DIGITAL DEEP SEA

Ghost

AIS Ghost

A reliable and secure method to provide vessel AIS data to selected monitoring sites while remaining “dark” afloat

Part Number: **ZDIGAISGHOST**
UPC: **5065025638084**

AIS TRANSMISSION DARK
NO DATA SIGNAL

The AIS Transmit Dilemma

Under the International Maritime Organization's (IMO) SOLAS convention, AIS must be continuously operational for most commercial and passenger vessels while underway or at anchor. However, the master has the overriding authority to turn it off if they determine its continual operation compromises the **safety or security** of the ship. A master typically disables the AIS transmitter for three primary reasons:

Piracy and Armed Robbery: Transmitting an AIS signal in notorious piracy hotspots (such as the Gulf of Guinea or certain high-risk zones) can allow bad actors to easily locate, track, and target the vessel.
Security Threats: In areas of imminent, extreme geopolitical conflict or heightened military surveillance, authorities or flag states may advise or order vessels to go "dark".
In Port: While international regulations do not explicitly require AIS to be active while docked, individual port authorities may have specific rules dictating when a vessel must broadcast.

Proper Procedure and Logbook Documentation

Turning off an AIS is a serious decision and involves specific protocols to maintain compliance and seaworthiness.

Risk Assessment: The master must assess the navigational and security risks.
Enhanced Watch: A heightened visual and radar lookout must be maintained, and the bridge team must be briefed.
Logbook Entry: This is vital. The master must strictly record the exact date, time, position, the reason for the shutdown, and authorization details.
Reactivation: The AIS must be switched back on as soon as the source of danger has passed

For a ship transiting the Strait of Hormuz, for example, there are clear security threats and having a publicly available transmitting device broadcasting the vessel’s position, course and speed makes it a sitting target for drone or missile attack

However, “good” and trusted authorities need to know the ship’s position. In addition, current transit arrangements in hostile areas rely on AIS to feed platforms such as US CENTCOM, UK MTO etc with real-time ship AIS data. AIS Ghost from Digital Deep Sea provides an easy, secure and reliable solution, staying dark to unwanted parties.

The Ghost Solution

Digital Deep Sea AIS GHOST: A simple, low-cost solution that fits in minutes and provides a secure, traditional IP feed to tracking providers or fleet managers in standard VDO/VDM messaging formats.

That means there's no expensive and time consuming monitoring centre technical updates but there's a secure layer of vessel position data made available to trusted and "good" authorities.

The supplied pilot plug cable connects to the standard pilot plug interface on the bridge of every ship equipped with AIS. The Captain can silence transmissions from the AIS but the pilot plug will continue to broadcast AIS information via the local wired interface.

On board hardware cost $900
Monthly data and app costs $200/month*

*Requires on board internet connectivity

- Allows reception of AIS data by trusted shore facilities while the ship's transponder has transmit disabled
- Standard AIS VDO/VDM messaging format
- Connects to standard AIS Pilot Plug connector without disrupting existing bridge installations
- Built on NjordLINK+ and Njord Cloud technology
- Portable – simply requires connection to external AC power source (110/220v) or optional 12/24V DC ship's supply
- No additional onboard connectivity required – utilise existing internet connectivity
- Connect via wireless or wired LAN connection to any on board internet source – 4G/LTE, StarLINK, VSat etc
- Supports multiple feeds, users and vessels for fleet management
- Viewing app for fleet managers and ship owners

AIS Ghost – Data Process

NjordLINK+ & Njord Cloud are Digital Deep Sea's secure cloud solution.

Data is securely sent from the onboard NjordLINK+ device to the Njord cloud. The cloud partner is Viam, a highly respected cloud and AI provider with leading data security.

Njord cloud processes the ship data and provides a feed to whatever trusted monitoring service or application that is required. The data is provided in standard AIS data format so these facilities don't need a re-write of data collection algorithms

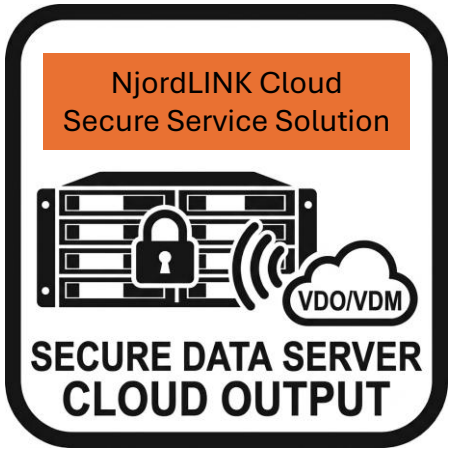
Onboard Class A is operated in TX silence mode

Pilot plug connector interface utilised to connect to NjordLINK+

VDO/VDM AIS messages sent to NjordLINK+

NjordLINK+ securely sends data to the Njord cloud

Encrypted data delivered to Njord Cloud



Std data provided to chosen partner or fleet manager

"14 Jul 26 05:32 -0400"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{
  "_ts": "2026-07-14 05:32:46.987122204 -0400 EDT m=+486147.952390362",
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}
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Shore stations with standard AIS monitoring will not see the vessel with the AIS transponder in silent mode

2: AIS Ghost sends vessel identity and position generated from on board AIS with any other AIS traffic received by secure communications link to Njord Cloud.
Connectivity platform agnostic – Starlink, 4G, Vsat etc

3: Njord Cloud server processes ship position data (and ais received data if required) and formats a secure but standard TCP/IP based feed to chosen monitoring station(s) using standard VDO/VDM messaging

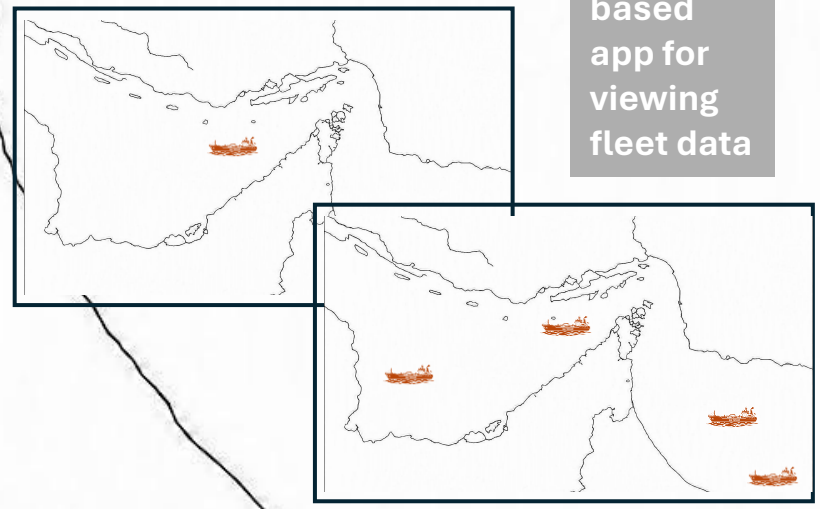
Vessel equipped with AIS Ghost system

1: Vessel silences main AIS transponder but continues to receive AIS data from other vessels within range and uses pilot plug connector to send data to AIS Ghost solution

Synthesised VDO/VDM message feed from vessel's silenced AIS system and NjordLink+

TCP/IP feed to chosen partners

Web based app for viewing fleet data



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