

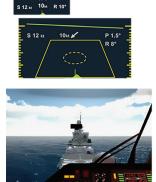
# PROJECTION MAPPING LANDING AID

# Augmented reality for the helicopter landing on ship helidecks

The projection mapping landing aid (PMLA) superimposes an image of the landing scenario on the hangar face for the pilot to have situational awareness as they land. The image integrates relevant sensing data augmenting the perception of the pilot during landing and reducing workload.

## MAIN CHARACTERISTICS

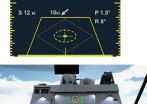
- > Approach alignment indication
- > 3D helicopter positioning:
  - > Position on deck
  - > Altitude over deck
- > Horizon reference, integrated in the altitude indication
- > Scenario data:
  - > Environment (wind speed and direction)
  - > Navigation (course, speed and attitude)
- > Maneuver data recording



Approach









Touch Down



### Benefits

- Safe landing in low-light conditions due to improved perception
- > Reduced workload for pilots
- > Eliminates or supplements landing signal officer (LSO) on deck
- Substitutes radio data communication
- > Landing data available for analysis and training
- > Display for deck crew communications
- > Low-impact installation

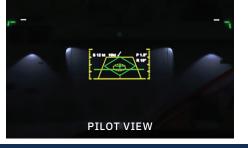
#### **Technical Specifications**

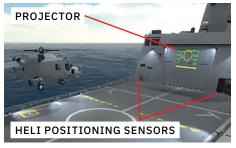
- > Helicopter position:
  - > Range: 100m
  - > Accuracy: 0.1-to-0.6m (depending on the range)
- > Display:
  - > Size: 3m x 1.8m (length x height)
  - > Resolution: Standard HD 720p
- > Projector dimensions:
  - > 530mm x 430mm x 380mm

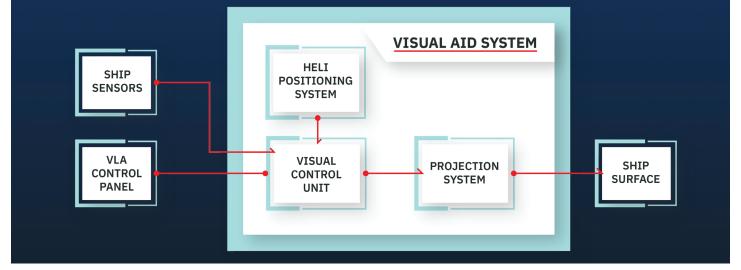


#### INSTALLATION AND ENVIRONMENT SPECIFICATIONS

- > Projector: Hangar surface installation
- > Positioning sensors: Deck installation
- > Enclosure: Waterproof IP 56 (EN 60529)









#### **PMLA**

- > Precise helicopter positioning
- > Pilot situational awareness
- > Easy deck area installation

#### **PATENT PENDING:**

IT 102017000137484 EP 18816251.5 CANADA 3,083,171 USA 16/767,064

#### L3Harrissellsht\_PMLA

#### © 2022 L3Harris Technologies, Inc. | 09/2022

NON-EXPORT CONTROLLED - These item(s)/data have been reviewed in accordance with the International Traffic in Arms Regulations (ITAR), 22 CFR part 120.34, and the Export Administration Regulations (EAR), 15 CFR 734(3)(b)(3), and may be released without export restrictions.

Data, including specifications, contained within this document are summary in nature and subject to change at any time without notice at L3Harris Technologies' discretion. Call for latest revision. All brand names and product names referenced are trademarks, registered trademarks, or trade names of their respective holders. L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains



Via A. De Gasperi 7, 40012 Calderara di Reno, BO - Italy t +39 05141377 | f +39 0514137555 Calzoni.General@L3Harris.com