serial Nos. Eligible

PN-1 and after;
PM-1 and after

Datum

Firewall Location F.S. 118.1

Leveling Means

Inclinometer on canopy rail measuring -6.00 degrees

Certification Basis

The Model 3000 (PN, PM Series) was certified as a variation of the Model 3000 (PT, PF, PG, PI Series). The following apply for all areas of the aircraft: 14 CFR Part 23 effective February 1, 1965 as amended by Amendment 23-1 through 23-47 with the following exceptions and additions:

14 CFR Part 23.301, 23.335, 23.337, 23.341, 23.343, 23.345, 23.347, 23.349, 23.371, 23.391, 23.393, 23.399, 23.415, 23.441, 23.443, 23.455, 23.473, 23.499, 23.561, 23.571, 23.572, 23.573, 23.575, 23.611, 23.629, 23.657, 23.725, 23.865, as amended by Amendment 23-48;

14 CFR Part 23.723, 23.735, 23.785(i), 23.853, 23.867, 23.1303, 23.1307, 23.1309, 23.1311, 23.1321, 23.1326, 23.1351, 23.1361, 23.1365, 23.1401, 23.1431, as amended by Amendment 23-49;

14 CFR Part 23.71, 23.201, 23.203, 23.207, 23.1511, 23.1521(a)(e), 23.1543, 23.1545, 23.1553, 23.1559, 23.1567(a)(b)(1)(2)(c)(d)(1), 23.1581, 23.1587(c)(6), as amended by Amendment 23 50;

14 CFR Part 23.907, 23.955, 23.963, 23.965, 23.973, 23.975, 23.1041, 23.1043, 23.1045, 23.1141(a)(c)(d)(e), 23.1143, 23.1153, 23.1203(d)(e), 23.1337, as amended by Amendment 23 51;

14 CFR Part 23.901, as amended by Amendment 23-53;

14 CFR Part 23.903, as amended by Amendment 23-54.

II. Model 3000 (PN, PM Series) (cont'd)

Certification Basis (cont'd)

For all areas affected by the change from the Model 3000 (PT, PF, PG, PI Series) to the Model 3000 (PN, PM Series) as part of FAA Project AT0007MC-A, which included a gross weight increase, new avionics suite, integrated avionics computers (w/integral GPS), multifunctional displays, inertial reference system, and replacement of electromechanical standby indicators (airspeed, altitude, attitude, compass, and turn & slip) with an all-in-one standby indicator, the following additional rules apply:

14 CFR Part 23.607, at Amendment 23-48;
14 CFR Part 23.1555(a)(b)(e)(2), at Amendment 23-50;
14 CFR Part 23.1567(d)(2), at Amendment 23-50;
14 CFR Part 23.779, at Amendment 23-51.

14 CFR Part 34 effective September 10, 1990 as amended by Amendment 34-3 effective February 3, 1999;

14 CFR Part 36 effective December 1, 1969, as amended by Amendment 36-1 through 36-27 effective September 6, 2005;

The Noise Control Act of 1972;

Exemption No. 6869; Special Conditions 23-98-03-SC and 23-98-02-SC;

Equivalent Safety findings have been granted as follows:
23.562; 23.777(d); 23.785(d); 23.807(b)(5); 23.841(b)(5); 23.841(b)(6); 23.1303(c); 23.1305(c)(5); 23.1549(b) and 23.1555(e)(2). See NOTE 29.

Application for Amended Type Certificate was dated May 15, 2005. An extension of Amended Type Certification date was granted via FAA letter dated May 5, 2008. The Model 3000 Amended Type Certificate was obtained by Raytheon under Delegation Option Procedures under authority of 14 CFR Part 21, Subpart J.

Additional requirements for L-3 Com FA5000 Cockpit Voice and Flight Data Recorder Installations:
14 CFR 23.1457(a)(1)(2)(3)(4)(c)(d)(1)(2)(3)(5)(e)(1)(f)(g) [Amdt. 23-58]
14 CFR 23.1459(a)(1)(2)(3)(4)(5)(b)(c)(d)(e) [Amdt. 23-58]

Production Basis

Production Certificate No. PC-8. Authorized to issue airworthiness certificates under Organization Designation Authorization No. ODA-230339-CE.

Serial Numbers PM-68 through PM-102 and PN-227 through PN-252: Manufactured under Production Certificate No. 4 by Textron Aviation Inc., under license agreement between Beechcraft Defense Company and Textron Aviation Inc.

Serial Numbers PM-103 and after and PN-253 and after: Manufactured under Production Certificate No. 4 by Textron Aviation Inc., under license agreement between Textron Aviation Defense LLC and Textron Aviation Inc.

Organization Designation Authorization No. ODA-100129-CE is authorized to issue airworthiness certificates under the provisions of 14 CFR Part 21 and Part 183 of the Federal Aviation Regulations.

II. Model 3000 (PN, PM Series) (cont'd)

Equipment	The basic required equipment as prescribed in applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. (See Limitations Section of FAA Approved Airplane Flight Manual for Kinds of Operation equipment list.) All pilots and passengers must receive Textron Aviation Defense (TA Defense) approved egress training and wear TA Defense approved flight apparel per the AFM.

NOTES

NOTE 1. Current weight and balance data, loading information and a list of equipment included in empty weight must be provided for each airplane at the time of original certification.

(a) Basic empty weight includes unusable fuel of 41.7 lb. at (167.7 in.) with 14.5 lb. being undrainable.

(b) Basic empty weight includes engine oil of 36.35 lb. at (89.4 in.) with 2.55 lb. being undrainable.

NOTE 2. All placards required in the Model 3000 (T-6A) FAA Approved AFM P/N 133-590003-5 or Model 3000 (T-6B/T-6C/T-6D) FAA Approved AFM P/N 133-590066-0005 as determined applicable by aircraft serial number must be installed in the appropriate location.

NOTE 3. A mandatory retirement time for all structural components is contained in the FAA Approved Limitations Section of the Model 3000 Maintenance Manual, P/N 133-590003-7. The limitations may not be changed without FAA engineering approval.

NOTE 4. Zero and negative G flight.

a) Intentional zero G is limited to 5 seconds.

b) Negative G operation (including inverted) is limited to 60 seconds.

c) The following sustained negative G limitations ensure recovery of the center section fuel tank:

(i) With fuel greater than 200 lbs per side at the maneuver entry point – unrestricted number of negative G maneuvers within 60 seconds followed by 30 seconds upright (positive G) flight before conducting additional negative G maneuvers.

(ii) With fuel less than 200 lbs per side at the maneuver entry point - unrestricted number of negative G maneuvers within 60 seconds followed by 60 seconds upright (positive G) flight before conducting additional negative G maneuvers.

(iii) Do not exceed -2.5G for negative G operation longer than 30 seconds.

NOTE 5. Airplane must be operated in accordance with Model 3000 (T-6A) FAA Approved AFM P/N 133-590003-5 or Model 3000 (T-6B/T-6C/T-6D) FAA Approved AFM P/N 133-590066-0005 as determined applicable by aircraft serial number.

NOTE 6. This aircraft contains a canopy fracturing system and ejection seat system that was FAA approved based on the Equivalent Level of Safety provisions on 14 CFR 21.17. Due to the uniqueness of this equipment, corresponding Operational characteristics, and need for recurring maintenance activity, all ejection seat training, maintenance, and component replacement schedules must be conducted in accordance with the FAA approved Airworthiness Limitations Section of Maintenance Manual P/N 133-590003-7.

NOTE 7. This aircraft incorporates design features which install components in the fire zone (forward of the firewall) that normally are not installed in a fire zone (i.e. battery, nose gear actuator, tire, etc.). These components required special tests and/or analysis to insure that no additional hazard was caused when exposed to the effects of an engine fire. Any replacement of non-original components in this area must meet original airworthiness requirements.

NOTE 8. Model 3000, S/N PT-4 and after, are defined by drawing 133-000000. To return to a FAA approved configuration, the airplane must be modified in accordance with drawing 133-005001.

NOTE 9. Model 3000, S/N PF-1 and after, are defined by drawing 133-000001. To return to an FAA approved configuration, the airplane must be modified in accordance with drawing 133-005001; and AFM Supplements 133-590003-49, 133-590003-51, 133-590003-55 and 133- 590003-57 are required to be inserted in the AFM (133-590003-5).

NOTE 10. PF-3 is eligible for delivery with restrictions which require changing the FAA approved category from Acrobatic to Normal per Service Instructions T-6A-0001. AFM Supplement 133-590003-61 is required with this change. These restrictions will be in effect until the airplane is modified per Service Instructions T-6A-0002.

NOTE 11. Model 3000, S/N PG-1 thru PG-25, are defined by drawing 133-000006. To return to a FAA approved configuration, the airplane must be modified in accordance with drawing 133-005001.

NOTE 12. Restrictions to Acrobatic Category are defined below and in AFM Supplement P/N 133-590003-65 for airplanes equipped with the Lori oil cooler 117-389011-1 installed per drawing 133-005001 (Refer to NOTE 14).

Additional Prohibited Maneuvers:

Intentional Zero-G or Negative G flight during or on recovery from Approved Maneuvers

Slow Roll

Stall Turn (Hammerhead)

Vertical Roll

Sustained Vertical Nose Down

Knife Edge

NOTE 13. Prior to issuance of a U.S. Standard Airworthiness Certificate, the airplane must be modified in accordance with drawing 133-005001 for Model 3000 (T-6A) or drawing 133-005003 for Model 3000 (T-6B/T-6C/ T-6D) as determined applicable by aircraft serial number. In accordance with 14 CFR Part 23.1529, Instructions for Continued Airworthiness (ICA) acceptable to the Administrator must be available at delivery of first aircraft or issuance of a standard certificate of airworthiness.

NOTE 14. For aircraft equipped with Stewart Warner Oil Cooler P/N 133-389029-1 (10662E) installed per drawing 133-930002, and aircraft complying with SI T-6A-0026, Revision 1, the restrictions in AFM P/N 133-590003-65 and in NOTE 12 herein do not apply.

NOTE 15 Model 3000, S/N PG-26 thru PG-4,5 are defined by drawing 133-000004. S/N PG-26 thru PG-45 are not eligible for FAA approval for Standard Certificate of Airworthiness.

NOTE 16. Installation of Kit 133-5004 Enhanced ECS System requires installation of Kit 133-5005 Crew Oxygen System. Installation of the crew oxygen system requires FAA approval.

NOTE 17. Company name change effective 3-26-07. The following serial numbers are manufactured under the name of Hawker Beechcraft Corporation: PT-358 thru PT-518 and PN-1 thru PN-168.

NOTE 18. DELETED. See Note 25.

NOTE 19. Model 3000, S/N PN-1 and after, are defined by drawing 133-000073. To return to a FAA approved configuration, the airplane must be modified in accordance with drawing 133-005003; and AFM Supplement No. 133-590066-0019 is required to be inserted in the AFM (133-590066-0005).

NOTE 20. Model 3000, S/N PI-1 and after, are defined by drawing 133-000079. To return to a FAA approved configuration, the airplane must be modified in accordance with drawing 133-005001.

NOTE 21. Model 3000, S/N PM-1 thru PM-24, PM-37, PM-38, PM-41 thru PM-45, PM-50, PM-53 thru PM-55, PM-108, PM-109, PM-112 and PM-113, are defined by drawing 133-000078. To return to a FAA approved configuration, the airplane must be modified in accordance with drawing 133-005003.

NOTE 22. Company name change effective 4/12/2013. The following serial numbers are manufactured under the name of Beechcraft Defense Company, LLC: PM-31 and after; PN-169 and after.

NOTE 23. Model 3000, S/N PM-25 thru PM-36, PM-39, PM-40, PM-46 thru PM-49, PM-51, PM-52, PM-56 thru PM-63, PM-68 thru 107, PM-114 and PM-117 thru PM-120, defined by drawing 133-000078, and are not eligible for FAA approval for a Standard Certificate of Airworthiness.

NOTE 24. Model 3000, S/N PM-64 thru PM-67, are defined by drawing 133-000078. To return to an FAA approved configuration, the airplane must be modified in accordance with drawing 133-005003.

NOTE 25. NOTE 18 is deleted at Revision 21. No PH series airplanes have been or will be built. The PM series definition was built upon, and replaced the PH series definition. Refer to NOTE 21.

NOTE 26. Company name change effective 4/5/2017. The following serial numbers are manufactured under the name of Textron Aviation Defense LLC: PM-103 and after; PN-253 and after.

NOTE 27. Deleted at Revision 24.

NOTE 28. Model 3000, S/N PM-115, PM-116, and PM-121 and after, are defined by drawing 133-000113. To return a FAA approved configuration, the airplane must be modified in accordance with drawing 133-005003.

NOTE 29. The FAA made the following Equivalent Level of Safety (ELOS) findings for the subject regulations:

ELOS MEMO NO	MODEL SERIES	REGULATION	SUBJECT
ACE-97-3	All	23.777(d)	Power Control Level
ACE-97-7	All	23.841(b)(6)	Pressurized Cabins
ACE-99-06	All	23.562, 23.807(b)(5)	Ejection Seats
ACE-99-08	All	23.785(d)	Single Point Seat Belt Release
ACE-99-10	All	23.1305(c)(5), 23.1549(b)	Digital Propeller Tachometer and Markings
TXTAV-106452-A-SM-1	All	23.841(b)(5)	Removal of Cabin Pressure Altitude Rate of Change Indicator
TXTAV-106452-A-SM-2	All	23.1555(e)(2)	Use of Yellow and Black Emergency Markings in Lieu of Red
ACE-09-08	PM, PN	23.1303(c)	Electronic Standby Direction Indicator
TXTAV-103850-B-SE-1	PM, PN	23.1303(c)	Electronic Standby Direction Indicator

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