



# HELIPAD

LED TECHNOLOGY



# **HVLAS** OPTONAVAL GMBH

HELICOPTER VISUAL LANDING AID SYSTEMS

Optonaval GmbH are the leading experts in engineered helicopter operations. From early design stage, through project realization until final acceptance Optonaval support their customers to secure safe helicopter operations within the requested limits and specified regulations. In addition, they design, produce, integrate and maintain Helicopter Visual Landing Aid Systems (HVLAs) tailor-made for Super Yachts.

## **OPTONAVAL STAND FOR**

- A market leading range of products enabling helicopter landing in open sea environment
- Integrated systems supporting pilots in safe operations according to international standards
- The perfect combination of outstanding design and cutting-edge technology
- Integrating yacht designers' ideas and requirements
- Customized project solutions
- A dedicated team with more than 10 years experience in the design of HVLAS

# **MORE** THAN EXPECTED

## **ACCEPTING OVERALL SYSTEM RESPONSIBILITY**

Optonaval accept the responsibility for the whole helicopter package on board the Super Yacht. Engineering, production, installation and commissioning (EPIC) remains in one hand.

## **MATCHING QUALITY AND INNOVATION**

Each individual Optonaval product meets the highest demands in quality and function. Built with the latest in LED technology, revolutionary sensor and control systems.

## **UPGRADES AND REFITS**

Upgrades of Super Yachts are facilitated by using Optonaval's modular equipment. Flexibly integrated, design adopted to customer's standards.

## **DEDICATED TO CUSTOMER SUPPORT**

In case of any problem Optonaval experts are available to analyse and solve it. Communication 24/7, prepared to assist on board wherever needed.



DEVELOPED FOR THE HARSHTEST ENVIRONMENTS

# HELIPAD MONITORING

## **SURVEILLANCE | SUPPORT | SYSTEM INTEGRATION.**

- Based on cutting edge LED technology
- Integration of all peripheral components
- Certified helipad supporting ship command and pilots acc. to CAP 437
- Control and monitoring software developed by Optonaval
- Secure data and communication infrastructure
- Intuitive touch panel user interface
- Extendable to include weather monitoring, reporting, FiFi, refuelling and other operations
- Recommending the angle of approach based on MetOcean data



# PRODUCT RANGE

## DRIVEN BY GOOD DESIGN

- Custom designed to owner's and designer's specifications
- Undisturbed overall yacht design
- Enabling landing operations at day and night
- Withstanding harshest conditions
- Easy to operate and maintain

## COMPREHENSIVE PRODUCT RANGE OF HELICOPTER VISUAL LANDING AIDS

- Glide Path Indicator
- Horizontal Reference System
- System Control Cabinet with Touch Panel
- Homing Beacon / Flash Light
- Deck Edge Lights / Perimeter Lights
- Illuminated Aiming Circle and "H"
- Obstruction Lights
- Deck Status Lights / Stop&Go Lights
- Service Flood Lights
- Illuminated Wind Sock







# GLIDE PATH INDICATOR

## SAFE GUIDANCE | FULLY REDUNDANT

- Gyro-stabilised glide path
- Guiding the pilot from up to 5 nm distance, showing the right angle of approach
- Two redundant light projection units
- 360° rotating
- Compliant with prevailing safety regulations (CAP 437)
- Customised design
- Optional day/night camera, flood light, laser etc. integrated, motion stabilised and target tracking





# HORIZONTAL REFERENCE SYSTEM

## **MOTION STABILIZED ASSISTANCE | UNPARALLELED**

- Providing roll motion information to the pilot
- Indicating the “landing window” and „stop signal“ by means of different colours
- Recessed and fully integrated into the surface and shape of the superstructure
- Design combining aesthetics and recommended landing procedures
- Mobile version available, to be temporarily mounted on demand
- Perfect solutions for new buildings and refits



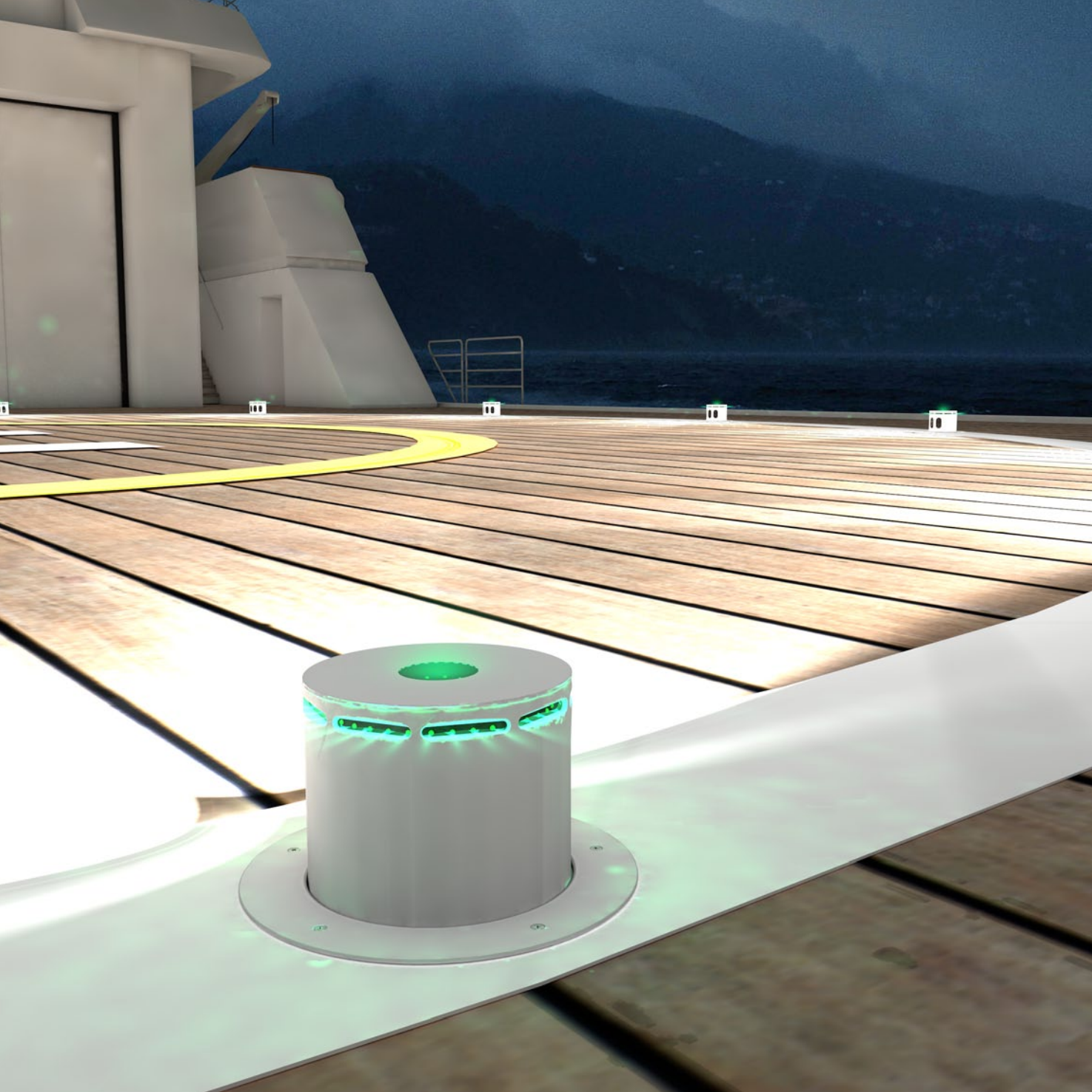
# **CUSTOMIZED FLIGHT DECK LIGHTS 2.0**

## **DESIGNED WITHOUT LIMITS | HAND CRAFTED IN HAMBURG**

- Recessed lights to maintain flush deck
- Pop-up lights, only elevated above the deck surface when needed
- Aiming circle, and H marking fully illuminated
- Even and clearly illuminated area of the flight deck
- Obvious and dazzle-free for the pilot
- Integrated perimeter light on top of the flight deck light
- NVG compatible
- CAP 437 conform
- AIRBUS DeckFinder™










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