

## SERVICE BULLETIN

**DATE:** July 27, 2011

SERVICE BULLETIN #: 2011001

SUBJECT: ICARUS Canopies Inc. - NEOS hard openings

**STATUS: SERVICE HIGHLY RECOMMENDED** 

**#OF PAGES**: 3 pages

## **IDENTIFICATION:**

This Service bulletin is applicable to all NEOS parachutes P/N 317524-XXX for Serial Numbers prior to 24112612 in all canopy sizes.

## **BACKGROUND:**

The NEOS is a highly elliptical, ARC braced, high performance canopy with one of the most predictable on-heading deployments in the market today. Since it was introduced we have been receiving an increased number of complaints about occasional hard openings. Even though most NEOS canopies present soft on-heading openings, a few of them seem to produce random hard openings more frequently.

In order to understand the phenomena causing the hard openings to occur, we had to replicate the problem in-house. The randomness of the hard openings resulted in no video documentation. We initiated an investigation but found many difficulties in replicating the hard openings. Finally, we gathered a number of problematic canopies from the field, and put them through a comprehensive test program. After some time, we finally managed to reproduce hard openings under video monitoring that allowed us to develop an understanding of the source of the problem. By test jumping extreme variations of the problem, we managed to develop a solution that responded to our expectations. After hundreds of jumps to consolidate the change, we have revised the line set specification by modifying the length of one outer suspension line on each side of the canopy. This modification does not change the other performance characteristics of the canopy.

## **SERVICE BULLETIN:**

All NEOS parachutes identified in this document shall be upgraded following these procedures.

An inspection/operation must be performed by a FAA Certified Master/Senior Parachute Rigger, foreign equivalent, or ICARUS Canopies.

The Inspector must perform the following steps: