Aircrew information – General – Temporary Revision 83

Table of contents

Page

References 1
Description 1
1 Temporary Revision (TR) number: 15-TR-83 1
2 Affected document: Aircrew Set (Airplane Flight Manual), Report No. 02255 1
3 Number of pages: 8 1
3.1 Handling instruction 1
3.2 Important 1
4 Reason for issue 2
5 Section 3, Emergency procedures, New paragraphs 10.48, 10.49 and new paragraph 10.53 2
5.1 New paragraph 10.48, Suspected unreliable airspeed 2
5.2 New paragraph 10.49, Suspected unreliable airspeed 4
5.3 New paragraph 10.53, Suspected unreliable airspeed 6
6 Section 9.17, Flight data sensors, Paragraph 5.2 AOA warnings 7

List of tables

Page

1 References 1

References

Table 1 References

Data Module/Technical Publication	Title
None	

Description

1 Temporary Revision (TR) number: 15-TR-83

2 Affected document: Aircrew Set (Airplane Flight Manual), Report No. 02255

3 Number of pages: 8

3.1 Handling instruction

Insert this TR in front of Aircrew information - General - List of Temporary Revisions (LOTR).

Record the insertion of this TR in the LOTR.

3.2 Important

Do not remove this TR unless:

– A new LOTR, in a change or new issue of the Airplane Flight Manual, shows that this TR is not effective
– A new TR replaces this TR.

4 Reason for issue

New Emergency procedure for suspected unreliable airspeed, caused by water ingress into the pitot system, added in Section 3. Technical description in Section 9.17 Para. 5.2 updated.

5 Section 3, Emergency procedures, New paragraphs 10.48, 10.49 and new paragraph 10.53

For aircraft 109 - 127, add new paragraph 10.48 at the end of Section 3, Emergency procedures.

For aircraft 101 - 108 and 153 - 154, add new paragraph 10.49 at the end of Section 3, Emergency procedures.

For aircraft 128 - 152, add new paragraph 10.53 at the end of Section 3, Emergency procedures.

5.1 New paragraph 10.48, Suspected unreliable airspeed

Actions

1 Attitude.....Reference with PFD

2 Throttle.....Mid-range (if situation allows)

3 PMS.....MAN

4 TRIM AID.....OFF, trim aircraft manually

Note 1

Unreliable Airspeed, PFD + SFD indicating the same speed.

Cause: blockage of the pitot system line.

If PFD + SFD indicate the same speed, but unreliable speed indication is suspected:

– Check Slip Ball on PFD

If aircraft is in balanced flight -> Speed indication is most probably correct

If aircraft is NOT in balanced flight -> Speed indication is most probably unreliable

The following symptoms and indications can be present:

– Wrong Indicated Airspeed on PFD and SFD
– Aircraft not correctly trimmed in yaw by the TAD
– Wrong Attitude indication on the SFD, possibly causing a CHECK ATT caution on the PFD
– PMS not working correctly in AUTO mode, possible power fluctuations
– Overspeed warning (audio and EICAS) if indicated speed above Mmo or Vmo
– Stall warning on the EICAS if indicated Mach number is very high
– Unreliable AOA indication if indicated Mach >0.41

Note 2

In order to verify the correct attitude indication (PFD vs SFD) the status of the IRS can be checked on the MFD STS page.

Note 3

Selecting GS on the PFD may be used for additional information.

Note 4

If the suspected cause of the failure is due to ice in the pitot system, descend into warmer air if possible.

Note 5

As soon as practical, exit IMC conditions.

In level flight:

– Throttle.....1,500 ft lbs (35%)
– Attitude.....For level flight

In climb:

– Throttle.....<2,850 ft lbs (67%)
– Attitude..... +8 deg.
– Engine limits.....Monitor

In descent:

– Throttle.....800 ft lbs (19%)
– Attitude.....−5 deg.

Speed reduction in level flight in approach:

– Throttle.....800 ft lbs (19%)
– Attitude.....Increase as required to maintain level flight
– until +5 deg. Pitch Attitude is reached
– Gear..... DOWN
– Flaps.....As required
– Throttle..... Increase to maintain AOA indexer green.

Note

The margin between the green circle speed and the stall speed with flaps at LAND at the maximum landing weight is approximately 26kts.

5.2 New paragraph 10.49, Suspected unreliable airspeed

Actions

1 Attitude.....Reference with PFD

2 PCL.....Mid-range (if situation allows)

3 PMS.....MAN

4 TRIM AID.....OFF, trim aircraft manually

Note 1

Unreliable Airspeed, PFD + SFD indicating the same speed.

Cause: blockage of the pitot system line.

If PFD + SFD indicate the same speed, but unreliable speed indication is suspected:

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– until +5 deg. Pitch Attitude is reached
– Gear..... DOWN
– Flaps.....As required
– PCL..... Increase to maintain AOA indexer green.

Note

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5.3 New paragraph 10.53, Suspected unreliable airspeed

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3 PMS.....MAN

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6 Section 9.17, Flight data sensors, Paragraph 5.2 AOA warnings

For all PC-21 aircraft, after paragraph title 5.2 AOA warnings, add the paragraph that follows before the existing first paragraph.

A stall warning is generated if the AOA vane angle, as processed within RIOC 3, exceeds a set value, at which a stall is considered imminent. This value is dependent on the following conditions:

– Flap position (set value reduces with flaps in the extended position)
– At high airspeeds (above M 0.415) the set value is progressively decreased with increasing Mach number
– In the case of an air data sensor failure or Mach Number not valid, the system uses the low speed logic (M≤ 0.415) to generate the stall warning
– Underwing store carriage (set value increases when stores are carried).

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