



Paratec GmbH  
Weingartstr. 12, 66798 Wallerfangen, Germany  
Fon +49-(0)6837-7375 Fax +49-(0)6837-74373 [info@paratec.de](mailto:info@paratec.de)

## **Paratec Investigation Report and official Statement to BPA Safety Information Ref : Next Tandem 3 Ring Failure 3/05**

Issue Date : 29-09-2005

### Distribution

British Parachute Association, Paul Applegate, John Hitchen, UK  
Skydive-the Mag, Lesley Gale, UK  
Deutscher Fallschirmsportverband, Chris Buss, D  
Dutch Riggers Association, Jo Oosterveer, NL  
Österreichischer Aero Club, Kurt Wagner, A  
Fa. Spelco, Erich Jelitko, D  
Log Zentrum, Heer, OstFw Luther, D

Subject : Next Tandem Riser Incident on Sept. 18th, Hibaldstow DZ, UK

Status : N/A

Identification: N/A

Background : See Safety Information, BPA 3/05

### Report of the Investigation

Viewing the video of this jump, it was noticed that the RSL ring was led through the middle 3 Ring (large ring on the riser) from the back and re-connected with the snap shackle. (see picture No 1)  
This caused the 3 Ring System to be by-passed and the middle ring to be canted forward by the RSL ring for it to brake. This configuration again led to the shearing off of the Type I webbing holding the RSL ring, (see picture No 2) disconnecting it from the riser, which explains the immobilisation of said RSL, which was found in a untouched, still velcroed fully to the yoke, after the Tandem Pair had landed safely under Reserve. (see picture No 3)  
Picture No 4 shows the marks on the large ring created by the canted, overloaded middle ring before braking

When taking the logical course of said RSL system in conjunction with the working of the 3 Ring system and the result of the incident into consideration, it is clear that just before the middle ring broke, it sheared off the RSL ring, which then led to an overload of the small ring and the locking loop which then broke to release the riser.

It was also noticed on the video, that during line stretch on opening the right side of the yoke is being pulled off the Tandem Masters shoulder. This is another backing explanation of the fact of the blockage of the 3 Ring system by the RSL ring, due to the fact that the right riser could not stretch properly to line up the 3 ring system for it to work properly as designed and manufactured.

## Conclusion

After revealing the cause of this incident, it is obvious that it was not caused by a failure of the quality of the used materials and or the workmanship of said riser, but rather a handling/rigging error and poor gear checking. Saying this, we are well aware of the fact that such a misrouting can be hard to detect, since it looks not too much out of place at first glance.

Our decision, to change over to stainless steel rings manufactured in Europe for our Tandem Risers is a general decision, made long before this incident, based on the philosophy of Paratec to deliver the highest quality products possible.

Our opinion regarding a Collin's lanyard stated in said Safety Information also stays unchanged.

## Action

We urge the organisations stated in the distribution of this document to inform all Tandem Instructors/Masters, Riggers, and CCIs within their area of authority and responsibility, to make them aware of this and for further prevention to make it a part of their personal gear check, during assembly, final inspection and general gear checks on the DZ.

Picture No 1



Picture No 2



Picture No 3



Picture No 4

