

Design and Operational Guidelines for Superyacht Facilities

PIANC Working Group 134

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In the late 1970's, an 18m (60ft) Hatteras was considered a large private yacht. This vessel had a captain and crew, and all the modern conveniences of a house – 3 to 4 staterooms, full kitchen facilities, and restrooms. Today, the 163.5m (536ft) long, 13,000 tonnes M/Y *Eclipse* has 11 guest staterooms, two helipads, a missile detection system, and a mini-submarine capable of submerging to 50m (165ft). The total on-board capacity accommodates 50 crew and 62 guests. While this illustrates the extreme in large yachts over the past 30 years, it speaks to the increasing size and demands of facilities required to berth these vessels.

According to the 4th Edition of the Super Yachting Index by Camper & Nicholsons International (2011), the current superyacht fleet as of 2010 is comprised of approximately 5,750 vessels. Approximately 365 of these yachts were delivered in 2010. Between 1997 and 2007, the global market of superyachts more than doubled. Although there is a recent slowdown of new construction, historically the industry growth in new superyacht orders ranged from 15 to 20% per year.

As superyachts enter the market, there is a significant increase in marina services and infrastructure requirements to meet the demands of this specialized industry. In most cruising and homeport areas, the facilities and services are inadequate to accommodate superyachts due to their widths, lengths, drafts, heights, and utility demands, such as electrical power, water, and fueling. Marina design and operational guidelines that exists today do not address the specific requirements for berthing superyachts.

PIANC Working Group 134 recently issued *Design and Operational Guidelines for Superyacht Facilities* (WG 134 Report) to provide international guidelines for assisting in the development and operation of superyacht marina facilities.

Marina infrastructure requirements that are specific to superyacht berthing include slip and basin dimensions, including width and length, turning basins, and water depth; dock loads, dimensions and freeboard; mooring hardware; electrical power and water demands; fire protection; access requirements; high speed fueling; sewage and wastewater pumpout; and solid waste and hazardous waste (e.g. oil) removal.

The other components that are important in development of superyacht marina facilities include operations and amenities. Superyacht owners and captains consider several factors in determining locations, both for homeporting and destinations, of their superyacht. These factors include: safety and security; airport access; provisioning of food supplies; shopping, entertainment, and activities; crew facilities; parking; concierge services; convenient and cost-effective fuel delivery; and dockside hookup to utilities.

General planning and design principles for small-craft marina facilities that are presented in existing publications are also applicable to superyacht facilities. The intent of the WG 134 Report is to supplement these principles with guidelines for requirements in the planning, design and operation of superyacht berthing facilities that are specific and unique to these larger vessels. In addition to planning and design guidelines for infrastructure requirements, the report presents vessel characteristics, observed trends in the industry, and examples of representative parameters for support services associated with the operation of a

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superyacht facility. The WG 134 Report is not intended to be an all-encompassing guideline for development of superyacht berthing facilities in general, nor is it intended to be a design specification or standard.

Some key observations and considerations in the planning, design and operation of superyacht facilities as discussed in WG 134 Report include:

- The definitions of superyacht and megayacht are based on length and vary throughout the world. The terms are frequently used interchangeably. For purposes of the report, a superyacht is defined as any vessel 24m (80ft) or longer.
- There are two general types of superyacht user and two general types of superyacht facility. One type of operator is a private owner who keeps the vessel exclusively for personal use and the other type of user is a business that operates a year round or seasonal charter. Several of the superyachts used for charter operations are privately owned but are available for charter part-time. A superyacht facility typically consists of a homeport or a destination marina, the former being the starting and termination points of a cruise.
- When planning and designing a berthing facility for superyachts, the following key criteria should be evaluated: the dimensions of the vessel including height; safe and efficient access between the vessel and the pontoon/dock; the number of crew and passengers; and the necessary support services required to accommodate and operate the vessel while at berth.
- Superyacht marinas are often located in areas with attractive upland facilities and serve as a focal point for activities. This means the superyacht marina itself can become an attraction and the layout should also be reviewed from this perspective. A superyacht marina should thus be analyzed relative to the flow of people, views, real estate, atmosphere and integration with the upland developments to create synergy between each component and achieve the full return on a costly investment. It should also integrate with the socio-cultural environment surrounding the facility.
- Demands for electrical power, water and fuel have increased almost exponentially with the increased size of superyachts and are a primary planning and design consideration for support services at a superyacht facility. Insufficient available electrical power at superyacht facilities is the number one complaint by crew and passengers. The report examines electrical power demands and suggests optimum supply levels, and examines the supply of potable water, fire protection systems, communication systems, and fuelling and pump-out facilities.
- Superyacht facilities must be managed with a customer-focused approach and offer a high level of support services. Given the ever-expanding number of facilities worldwide, any proposed marina should offer yachtsmen a reason to visit the facility other than for dockage. Services should also reflect the average length of visit, as the duration that a superyacht stays at any given facility will vary according to location.
- The perception of any marina is typically a direct reflection of the marina staff. While tolerance for less than perfect physical infrastructure may occur, such is not usually the case with marina staff. Great attention must be paid to staff training
- A high standard of security is required at superyacht facilities and care should be taken to ensure that the public cannot obtain direct access (i.e. touching, boarding) of vessels. Security measures can include controlled access using keypads or access cards, CCTV cameras with night vision and recording capabilities, motion sensor lighting and manned security.