Foreword

The main purpose of the present publication is first of all to make ship designers and operators realize that stability rules are not perfect and their fulfillment does not mean that the ship will be safe in all conditions. Secondly, to present Onboard Stability Documentation standard which enables better understanding of ship stability and increasing its safety.

Each year new rules are developed aimed at increasing safety of ships’ operation. It concerns also the ship stability rules. During the 52nd session of IMO Sub-Committee on Stability and Load Lines and Fishing Vessels Safety (SLF52) held in January 2010, i.a., development of dynamic intact stability criteria and damage stability regulations for ro-ro passengers ships was discussed.

New rules always increase labour consumption related to a new ship design and number of documents to be approved. Unfortunately, it does not affect the quality of stability documentation which is prepared imperfectly due to the wrong assumption that in practice the master will use the stability instrument only. Very often the documentation is difficult to understand and of little practical value. It is no surprise that it is just put aside.

The solution which may lower costs of stability documentation preparation, increase its quality as well as practical value is Onboard Stability Documentation standard. Easy to understand and logical standard will significantly facilitate and accelerate documentation approval process in Classification Societies but above all it will make officers’ work easier and increase ship stability safety. Proposal of such a standard for dry cargo vessels is presented in Part II of the publication.

Part I includes basic knowledge on ship hydrostatics and stability, presentation of current rules requirements concerning stability as well as information on ship’s behaviour in waves. Furthermore, it contains descriptions of stability accidents and proposals of design solutions which increase ship collision safety and survivability after damage.

The book is addressed to a wide circle of professionals involved in ship design, approval of stability calculations and documents, survey and operation of ships. It should be of interest to ship design offices, ship manufacturers, shipping companies (owners and operators), education institutes and others concerned with ship stability. However, it does not replace any regulations.

Jan Babicz
Consulting Naval Architect & Ship Surveyor