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To:	All Surveyors/Auditors
Applicable to flag:	All Flags
Subject:	Evaluation of risk due to grounding
Reference:	SOLAS 2009

Evaluation of risk from raking damages due to grounding

The issue of stability, and especially damage stability of passenger ships, has been frequently revisited. This has been so, not due to the number of associated accidents, but due to the consequences that these accidents can have.

Currently, in the EU, new passenger ships must comply with SOLAS 2009, while ro-ro passenger ships also need to comply with the Stockholm Agreement. Both UoS and HSVA studies commissioned by EMSA, and also other projects such as GOALDS and MCA RP592 among others, have focused their work on the damage stability standard set by SOLAS 2009. It is generally accepted that the probabilistic approach is a useful tool to objectively estimate the damage stability properties of a specific vessel.

Some of the previous studies (UoS, GOALDS) concluded that an increase in the Required Subdivision Index 'R' would be a suitable solution for the existing damage stability weakness concerning passenger ships and ro-ro passenger ships. Following the first discussions held at IMO, it appears that the 'R' is now a central issue.

Despite the extensive work already done, doubts have been expressed on one hand regarding the feasibility of the application of a high 'R' and, on the other hand, as to whether the safety level implied by 'R' is adequate.

It has notably been questioned whether large raking damages of the likes of the Costa Concordia are taken into consideration, whether better design solutions can be adopted with regard to watertight doors, or even whether any of these measures can be applied to existing passenger ships.

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In view of all the pending questions and the possible consequences of the on-going debates, the European Commission requested EMSA to initiate a new study to fill in the recognized knowledge gaps.

The study is separated into 6 sub-studies:

- Identification and evaluation of risk acceptance and cost-benefit criteria and application to risk based collision damage stability;
- Evaluation of risk from watertight doors and risk based mitigating measures;
- Evaluation of raking damages due to groundings and possible amendments to the damage stability framework;
- Assessment of cost effectiveness or previous parts, FSA compilation and recommendations for decision making;
- Impact assessment compilation;
- Updating of the results obtained from the GOALDS project according to the latest development in IMO.

REFERENCES:

- SOLAS 2009

ATTACHMENTS: No.

Kindest Regards,
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