The Club would like to bring to Members’ attention the dangers of tensioned mooring lines and also highlight the concept of ‘snap-back’ zones.

A snap-back is the sudden recoil of a mooring line as a result of its failure under tension. A snap-back zone on a mooring deck is the space where it is anticipated that the failed mooring line could recoil with great velocity, possibly resulting in injury or even death to crew present within this zone.

Guidance and a review of the hazards associated with snap-backs are featured in industry publications such as the UK Maritime and Coastguard Agency’s Code of Safe Working Practices for Merchant Seaman (COSWP).

Until recently, this guidance recommended the marking of snap-back zones on the mooring deck around critical points such as the warping drum, roller fairleads and the pedestal rollers. The aim of these markings was to warn the seafarers to avoid standing in these zones when mooring lines were under tension.

However, recent studies have shown that the nature of snap-backs is more complex than initially perceived. This is due to various factors such as:

- Mooring configurations
- The nature of the mooring line used with regard to elasticity
- Breaking strength which may influence the trajectory of a parted mooring line.

Hence the marking of snap-back zones on the deck, although convenient and simple, does not reflect the actual complex snap-back zone and may lead the seafarer into a false sense of security that they are safe as long as they aren’t standing in the highlighted area.

The latest version of the COSWP (2019 edition) has revised its guidance on snap-back zones and now dissuades the marking of snap-back zones on the deck.

It recommends that the entire mooring deck should be considered as a potential snap-back zone and clear visible signage must be displayed to warn the crew. It is also recommended that a bird’s eye view of the mooring deck is produced to identify potentially dangerous areas. The diagram on the following page is an extract from the COSWP (2015 edition) and gives an example of how the snap-back zone may be depicted on a mooring plan.

Members should ensure that appropriate risk assessments are conducted on board their vessels to ensure potential snap-back zones are identified and the crew are made aware of these. This should include, but not be limited to, highlighting the safety procedures to be followed and also regularly checking the condition of the mooring lines and associated equipment such as stoppers.

It is also recommended that appropriate cautionary signage is displayed close to the mooring deck entrance highlighting the potential danger ahead.

The Nautical Institute has recently published a case study in its Mariners’ Alerting and Reporting Scheme (MARS) regarding an incident which occurred during mooring stations and is related to snap-back zones. You can read the case study here: Snap-back slipup.
Guidance on snap-back zones

The diagram shows the potential area of danger (snap-back zone) when the spring line parts at the spring line fairlead. The snap-back zone would be increased if both pedestal fairleads were used. (Swedish Accident Investigation Authority Report S-95/11 Morraborg)