TCDS No.: EASA.A.089 PC-12

Issue: 09 Date: 26 November 2019



TYPE-CERTIFICATE DATA SHEET

NO. EASA.A.089

for PC-12

Type Certificate Holder Pilatus Aircraft Ltd.

Ennetbürgerstrasse 101 6371, Stans Switzerland

For models: PC-12

PC-12/45 PC-12/47 PC-12/47E



TCDS No.: EASA.A.089 PC-12

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SECTION A: PC-12

A.I. General

1. Type/ Model/ Variant

1.1 Type: PC-12 1.2 Model: PC-12

1.3 Eligible S/N: S/N 101 to S/N 683 (except S/N 545)
2. Airworthiness Category: 14 CFR Part 23 Normal Category

3. Manufacturer: Pilatus Aircraft Ltd.

Ennetbürgerstrasse 101, 6371 Stans

Switzerland

4. EASA Type Certification Application Date: July 10th, 1986
 5. State of Design Authority: Switzerland

6. State of Design Authority Type

Certificate Date: March 30th, 1994

7. EASA Type Certification Date: Product accepted in EU prior 28 Sept 2003

This TCDS replaces the Swiss TCDS F-56-30 Revision

10, dated December 14th, 2005.

A.II. EASA Certification Basis

1. Reference Date for determining the

applicable requirements: July 10th, 1986

2. Airworthiness Requirements: US 14 CFR FAR Part 23, Normal Category, including

Amendments 23-1 through 23-42, effective February

4th, 1991.

3. Certification Basis: FOCA CRI A-1, Stage 7, February 14th, 1997 as

amended by:

FAR 23.1305(c)(3) Amdt 23-43 FAR 23.1311 Amdt 23-49 FAR 23.1507 Amdt 23-45

4. Special Conditions: B-1 Stall Identification & Recovery Characteristics

C-1 Horizontal Tail Loads

C-2 Horizontal Tail Loads (Rocking Motions) C-3 Dynamic Behaviour of the Landing Gear

C-4 Seat Head Rest & Supporting Structure aft Facing

Seats

D-1 Hinges (Strength & Rigidity)

D-2 Doors and Exits

D-3 Composite Materials for Secondary Structure

E-2 Composite Cowling (Toxics)

FOCA CQF 98-02, September 15th, 1993

5. Exemptions: None



6. (Reserved) Deviations: None

7. Equivalent Safety Findings: FAR 23.221(a)(2) [FOCA CQF 91-03]

FAR 23.841(b)(6) [FOCA CQF 21-03]

8. Environmental Protection:

Noise: US Federal Aviation Regulation Part 36, Appendix G,

including Amendments 36-1 through 36-20, effective

September 11, 1992.

ICAO Annex 16: Environmental Protection, Second Edition, Amdt 3, effective November 17th, 1988;

Volume 1, Part II, Chapter 10.

Emissions: US Federal Aviation Regulation Part 34, (Fuel

venting/emissions), effective September 10th, 1990.

9. Operational Suitability Certification Basis:

MMEL: CS-GEN-MMEL, Initial Issue

Flight Crew Data not required (see Note 4 in Section E)

A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: 500.00.12.001

2. Description: The PC-12 is a large single-engine turboprop multipurpose aircraft designed to

perform a wide range of missions. Design features include:

- A pressurized, large volume cabin quickly convertible from all-passenger to

all-cargo or a combination of passenger/cargo configurations.

- Retractable landing gear with trailing-link main landing gear capable of grass

and unprepared field operations.

- Complete icing protection for flight into known icing conditions (see Note

A.IV.5)

3. Dimensions:

Main Wing Span: 16'230 mm - (53 ft 3 in) Length: 14'408 mm - (47 ft 3 in) Height: 4'260 mm - (14 ft 0 in) Total Wing Area: 25.81 m² - (277.8 ft²)

4. Engine:

4.1. Model: 1 Pratt & Whitney Canada (PWC) PT6A-67B

turboprop engine, flat rated at 1200 shp for takeoff.

4.2 Type Certificate: TCCA Type Approval No. E21



4.3 Engine Limitations:

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	Torque PSI [ft-lbs] (kgm)	Prop. shaft Speed (r.p.m.)	Maximum Permissible Interstage Temperature (°C)
Takeoff	1200	104	44.34 [3708] (512.7)	1700	800
Max. continuous Max. climb Max. cruise	1000	104	36.95 [3090] (427.2)	1700	760
Normal Climb Normal Cruise		As per Aircraft Flight Manual charts			
Starting Limits (5 sec.)	-	-	-	-	1000
Transient (20 sec.)	-	104	61.00 [5100] (705.1)	1870	870

Note: 100% Gas Generator Speed = 37'468 RPM

Oil Temperature:

 $\begin{array}{lll} \text{Starting:} & -40^{\circ}\text{C (min.)} \\ \text{Idle:} & -40^{\circ}\text{C} \div 110^{\circ}\text{C} \\ \text{Transient:} & -40^{\circ}\text{C} \div 110^{\circ}\text{C} \\ \text{Take-off:} & +10^{\circ}\text{C} \div 110^{\circ}\text{C} \\ \text{Max. Continuous:} & +10^{\circ}\text{C} \div 105^{\circ}\text{C} \\ \text{Max. Reverse:} & +10^{\circ}\text{C} \div 105^{\circ}\text{C} \\ \end{array}$

5. Flight Load factor Limits:

Flaps up: $+3.4 \, \text{g}, -1.36 \, \text{g}$ Flaps down: $+2.0 \, \text{g}, -0.0 \, \text{g}$

6. Propeller:

6.1 Model: 1 Hartzell HC-E4A-3D/E10477K

or HC-E4A-3D/E10477SK

6.2 Type Certificate: FAA TC No. P10NE

6.3 Number of blades: 4 (Aluminum)

6.4 Diameter: 2,670 mm

6.5 Sense of Rotation: Propeller rotates Clockwise in view of flight direction

6.6 Pitch: Nominal pitch angle at 1,067 m (42") station

Minimum on ground: 17° Minimum in flight: 6°

Reverse (negative): $-17.50^{\circ} \pm 0.5^{\circ}$ Feathered: $79.60^{\circ} \pm 0.5^{\circ}$ Fine Pitch $19^{\circ} \pm 0.2^{\circ}$



6.7 Propeller Limits: Diameter: 104 in (2.642 m) to 105 in (2.667 m)

cropping of blade tips not permitted.

Stabilized ground operations between 350 and 950

rpm are prohibited.

Propeller blade life limit on condition.

7. Fluids:

7.1 Fuel: Refer to the latest revision of Pratt & Whitney Service

Bulletin No. 14004 (including JET A, JET A-1, JET B,

JP4).

Fuel Anti-Ice Additive compliant with Specification MIL-DTL-27686 or MIL-DTL-85470 must be used for all flight operations in ambient temperatures below

0°C.

7.2 Oil: Synthetic turbine oil conforming to PWA 521, Type II.

For acceptable oil brands see Pratt & Whitney Service

Bulletin No. 14001.

8. Fluid capacities:

8.1 Fuel:

Total: 1540 lt - (406.8 US Gal) Usable: 1522 lt - (402.1 US Gal)

Unusable: 19.6 kg - (43.2 lbs) S/N 101 to S/N 140 (incl.)

14.9 kg - (32.9 lbs) S/N 141 and up

8.2 Oil:

Total: 13.6 lt - (3.6 US Gal) Usable quantity: 5.68 lt - (1.5 US Gal)

9. Air Speeds:			KCAS	
	VMO	(maximum operating speed)		240
	MM0	(maximum operating Mach number)		0.48
	VD	(maximum diving speed)		280
	MD	(maximum operating Mach number)		0.60
	VA	(maneuvering speed)		170
	VO	(max. maneuvering operating speed)	at 4100 kg	154
			at 3200 kg	136
			at 2600 kg	123
	VFE	(max. flap extended speed)	up to 15°	165
			above 15°	130
	VFO	(max. flap operating speed)	up to 15°	165
			above 15°	130
	VLO	(maximum landing gear operating speed)		180
	VLE	(maximum landing gear extended speed)		240

10. Maximum Operating Altitude: 9144 m / 30000 ft

11. Approved Operations Capability: IFR Day/Night; VFR Day/Night



12. Maximum Masses:

Taxi and ramp:	4120 kg - (9083 lbs)
Take-off:	4100 kg - (9039 lbs)
Landing:	4100 kg - (9039 lbs)
Zero fuel:	3700 kg - (8157 lbs)

13. Centre of Gravity Range: Straight line variation between limits given.

Weight	From	То
4100 kg (9039 lbs)	5.847 m (230.18")	6.137 m (241.61")
3700 kg (8157 lbs)	5.689 m (223.99")	6.163 m (242.73")
3600 kg (7937 lbs)	5.684 m (223.78")	6.172 m (242.99")
3000 kg (6614 lbs)	5.633 m (221.85)	6.172 m (242.99")
2700 kg (5953 lbs)	5.607 m (220.75")	5.880 m (231.50")
2550 kg (5622 lbs)	5.607 m (220.75")	5.728 M (225.47")

Empty Weight C.G. Range None

14. Datum: 3.000 m (118.11") forward of Frame 10 (foremost

cabin frame = firewall)

15. Levelling Means: Refer to the "Pilot's Operating Handbook and

FOCA/EASA Approved Flight Manual", Section 6.

16. Minimum Flight Crew: 1 Pilot

17. Maximum Passenger Seating Capacity: 9 PAX excluding pilot seats.

Refer to the "Pilot's Operating Handbook and FOCA/EASA Approved Flight Manual", Section 6., for passengers and flight crew loading instructions and

approved configurations.

18. Baggage/ Cargo Compartments: Refer to the "Pilot's Operating Handbook and

FOCA/EASA Approved Flight Manual", Section 6.

19. Wheels and Tyres: Dimensions Ply Rating Speed Rating

 Nose Landing Gear:
 17.5x6.25-6
 8 (PR)
 160 (MPH)

 Main Landing Gear:
 8.50x10
 8 (PR)
 160 (MPH)

20. (Reserved)



A.IV. Operating and Service Instructions

1. Flight Manual (AFM/POH):

Airplane operation must be in accordance with the FOCA/EASA approved "Pilot Operating Handbook" (POH) and AFM supplements as define below:

a. S/N 101-400 Pilatus Report PC-12 no. 01973-001

Except 321 March 30th, 1994 and later approved revisions.

b. S/N 321, 401 and up to 683 Pilatus Report PC-12/45 no. 02211

Except 545 July 14th, 2001 and later approved revisions. (PC-12 data contained in AFMS No.25.)

2. Maintenance Manual (AMM):

Airplane maintenance must be in accordance with the document as define below:

All PC-12 S/N up to 999 Pilatus Report no. 02049

3. Structural Repair Manual (SRM):

Airplane Repairs must be in accordance with the document as define below:

All PC-12 S/N up to 999 Pilatus Report no. 02050

4. Service Bulletins (SBs):

All Pilatus PC-12 Bulletin are listed in the following document:

All PC-12 S/N Pilatus Report no. 02086

5. Flight into icing conditions:

PC-12 variant may be operated in known icing conditions. For aircraft MSN 101 through MSN 128 Pilatus Service Bulletin No 30-001 must be executed.

A.V. Operational Suitability Data (OSD)

1. Master Minimum Equipment List (MMEL): Pilatus Report PC-12 No 02395, latest approved

revision

2. Flight Crew Data (FCD) not required (see Note 4 in Section E)



SECTION B: PC-12/45

B.I. General

1. Type/ Model/ Variant

1.1 Type: PC-12 1.2 Model: PC-12/45

1.3 Eligible S/N: S/N 101 to S/N 683 (except S/N 545)
2. Airworthiness Category: 14 CFR Part 23 Normal Category

3. Manufacturer: Pilatus Aircraft Ltd.

Ennetbürgerstrasse 101, 6371 Stans

Switzerland

4. EASA Type Certification Application Date: June 6th, 1995
 5. State of Design Authority: Switzerland

6. State of Design Authority Type

Certificate Date: June 4th, 1996

7. EASA Type Certification Date: Product accepted in EU prior 28 Sept 2003

This TCDS replaces the Swiss TCDS F-56-30 Revision

10, dated December 14th, 2005.

B.II. EASA Certification Basis

1. Reference Date for determining the

applicable requirements: June 6th, 1995

2. Airworthiness Requirements: US 14 CFR FAR Part 23, Normal Category, including

Amendments 23-1 through 23-42, effective February

4th, 1991.

3. Certification Basis: FOCA CRI A-2, Stage 5, February 14th, 1997 as

amended by:

FAR 23.49(c) Amdt 23-44 FAR 23.479(b)(c) Amdt 23-45 FAR 23.562(d) Amdt 23-44 FAR 23.1305(c)(3) Amdt 23-43 FAR 23.1311 Amdt 23-49 FAR 23.1507 Amdt 23-45

4. Special Conditions: B-1 Stall Identification & Recovery Characteristics

C-1 Horizontal Tail Loads

C-2 Horizontal Tail Loads (Rocking Motions) C-3 Dynamic Behaviour of the Landing Gear

C-4 Seat Head Rest & Supporting Structure aft Facing

Seats

D-1 Hinges (Strength & Rigidity)

D-2 Doors and Exits

D-3 Composite Materials for Secondary Structure



E-2 Composite Cowling (Toxics)

FOCA CQF 98-02, September 15th, 1993

5. Exemptions: None6. (Reserved) Deviations: None

7. Equivalent Safety Findings: FAR 23.221(a)(2) [FOCA CQF 91-04]

FAR 23.841(b)(6) [FOCA CQF 21-03]

8. Environmental Protection:

Noise: US Federal Aviation Regulation Part 36, Appendix G,

including Amendments 36-1 through 36-20, effective

September 11, 1992.

ICAO Annex 16: Environmental Protection, Second Edition, Amdt 3, effective November 17th, 1988;

Volume 1, Part II, Chapter 10.

Emissions: US Federal Aviation Regulation Part 34, (Fuel

venting/emissions), effective September 10th, 1990.

9. Operational Suitability Certification Basis:

MMEL: CS-GEN-MMEL, Initial Issue

Flight Crew Data not required (see Note 4 in Section E)

B.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: 500.00.12.009

2. Description: The PC-12/45 is a large single-engine turboprop multipurpose aircraft designed

to perform a wide range of missions. Design features include:

- A pressurized, large volume cabin quickly convertible from all-passenger to all-cargo or a combination of passenger/cargo configurations.

- Retractable landing gear with trailing-link main landing gear capable of grass

and unprepared field operations.

- Complete icing protection for flight into known icing conditions (see Note

B.IV.5)

3. Dimensions:

Main Wing Span: 16'230 mm - (53 ft 3 in) S/N 101-683 (excl. 545)

16'280 mm - (53 ft 5 in) S/N 684 and up

Length: 14'408 mm - (47 ft 3 in)
Height: 4'260 mm - (14 ft 0 in)
Total Wing Area: 25.81 m² - (277.8 ft²)

4. Engine:

4.1. Model: 1 Pratt & Whitney Canada (PWC) PT6A-67B

turboprop engine, flat rated at 1200 shp for takeoff.

4.2 Type Certificate: TCCA Type Approval No. E21



4.3 Engine Limitations:

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	Torque PSI [ft-lbs] (kgm)	Prop. shaft Speed (r.p.m.)	Maximum Permissible Interstage Temperature (°C)
Takeoff	1200	104	44.34 [3708] (512.7)	1700	800
Max. continuous Max. climb Max. cruise	1000	104	36.95 [3090] (427.2)	1700	760
Normal Climb Normal Cruise		As per Airo	craft Flight M	anual charts	
Starting Limits (5 sec.)	-	-	-	-	1000
Transient (20 sec.)	-	104	61.00 [5100] (705.1)	1870	870

Note: 100% Gas Generator Speed = 37'468 RPM

Oil Temperature:

 $\begin{array}{lll} \text{Starting:} & -40^{\circ}\text{C (min.)} \\ \text{Idle:} & -40^{\circ}\text{C} \div 110^{\circ}\text{C} \\ \text{Transient:} & -40^{\circ}\text{C} \div 110^{\circ}\text{C} \\ \text{Take-off:} & +10^{\circ}\text{C} \div 110^{\circ}\text{C} \\ \text{Max. Continuous:} & +10^{\circ}\text{C} \div 105^{\circ}\text{C} \\ \text{Max. Reverse:} & +10^{\circ}\text{C} \div 105^{\circ}\text{C} \end{array}$

5. Flight Load factor Limits:

Flaps up: $+3.4 \, \text{g}, -1.36 \, \text{g}$ Flaps down: $+2.0 \, \text{g}, -0.0 \, \text{g}$

6. Propeller:

6.1 Model: 1 Hartzell HC-E4A-3D/E10477K

or HC-E4A-3D/E10477SK

6.2 Type Certificate: FAA TC No. P10NE

6.3 Number of blades: 4 (Aluminum)

6.4 Diameter: 2,670 mm

6.5 Sense of Rotation: Propeller rotates Clockwise in view of flight direction

6.6 Pitch: Nominal pitch angle at 1,067 m (42") station

Minimum on ground: 17° Minimum in flight: 6°

Reverse (negative): $-17.50^{\circ} \pm 0.5^{\circ}$ Feathered: $79.60^{\circ} \pm 0.5^{\circ}$ Fine Pitch $19^{\circ} \pm 0.2^{\circ}$



6.7 Propeller Limits: Diameter: 104 in (2.642 m) to 105 in (2.667 m)

cropping of blade tips not permitted.

Stabilized ground operations between 350 and 950

rpm are prohibited.

Propeller blade life limit on condition.

7. Fluids:

7.1 Fuel: Refer to the latest revision of Pratt & Whitney Service

Bulletin No. 14004 (including JET A, JET A-1, JET B,

JP4).

Fuel Anti-Ice Additive compliant with Specification MIL-DTL-27686 or MIL-DTL-85470 must be used for all flight operations in ambient temperatures below

0°C.

7.2 Oil: Synthetic turbine oil conforming to PWA 521, Type II.

For acceptable oil brands see Pratt & Whitney Service

Bulletin No. 14001.

8. Fluid capacities:

8.1 Fuel:

Total: 1540 lt - (406.8 US Gal) Usable: 1522 lt - (402.1 US Gal)

Unusable: 19.6 kg - (43.2 lbs) S/N 101 to S/N 140 (incl.)

14.9 kg - (32.9 lbs) S/N 141 and up

8.2 Oil:

Total: 13.6 lt - (3.6 US Gal)
Usable quantity: 5.68 lt - (1.5 US Gal)

9. Air Speeds:				KCAS
	VMO	(maximum operating speed)		240
	MM0	(maximum operating Mach number)		0.48
	VD	(maximum diving speed)		280
	MD	(maximum operating Mach number)	S/N 101-683 (excl 545)	0.62
			S/N 684 and up	0.58
	VA	(maneuvering speed)		170
	VO	(max. maneuvering operating speed)	at 4500 kg	161
			at 4100 kg	154
			at 3200 kg	136
			at 2600 kg	123
	VFE	(max. flap extended speed)	up to 15°	165
			above 15°	130
	VFO	(max. flap operating speed)	up to 15°	165
			above 15°	130
	VLO	(maximum landing gear operating spe	eed)	180
	VLE	(maximum landing gear extended spe	ed)	240

10. Maximum Operating Altitude: 9144 m / 30000 ft

11. Approved Operations Capability: IFR Day/Night; VFR Day/Night



12. Maximum Masses:

Taxi and ramp:	4520 kg - (9965 lbs)
Take-off:	4500 kg - (9921 lbs)
Landing:	4500 kg - (9921 lbs)
Zero fuel:	4100 kg - (9039 lbs)

13. Centre of Gravity Range:

Weight	From	То
4500 kg (9921 lbs)	5.898 m (232.20")	6.120 m (240.94")
3700 kg (8157 lbs)	5.693 m (224.13")	6.120 m (240.94")
3600 kg (7937 lbs)	5.693 m (224.13")	6.172 m (242.99")
3000 kg (6614 lbs)	5.693 m (224.13")	6.172 m (242.99")
2600 kg (5732 lbs)	5.607 m (220.75")	5.728 m (225.47")

Empty Weight C.G. Range None

14. Datum: 3.000 m (118.11") forward of Frame 10 (foremost

cabin frame = firewall)

15. Levelling Means: Refer to the "Pilot's Operating Handbook and

FOCA/EASA Approved Flight Manual", Section 6.

16. Minimum Flight Crew: 1 Pilot

17. Maximum Passenger Seating Capacity: 9 PAX excluding pilot seats.

Refer to the "Pilot's Operating Handbook and FOCA/EASA Approved Flight Manual", Section 6., for passengers and flight crew loading instructions and

approved configurations.

18. Baggage/ Cargo Compartments: Refer to the "Pilot's Operating Handbook and

FOCA/EASA Approved Flight Manual", Section 6.

19. Wheels and Tyres: Dimensions Ply Rating Speed Rating

 Nose Landing Gear:
 17.5x6.25-6
 8 (PR)
 160 (MPH)

 Main Landing Gear:
 8.50x10
 8 (PR)
 160 (MPH)

20. (Reserved)



B.IV. Operating and Service Instructions

1. Flight Manual (AFM/POH):

Airplane operation must be in accordance with the FOCA/EASA approved "Pilot Operating Handbook" (POH) and AFM supplements as define below:

a. S/N 101-400 Pilatus Report PC-12 no. 01973-001

Except 321 March 30th, 1994 and later approved revisions.

(PC-12/45 data contained in AFMS No.8.)

b. S/N 321, 401 and up to 683 Pilatus Report PC-12/45 no. 02211

Except 545 July 14th, 2001 and later approved revisions.

2. Maintenance Manual (AMM):

Airplane maintenance must be in accordance with the document as define below:

All PC-12 S/N up to 999 Pilatus Report no. 02049

3. Structural Repair Manual (SRM):

Airplane Repairs must be in accordance with the document as define below:

All PC-12 S/N up to 999 Pilatus Report no. 02050

4. Service Bulletins (SBs):

All Pilatus PC-12 Bulletin are listed in the following document:

All PC-12 S/N Pilatus Report no. 02086

5. Flight into icing conditions:

PC-12/45 variant may be operated in known icing conditions. For aircraft MSN 101 through MSN 128 Pilatus Service Bulletin No 30-001 must be executed.

B.V. Operational Suitability Data (OSD)

1. Master Minimum Equipment List (MMEL): Pilatus Report PC-12 No 02395, latest approved

revision

2. Flight Crew Data (FCD) not required (see Note 4 in Section E)



SECTION C: PC-12/47

C.I. General

1. Type/ Model/ Variant

1.1 Type: PC-12 1.2 Model: PC-12/47

1.3 Eligible S/N: S/N 684 up to 999

2. Airworthiness Category: 14 CFR Part 23 Normal Category

3. Manufacturer: Pilatus Aircraft Ltd.

Ennetbürgerstrasse 101, 6371 Stans

Switzerland

4. EASA Type Certification Application Date: September 22nd, 2004

5. State of Design Authority: Switzerland

6. State of Design Authority Type

Certificate Date: December 14th, 2005

7. EASA Type Certification Date: Product transferred to EASA, 23 June 2006

This TCDS replaces the Swiss TCDS F-56-30 Revision

10, dated December 14th, 2005.

C.II. EASA Certification Basis

 ${\bf 1.} \ {\bf Reference} \ {\bf Date} \ {\bf for} \ {\bf determining} \ {\bf the}$

applicable requirements: September 22nd, 2004

2. Airworthiness Requirements: US 14 CFR FAR Part 23, Normal Category, including

Amendments 23-1 through 23-42, effective February

4th, 1991.

3. Certification Basis: FOCA CRI A-1, Stage 2, November 3rd, 2005 as

amended by:

FAR 23.49(c) Amdt 23-44
FAR 23.479(b)(c) Amdt 23-45
FAR 23.562(d) Amdt 23-44
FAR 23.1305(c)(3) Amdt 23-43
FAR 23.1311 Amdt 23-49
FAR 23.1507 Amdt 23-45

4. Special Conditions: B-1 Stall Identification & Recovery Characteristics

C-1 Horizontal Tail Loads

C-2 Horizontal Tail Loads (Rocking Motions) C-3 Dynamic Behaviour of the Landing Gear

C-4 Seat Head Rest & Supporting Structure aft Facing

Seats

D-1 Hinges (Strength & Rigidity)

D-2 Doors and Exits

D-3 Composite Materials for Secondary Structure



E-2 Composite Cowling (Toxics)

FOCA CQF 98-02, September 15th, 1993

4. Exemptions: None5. (Reserved) Deviations: None

6. Equivalent Safety Findings: FAR 23.221(a)(2) [FOCA CQF 91-04]

FAR 23.841(b)(6) [FOCA CQF 21-03]

7. Environmental Protection:

Noise: US Federal Aviation Regulation Part 36, Appendix G,

including Amendments 36-1 through 36-27, effective

June 09th, 2005.

ICAO Annex 16: Environmental Protection, Third Edition, Amdt 7, effective March 21st, 2002; Volume

1, Part II, Chapter 6 and 10.

Emissions: US Federal Aviation Regulation Part 34, (Fuel

venting/emissions), effective September 10th, 1990.

10. Operational Suitability Certification Basis:

MMEL: CS-GEN-MMEL, Initial Issue

Flight Crew Data not required (see Note 4 in Section E)

C.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: 500.00.12.015

2. Description: The PC-12/47 is a large single-engine turboprop multipurpose aircraft designed

to perform a wide range of missions. Design features include:

- A pressurized, large volume cabin quickly convertible from all-passenger to

all-cargo or a combination of passenger/cargo configurations.

- Retractable landing gear with trailing-link main landing gear capable of grass

and unprepared field operations.

- Complete icing protection for flight into known icing conditions (see Note

C.IV.5)

3. Dimensions:

Main Wing Span: 16'280 mm - (53 ft 5 in) Length: 14'408 mm - (47 ft 3 in) Height: 4'260 mm - (14 ft 0 in) Total Wing Area: 25.81 m² - (277.8 ft²)

4. Engine:

4.1. Model: 1 Pratt & Whitney Canada (PWC) PT6A-67B

turboprop engine, flat rated at 1200 shp for takeoff.

4.2 Type Certificate: TCCA Type Approval No. E21



4.3 Engine Limitations:

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	Torque PSI [ft-lbs] (kgm)	Prop. shaft Speed (r.p.m.)	Maximum Permissible Interstage Temperature (°C)
Takeoff	1200	104	44.34 [3708] (512.7)	1700	800
Max. continuous Max. climb Max. cruise	1000	104	36.95 [3090] (427.2)	1700	760
Normal Climb Normal Cruise		As per Airo	craft Flight M	anual charts	
Starting Limits (5 sec.)	-	-	-	-	1000
Transient (20 sec.)	-	104	61.00 [5100] (705.1)	1870	870

Note: 100% Gas Generator Speed = 37'468 RPM

Oil Temperature:

 $\begin{array}{lll} \text{Starting:} & -40^{\circ}\text{C (min.)} \\ \text{Idle:} & -40^{\circ}\text{C} \div 110^{\circ}\text{C} \\ \text{Transient:} & -40^{\circ}\text{C} \div 110^{\circ}\text{C} \\ \text{Take-off:} & +10^{\circ}\text{C} \div 110^{\circ}\text{C} \\ \text{Max. Continuous:} & +10^{\circ}\text{C} \div 105^{\circ}\text{C} \\ \text{Max. Reverse:} & +10^{\circ}\text{C} \div 105^{\circ}\text{C} \end{array}$

5. Flight Load factor Limits:

Flaps up: $+3.4 \, \text{g}, -1.36 \, \text{g}$ Flaps down: $+2.0 \, \text{g}, -0.0 \, \text{g}$

6. Propeller:

6.1 Model: 1 Hartzell HC-E4A-3D/E10477K

or HC-E4A-3D/E10477SK

6.2 Type Certificate: FAA TC No. P10NE

6.3 Number of blades: 4 (Aluminum)

6.4 Diameter: 2,670 mm

6.5 Sense of Rotation: Propeller rotates Clockwise in view of flight direction

6.6 Pitch: Nominal pitch angle at 1,067 m (42") station

Minimum on ground: 17° Minimum in flight: 6°

Reverse (negative): $-17.50^{\circ} \pm 0.5^{\circ}$ Feathered: $79.60^{\circ} \pm 0.5^{\circ}$ Fine Pitch $19^{\circ} \pm 0.2^{\circ}$



6.7 Propeller Limits: Diameter: 104 in (2.642 m) to 105 in (2.667 m)

cropping of blade tips not permitted.

Stabilized ground operations between 350 and 950

rpm are prohibited.

Propeller blade life limit on condition.

7. Fluids:

7.1 Fuel: Refer to the latest revision of Pratt & Whitney Service

Bulletin No. 14004 (including JET A, JET A-1, JET B,

JP4).

Fuel Anti-Ice Additive compliant with Specification MIL-DTL-27686 or MIL-DTL-85470 must be used for all flight operations in ambient temperatures below

0°C.

7.2 Oil: Synthetic turbine oil conforming to PWA 521, Type II.

For acceptable oil brands see Pratt & Whitney Service

Bulletin No. 14001.

8. Fluid capacities:

8.1 Fuel:

Total: 1540 lt - (406.8 US Gal)
Usable: 1522 lt - (402.1 US Gal)
Unusable: 14.9 kg - (32.9 lbs)

8.2 Oil:

Total: 13.6 lt - (3.6 US Gal) Usable quantity: 5.68 lt - (1.5 US Gal)

9. Air Speeds:			KCAS
VMO	(maximum operating speed)		240
MM0	(maximum operating Mach number)		0.48
VD	(maximum diving speed)		280
MD	(maximum operating Mach number)		0.58
VA	(maneuvering speed)		170
VO	(max. maneuvering operating speed)	at 4740 kg	166
		at 4500 kg	161
		at 4100 kg	154
		at 3200 kg	136
		at 2600 kg	123
VFE	(max. flap extended speed)	up to 15°	165
		above 15°	130
VFO	(max. flap operating speed)	up to 15°	165
		above 15°	130
VLO	(maximum landing gear operating speed)		180
VLE	(maximum landing gear extended speed)		240

10. Maximum Operating Altitude: 9144 m / 30000 ft

11. Approved Operations Capability: IFR Day/Night; VFR Day/Night



12. Maximum Masses:

Taxi and ramp:	4760 kg - (10494 lbs)
Take-off:	4740 kg - (10450 lbs)
Landing:	4500 kg - (9921 lbs)
Zero fuel:	4100 kg - (9039 lbs)

13. Centre of Gravity Range: Straight line variation between limits given.

Weight	From	То
4700 kg (10450 lbs)	5.898 m (232.20")	6.107 m (240.43")
4500 kg (9921 lbs)	5.898 m (232.20")	6.120 m (240.94")
3700 kg (8157 lbs)	5.693 m (224.13")	6.120 m (240.94")
3600 kg (7937 lbs)	5.693 m (224.13")	6.172 m (242.99")
3000 kg (6614 lbs)	5.693 m (224.13")	6.172 m (242.99")
2600 kg (5732 lbs)	5.607 m (220.75")	5.728 m (225.47")
4500 kg (9921 lbs) 3700 kg (8157 lbs) 3600 kg (7937 lbs) 3000 kg (6614 lbs)	5.898 m (232.20") 5.693 m (224.13") 5.693 m (224.13") 5.693 m (224.13")	6.120 m (240.94" 6.120 m (240.94" 6.172 m (242.99" 6.172 m (242.99"

Empty Weight C.G. Range None

14. Datum: 3.000 m (118.11") forward of Frame 10 (foremost

cabin frame = firewall)

15. Levelling Means: Refer to the "Pilot's Operating Handbook and

FOCA/EASA Approved Flight Manual", Section 6.

16. Minimum Flight Crew: 1 Pilot

17. Maximum Passenger Seating Capacity: 9 PAX excluding pilot seats.

Refer to the "Pilot's Operating Handbook and FOCA/EASA Approved Flight Manual", Section 6., for passengers and flight crew loading instructions and

approved configurations.

18. Baggage/ Cargo Compartments: Refer to the "Pilot's Operating Handbook and

FOCA/EASA Approved Flight Manual", Section 6.

19. Wheels and Tyres: Dimensions Ply Rating Speed Rating

 Nose Landing Gear:
 17.5x6.25-6
 8 (PR)
 160 (MPH)

 Main Landing Gear:
 8.50x10
 8 (PR)
 160 (MPH)

20. (Reserved)



C.IV. Operating and Service Instructions

1. Flight Manual (AFM/POH):

Airplane operation must be in accordance with the FOCA/EASA approved "Pilot Operating Handbook" (POH) and AFM supplements as define below:

a. S/N 684 up to S/N 999 Pilatus Report PC-12 no. 02211

July 14th, 2001 and later approved revisions. (PC-12/47 data contained in AFMS No.33.)

2. Maintenance Manual (AMM):

Airplane maintenance must be in accordance with the document as define below:

All PC-12 S/N up to 999 Pilatus

Pilatus Report no. 02049

3. Structural Repair Manual (SRM):

Airplane Repairs must be in accordance with the document as define below:

All PC-12 S/N up to 999

Pilatus Report no. 02050

4. Service Bulletins (SBs):

All Pilatus PC-12 Bulletin are listed in the following document:

All PC-12 S/N Pilatus Report no. 02086

5. Flight into icing conditions:

PC-12/47 variant may be operated in known icing conditions.

C.V. Operational Suitability Data (OSD)

1. Master Minimum Equipment List (MMEL): Pilatus Report PC-12 No 02395, latest approved

revision

2. Flight Crew Data (FCD) not required (see Note 4 in Section E)



SECTION D: PC-12/47E

D.I. General

1. Type/ Model

1.1 Type: PC-12 1.2 Model: PC-12/47E

2. Airworthiness Category: 14 CFR Part 23 Normal Category

3. Manufacturer: Pilatus Aircraft Ltd.

Ennetbürgerstrasse 101, 6371 Stans

Switzerland

4. EASA Type Certification Application Date: December 6th, 2004

5. State of Design Authority: Switzerland
 6. EASA Type Certification Date: March 28th, 2008

D.II. EASA Certification Basis

1. Reference Date for determining the

applicable requirements: Same as EASA certification application date

2. Airworthiness Requirements: US 14 CFR FAR Part 23, Normal Category, including

Amendments 23-1 through 23-42, effective February

4th, 1991.

3. Certification Basis:

3.A The certification basis for the S/N 545 and S/N 1001 to 1944

3.A.1 The certification basis for the S/N 545 and S/N 1001 to 1944 consists of the airworthiness requirements as per D.II.2 as amended by:

US 14 CFR FAR Part 23, Sections

23.49(c)	(23-44)
23.143 c	(23-50)
23.301	(23-48)
23.305 a	(23-45)
23.335 a,b,c,d	(23-48)
23.361 a,b2	(23-45)
23.371 a	(23-48)
23.479 b,c	(23-45)
23.561 b2-3,c3	(23-48)
23.562 d	(23-44)
23.562 d1	(23-50)
23.571 a	(23-45)
23.572 a1,b1	(23-45)
23.607 c	(23-48)
23.613	(23-45)



23.629 a,b,c,d,e,f2	(23-48)
23.773 a1-2	(23-45)
23.1303 a,b,c,d,e,f	(23-49) see Note 7 Section D.IV
23.1303 c	(23-62) see Note 7 Section D.IV
23.1305 c3	(23-43)
23.1307	(23-49)
23.1311	(23-49)
23.1322 e	(23-43)
23.1323 c	(23-49)
23.1326 a,b	(23-49)
23.1329	(23-49)
23.1331 a,b1-2, c	(23-43)
23.1351 b2-3,c,c1-5,g	(23-49)
23.1353 h	(23-49)
23.1357 a,e	(23-43)
23.1359	(23-49)
23.1361 a,b,c	(23-49)
23.1365 b,c,c1,d,e,f	(23-49)
23.1431 a,b,c,d,e	(23-49)
23.1507	(23-45)
23.1525	(23-45)
23.1543 c	(23-50)
23.1555 e2	(23-50)

3.A.2. Special Conditions:

- B-1 Stall Identification & Recovery Characteristics
- **B-3 Steep Approach Landings**
- C-1 Horizontal Tail Loads
- C-2 Horizontal Tail Loads (Rocking Motions)
- C-3 Dynamic Behaviour of the Landing Gear
- C-4 Seat Head Rest & Supporting Structure aft Facing Seats
- D-1 Hinges (Strength & Rigidity)
- D-2 Doors and Exits
- D-3 Composite Materials for Secondary Structure
- E-2 Composite Cowling (Toxics)
- FOCA CQF 98-02, September 15th, 1993
- F-1 Protection from the Effects of HIRF
- F-2 Protection from the Indirect Effects of Lightning
- F-3 Human Factors Aspects of Flight Deck Design
- F-9 Integrated Modular Avionics (IMA)
- 3.A.3. Exemptions: None
- 3.A.4. Deviations: None
- 3.A.5. Equivalent Safety Findings:

FAR 23.221(a)(2) [FOCA CQF 91-04] Spin Resistance FAR 23.841(b)(6) [FOCA CQF 21-03] Pressure cabin warning altitude

F-10 Individual Circuit Protection with IMA System

F-11 ASI Flaps Markings

F-12 Probes OFF Caution



3.A.6. Environmental Protection:

Noise: US Federal Aviation Regulation Part 36, Appendix G,

including Amendments 36-1 through 36-28, effective

January 4th, 2006.

ICAO Annex 16: Environmental Protection, Third Edition, Amdt 7, effective March 21st, 2002; Volume

1, Part II, Chapter 6 and 10.

Emissions: US Federal Aviation Regulation Part 34, (Fuel

venting/emissions), effective September 10th, 1990.

3.B The certification basis for the S/N 1720 and S/N 2001 and subsequent

3.B.1 The certification basis for the major changes listed in the Note 12, which are installed on S/N 1720 and S/N 2001 and subsequent, consists of the airworthiness requirements as per D.II.2 and 3.A.1 as amended by:

US 14 CFR FAR Part 23, Sections 23.613 (23-45);

23.907 (c) (23-59);

CS-23 paragraphs at Amendment 4 23.63; 23.69; 23.147; 23.175; 23.177; 23.181;

23.337; 23.341; 23.347; 23.361; 23.443; 23.572; 23.629; 23.672; 23.677 (a)(d); 23.905; 23.1306; 23.1308; 23.1309; 23.1321; 23.1365; 23.1589.

3.B.2 Special Conditions E-01 Turbine Engine Installation – Rain Ingestion;

F-23 Auto Throttle (AT);

Special Conditions as per 3.A.1 but not applicable for S/N 1720 and S/N 2001 and subsequent:

F-01 Protection from the Effects of HIRF (Sec. 23.1308 is applicable);

F-02 Protection from the Indirect Effects of Lightning Strike (Sec. 23.1306 and 23.867 are applicable);

F-09 Integrated Modular Avionics (IMA) (AMC 20-170 is applicable).

3.B.3 Exemptions Reserved

3.B.4 Deviations Reserved

3.B.5 Equivalent Safety Findings E-03 Interconnected Fuel Tanks without

Interconnected Tank Airspaces

3.B.6 Environmental Protection



Noise Requirements: As per TCDSN EASA.A.089 Issue 8: ICAO Annex 16,

Volume I Edition / Amendment Chapter 10

(10.4b).

Fuel Venting and Exhaust Emission Requirements:

As per 3.A.6 Emissions

D.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: 500.00.12.020 (Note 12 Section D.IV)

2. Description: The PC-12/47E is a large single-engine turboprop multipurpose aircraft

designed to perform a wide range of missions. Design features include:

- A pressurized, large volume cabin quickly convertible from all-passenger to

- Retractable landing gear with trailing-link main landing gear capable of grass

and unprepared field operations.

- Complete icing protection for flight into known icing conditions (see Note

D.IV.5)

3. Dimensions:

Main Wing Span: 16'280 mm - (53 ft 5 in) increase to 16'310 mm - (53

all-cargo or a combination of passenger/cargo configurations.

ft 6 in) with LED lights installed

16'315 mm – (53 ft 6 in) MSN 1776 and up

Length: 14'408 mm - (47 ft 3 in) Height: 4'260 mm - (14 ft 0 in) Total Wing Area: 25.81 m² - (277.8 ft²)

4. Engine:

4.1.A S/N 545 and S/N 1001 to 1944: 1 Pratt & Whitney Canada (PWC) PT6A-67P

turboprop engine, flat rated at 1200 shp for takeoff.

4.1.B S/N 1720 and S/N 2001: 1 Pratt & Whitney Canada (PWC) PT6E-67XP

turboprop engine, flat rated at 1200 shp for takeoff.

(Note 12 Section D.IV)

4.2 Type Certificate: TCCA Type Approval No. E21

4.3 Engine Limitations (PT6A-67P) (MSN 545, 1001 to 1944):

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	Torque PSI [ft-lbs] (kgm)	Prop. shaft Speed (r.p.m.)	Maximum Permissible Interstage Temperature (°C)
Takeoff	1200	104	44.34 [3708] (512.7)	1700	850
Max. continuous Max. climb	1200	104	44.34 [3708] (512.7)	1700	820
Max. cruise	1000	104	36.95 [3090] (427.2)	1700	820
Normal Climb Normal Cruise	As per Aircraft Flight Manual charts				
Starting Limits (5 sec.)	-	-	-	-	1000
Transient (20 sec.)	-	104	61.00 [5100] (705.1)	1870	870

4.4 Engine Limitations (PT6E-67XP) (MSN 1720, 2001 and up):

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	Torque PSI [ft-lbs] (kgm)	Prop. shaft Speed (r.p.m.)	Maximum Permissible Interstage Temperature (°C)
Takeoff	1200	104	44.84 [3750] (518.5)	1700	850
Max. continuous Max. climb	1200	104	44.84 [3750] (518.5)	1700	825
Max. cruise	1100	104	40.63 [3398] (4607.1)	1700	820
Normal Climb Normal Cruise	As per Aircraft Flight Manual charts				
Starting Limits (5 sec.)	-	-	-	-	1000
Transient (20 sec.)	-	104	61.00 [5100] (705.1)	1870	900

Note: 100% Gas Generator Speed = 37'468 RPM

Oil Temperature:

 $\begin{array}{lll} \text{Starting:} & -40^{\circ}\text{C (min.)} \\ \text{Idle:} & -40^{\circ}\text{C} \div 110^{\circ}\text{C} \\ \text{Transient:} & -40^{\circ}\text{C} \div 110^{\circ}\text{C} \\ \text{Take-off:} & +10^{\circ}\text{C} \div 110^{\circ}\text{C} \\ \text{Max. Continuous:} & +10^{\circ}\text{C} \div 105^{\circ}\text{C} \\ \text{Max. Reverse:} & +10^{\circ}\text{C} \div 105^{\circ}\text{C} \end{array}$

5. Flight Load factor Limits:

Flaps up: $+3.4 \, \text{g}, -1.36 \, \text{g}$ Flaps down: $+2.0 \, \text{g}, -0.0 \, \text{g}$



6. Propeller:

6.1 Model:

6.1.A Model for S/N 545, 1001 to 1575

Model Hartzell HC-E4A-3D/E10477SK

Type Certificate: FAA TC No. P10NE Number of blades: 4 (Aluminum)

6.1.B Model for S/N 1576 to 1944 (except for S/N 1720)

As per 6.1.A, or

Model: Hartzell HC-E5A-3A/ NC10245B Type Certificate: FAA TC No. P20NE (at issue 9)

Number of blades: 5 (Carbon Composite)

6.1.C Model for S/N 1720, 2001 and subsequent

Model: Hartzell HC-E5A-31A/ NC10245B (See Note 12 Section D.IV)

Type Certificate: FAA TC No. P20NE (introduced with issue 10)

Number of blades: 5 (Carbon Composite)

6.2 Diameter: 2,670 mm

6.3 Sense of Rotation: Propeller rotates Clockwise in view of flight direction

6.4 Pitch: Nominal pitch angle at 1,067 m (42") station

4-Blade Propeller 5-Blade Propeller

Minimum on ground: 17° 17° Minimum in flight: 6° 6°

 Reverse (negative):
 $-17.50^{\circ} \pm 0.5^{\circ}$ $-17.50^{\circ} \pm 0.5^{\circ}$

 Feathered:
 $79.60^{\circ} \pm 0.5^{\circ}$ $80.0^{\circ} \pm 0.5^{\circ}$

 Fine Pitch
 $19^{\circ} \pm 0.2^{\circ}$ $14.7^{\circ} \pm 0.2^{\circ}$

6.5 Propeller Limits: Diameter: 104 in (2.642 m) to 105 in (2.667 m)

cropping of blade tips not permitted. Propeller blade life limit on condition.

6.5.A S/N545, 1001 to 1575 Stabilized ground operations between 350 and 950

rpm are prohibited.

6.5.B S/N 1576 to 1944 (Exc. 1720) Stabilized ground operations between 350 and 950

rpm are prohibited.

6.5.C S/N 1720, 2001 and up Stabilized ground operations between 350 and 900

rpm are prohibited (See Note 12 Section D.IV).

7. Fluids:

7.1 Fuel: Refer to the latest revision of Pratt & Whitney Service

Bulletin No. 14004 (including JET A, JET A-1, JET B,

JP4).

7.1.A S/N 545, 1001 to 1944: Fuel Anti-Ice Additive compliant with Specification

MIL-DTL-27686 or MIL-DTL-85470 must be used for



all flight operations in ambient temperatures below

0°C.

7.1.B S/N 1720, 2001 and up: Fuel Anti-Ice Additive is not necessary for operations

within the aircraft certified outside air temperature limits. Refer to AFM 02406 Section 2 for approved Fuel Anti-Ice Additives that could be used (Ref also

note 12, Section D.IV).

7.2 Oil: Synthetic turbine oil conforming to PWA 521, Type II.

For acceptable oil brands see Pratt & Whitney Service

above 15°

130

180

240

Bulletin No. 14001.

8. Fluid capacities:

8.1 Fuel:

Total: 1540 lt - (406.8 US Gal)
Usable: 1522 lt - (402.1 US Gal)
Unusable: 14.9 kg - (32.9 lbs)

8.2 Oil:

Total: 13.6 lt - (3.6 US Gal)
Usable quantity: 5.68 lt - (1.5 US Gal)

9. Air Sp	eeds:			KCAS
	VMO	(maximum operating speed)		240
	MM0	(maximum operating Mach number)		0.48
	(Note 12:	Section D.IV)		0.49
	VD	(maximum diving speed)		280
	MD	(maximum operating Mach number)		0.58
	VA	(maneuvering speed)		170
	VO	(max. maneuvering operating speed)	at 4740 kg	166
			at 4500 kg	161
			at 4100 kg	154
			at 3200 kg	136
			at 2600 kg	123
	VFE	(max. flap extended speed)	up to 15°	165
			above 15°	130
	VFO	(max. flap operating speed)	up to 15°	165

10. Maximum Operating Altitude: 9144 m / 30000 ft

11. Approved Operations Capability: IFR Day/Night; VFR Day/Night

(maximum landing gear operating speed)

(maximum landing gear extended speed)

12. Maximum Masses:

VLO

VLE

Taxi and ramp: 4760 kg - (10494 lbs)
Take-off: 4740 kg - (10450 lbs)
Landing: 4500 kg - (9921 lbs)
Zero fuel: 4100 kg - (9039 lbs)

13. Centre of Gravity Range: Straight line variation between limits given.

Weight From To



4700 kg (10450 lbs)	5.898 m (232.20")	6.107 m (240.43")
4500 kg (9921 lbs)	5.898 m (232.20")	6.120 m (240.94")
3700 kg (8157 lbs)	5.693 m (224.13")	6.120 m (240.94")
3600 kg (7937 lbs)	5.693 m (224.13")	6.172 m (242.99")
3000 kg (6614 lbs)	5.693 m (224.13")	6.172 m (242.99")
2600 kg (5732 lbs)	5.607 m (220.75")	5.728 m (225.47")

Empty Weight C.G. Range None

14. Datum: 3.000 m (118.11") forward of Frame 10 (foremost

cabin frame = firewall)

15. Levelling Means: Refer to the "Pilot's Operating Handbook and EASA

Approved Flight Manual", Section 6.

16. Minimum Flight Crew: 1 Pilot

17. Maximum Passenger Seating Capacity: 9 PAX excluding pilot seats.

Refer to the "Pilot's Operating Handbook and EASA Approved Flight Manual", Section 6., for passengers and flight crew loading instructions and approved

configurations.

18. Baggage/ Cargo Compartments: Refer to the "Pilot's Operating Handbook and EASA

Approved Flight Manual", Section 6.

19. Wheels and Tyres: Dimensions Ply Rating Speed Rating
Nose Landing Gear: 17.5x6.25-6 8 (PR) 160 (MPH)
Main Landing Gear: 8.50x10 8 (PR) 160 (MPH)

20. (Reserved)

D.IV. Operating and Service Instructions

1. Flight Manual (AFM/POH):

Airplane operation must be in accordance with the EASA approved "Pilot Operating Handbook" (POH) and AFM supplements as define below:

a. S/N 545 and S/N 1001 to 1944 Pilatus Report PC-12 no. 02277

Revision 6 or higher.

b. S/N 1720 and S/N 2001 and up Pilatus Report PC-12/47E no. 02406

Issue 02, Revision 00 or higher

2. Maintenance Manual (AMM):

Airplane maintenance must be in accordance with the document as define below:

S/N 545 and S/N 1001 to 1944 Pilatus Report no. 02300.
 S/N 1720 and S/N 2001 and up Pilatus Report no. 02436

3. Structural Repair Manual (SRM):

Airplane Repairs must be in accordance with the document as define below:

All PC-12 S/N up to 999 Pilatus Report no. 02050 All PC-12 S/N 1001 and up Pilatus Report no. 02305

4. Service Bulletins (SBs):

All Pilatus PC-12 Bulletin are listed in the following document:

All PC-12 S/N Pilatus Report no. 02086

5. Flight into icing conditions:

PC-12/47E variant may be operated in known icing conditions.

6. RVSM capability for PC-12/47E: MSN 545 and MSN 1001 up to 1944:

All airplanes equipped with Honeywell APEX system are RVSM capable provided the operator incorporates and follows airplane flight manual supplement (AFMS) No. 4 Revision 1 dated May 28, 2009 or later version and Airplane Maintenance Manual document 02300 Revision 2 (12-B-AM-00-00-00-1), dated June 3, 2009 or later version.

RVSM for MSN 1720 and 2001 and up refer to Note 12.

- 7. PC-12/47E MSN 1300, MSN 1451 up to 1944: These airplanes are fitted with the Electromechanical Landing Gear (eLDG) and must be operated and maintained in accordance with the Airplane Flight Manual, document no. 02277, Supplement 11, issue dated March 2, 2012 or later revisions and Airplane Maintenance Manual, document number 02300, Airworthiness Limitations 12-B-04-00-00-00A-000A-A, dated November 26, 2013 or later EASA approved revisions.
- 8. The PC-12/47E aircraft is Transmitting-PED tolerant.
- 9. PC-12/47E MSN 1576 and subsequent as well as aircraft which have SB 34-042 (Introduction of the L3 ESIS with linked independent magnetometer) embodied, can have the standby magnetic compass removed. In this case the aircraft is compliant with FAR 23.1303(c) at 23-62.
- 10. PC-12/47E MSN 1576 up to 1944: These airplanes are eligible to be fitted with the Hartzell 5-Blade Composite Propeller. The aircraft must be operated in accordance with the Airplane Flight Manual, document no. 02277 revision 15 or later versions and Airplane Maintenance Manual, document number 02300 Revision 14, dated November 06, 2015 or later EASA approved revisions.
- 11. Parker Wheels have a STC SA1376CH, but have been approved for TC inclusion via a reclassified Pilatus Minor change in Jul 2010. The Parker Wheels is now the only installation used in production aircraft since MSN 1231.



- 12. The PC-12/47E MSN 1720, MSN 2001 and subsequent: These airplanes are fitted with:
 - Pratt and Whitney PT6E-67XP engine with Electronic Engine Control (EEC).
 - Hartzell 5-Blade Composite Propeller
 - Revised Fuel System enabling the use of fuel without anti-icing additives with the fuel system basic architecture and means of operation maintained,
 - APEX Build 12 or later versions, providing functions such as: Autothrust (Optional), Tactile Feedback, Emergency Descent Mode and Low Propeller Speed (Optional).
 - New Executive Seats and larger cabin windows.
 - Electromechanical Landing Gear (eLDG)
 - The airplanes are RVSM capable.

This MSN range of airplanes must be operated and maintained in accordance with the Airplane Fight Manual, document no. 02406 issue 02, revision 00 or later revisions and aircraft with the optional Low Propeller Speed in accordance with the AFM Supplement 02439 issue 01, revision 00 or later revisions and Airplane Maintenance Manual, document no. 02436, Airworthiness Limitations 12-C-04-00-00-00A-000A-A, or later EASA approved revisions.

D.V. Operational Suitability Data (OSD)

1. Master Minimum Equipment List (MMEL): Pilatus Report PC-12 No 02395, latest approved

revision

2. Flight Crew Data (FCD) not required (see Note 4 in Section E)

SECTION ADMINISTRATIVE

E. Notes for all PC-12 variants

- 1. Requirements for the issue of the C. of A.
 - The minimum required equipment as prescribed in the applicable airworthiness regulations must be installed on the individual aircraft for certification.
 - Current weight and balance data, a list of equipment included in the certification empty weight and loading information when necessary must be provided for each aircraft when the C.o.A. will be issued.
 - The certification empty weight and balance data shall include the unusable fuel and the total engine oil as specified:
 - Airplane Flight Manual is required.

2. Placards

All required placards as listed in the Pilatus Aircraft Flight Manual, and subsequent approved revisions, must be installed in the appropriate locations.

3. Continued Airworthiness

- Airworthiness Limitations are contained in Chapter 4 of the Pilatus AMM. These Limitations may not be changed without EASA approval.
- Current weight and balance data together with a list of equipment included in the certificated empty weight, and loading instructions, when necessary, must be provided for each airplane at the time of original certification.
- The basic variant PC-12 (S/N 101 683) may be converted to a variant PC-12/45 by executing Pilatus Service Bulletin No. 04-001.
- Only interior configurations described in the official Pilatus AFM/POH are approved for installation in the PC-12, PC-12/45, PC-12/47 and PC-12/47E aircraft. These configurations have been shown to meet the dynamic and HIC test requirements of FAR 23.562. Any alterations to these approved interior layouts must be shown to meet FAR 23.562.

OSD

In the absence of an operational evaluation at the entry into service of the PC-12, a type-rating requirement was established by the JAA. With the outcome of the OSD-FCD aircraft evaluation from 02 - 06 Nov 2015 summarized in Pilatus Report PC-12 No 02394 all the PC-12 are thereafter subject to a Class Rating (prior this date it was a Type Rating) and OSD-FCD is no longer applicable to the PC-12.

5. Passengers

Maximum number is 9 PAX in the cabin. During single pilot operation, the pilot occupies the left hand cockpit seat and an additional passenger may occupy the right hand cockpit seat.

Acronyms & Abbreviations

AMM - Aircraft Maintenance Manual

CRI - Certification Review Item

FAR - Federal Aviation Regulations

FOCA - Federal Office of Civil Aviation

EASA - European Union Aviation Safety Agency

IAS - Indicated Airspeed

KIAS - Indicated Airspeed [knots]



POH - Pilot's Operating Handbook

RPM - Rotations per Minute

FIKI - Flight Into Known Icing

TCDS - Type Certificate Data Sheet

Type Certificate Holder Record

Pilatus Aircraft Ltd. Ennetbürgerstrasse 101, 6371 Stans Switzerland

Change Record

Issue	Date	Changes	TC Issue No. & Date
Issue 01	29 June 2006	Initial issue of EASA TCDS based on the Swiss FOCA TCDS	
		F-56-30, Revision 10, dated December 14th, 2005.	
Issue 02	04 July 2006	PC-12/47 eligible S/N 684 and up. Typo corrected.	
Issue 03	28 March 2008	PC-12/47E eligible S/N 545 and MSN 1001 and up.	
Issue 04	04.Nov.2009	Added a Note 5 for the RVSM capability of PC-12/47E	
Issue 05	11.Feb 2014	Corrected fine pitch tolerance and added alternative	
		Nose and Main wheel tires. Corrected Typo for Vo at 4740kg.	
Issue 06	12.Nov.2015	Certification basis for PC-12/47E updated indicating FAR 23.1303 (c) at amdt 62 for the removal of non-stabilized compass (Whisky compass). Added the Hartzell 5-Blade composite propeller as a new installation on PC-12/47E. Added Note 6 for eLDG installation on PC-12/47E. Added Note 7 for the 5-Blade propeller, certification basis for removed standby compass and the PC-12/47E is T-PED tolerant. Added Note 8 for the Parker Nose- and Main wheels and brakes as an alternative on the PC-12/47E. Added section V to refer to Operational Suitability Data (OSD) including Note and effected CB.	
Issue 07	21 Dec 2016	The reference to the tyre manufactures and part numbers has been deleted since the approved manufacturers and tyre part numbers are controlled in the IPC. OSD FCD acc ref Note 4 in Section Administrative	
Issue 08	21 Oct 2019	Transferred information to the new EASA template Corrected the reference of the ALS in Note 6. Edited Section D.II: Added Special Condition B-3 Steep Approach for the PC-12/47E and added the Certification Basis for PC-12/47E MSN 1720, 2001 and up	

		Edited Section D.III: Added Technical Characteristics with	
		reference to Note 12.	
		Edited Section D.IV: Added reference to new Operating	
		and Service Instructions. Added Note 12.	
Issue 9	14 Nov 2019	Removal of Fuel Temp limit of -20°C for S/N 1720, 2001 and up. Text readability improvement to help aviation professionals.	