ViDAR (Visual Detection and Ranging)

The perfect maritime search complement to high-resolution imagery.

Scanning, detecting and cueing platform sensors to find elusive objects over vast areas of water just got easier. ViDAR is an airborne wide area maritime search payload that pairs automated target detection with high-resolution identification, empowering operators to find objects of interest that other search methods often miss. Using the ViDAR modular payload, UAS platforms can search an approximately 13,360 NM area in 12 hours.

KEY FEATURES

› Delivers wide area maritime search and surveillance at unprecedented Size, Weight and Power (SWaP)
› Pairs a scanning search camera with a high-resolution nose turret for automatic detection, cataloging and selective cross cueing
› Uses a modular payload sensor suite to positively identify maritime targets
› Utilizes onboard image processing algorithms to detect objects of interest
› Catalogue targets for map location overlays, tracking and target interrogation
› Low SWaP and modular integration into mature UAS platforms enable effective primary search capability in a small footprint, cost-effective unmanned solution

SPECIFICATIONS

VIDAR TURRET
› Scan Type: Five Increment Step Stare
› Angular Coverage: 180°
  FOR limits and FOV scan rate are configurable to support mission flexibility

GIMBAL
› Tilt: 30° Up, 90° Down
› Pan: 360° (Endless)
› Slew Rate: 50°/Sec
› Performance @ 1 Hz and 2 Hz: 59 dB Attenuation
› Power Supply Range: 12.6–14.4 VDC, 16 w Nominal, 17.5 w Peak

IMAGERS
› Wavelength: 400–900 NM
› Pixels: 1280 x 720

TARGET AND DISTANCE DETECTED
Examples of Demonstrated Capability:
› Person in Water (PIW): >1.7 NM
› Six-Person Raft: >3.5 NM
› 40' Fast Boat: >17.5 NM
› 20' Fast Boat: >9.1 NM
› Single Deck Car Ferry: >30 NM

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