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Zivilluftfahrtbehörde 1. Instanz

ZVR Zahl: 770691831

Sicherheitsmitteilung SM 130101

Datum: 10.1.2013

Bezug: Technische Mitteilung der Firma Aerodyne vom 1.12.2012 betreffend Fehlfunktion ICON Reserve Pilotchute

Betrifft: ICON Gurtzeuge / Launch des ICON Reserve-Pilotchutes

Status: highly recommended / dringend empfohlen

Maßnahme:

- 1) darauf achten, dass der Reserveloop nicht zu lang ist (der Reservepilotchute darf sich am geschlossenen System nicht mehr weiter komprimieren lassen)
- 2) der Hersteller empfiehlt bei der Routineöffnung zum Repack das System über den Schultern zu tragen (wie beim Sprung) und über den Reservegriff zu öffnen

Durchzuführen bis: bei der nächsten Inspektion&Repack

Bemerkungen:

Während einer Routine-Inspektion eines ICON Gurtzeuges wurde der Reservecontainer geöffnet. Dabei verblieb der Reserve-Pilotchute NACH DEM ZIEHEN des Pin im Container; wurde durch die Seitenklappen blockiert. Der schwedische Aeroclub hat daraufhin ICON-Gurtzeuge gegrounded und das betreffende System zum Hersteller zu Tests geschickt. Nach einer Test-Phase mit 15 Öffnungs-Tests bei Aerodyne, bei der das obige Szenario nicht reproduziert werden konnte, gab es folgendes Ergebnis:

- 1) durch die Verwendung eines sehr langen Loops war der Reserve-Pilotchute nicht voll komprimiert und konnte daher nicht seine volle Federkraft entfalten
- 2) es wird vermutet, dass der Packer, der die Reserve geöffnet hat dieses durch Zug am Kabel direkt über dem Pin getan hat und dadurch die oberste Klappe beim Öffnungsvorgang selbst leicht blockiert hat.

Auf Grund dieses Testergebnisses hat der schwedische AeroClub sein Grounding widerrufen.

Beilage: Technische Mitteilung der Firma Aerodyne vom 1.12.2012 betreffend Fehlfunktion ICON Reserve Pilotchute



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Date:

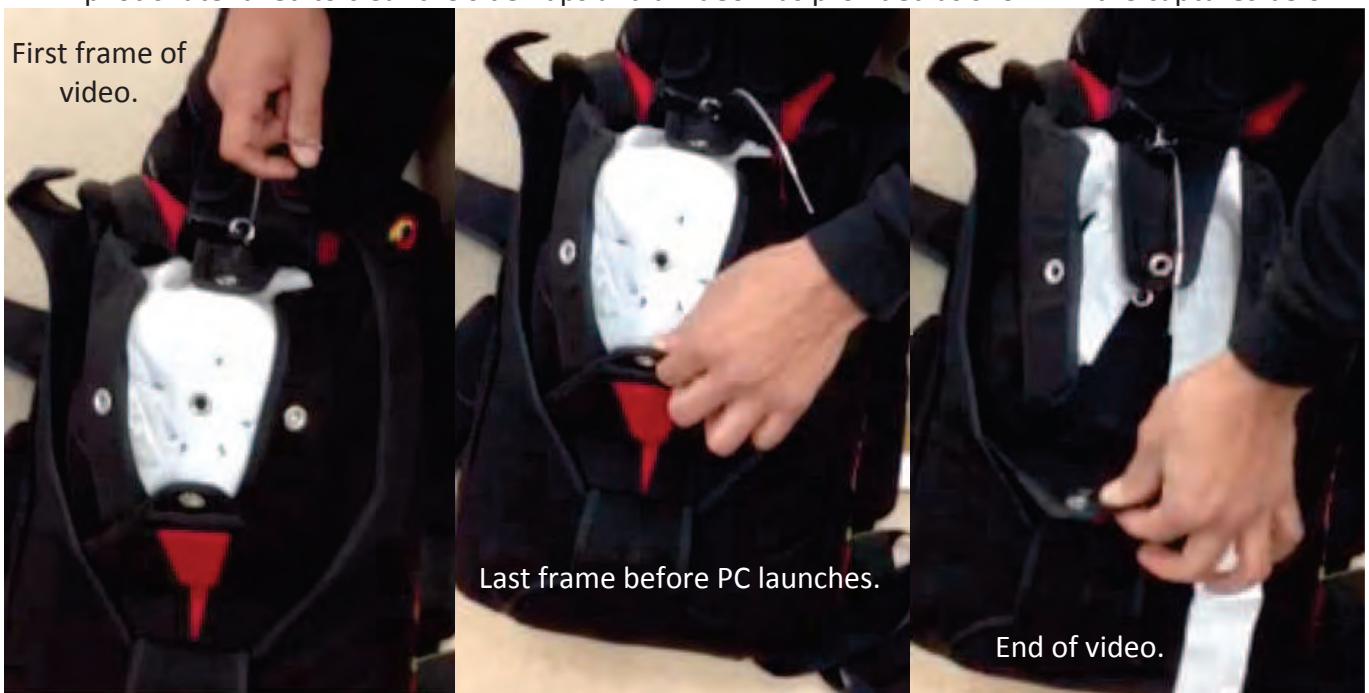
01 December 2012
Rev 1

Subject:

Icon Reserve Pilot Chute Failed to Clear Side Flaps, Ser #IN-I5-12509, DOM Sep 2008

Background:

19 November 2012 it was reported that when the pin was pulled for routine repack, the reserve pilot chute failed to clear the side flaps and a video was provided as shown in the captures below.



Observation:

It was noted from the provided video that the rig was not being worn and the pin was not pulled by its handle. The video shows that it was sitting on the ground and appears to have been pulled by the cable close to the pin, this would mean that this rigger's hand had to have contacted the #5 flap once the pin was clear of the loop interfering with its normal activation.

It was then requested that this Icon be returned to Aerodyne as soon as possible for evaluation.

Evaluation:

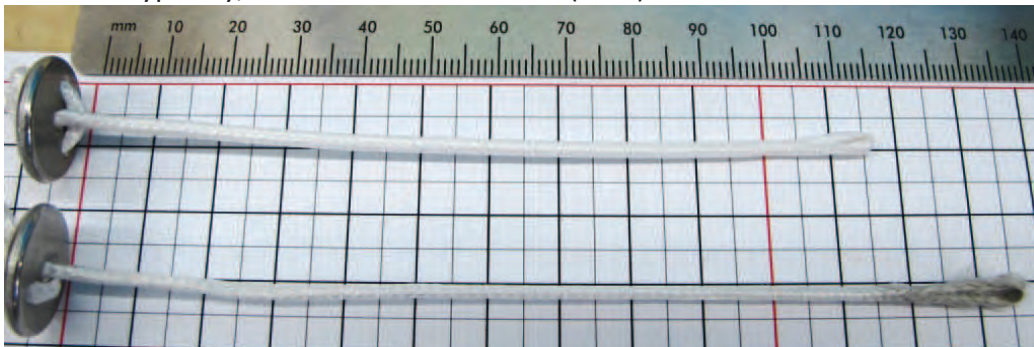
The rig arrived 29 November 2012 with the reserve closed as shown below and the first observation was that the loop was on the excessively long side and the reserve PC was not at full compression.



The rig was then test pulled exactly as it arrived. A good launch with no hesitation was observed. See captured video below. Video provided upon request.



After opening, the loop measured to be 137mm (5 3/8"), this is common length used here on tandem reserves. Typically, we would use a 115mm (4 1/2") with this combination.



← Actual loop taken from I5 #IN-I5-12509.

Testing:

30 November 2012 this Icon harness and container was then put through a total of 15 test fires.

- 5 each with the rig being worn in the upright position. Actuation initiated by ripcord handle.
- 5 each with the rig being worn in the face to earth position. Actuation initiated by ripcord handle.
- 5 each with the rig on the floor. Actuation initiated by ripcord handle.

Test Item:

Icon Ser #IN-I5-12509

Test Condition:

The reserve-closing loop was intentionally left excessively long to test atworst case.

Note:

When the loop is excessively long and the reserve pilot chute can be compressed some after closing, it has lost a good part of its energy and has a big effect on its performance.

Objective:

To see if any problems of any type could be detected and identified.

Results:

Of the 15 tests preformed, no hesitations were expirienced (see video).

Closing Coment:

Judging by the customer provided video, it would appear and anomaly was produced from 2 contributing factors, one being an excessively long reserve closing loop and the other from initiating reserve deployment in an unconventional manor. After completing the 15 succsesfull test pulls we do not feel any corrective actions are nessessary.

Recommendation:

Riggers in the field should note that when opening a reserve for its scheduled repack that all manufacturers advise that it should be worn on the shoulders and actuation initiated by ripcord handle.

The above evaluation, testing and report by Jeff Johnston.



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Dec 5th 2012

Regarding test-report for pilotchute hesitation on Icon I5 SN#12509

Dear

The Swedish Parachute Association today received a copy of the previously requested report regarding the matter of a pilot chute hesitation on an Icon I5 container sn#12509.

The Swedish Parachute Association Technical Committee has reviewed the report (*11_3_2012 Reserve Acuation Evaluation copy*) and finds the report satisfactory to determine if there is ground to discontinue the preventive actions taken regarding the Aerodyne Research Icon container system.

The Swedish Parachute Association hereby revokes the grounding of all Aerodyne Research Icon container systems previously put into effect from November 23rd 2012.

Regards

Petter Alfsson-Thoor

Director of safety and training

