TYPE-CERTIFICATE

DATA SHEET

NO. EASA.A.058

for
PZL M28

Type Certificate Holder
Polskie Zakłady Lotnicze Sp. z o. o.

Wojska Polskiego 3
39-300 Mielec
POLAND

For models: PZL M28 00, PZL M28 02, PZL M28 05

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Contents

SECTION A: PZL M28 00

A.I. General

1. Data Sheet No.:	A.058 Issue: 01 Date: October 24, 2005
2. a) Type: b) Model: c) Variant:	PZL M28 PZL M28 00 - passenger (18 pax) transport - cargo transport - passenger/cargo transport - paradrop
3. Airworthiness Category:	Commuter
4. Type Certificate Holder:	Polskie Zakłady Lotnicze Sp. z o. o.
5. Manufacturer:	Polskie Zakłady Lotnicze Sp. z o. o.
6. Certification Application Date:	Sep 14, 2004 (to EASA)
7. (Reserved) National Certifying Authority	Civil Aviation Office, Poland
8. (Reserved) National Authority Type Certificate Date:	May 15, 1995 *This EASA Type Certificate replaces the Polish CAO Type Certificate No. BB-199/1*
9. Reserved	none

A.II Certification Basis

1. Reference Date for determining the applicable requirements:	Oct 11, 1986
2. Airworthiness Requirements:	FAR Part 23, including Amendment 23 - 34
3. Special Conditions:	None
3. Exemptions:	None
4. Deviations:	None
5. Equivalent Safety Findings:	None
6. Requirements elected to comply:	none
7. Environmental Standards:	FAR Part. 34 Subp. B, FAR Part. 36 App. G.
8. (Reserved) Additional National Requirements:	none
9. (Reserved)	none

A.III Technical Characteristics and Operational Limitations

1. Type Design Definition: specification sheet No. 28.15.0000.000.000
2. Description: The PZL M28 Model 00 is an all metal strut-braced high wing twin engine turboprop STOL airplane, with twin vertical tails and a tricycle non-retractable landing gear featuring a steerable nose wheel
3. Equipment:
   - Standard: As defined in Section 7 of the Airplane Flight Manual ref No. M28/LTO-3/27/95
   - Optional & Operational: As defined in Section 9 of the Airplane Flight Manual Ref. No. M28/LTO-3/27/95
4. Dimensions:
   - Length 13.10 m (43 ft)
   - Height 4.90 m (16 ft 1 in)
   - Wing span 22.06 m (72 ft 4 in)
   - Wing area 39.72 m2 (427.5 sq. ft.)
5. Engine:
   - 5.1.1 Model: PT6A-65B turboprop with a free turbine, reduction ratio of 0.0568:1
   - 5.1.2 Type Certificate: E4EA
   - 5.1.3 Limitations: For power-plants limits refer to Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95,
   - 5.1.4. Engine Performance:

	Shaft Horse Power	Torque	Prop Speed	Turbine Speed	Exhaust Gas Temp.
	SHP	PSIG	rpm	%	°C
Takeoff	1100*	43.34	1700	104	820
Max. Continuous	1100**	43.34	1700	104	810
Max. Cruise	1000***	43.34	1700	104	800

* attainable up to 50.5 °C; ** attainable up to 45.5 °C; *** attainable up to 42.5 °C

   - 5.1.5 Number of engines: 2
6. Load factors:
   - Flaps Up n=+3.0 , -1.0
   - Flaps Down n=+2.0 , 0

7. Propeller:

7.1 Model:	HC-B5MP-3D/M10876ANSK five-blade, all-metal, constant-speed, with WOODWARD speed governor (3032082A)
7.2 Type Certificate:	P44GL
7.3 Number of blades:	5 (five)
7.4 Diameter:	2.820 m (9 ft 3in)
7.5 Sense of Rotation:	Clockwise

8. Fluids:

8.1 Fuel:	Aviation kerosene type JET A, JET A-1, JET A-2 and approved equivalents as per P&WC Bulletin No. 13044. Equivalents: F34, F35, F40, F43, F44, JP-4, JP-5, JP-8, AVTUR, AVTAG, AVTAC, CAN/C.G.SB.3.23-M86, CAN/C.G.SB.3.22-M86, CAN/C.G.SB.3.GP-24Ma, AIR 3404, AIR 3405, AIR 3407, RT acc. to GOST 16564-71.
8.2 Oil:	Aero Shell Turbine Oil 500, Royco Turbine Oil 500, Mobil Jet Oil II, Castrol 5000, BP Turbo Oil 2380 - in accordance with Pratt & Whitney Bulletin No. 13001.
8.3 Coolant:	N/A

9. Fluid capacities:

9.1 Fuel:

- Wing with no auxiliary tanks	1960 l (518 US Gal.)
- Wing with auxiliary tanks	2440 l (645 US Gal.)
- Extra long-ferry fuel tank inside fuselage	2090 l (552 US Gal.)

9.2 Oil:	2 x 9.45 l (2.5 US gal)
9.3 Coolant system capacity:	N/A

10. Air Speeds:

Airspeed Limitations:		IAS (km/h)	CAS (km/h)
Max. Allowable Operating Speed V_{MO}		355	345
Design Maneuvering Speed, V_A		230	225
Max. Allowable Flap-Extended Speed, V_{FE}			
	Flaps 15°	215	210
	Flaps 40°	200	190

Max. Spoiler-Extended Speed, V_{NS}		
- outboard spoilers	215	210
- inboard spoilers	215	210
Minimum Control Speed, V_{MC}	135	130

11. Maximum Operating Altitude:

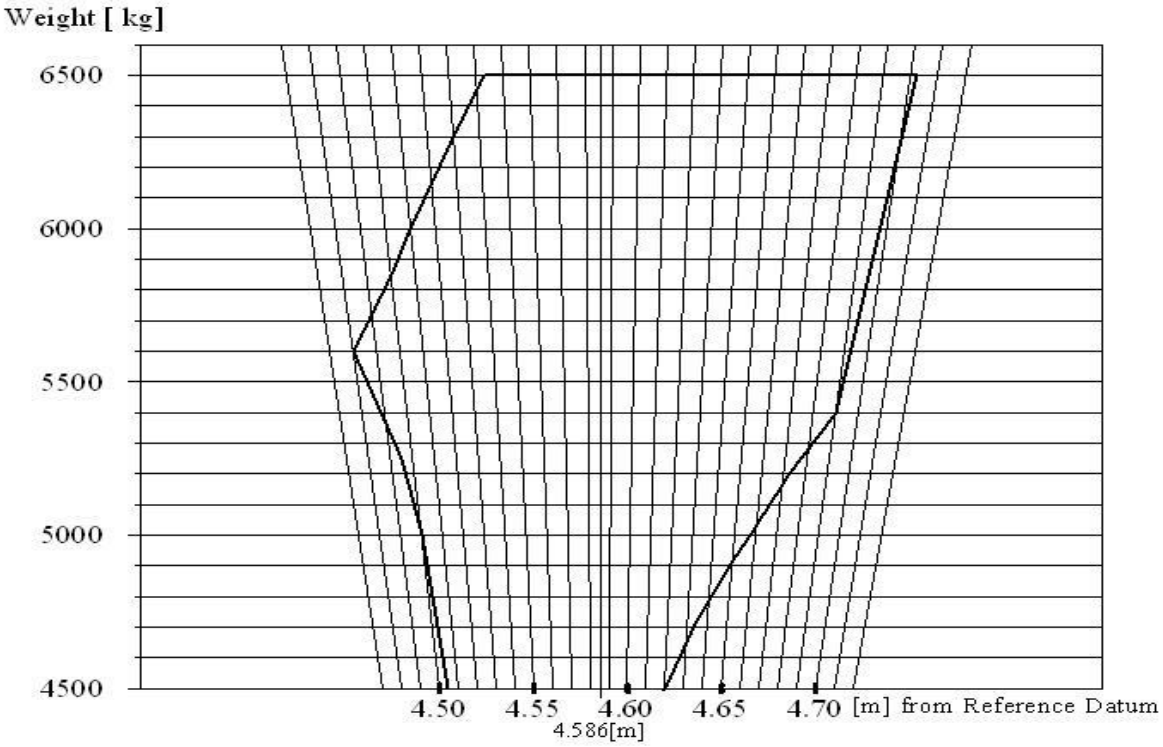
- without oxygen supply system 3000 m (9,842 ft)
- with crew oxygen supply system provided 7620 m (25,000 ft)

12. Allweather Operations Capability:
- VFR flights, day and night
- IFR flights, day and night

13. Weights:

Max. Takeoff	6500 kg
Max. Landing	6175 kg

14. Centre of Gravity Range:



15. Datum: 2.470 m (97.24 in) Frame No. 9, Forward
(see fig. 6.1, AFM, Chapter 6)

16. Control Surface Deflections:

Ailerons:	Up	$22^{o} \pm 1^{o}$
	Down	$16^{o}\ 20' \pm 1^{o}$
Aileron Trim Tab:	Up	$14^{o} \pm 1^{o}$
	Down	$14^{o} \pm 1^{o}$
Elevator:	Up	$27^{o} \pm 1^{o}$
	Down	$19^{o} \pm 1^{o}$
Elevator Trim Tab: (Elevator Neutral)	Up	$15^{o} \pm 1^{o}$
	Down	$25^{o} \pm 1^{o}$
Rudder LH:	Inboard	$16^{o} \pm 1^{o}$
	Outboard	$22^{o} \pm 1^{o}$
Rudder RH:	Inboard	$16^{o} \pm 1^{o}$
	Outboard	$22^{o} \pm 1^{o}$
Rudder Trim Tab: (Rudder Neutral)	Left	$15^{o} \pm 1^{o}$
	Right	$15^{o} \pm 1^{o}$
Wing Flaps:	Takeoff	$15^{o} \pm 1^{o}$
	Landing	$40^{o} \pm 1^{o}$
Spoilers:	Inboard	$45^{o} \pm 1^{o}$
	Outboard	$60^{o} \pm 1^{o}$

17. Levelling Means: 1LP = LH and RH levelling point on frame No. 9

(see fig. 6.1, AFM, Chapter 6)

18. Minimum Flight Crew: 2 (two) pilots

19. Maximum Passenger Seating Capacity: 18

20. Baggage/Cargo Compartments:

Max. Baggage Compartment Load: 150 kg

Max. Payload: 1750 kg

21. Wheels and Tyres: Main wheel tyre size 720 x 310 mm (28.30 x 12.20 in)

Nose wheel tyre size (Type 6.50x10 – GOOD YEAR)

561x169 mm (22.10x6.65 in)

22. Landing gear: Fixed, tricycle type, with a steerable nose wheel

Nose Wheel Controlling Angle	± 15 °
Nose Wheel Controlling Angle with Steering OFF	± 50 °

23. Max. Service Ceiling: 7620 m (25,000 ft)

24. Operating Ambient Temperature Range: -50°C to + 50°C

25. (Reserved):

A.IV Operating and Service Instructions

1 Flight Manual: Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95,

2. Technical Manual: PZL M28 Maintenance Manual Ref No. M28/4/95/LTO-33

3. Repair Manual: Repair Manual PZL M28 Airplane ref No. M28/1/2001

4. Manual for Operation: see related Flight Manual section 9.

5. Spare Parts Catalogue: Illustrated Parts Catalogue, ref No. M28/14/97/LTO-3

6. Table of Dimensions, Limits and Clearances: see Chapter 6 of appropriate Maintenance Manual

7. Instruments and aggregates: see for standard equipment:

As defined in Section 7 of the Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95,

for optional & operational equipment:

As defined in Section 9 of the Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95,

8. Airplane Service Life, and Component TBOs :
Airplane Service Life, Component TBOs as defined in Sec. 4 of M28 Maintenance Manual (M28/4/95/LTO-33) .

A.V Notes

1. Flight in known or forecast icing conditions is prohibited

2. This Type Certificate applies to aircraft S/N: AJEP1-01 and to AJE001-02 and up

3. When the ice protection system is installed, flight with this system operative is allowed but with consideration for note 1 (above).

SECTION B: PZL M28 02

B.I. General

1. Data Sheet No.:	A.058 Issue: 01 Date: October 24, 2005
2. a) Type:	PZL M28
b) Model:	PZL M28 02
c) Variant:	- passenger transport (18 passengers + 1 attendant seat) - passenger „Executive" (designation M28 02-E), 8 or 10 passenger seats (depending on seat model) + 2 attendants' seats - cargo transport - mixed passenger/cargo transport - paradrop - liquid-cargo transportation - long-range ferry
	For above listed versions the reinforced PZL M28 02-W variant with 7500 kg MTOW is approved.
3. Airworthiness Category:	Commuter
4. Type Certificate Holder:	Polskie Zakłady Lotnicze Sp. z o. o.
5. Manufacturer:	Polskie Zakłady Lotnicze Sp. z o. o.
6. Certification Application Date:	Sep 14, 2004 (to EASA)
7. National Certifying Authority	Civil Aviation Office, Poland
8. National Authority Type Certificate Date:	Feb 23, 1996 *This EASA Type Certificate replaces the Polish CAO Type Certificate No. BB-199/1*
9. Reserved	none

B.II Certification Basis

1. Reference Date for determining the applicable requirements:	Oct 11, 1986
2. Airworthiness Requirements:	FAR Part 23, including Amendment 23 – 34. For flight in known and forecast icing (FIKI) see certification basis for PZL M2805 model for FIKI.
3. Special Conditions:	None
3. Exemptions:	None
4. Deviations:	None
5. Equivalent Safety Findings:	None

6. Requirements elected to comply:	none
7. Environmental Standards:	FAR Part. 34 Subp. B, FAR Part. 36 App. G.
8. (Reserved) Additional National Requirements:	none
9. (Reserved)	none

B.III Technical Characteristics and Operational Limitations

1. Type Design Definition:	specification sheet No. 28.15.0000.000.000
2. Description:	The PZL M28 Model 02 is an all metal strut-braced high wing twin engine turboprop STOL airplane, with twin vertical tails and a tricycle non-retractable landing gear featuring a steerable nose wheel
3. Equipment:	
Standard:	As defined in Section 7 of the Airplane Flight Manual ref No. M28/LTO-3/27/95
Optional & Operational:	As defined in Section 9 of the Airplane Flight Manual Ref. No. M28/LTO-3/27/95
4. Dimensions:	
Length	13.10 m (43 ft)
Height	4.90 m (16 ft 1 in)
Wing span	22.06 m (72 ft 4 in)
Wing area	39.72 m2 (427.5 ft2)
5. Engine:	
5.1.1 Model:	PT6A-65B turboprop with a free turbine, reduction ratio of 0.0568:1
5.1.2 Type Certificate:	E4EA
5.1.3 Limitations:	For power-plants limits refer to Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95,

5.1.4. Engine Performance:

	Shaft Horse Power	Torque	Prop Speed	Turbine Speed	Exhaust Gas Temp.
	SHP	PSIG	rpm	%	°C
Takeoff	1100*	43.34	1700	104	820
Max. Continuous	1100**	43.34	1700	104	810
Max. Cruise	1000***	43.34	1700	104	800

* attainable up to 50.5 °C; ** attainable up to 45.5 °C; *** attainable up to 42.5 °C

5.1.5 Number of engines: 2

6. Load factors:

	For model M28 02 (7000 kg MTOW) and M28 02-W (7500 kg MTOW)	For model M28 02, for long-range ferry only (7500 kg MTOW)
Flaps Up	n=+3.0 , -1.0	n=+2.8 , -1.0
Flaps Down	n=+2.0 , 0	n=+2.0 , 0

7. Propeller:

7.1 Model: HC-B5MP-3D/M10876ANSK five-blade, all-metal, constant-speed, with WOODWARD speed governor (3032082A)

7.2 Type Certificate: P44GL

7.3 Number of blades: 5 (five)

7.4 Diameter: 2.820 m (9 ft 3in)

7.5 Sense of Rotation: Clockwise

8. Fluids:

8.1 Fuel: Aviation kerosene type JET A, JET A-1, JET A-2 and approved equivalents as per P&WC Bulletin No. 13044.

Equivalents: F34, F35, F40, F43, F44, JP-4, JP-5, JP-8, AVTUR, AVTAG, AVTAC, CAN/C.G.SB.3.23-M86, CAN/C.G.SB.3.22-M86, CAN/C.G.SB.3.GP-24Ma, AIR 3404, AIR 3405, AIR 3407, RT acc. to GOST 16564-71.

8.2 Oil: Aero Shell Turbine Oil 500, Royco Turbine Oil 500, Mobil Jet Oil II, Castrol 5000, BP Turbo Oil 2380 - in accordance with Pratt & Whitney Bulletin No. 13001.

8.3 Coolant: N/A

9. Fluid capacities:

9.1 Fuel: 1766 kg (2278 l), (3894 lbs; 602 US Gal.)

9.2 Oil: 2 x 9.45 l (2.5 US gal)

9.3 Coolant system capacity: N/A

10. Air Speeds:

Airspeed Limitations:	IAS (km/h)	CAS (km/h)
Max. Allowable Operating Speed V_{MO}	355	345
Design Maneuvering Speed, V_A	230	225
for PZL M28 02-W variant:	244	238

Max. Allowable Flap-Extended Speed, V_{FE}			
	Flaps 15°	215	210
	Flaps 40°	200	190
Max. Spoiler-Extended Speed, V_{NS}			
	- outboard spoilers	215	210
	- inboard spoilers	215	210
Minimum Control Speed, V_{MC}		153	146

11. Maximum Operating Altitude:

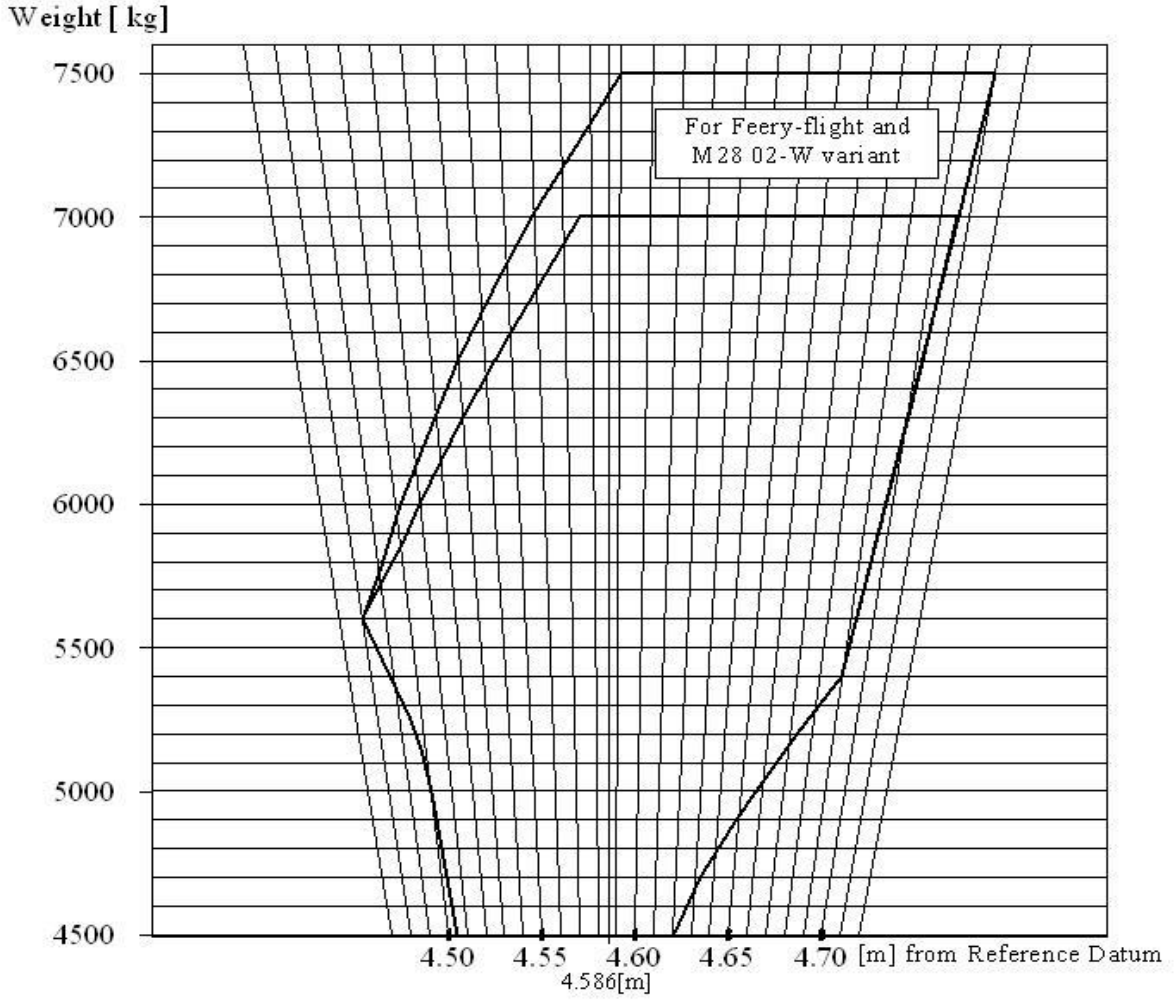
- without oxygen supply system 3000 m (9,842 ft)
- with crew oxygen supply system provided 7620 m (25,000 ft)

12. Allweather Operations
Capability: - VFR flights, day and night
- IFR flights, day and night

13. Weights:

Max. Takeoff	7000 kg
Max. Landing	6650 kg
Max. Takeoff for Ferry Flight	7500 kg
Max. Takeoff and Landing for M28 02-W variant	7500 kg

14. Centre of Gravity Range:



15. Datum: 2.470 m (97.24 in) Frame No. 9, Forward
(see fig. 6.1, AFM, Chapter 6)

16. Control Surface Deflections:

Ailerons:	Up	22° ± 1°
	Down	16° 20' ± 1°
Aileron Trim Tab:	Up	14° ± 1°
	Down	14° ± 1°
Elevator:	Up	27° ± 1°
	Down	19° ± 1°
Elevator Trim Tab: (*elevator neutral*)	Up	15° ± 1° (19° ± 1°)*
	Down	25° ± 1° (21° ± 1°)*

(*) On airplane S/N AJE001-01 only.

Rudder LH:	Inboard	16 º ± 1 º
	Outboard	22 º ± 1 º
Rudder RH:	Inboard	16 º ± 1 º
	Outboard	22 º ± 1 º
Rudder Trim Tab: *(rudder neutral)*	Left	15 º ± 1 º
	Right	15 º ± 1 º
Wing Flaps:	Takeoff	15 º ± 1 º
	Landing	40 º ± 1 º
Spoilers:	Inboard	45 º ± 1 º
	Outboard	60 º ± 1 º

17. Levelling Means: 1LP = LH and RH levelling point on frame No. 9 (see fig. 6.1 AFM, Chapter 6)

18. Minimum Flight Crew: 2 (two) pilots

19. Maximum Passenger Seating Capacity:

Passenger Seating Capacity	18 + 1 attendant seat
Passenger Seating Capacity in "Executive" version	8 or 10 passenger seats (depending on seat model) + 2 attendants' seats

20. Baggage/Cargo Compartments:

Max. Baggage in Under Fuselage Pod:	300 kg
Max. Payload:	2000 kg
Max. Baggage on Baggage Shelf:	150 kg 1)
Max. Hoist Capacity:	700 kg 1)

1) not applicable for „Executive" version

21. Wheels and Tyres: Main wheel tyre size 720 x 310 mm (28.30 x 12.20 in)
Nose wheel tyre size (Type 6.50x10 – GOOD YEAR) 561x169 mm (22.10x6.65 in)

22. Landing gear: Fixed, tricycle type, with a steerable nose wheel

Nose Wheel Controlling Angle	± 15 °
Nose Wheel Controlling Angle with Steering OFF	± 50 °

for M28 02-W variant:
- Main Gear: rocker-type with a single-chamber shock absorber,
- Nose Gear: rocker-type, with a double-chamber shock absorber,

Nose Wheel Controlling Angle	± 15 °
Nose Wheel Controlling Angle with Steering OFF	± 45 °

23. Max. Service Ceiling: 7620 m (25,000 ft)
24. Operating Ambient Temperature Range: -50˚C to + 50˚C
25. (Reserved):

B.IV Operating and Service Instructions

1 Flight Manual: Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95.

2 Technical Manual: PZL M28 Maintenance Manual Ref No. M28/4/95/LTO-33.

3. Repair Manual: Repair Manual PZL M28 Airplane ref No. M28/1/2001

4. Manual for Operation: see related Flight Manual section 9.

5. Spare Parts Catalogue: Illustrated Parts Catalog, ref No. M28/14/97/LTO-3

6. Table of Dimensions, Limits and Clearances: see Chapter 6. Of appropriate Maintenance Manual

7. Instruments and aggregates: see
   for standard equipment:
   As defined in Section 7 of the Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95,
   for optional & operational equipment:
   As defined in Section 9 of the Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95,
8. Airplane Service Life, and Component TBOs :
   Airplane Service Life, Component TBOs as defined in Sec. 4 of M28 Maintenance Manual (M28/4/95/LTO-33)

9. OSD (M28 02-W only):
   OSD FC M28 02-W DTD/108/2015, Initial Issue from 29 Oct 2015, or later approved Revision
10. MMEL (M28 02-W only):
   MMEL PZL M28 02-W M28 05, Original Issue from 20 May 2015, or later approved Revision

B.V Notes

1. [Reserved.]

2. PZL M28 02-W variant: is approved for operation on condition of execution of provisions included in Bulletin No. E/12.048/2001 only.

3. This Type Certificate applies to aircraft S/N: AJE001-01 and up. For flight in known and forecast icing (FIKI) this certificate applies for AJE001-01 airplane only.

4. When the ice protection system is installed, flight with this system operative is allowed but with consideration for note 3 (above).

5. Chapter 4. Of the Maintenance Manual Ref No. M28/4/95/LTO-33 related to the FIKI have been approved on the Chapter 4. Of the Maintenance Manual Ref. No.: M28/11/2002,approved for PZL M28 05 model for FIKI basis.

SECTION C : PZL M28 05

C.I. General

1. Data Sheet No.:	A.058 Issue: 01 Date: October 24, 2005
PZL M28 05-SG variant :	Issue: 02 Date: April 21, 2006
2. a) Type: b) Model: c) Variant:	PZL M28 PZL M28 05 - passenger transport, max. 19 passengers; - cargo transport; - passenger/cargo transport mix, max. 18 passengers; - paradrop; - liquid-cargo transportation; - long-range ferry; - version of improved standard, max. 13 passengers - with the special equipment transportation/release system (designation PZL M28 05-S) - maritime patrol (designation PZL M28 05-MPW) - for Border Guard missions (designation PZL M28 05-SG)
3. Airworthiness Category:	Commuter
4. Type Certificate Holder:	Polskie Zakłady Lotnicze Sp. z o. o.
5. Manufacturer:	Polskie Zakłady Lotnicze Sp. z o. o.
6. Certification Application Date:	Sep 14, 2004 (to EASA)
7. (Reserved) National Certifying Authority	Civil Aviation Office, Poland
8. (Reserved) National Authority Type Certificate Date:	Nov. 17, 1999 (acc. to BB-199/1) Apr. 18, 2002 (acc. to BB-216) *This EASA Type Certificate replaces the Polish CAO Type Certificates No. BB-199/1 and BB-216*
9. Reserved	none

C.II Certification Basis

1. Reference Date for determining the applicable requirements:	Oct 11, 1986 (acc to the BB-199/1) Feb 2, 1991 (acc to the BB-216)
2. Airworthiness Requirements:	
for airplanes S/N AJE001-19 up to AJE002-10 (Polish CAO TC No. BB199/1):	FAR Pt. 23, Amendment 34, FAR Pt. 23, Amendment 42: Flight Data Recorder (23.1459), Voice Recorder (23.1457) FAR Pt. 23, Amendment 49: Installations, systems and airplane reliability analysis (23.1309) FAR Pt. 23, Amendment 50: Stall warning (23.207) FAR Pt. 34, Subpart B, FAR Pt. 36, Appendix G.
for airplanes S/N AJE00301 and up : (Polish CAO TC No. BB216)	FAR 23, Amendment 42, FAR 23, Amendment 49 : 23.1309, FAR 23, Amendment 50 : 23.49, 23.201, 23.203, 23.205, 23.207 and 23.1545
for airplanes S/N AJE00301 and up for service life extension	FAR 23, Amendment 48: 23.572, 23.574, 23.575, 23.629
for airplanes with ice protection system installed, certified for FIKI, S/N AJE00301 and up	FAR 23, Amendment 42, FAR 23, Amendment 43: 23.1419, FAR 23, Amendment 45: 23.1525, FAR 23, Amendment 49 : 23.775, 23.1307, 23.1309, 23.1323, 23.1326, 23.1351, 23.1353, and 23.1431 FAR 23, Amendment 50 : 23.49, 23.63, 23.67, 23.69, 23.75, 23.201, 23.203, 23.207, 23.1325, 23.1559, 23.1581, 23.1583 and 23.1585 FAR 23, Amendment 51: 23.929, 23.975 and 23.1093 FAR 23, Amendment 53: 23.901 FAR 23, Amendment 54: 23.903 FAR 23, Amendment 62: 23.73
3. Special Conditions:	none
3. Exemptions:	none
4. Deviations:	none

5. Equivalent Safety Findings:	Equivalent Safety Level FAR 23.1361(a) - Master Switch Arrangement
6. Requirements elected to comply:	none
7. Environmental Standards:	FAR Part. 34 Subp. B, FAR Part. 36 App. G., and: Annex 16 ICAO, Part II, Chapter 10: Aircraft Noise Certification,
8. (Reserved) Additional National Requirements:	none
9. (Reserved)	none

C.III Technical Characteristics and Operational Limitations

1. Type Design Definition:	specification sheet No. 28.15.0000.000.000
2. Description:	The PZL M28 Model 05 is an all metal strut-braced high wing twin engine turboprop STOL airplane, with twin vertical tails and a tricycle non-retractable landing gear featuring a steerable nose wheel
3. Equipment:	
Standard:	For airplanes S/N AJE001-19 up to AJE002-10: as defined in Section 7 of the Airplane Flight Manual (M28/14/99). For airplanes S/N AJE00301 and up: as defined in Section 7 of the PZL M28 Airplane Flight Manual, Ref. No. M28/10/2002
Optional & Operational:	For airplanes S/N AJE001-19 up to AJE002-10: as defined in Section 9 of the Airplane Flight Manual (M28/14/99 Issue). For airplanes S/N AJE00301 and up: as defined in Section 9 of the PZL M28 Airplane Flight Manual, Ref. No. M28/10/2002
4. Dimensions:	
Length	13.10 m (43 ft)
Height	4.90 m (16 ft 1 in)
Wing span	22.06 m (72 ft 4 in)
Wing area	39.72 m2 (427.5 ft2)
5. Engine:	
5.1.1 Model:	PT6A-65B turboprop with a free turbine, reduction ratio of 0.0568:1
5.1.2 Type Certificate:	E4EA

5.1.3 Limitations: For power-plants limits refer to Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No.
M28/14/99 - for airplanes S/N AJE001-19 up to AJE002-10,
M28/10/2002 - for airplanes S/N AJE00301 and up.

5.1.4. Engine Performance:

	Shaft Horse Power	Torque	Prop Speed	Turbine Speed	Exhaust Gas Temp.
	SHP	PSIG	rpm	%	°C
Takeoff	1100*	43.34	1700	104	820
Max. Continuous	1100**	43.34	1700	104	810
Max. Cruise	1000***	43.34	1700	104	800

* attainable up to 50.5 °C; ** attainable up to 45.5 °C; *** attainable up to 42.5 °C

5.1.5 Number of engines: 2

6. Load factors:

Flaps Up n=+3.0 , -1.0

Flaps Down n=+2.0 , 0

7. Propeller:

7.1 Model: HC-B5MP-3D/M10876ANSK five-blade, all-metal, constant-speed, with WOODWARD speed governor (3032082A) Hartzell Propeller Inc. (USA)

7.2 Type Certificate: P44GL

7.3 Number of blades: 5 (five)

7.4 Diameter: 2.820 m (9 ft 3in)

7.5 Sense of Rotation: Clockwise

8. Fluids:

8.1 Fuel: Aviation kerosene type JET A, JET A-1, JET A-2 and approved equivalents as per P&WC Bulletin No. 13044.

Equivalents: F34, F35, F40, F43, F44, JP-4, JP-5, JP-8, AVTUR, AVTAG, AVTAC, CAN/C.G.SB.3.23-M86, CAN/C.G.SB.3.22-M86, CAN/C.G.SB.3.GP-24Ma, AIR 3404, AIR 3405, AIR 3407, RT acc. to GOST 16564-71.

8.2 Oil Aero Shell Turbine Oil 500, Royco Turbine Oil 500, Mobil Jet Oil II, Castrol 5000, BP Turbo Oil 2380 - in accordance with Pratt & Whitney Bulletin No. 13001.

8.3 Coolant: N/A

9. Fluid capacities:

9.1 Fuel: 1766 kg (2278 l), (3894 lbs; 602 US Gal.)

9.2 Oil: 2 x 9.45 l (2.5 US gal)

9.3 Coolant system capacity: N/A

10. Air Speeds:

Airspeed Limitations:	IAS [km/h]	CAS [km/h]
Max. Operating (Limit) Speed, V_{mo}	355	345
Design Maneuvering Speed, V_A	244	238
Max. Flaps-Extended Speed, V_{FE}		
Flaps 15^o	215	210
Flaps 40^o	200	190
Max. Spoiler-Deployed Speed, V_{NS}	215	210
Minimum Control Speed, V_{MC}	153	146

11. Maximum Operating Altitude:

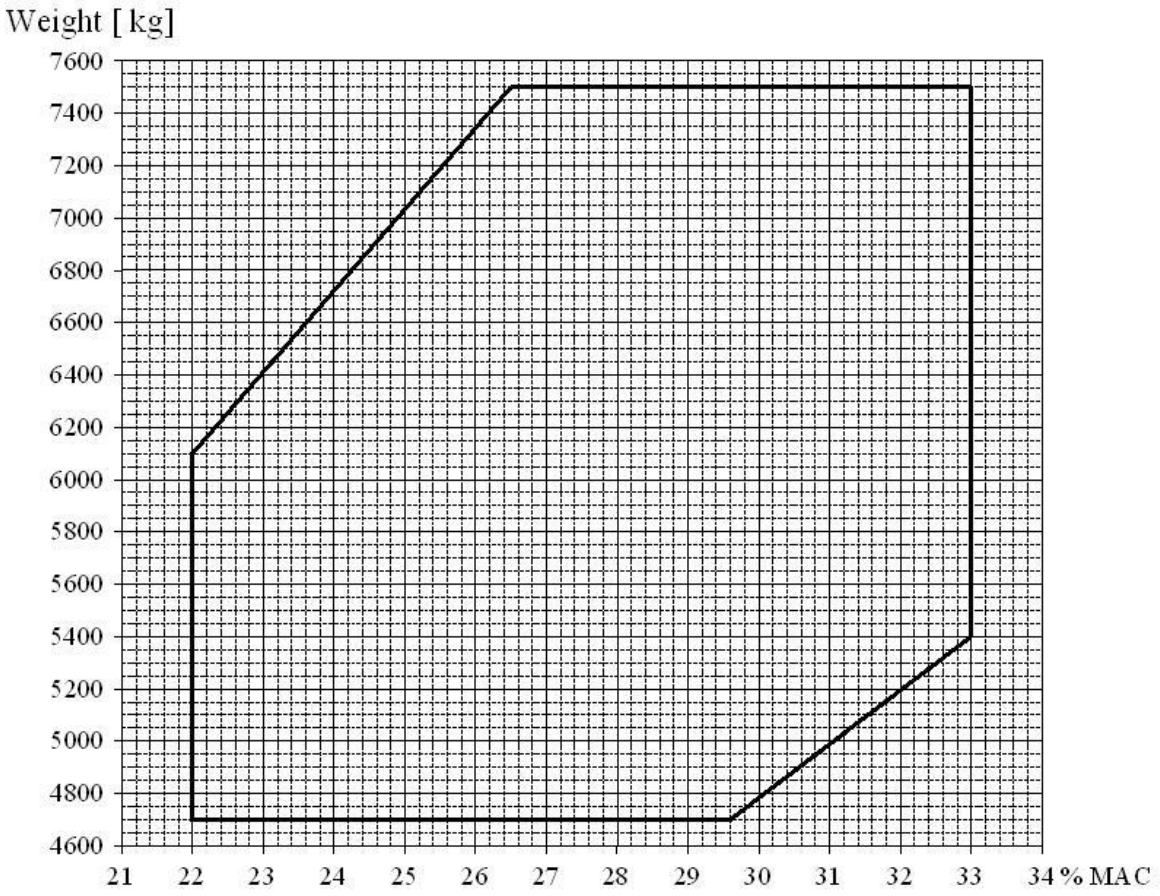
- without oxygen supply system 3000 m (9,842 ft)
- with crew oxygen supply system provided 7620 m (25,000 ft)

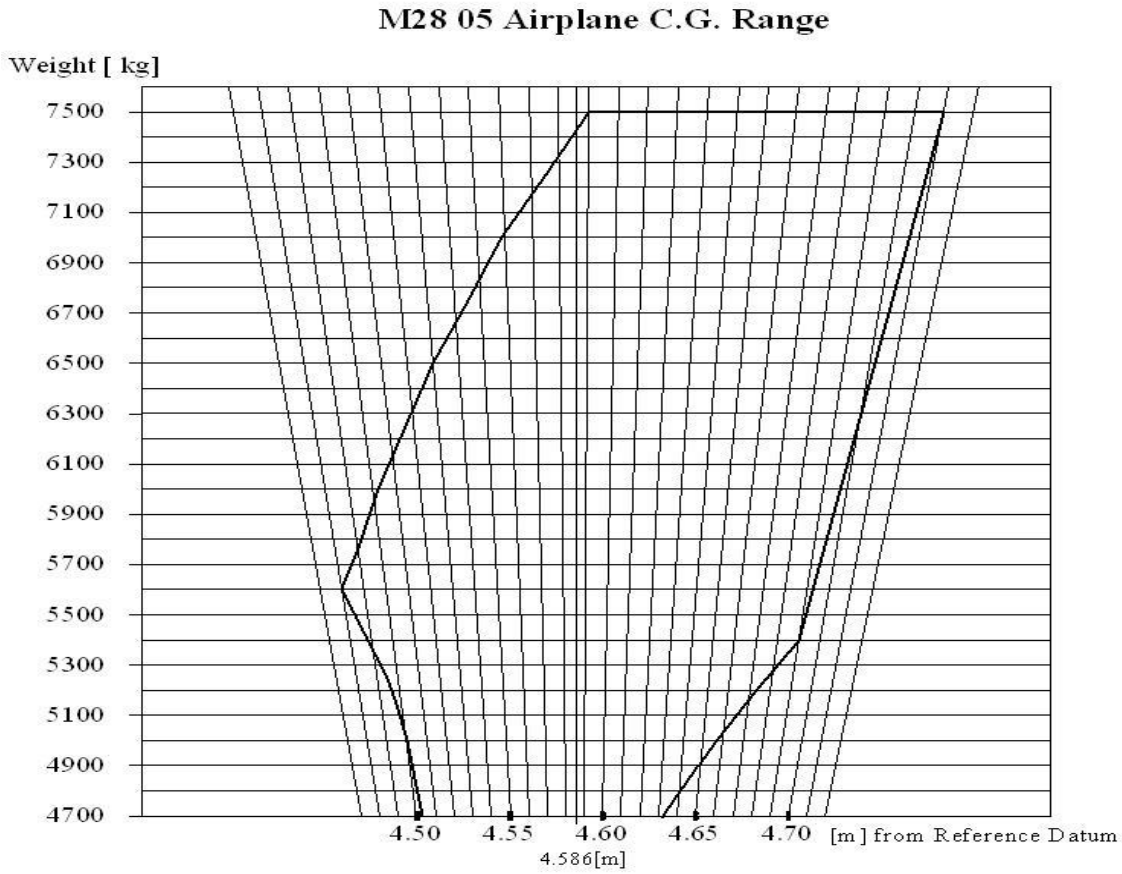
Max. Takeoff	7500 kg
Max. Landing	7500 kg
Max. Zero-Fuel	6900 kg
Max. Payload	2300 kg

Note:
max. 2000 kg in Cargo/Passenger Cabin (inclusive of max. 40 kg on baggage shelf in fuselage rear part)
max. 300 kg in under fuselage baggage pod

Minimum Weight for Flight	4700 kg
Max. Baggage in Underfuselage Pod	300 kg
Max. Baggage on Baggage Shelf	40 kg
Hoist Lifting Capacity Max:	700 kg

14. Centre of Gravity Range:





15. Datum: 2.470 m (97.24 in) Frame No. 9, Forward
(see AFM, Chapter 6, fig. 6.1)

16. Control Surface Deflections:

Ailerons:	Up	22° ± 1°
	Down	16° 20' ± 1°
Aileron Trim Tab:	Up	14° ± 1°
	Down	14° ± 1°
Elevator:	Up	27° ± 1°
	Down	19° ± 1°
Elevator Trim Tab: (Elevator Neutral)	Up	15° ± 1° (19° ± 1°)*
	Down	25° ± 1° (21° ± 1°)*

(*) On airplanes S/N AJE00339 and subsequent and S/N AJE00338 and prior post Service Bulletin E/12.117/2013.

Rudder LH:	Inboard	16 º ± 1 º
	Outboard	22 º ± 1 º
Rudder RH:	Inboard	16 º ± 1 º
	Outboard	22 º ± 1 º
Rudder Trim Tab: (Rudder Neutral)	Left	15 º ± 1 º
	Right	15 º ± 1 º
Wing Flaps:	Takeoff	15 º ± 1 º
	Landing	40 º ± 1 º
Spoilers:	Inboard	45 º ± 1 º
	Outboard	60 º ± 1 º

17. Levelling Means: 1LP = LH and RH levelling point on frame No. 9 (see AFM, Chapter 6, fig. 6.1)

18. Minimum Flight Crew: 2 (two) pilots

19. Maximum Passenger Seating Capacity:
- passenger transport, max. 19 passengers;
- passenger/cargo transport mix, max 18 passengers;
- version of improved standard, max 13 passengers

20. Baggage/Cargo Compartments:
Max. payload.2300 kg (5070 lbs) i.e:
- in cargo/passenger cabin max 2000 kg (4408 lbs) (on baggage shelf in fuselage rear part max 40 kg (88 lbs)
- in underfuselage baggage pod - max. 300 kg (662 lbs)

21. Wheels and Tyres:
Main wheel tyre size 720 x 310 mm (28.30 x 12.20 in)
Nose wheel tyre size (Type 6.50x10 – GOOD YEAR) 561x169 mm (22.10x6.65 in)

22. Landing gear: Fixed, tricycle type, with a steerable nose wheel
- Main Gear: rocker-type with a single-chamber shock absorber,
- Nose Gear: rocker-type, with a double-chamber shock absorber,

Nose Wheel Controlling Angle	± 15 °
Nose Wheel Controlling Angle with Steering OFF	± 45 °

23. Max. Service Ceiling: 7620 m (25,000 ft)
24. Operating Ambient Temperature Range: -50°C to + 50°C
25. (Reserved):

C.IV Operating and Service Instructions

1. Flight Manual:

For airplanes S/N AJE001-19* up to AJE002-10* :PZL M28 with PT6A-65B Engines: Airplane Flight Manual (P/N M28/14/99), Issue Dec. 1999.
For airplanes S/N AJE00301* and up : PZL M28 Airplane Flight Manual, Ref. No.: M28/10/2002, Issue April 2002.
*The serial number system of the M28 05 airplane is as follows: AJE001-XZ, AJE002-XZ, AJE003XZ and up. The XZ is the number of airplane in series.

2. Technical Manual:
For airplanes S/N AJE001-19 up to AJE002-10 PZL M28 Maintenance Manual (P/N M28/4/95/PBD), Issue Dec. 1999, including Sec. 4: „AIRWORTHINESS LIMITATIONS" and Sec. 5: „MAINTENANCE SCHEDULE",
For airplanes S/N AJE00301 and up : PZL M28 Maintenance Manual, Ref. No.: M28/11/2002, Issue April 2002, including Sec. 4: "Airworthiness Limitations" and Sec. 5: "Maintenance Schedule".

3. Repair Manual: Repair Manual PZL M28 Airplane ref No. M28/1/2001

4. Manual for Operation: see related Flight Manual section 9.

5. Spare Parts Catalogue:
For airplanes S/N AJE001-19 up to AJE002-10: Illustrated Parts Catalogue, ref No. M28/14/97/LTO-3
For airplanes S/N AJE00301 up to AJE00309: Illustrated Parts Catalogue, ref No. M28/10/2004
For airplanes S/N AJE00310 and up: Illustrated Parts Catalogue, ref No. M28/04/2010

6. Table of Dimensions, Limits and Clearances: see Chapter 6. Of appropriate Maintenance Manual

7. Instruments and aggregates: see
for standard equipment:

for airplanes S/N AJE001-19 up to AJE002-10	As defined in Section 7 of the Airplane Flight Manual (M28/14/99)
for airplanes S/N AJE00301 and up	As defined in Section 7 of the PZL M28 Airplane Flight Manual, Ref. No. M28/10/2002

for optional & operational equipment

for airplanes S/N AJE001-19 up to AJE002-10	As defined in Section 9 of the Airplane Flight Manual (M28/14/99 Issue)
for airplanes S/N AJE00301 and up	As defined in Section 9 of the PZL M28 Airplane Flight Manual, Ref. No. M28/10/2002

8. Airplane Service Life, and Component TBOs :
a) For airplanes S/N AJE001-19 up to AJE002-10 as defined in Sec. 4 of M28 Maintenance Manual Ref. No. M28/4/95/PBD, Issue Dec. 1999.

b) For airplanes S/N AJE00301 and up as defined in Sec. 4 of M28 Maintenance Manual Ref. No. M28/11/2002, Issue April 2002.

9. OSD:
   OSD FC M28 02-W DTD/108/2015, Initial Issue from 29 Oct 2015, or later approved Revision
10. MMEL:
   MMEL PZL M28 02-W M28 05, Original Issue from 20 May 2015, or later approved Revision

C.V Notes

1. Flight in known icing condition is permitted, when certified IPS (ice protection system) is installed and is operational. This applies to S/N AJE00339 and up.

2. Flight in known icing condition is permitted, when certified IPS (ice protection system) is installed and is operational.. This applies to prior airplanes with Bulletin no. E/12.115/2013 “Installation of ice protection system certified for flight in known and forecast icing conditions” incorporated. From S/N AJE00339 and up the IPS is an option

3. Flight in known or forecast icing conditions is prohibited when certified IPS (ice protection system) is not installed. This applies to S/N from AJE001-19 up to AJE002-10 airplanes.

4. This Type Certificate applies to aircraft S/N: AJE001-19 up to AJE002-10, and to aircraft S/N AJE00301 and up.

5. For airplanes in service, if operators are going to extend the airframe service life, they must incorporate SB E/12.101R3/2014 and use chap 4 of rev 52 of MM M28/11/2002 dated May 11, 2015 or later EASA approved revisions. Any repairs/modifications done to airplanes with this modification must comply with the certification basis listed above on this TCDS. This modification must be accomplished after the airplane reaches 7800-8000 flight hours or 11300-11500 landings (whichever is first).

SECTION ADMINISTRATIVE

I. Acronyms & Abbreviations

AMM - Aircraft Maintenance Manual
CRI - Certification Review Item
FAR - Federal Aviation Regulations
EASA - European Aviation Safety Agency
IAS - Indicated Airspeed
KIAS - Indicated Airspeed [knots]
MAC - Mean Aerodynamic Chord
POH - Pilot's Operating Handbook
RPM - Rotations per Minute
FIKI - Flight Into Known Icing
SLD - Supercooled Large Droplets
TCDS - Type Certificate Data Sheet

II. Type Certificate Holder Record

Zakład Lotniczy „PZL Mielec" Sp. z o.o.
Ul. Wojska Polskiego 3, 39-300 Mielec, POLAND

Polskie Zakłady Lotnicze Sp. z o.o.
Ul. Wojska Polskiego 3, 39-300 Mielec, POLAND

III. Change Record

Issue	Date	Changes	TC Issue No. & Date
Issue 01	24 October 2005	Initial Issue	Initial Issue, 24 October 2005
Issue 02	21 April, 2006	Introduction of maritime patrol (designation PZL M2805-MPW) and Border Guard missions (designation PZL M28 05-SG) in Section3. Installation of ice protection system, approved on a non-hazard basis only. Flight in known or forecast icing conditions is prohibited	02. 21 April 2006
Issue 03	21 December 2006	Corrections to Vmo 335 to 355 km/hr on Pages 11 and 18 Correction to propeller designation from HC-BP5MP-3D/M10876ANSK to HC-B5MP-3D/M10876ANSK on pages 11 and 18.	03. 21 December 2006
Issue 04	14 June 2013	Transition to new TCDS layout and editorial changes.	04. 14 June 2013

		Introduction of airplane operation in icing conditions for model PZL M28 05 and PZL M28 02-W	
Issue 05	03 July 2013	Information on entry of earlier approved Major Change with respect to the service life extension of earlier approved Major Change with respect to the Approval No 10036658. Editorial changes and misprint corrections.	05. 03 July 2013
Issue 06	07 April 2014	Introduction of elevator trim tabs new angular movements and editorial changes.	06. 07 April 2014
Issue 07	04 Dec 2014	Editorial changes and misprint corrections related to approved Major Change Approval No 1004755 with respect to the service life extension	07. 04 Dec 2014
Issue 08	03 Nov 2015	OSD FC and MMEL to include, editorial changes to list the SB related to the approved service life extension.	08. 03 Nov 2015
Issue 09	18 June 2020	Clarification and Typo corrections to TCDS information, PJAM.	09. 18 June 2020

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