SAFETY INFORMATION 02/25

IMPORTANT ADVISORY

USE OF ELASTIC RETAINER RUBBER BANDS DURING THE PACKING OF PARACHUTE EQUIPMENT

As a result of a recent inspection of a set of Tandem equipment, the following information must be considered from now on when packing sport parachute equipment, including Tandem.

Upon inspection of the equipment, it was observed that the suspension lines were found to be double stowed on the deployment bag, on grommets 3 & 4 (See Image 1).

During the inspection, the rubber bands were found to be in good condition. However, it is possible that due to the combined effect of the strength of the rubber band and the double-stowage of the suspension lines, the lines were trapped in the rubber band lock, preventing the deployment bag from opening. The trapped line stow was identified at the point of the third stow on the mouth lock.

The fold in the line, included the area of the cascades within the suspension lines, which can increase the bulk of the line stow. (See Image 1 below):

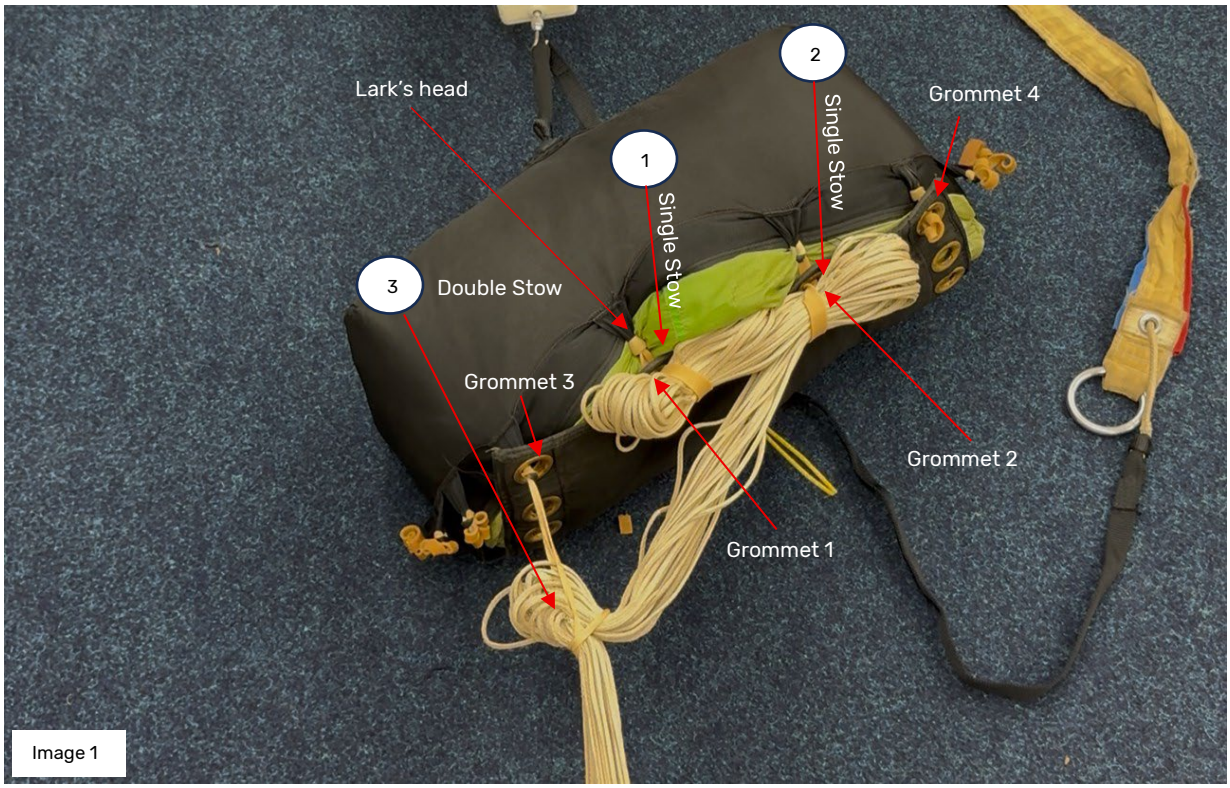

Image 1: Represents a demonstration test of the known cause for the bag lock malfunction.

The rubber bands used on the Tandem deployment bag are also commonly used on sport parachuting equipment. These rubber bands have a darker tone of colour.

The dimensions of the rubber band are: 50mm in length, 9mm in width and 2mm in thickness, and can be seen in image 2, below.

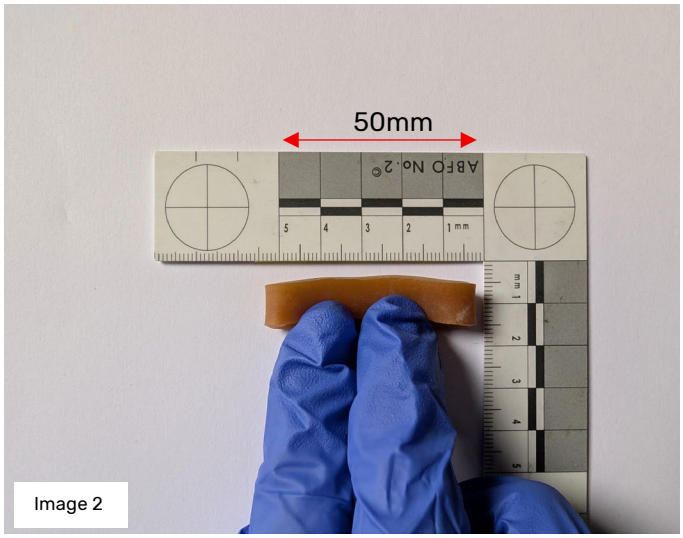

Image 2

These dimensions are and the same as another type of rubber band also used by the PTO, however, there is a distinct difference in colour between the two types of rubber bands (See image 3).

According to the packaging for the lighter coloured rubber band, the dimensions are stated as 2" x 3/8" which, when converted into mm, gives a figure of 50.8mm in length and 9.52mm in width.

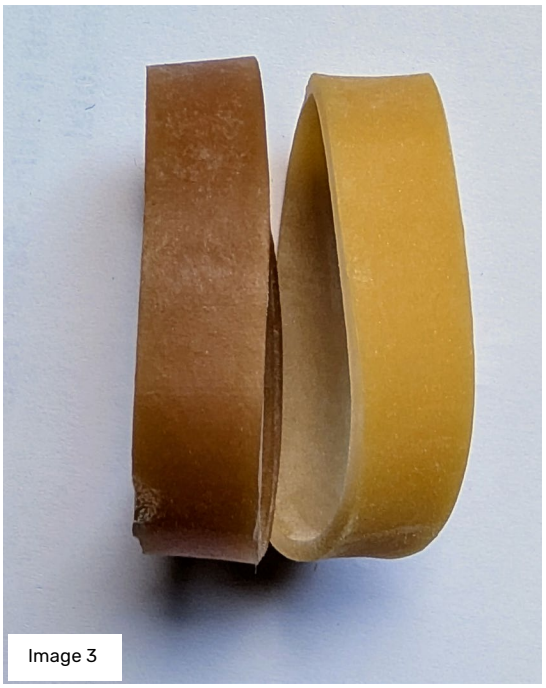
Image 3

During the inspection, it was noted that the lighter rubber band had considerably less resistance when stretched. The brown rubber band offered more resistance when stretched. During several tests conducted on other examples of the same types of equipment, pull forces were measured on both types of rubber bands of the same size. Higher pull forces were recorded using the darker rubber bands on the tests.

Key Findings:

1. Testing revealed that double-stowing using the darker rubber bands resulted in increased pull pressure and increased resistance when extracting the suspension lines.

2. On Tandem and solo student main canopy suspension lines, the thickness of the suspension line may vary according to the type of line used on the parachute. When the lines are folded at the point of the cascades and retained within the rubber band, it will increase the pressure required to extract the line from the rubber band.

Recommendations:

1. Ensure that any manufacturers' recommendations are followed. In the absence of specific manufacturing instructions, British Skydiving recommends adherence to best practices guided by qualified Riggers' and Parachute Packers.

2. Closely monitor the condition of the rubber bands. If the rubber bands appear damaged or they are not providing sufficient resistance on the line stows, to mitigate against line dump, these must be replaced.

3. When handling the rubber bands, if it feels very tight, consider whether it needs to be stretched before placing them on to the deployment bag.

4. When replacing the rubber band on the deployment bag, ensure you pull the rubber band through the lark's head sufficiently.

5. If it is felt that the tension on the rubber band is high, especially around the area of the mouth lock stows, double-stowing of the suspension lines, should be avoided.

6. Any rubber bands that feel strong or stiff should be replaced. Rubber bands should offer secure stow retention without excessive resistance to extraction. If unsure, you should measure the pull force with a scale.

7. If you are unsure, speak to a qualified Rigger or experienced Parachute Packer.

8. When PTOs carry out any testing, they are to record their tests and findings within their Operational Safety Management System (SMS), for auditing purposes by British Skydiving.

British Skydiving published a Safety Information Bulletin [(SI 01-23)] in 2023, providing details of an ongoing survey to obtain information on rubber bands. Below is advice contained within SI 01-23.

Further Advice published from the Parachute Industry Association (PIA) states the following:

1. *Never store parachutes in aircraft or vehicles due to excessive heat or cold.*

2. *The use of talcum powder may extend the rubber bands' useful life and help to prevent them sticking together during storage and use.*

3. *Proper storage is important; keep bands in a cool, dark location inside airtight containers. Record the band's date of manufacture on the container for future reference.*

4. *Store bands at least six (6) feet away from electrical sources to prevent devulcanization.*

5. *When ordering large quantities of retainer bands, consider their 2-year useful lifetime from date of manufacture.*

6. *Closely monitor retainer band condition at each repack and please report abnormalities to PIA (using the Survey Form below). Your input is greatly appreciated!*

20 June 2025

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Cis.
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