

## Roll risk estimator for container vessels – MARIN Top Tier project

The International Group of P&I Clubs is a member of the Maritime Research Institute of the Netherlands (MARIN) Top Tier project. The project has been established to examine and assess the causes of container losses arising from at-sea incidents onboard various sizes of container ships with a particular focus on ultra large ships. The project has been approved by a cross section of industry, academic and government interests and MARIN will produce a report of its findings including recommendations in due course. It is envisaged that the recommendations will eventually lead to operational and technical improvements that should mitigate the risk and underlying causes of container losses at sea.

The International Group has received the annexed roll risk estimator which can be found [here](#).

It indicates combinations of speed, heading and wave period that result in unfavourable tuning of roll motions that should be avoided. It does not give indication of the maximum roll motion and at which wave height the vessel is vulnerable to adverse rolling must be judged by the master's experience. In addition, it does not address other dangerous ship behaviour like e.g. large vertical accelerations, shipping green water and slamming.

All clubs in the International Group have issued a similarly worded circular.

Any questions with regard to the above can be addressed to [lp@gard.no](mailto:lp@gard.no).

Yours faithfully,  
**GARD AS**

Marius Schønberg  
Vice President, Head of Loss Prevention