

NiKA



2023-08 v1

The Ultimate Solution for Autonomous Maritime Surveillance

NiKA is a state-of-the-art autonomous maritime surveillance platform that combines advanced technology with exceptional performance. Equipped with a custom hydrophone assembly, NiKA efficiently gathers precise acoustic data by cycling through the water column before surfacing to relay the collected data. This critical information, along with the platform's real-time position, is then transmitted using the highly reliable Iridium Certus® 100 mid-band satellite service.

The device is capable of operating at depths of up to 1000 meters, making it a versatile and flexible complement to traditional sonobuoys, fixed and towed arrays. NiKA's exceptional operating life of over a year makes it the ideal solution for long-term monitoring, anti-submarine warfare surveillance, and underwater ocean profiling. It provides critical command and control capabilities for naval operations, delivering real-time acoustic detection and satellite localization of submarines.

Whether for military or commercial purposes, NiKA offers a cost-effective and indispensable tool for safeguarding against underwater threats.

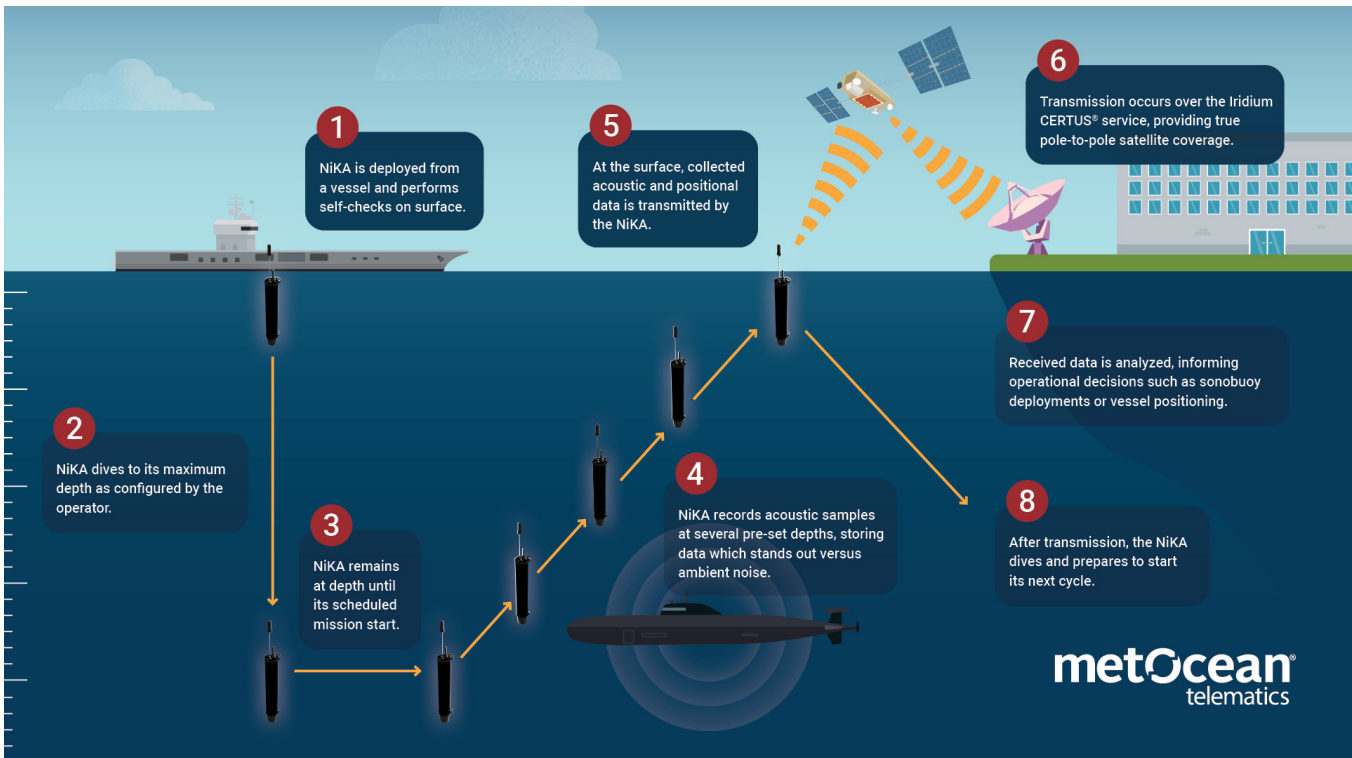
- Autonomous Anti Submarine Warfare Surveillance
- Acoustic Detection & Satellite Localisation of Submarines
- Mission Critical, Command & Control Subsurface Profiling



MetOcean is thrilled to announce its victory as one of the winners in the prestigious **2023 NATO Innovation Challenge**. The recognition comes for their ground-breaking **NiKA** platform, a cutting-edge autonomous maritime surveillance system designed to revolutionize underwater acoustic data collection and transmission.

Connected. Everywhere.

OPERATIONAL FEATURES			
Maximum depth: 1000 m (3,281')	Deployment: Handles for slip-rope deployment		
Highly configurable operational life, based on selected acoustic windows and required depths	Activation Method: Removable magnet		
Battery: 60 x Saft LSH20 lithium battery	Automatic scuttling at end of useful life		
3 year shelf life	Encryption: Secret - AES-256		
MECHANICAL			
Hull material: Hard anodized aluminum			
Height: 1475 mm (58.1") with antenna, 890 mm (35.0") without antenna			
Mass: 34 kg (75 lb)			
Hydraulic buoyancy control	Fully sanitized design, no visible branding		
CONNECTIVITY			
Iridium Certus 100 satellite connectivity – up to 88 Kbps	First Defence product using Iridium 9770 midband transceiver		
SENSORS			
Hydrophone	Custom hydrophone element developed in Nova Scotia	Sampling rate: 5 KHz	
	Frequency band: 10 Hz – 1 KHz	Detection radius: 9.26 km (5 NM)	
Temperature Sensor	Ultra low power depth sensor - Canadian made	Pressure Sensor	Ultra low power depth sensor - Canadian made
	+/- 0.002 °C (0.0036 °F) over -5 °C (23 °F) to 35 °C (95 °F)		2000 m (6,561.7') depth rating
	Resolution 0.00005 °C (0.00009 °F)		+/- 1 m (3.3') accuracy
			Resolution 20 mm (0.79")



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