

**OPTONAVAL
HVLA
SYSTEM**

HELICOPTER
VISUAL LANDING
AID SYSTEM

HELIPAD

VISUALIZED SAFETY.
PROVEN DESIGN.



LED-TECHNOLOGY.
PURPOSE BUILT FOR NAVAL VESSELS.
MODULAR SOFTWARE SUITE FOR CONTROL
AND MONITORING.





HVLAS | OPTONAVAL GMBH

Optonaval GmbH are 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. Furthermore, they design, produce, integrate, and maintain Helicopter Visual Landing Aid Systems (HVLAs), tailor-made for Naval Vessels.

OPTONAVAL STANDS FOR

- A market leading range of products enabling helicopter landing in open sea environment
- Adherence to military standards
- Comprehensive modular software application
- Competence in true NVG capabilities
- Perfect combination of proven design and cutting-edge technology
- Customized project solutions
- Focus on low maintenance and high availability
- A dedicated team with more than 15 years of experience in HVLAS design



MORE THAN EXPECTED



ENGINEERING,
PRODUCTION,
INSTALLATION,
COMMISSIONING,
FROM ONE HAND.

ACCEPTING OVERALL SYSTEM RESPONSIBILITY

Optonaval accept the responsibility for the whole HVLA package on board Naval Vessels. 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.

MODERNIZATIONS AND REFITS

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

DEDICATED TO CUSTOMER SUPPORT

Comprehensive ILS package on hand. Further on, Optonaval experts are available to analyse and solve any problem. Communication 24/7, prepared to assist on board wherever needed.

MONITORING HELICOPTER OPERATIONS.





ALBATROSS | CONTROL & MONITORING SYSTEM

Optonaval's software suite **Albatross** enables the comfortable use of their Helicopter Visual Landing Aid System. Apart from basic functions in **AlbaBasic**, further modules, namely **AlbaNavy**, **AlbaSafe** and **AlbaHealth**, offer numerous features for Naval Vessels:

- Intuitive graphical user interface, easy to operate, co-designed by helicopter pilots
- Safe Helicopter Operation Limits (SHOL) can be displayed
- Easy communication between ship and helicopter
- Identification of malfunctions and deviation of standard values
- Maintenance history tracking
- Integration of all peripheral helicopter service components
- Interface to ship's command system
- Developed by in-house staff



PROVEN DESIGN,
DEVELOPED BY NAVY PILOTS.





DRIVEN BY GOOD DESIGN.

- Custom designed to Navy's and shipyard's specifications
- Able to operate with Night Vision Goggles
- Cutting-edge LED technology, dimmable in 65k steps
- In use at various navies around worldwide, NATO and Non-NATO
- Certified equipment according to military standards
- Smart weight saving cabling
- Withstanding harshest conditions
- Focussed on minimized maintenance, equipped with health monitoring sensors

COMPREHENSIVE PRODUCT RANGE.

FDO and Bridge Control Station

Software Suite Albatross

Glide Path Indicator

Horizon Reference System

Homing Beacon / Flash Light

Combined Flood, Deck Edge & Service Light

Line-up Light

Universal Indicator Light, e.g. for VERTREP and HIFR

Universal Traffic Light

Deck Status Light / Stop&Go Light

Overhead Flood Light

Inertial Measurement Unit

GPI | GLIDE PATH INDICATOR

SAFE GUIDANCE | FULLY REDUNDANT.

- Motion-stabilized glide path according to STANAG 1236
- Guiding the pilot from up to 5 NM distance, showing the right angle of approach
- Two redundant light projection units and two integrated inertial measurement units
- 180° rotating around the vertical axis to adjust to the direction of approach
- Roll and pitch stabilization $> \pm 25^\circ$
- Self-aligned, no interface to ship's gyro required
- Design focus on lowest maintenance





HRS | HORIZON REFERENCE SYSTEM

MOTION STABILIZED ASSISTANCE | UNPARALLELED.

- Providing roll motion information to the pilot
- Oscillating bar of proven design with fixed reference lights
- Stabilized by powerful actuator and own inertial measurement unit
- Self-aligned, no interface to ship's gyro required
- Counteracts ship's roll motions of up to $\pm 30^\circ$
- LED-matrix can be combined with wave-off alarms



CFDEL | COMBINED FLOOD, DECK EDGE & SERVICE LIGHT - THE „CRAB“

DESIGNED WITHOUT LIMITS | HAND CRAFTED IN
HAMBURG.

- Deck edge lights and full deck lighting in one unit
- Evenly and clearly illuminated deck, dazzle-free for the pilot
- One component for multiple applications, e.g. also as T-Line-Light and Service Light
- Low maintenance, reducing ILS effort
- Certified according to military standards
- NVG compatible





UIL | UNIVERSAL INDICATOR LIGHT

ENGINEERED FOR MULTIPLE PURPOSES | RELIABLE AND DURABLE.

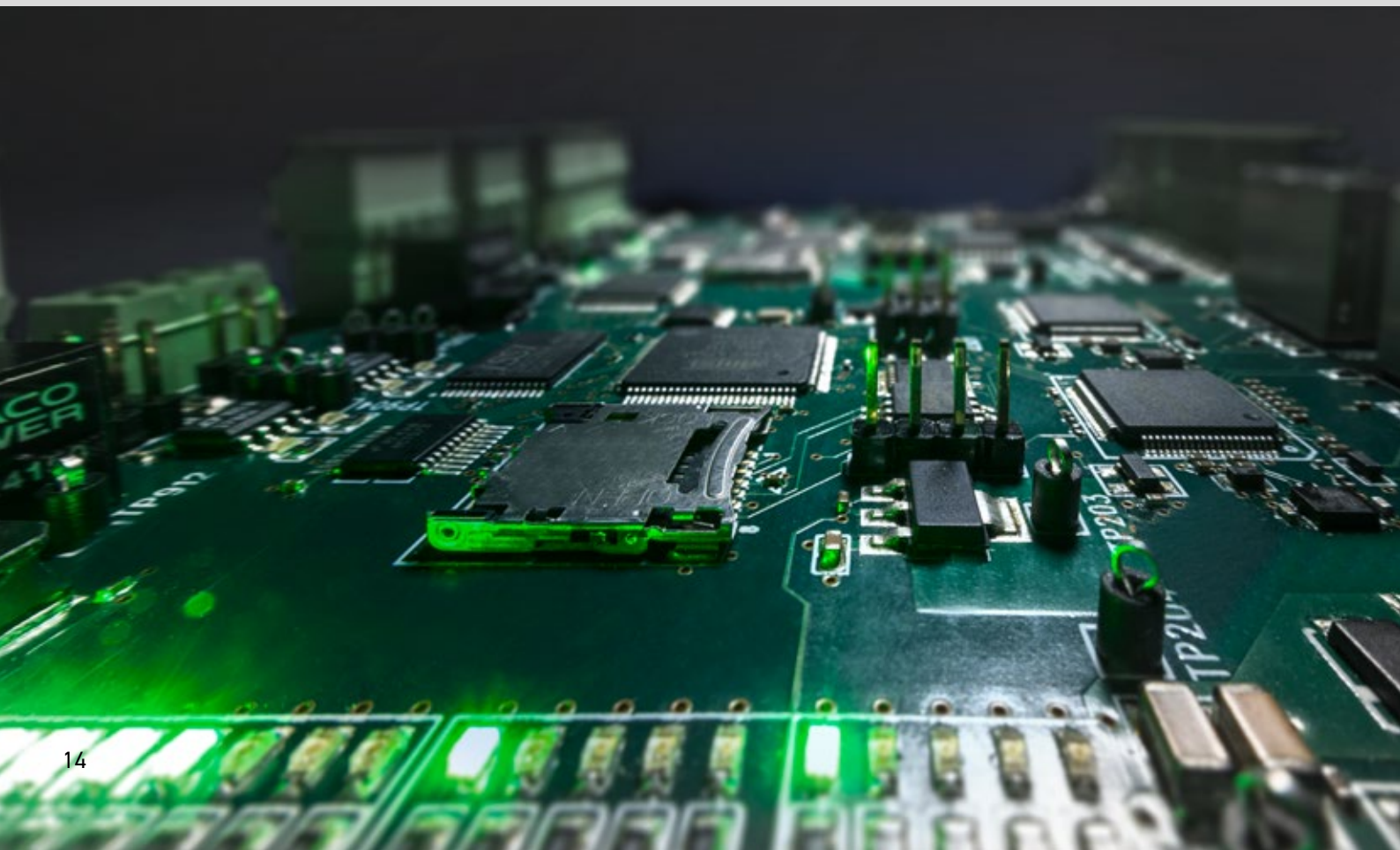
- Various applications packed in an identical housing
- Installed as Obstruction Light, Wave-off Light, Homing Beacon, VERTREP or HIFR Light
- Light colour, intensity and flash rates adapted to the purpose
- Reducing spare parts and ILS effort
- NVG compatible, dimmable



INTEGRATED HEALTH MONITORING

CONSTANT SURVEILLANCE | MINIMIZING ILS EFFORT.

- Incorporated sensors in each component
- temperature, humidity, current and brightness (NAV Lights)
- Detecting any upcoming degradation
- Status information while switching on the system
- Maintenance jobs only when needed
- Extended life time of the component



OFL | OVERHEAD FLOOD LIGHT



SGL | STOP & GO LIGHT



UTL | UNIVERSAL TRAFFIC LIGHT

LUL | LINE UP LIGHT





Optonaval GmbH
Dampfschiffsweg 11
21079 Hamburg
Germany

+ 49 40 60 94 49 0 - 0
info@optonaval.de

© Optonaval GmbH

ON UNL NAVY Brochure 09/2023



www.optonaval.de