



Technical Talk Titled “An Overview Of Second Generation Intact Stability Criteria”

By Rear Admiral Dato’ Pahlawan Ir. Hj. Jasan Ahpandi bin Sulaiman (Rtd)

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The Technical Talk was conducted by Commander Ir Dr Arman Ariffin RMN, held on 7th August 2018. The talk was based on his PhD thesis at L’universite de Bretagne Occidentale, France. A total of 10 participants had attended the talk. In 2016, he is the Malaysian Representative in the Ship Design and Construction (SDC) Sub Committee at International Maritime Organisation, London.

According to Cdr Ir Dr Arman, the International Maritime Organisation (IMO) was finalising their regulations pertaining to Second Generation Intact Stability Criteria (SGISC) which they started examining since 2008. The requirement came about because of the many ship accidents. SGISC was expected to be implemented in the 2022 and it a complementary to the existing IMO Rules on Ship Intact Stability Requirements. The flow chart of the Second Generation Intact Stability Criteria as shown in Figure 1.

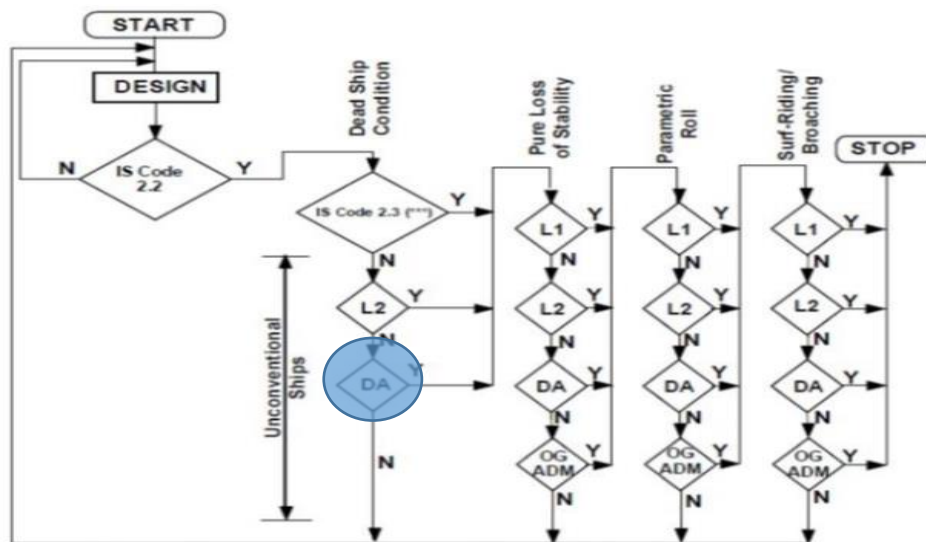


Figure 1: The flow chart of the Second Generation Intact Stability Criteria

It was interesting to note that Cdr Ir Dr Arman had conducted his laboratory experiments at the Marine Technology Centre of Universiti Teknologi Malaysia. He claimed that he was the first person to conduct a water tank experiment in the wind tunnel. At the first stage, It is very challenging to convince wind tunnel authority to conduct this experiment. After a comprehensive discussion and additional precaution had been taken into account, the experiment was successfully completed. The test configuration in the wind tunnel at Universiti Teknologi Malaysia as shown in Figure 2.

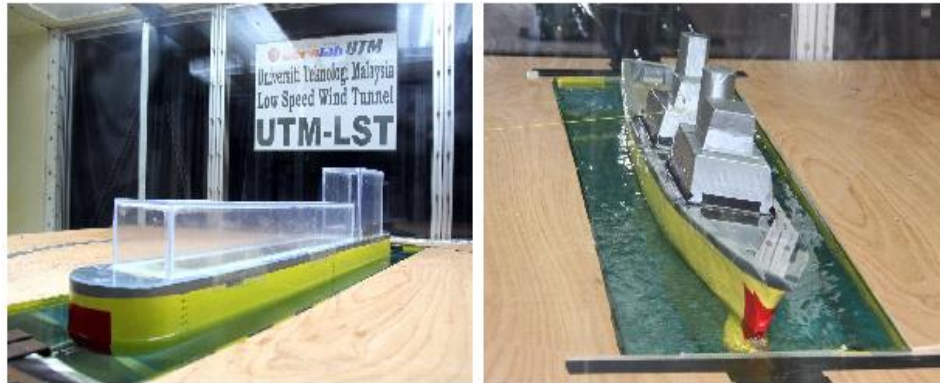


Figure 2: Test configuration in the wind tunnel at Universiti Teknologi Malaysia

His experiment is a proposal for the Direct Assessment for Dead Ship Condition using an experimental approach. Several papers were presented in International Conference on the Stability of Ships and Ocean Vehicles- STAB (the United Kingdom and Japan), International Ship Stability Workshop – ISSW (Sweden), Design for Safety Conference-DfS (Germany) and International Conference on Maritime Technology and Engineering - MARTECH (Portugal). However, the discussion still ongoing at Ship Design and Construction (SDC) Sub Committee at International Maritime Organisation, London and will be finalise soon.

Therefore, Maritime Industry in Malaysia should be in the loop of the SDC Meeting at London which held every year at London to ensure the local shipyard and maritime industry will be left behind with the new rules that are going to be implemented such as the SGISC. The Malaysian representative participation will safeguard the Malaysian Maritime Industry interest.

In conclusion, the talk by Commander Ir Dr Arman Ariffin RMN had given new information and update regarding the Second Generation Intact Stability criteria for ships and the ship design process.