Introduction:

This report provides guidelines and recommendations for the design of single point yacht moorings.

- Chapter 1 refers to the Terms of Reference and describes the background of these guidelines, including the definition of the problem, the motivation for the guidelines, their objective, the structure of the document and the list of WG 168 members and contributors.
- Chapter 2 describes the basic principles that guide the design process of mooring systems and the planning of mooring fields. The design principles of mooring systems include functionality, regulatory, environmental, constructability, operational, inspection/maintenance and economics. The single point yacht mooring can be a component of a mooring field and additional considerations for mooring field justifications and planning approach are discussed.
- Chapter 3 provides a description of the types of yacht moorings and a discussion of application areas for each. Single point yacht moorings described include catenary and elastic (or taut) moorings. For reference, other types of moorings are described such as trot, two-point and pile moorings.
- Chapter 4 describes the components of a single point yacht mooring. These include anchor, rode, pennant and buoy, and ancillary equipment such as shackles and swivels. Application areas, standards, materials, strengths and corrosion are discussed.
- Chapter 5 describes the design process, making emphasis on the characterization of the mooring site, and the definition of design conditions and yacht parameters. Guidelines for the estimation of wind, current and wave loads are provided, and for the design of catenary and elastic moorings. Design examples and guidelines for the estimation of swing circles in the design of mooring fields are provided.
- Chapter 6 describes installation procedures of catenary and elastic moorings, alternative anchoring systems and necessary equipment.
- Chapter 7 provides an overview of the maintenance, including frequency of inspections and general procedures.
- Chapter 8 describes case studies of single point yacht moorings and mooring fields.

NOTE: The objective of this report is to provide information and recommendations on good practice. Conformity is not obligatory and engineering judgement should be used in its application, especially in special circumstances. This report should be seen as an expert guidance and state of the art on this particular subject. PIANC disclaims all responsibility in case this report should be presented as an official standard.

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