



# Brazilian Northern Arc

RISK ANALYSIS in  
the new expanding  
Brazilian port zone

REPORT 004



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## Overview

Regarding the high risks that shipowners face in the Northern Arc.

The Northern Arc has established itself as **one of the main export routes for Brazilian agribusiness**. According to the 2026 Agrologistics Yearbook, published by the National Supply Company (Conab), ports located above the 16th parallel south accounted for **39.5% of national soybean and corn exports in 2025**.

In terms of security, this region, historically designated for agricultural and mineral commodities, faces accelerated exploitation by transnational criminal organizations, **considered one of the port regions with the highest rates of pirate attacks and crew kidnapping**, especially on river routes.

The combination of geographical proximity to major producing nations (Colombia, Peru, Bolivia), a **vast and unregulatable river network**, and lower technological enforcement densities makes the Northern Arc a critical frontier for narcotics contamination.

Our strategic intelligence report analyses the evolving threat landscape in the ports of the Northern Arc, spanning the states of Amapá, Pará, Maranhão, Amazonas and Rondônia. The following pages provide valuable data on the risks in this region and how to protect your operations.



# BRAZILIAN NORTHERN ARC:

## A NEW EMERGING ROUTE FOR AGRIBUSINESS



The ports of the Northern Arc are the main entry points for fertilizers in Brazil, surpassing the volume of unloading seen in Paranaguá. This shift began in 2024 and consolidated last year, with 13.36 million tons of fertilizers being imported from the Northern Arc in 2025.



- Itaqui, in Maranhão, received 34% of the total fertilizer volume imported.
- Santarém, in Pará, accounted for 22% of the regional total, receiving cargo from the states of Pará and Mato Grosso and western Tocantins.
- Port of Salvador accounted for 21% of imports, serving the Matopiba region, a major producer of cotton, soybeans, and corn.



The increased influx of fertilizers through the Northern Arc is influenced by the region's ports being the primary choice for exporting corn and soybeans. According to the Ministry of Development, Industry, Trade and Services (MDIC), grain exports through the Northern Arc ports increased from 36.56 million tons in 2021 to 58.06 million tons in 2025, a 59% increase.

### Logistical Dispersal: Shifting Axes from Santos to the North

The ports of Santos (SP) and Paranaguá (PR) handle the highest volumes of regular containerized cargo lines, directly connected to European and African distribution hubs. However, the aggressive implementation of advanced yard AI, continuous container scanning and intensive public K9 unit deployments have significantly raised the seizure rates for criminal syndicates in the south. In response, organized crime has executed a asymmetric logistical shift. The Amazon Arc offers three key tactical advantages:

**Elimination of Domestic Land Transit Risks:** Narcotics produced in Bolivia and Peru enter directly through the Solimões, Madeira, and Amazon river systems, bypass terrestrial highway checkpoints monitored by Federal forces in the central-southern corridors.

**Nautical Efficiency to Key Destinations:** Vessels departing from Maranhão (Itaqui) or Pará (Vila do Conde) save 4 to 6 days of open-ocean transit to Europe or the West Coast of Africa compared to southern ports, decreasing the exposure window for illicit payloads.

**Vulnerable Inland Anchorage Grounds:** Long-haul bulk carriers frequently anchor for several days in wide river corridors (e.g., Barcarena and Santarém). These isolated anchorage sites lack land-based port facility CCTV coverage, allowing small local rivercraft to approach unhindered under cover of darkness.





## RISK ZONE FOR SHIPOWNERS: RIVER ROUTES

Ports of the Northern region are high risk areas for shipowners. Criminal groups take advantage of the volume of goods, the complexity of the logistics chain, and loopholes in inspections to conceal drugs in vessels and containers. River and seaports such as Manaus, Belém, Santarém, and Vila do Conde (Barcarena) are used as logistics routes for internal traffic and transit to the outside via the Amazon.



### PIRATE ATTACKS AND KIDNAPPING OF CREWS IN NORTHERN BRAZIL

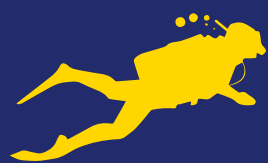


- **Pirate attacks remain one of the most dangerous threats in this area.** Attacks on Amazonian rivers represent a growing challenge to the region's logistical security, affecting the transport of cargo, fuel, and the supply of communities.
- Groups, heavily armed and equipped with fast boats - some even armored - attack convoys and small vessels navigating the Amazonian rivers, easily escaping police patrols.

- **At least 60 armored vessels** used by pirates have already been identified in the states of Amazonas and Pará.
- **92.3% of the crimes occurred directly on vessels**, demonstrating that the attacks primarily target ships, barges, and river convoys.
- **116 incidents of pirate attacks and armed robbery were recorded in 2024.** In these incidents, 126 crew members were taken hostage.

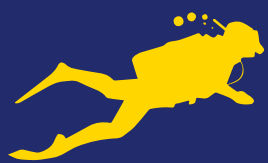
# OCEANOGRAPHIC VARIABLES & IMPACT ON UNDERWATER INSPECTION (UWI) ENGINEERING

Deploying commercial divers or tactical public safety teams for hull inspections faces absolute environmental barriers in northern estuarine networks, rendering traditional diving ineffective or life-threatening:



## AMAZON RIVER FLUVIAL COMPLEXES (VILA DO CONDE, SANTARÉM, SANTANA)

- **Water Visibility:** Near-zero. High concentrations of suspended solids, clay, and organic matter completely block light. Human divers are blinded and must inspect large hulls entirely by tactile sensation, failing to detect sophisticated magnetic or flush-mounted contraband boxes.
- **River and Tidal Currents:** Severely dangerous. Natural river discharge combined with tidal inflows creates continuous currents ranging from 3.5 to 4.5 knots. This fluid velocity poses fatal risks of diver suction into intake grates, pinning against the hull, or umbilical line severance.



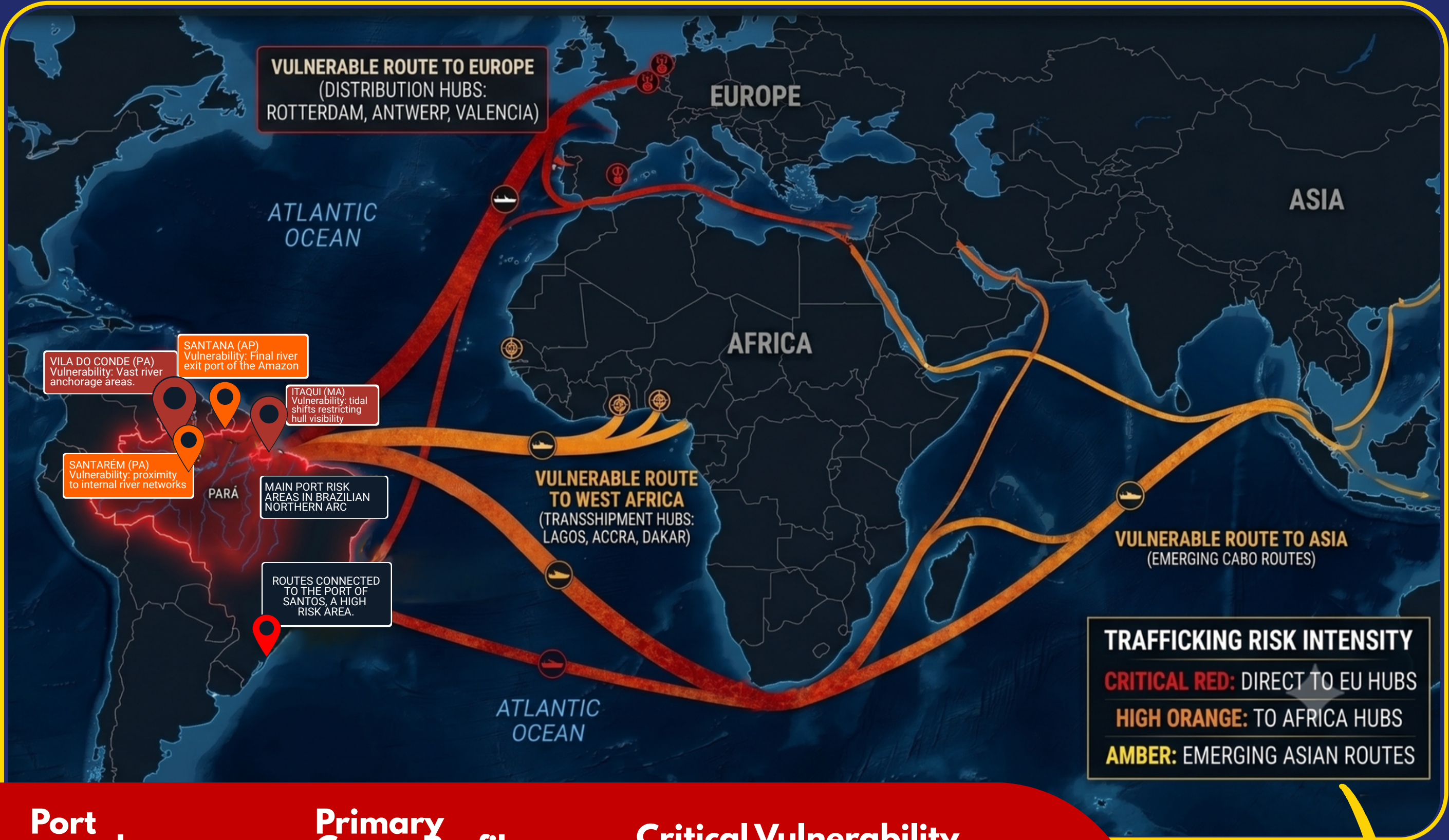
## ITAQUI PORT COMPLEX (SÃO LUÍS / SÃO MARCOS BAY)

- **Water Visibility:** Very low to null due to intense estuarine macro-tidal sediment suspension.
- **Tidal Range and Currents:** Dictated by one of the largest macro-tidal variations globally (up to 7 meters). The massive volume of water shifting during tidal changes generates violent currents, restricting safe human diving to narrow "slack water" windows lasting only 30 to 40 minutes.

### TECHNICAL MITIGATION PROTOCOL (ROV)

Since environmental variables render manual diving obsolete, the integration of Remotely Operated Vehicles (ROVs) equipped with High-Frequency Imaging Sonars (e.g., BlueView / ARIS acoustic systems), multi-axis thrusters, and low-light optical arrays is mandatory. Acoustic imaging cuts through zero-visibility silt to reconstruct real-time digital topographies of sea chests, the rudder, and the keel.

# PORT VULNERABILITY MATRIX & HOTSPOTS



## SHIPPING ROUTES AND REGIONAL PORT HOTSPOTS

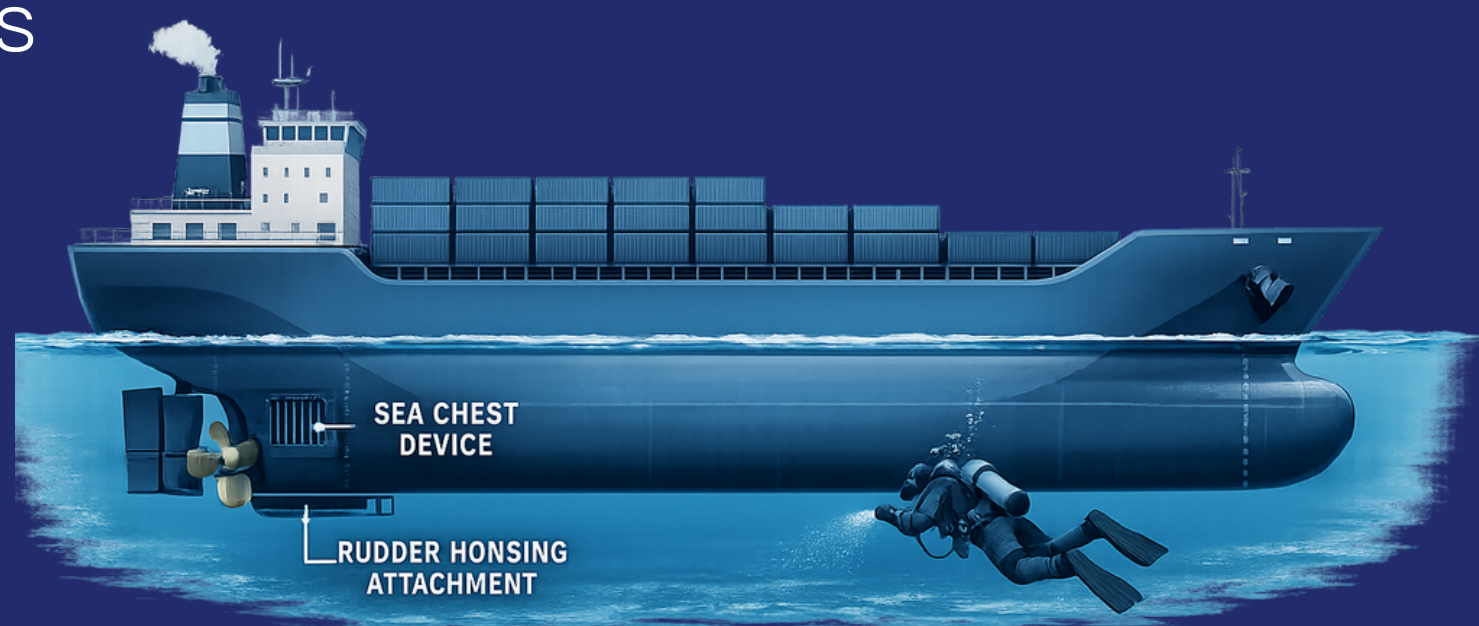
**Transatlantic Northern Corridor (Europe):** Direct departures from the Amazon River gateway (Vila do Conde, Santarém, Santana) and Itaqui to Western European hubs: Rotterdam (Netherlands), Antwerp (Belgium), Valencia/Algeciras (Spain), and the UK.

**West African Corridor (Transshipment Hub):** Direct routes linking Northern Brazil to West Africa (Nigeria, Ghana, Senegal). These jurisdictions serve as secondary consolidation zones for subsequent smuggling into the Mediterranean.

**Caribbean & North American Vectors:** Bulk or general cargo routes heading northbound into Central American and Caribbean transit islands, aiming for secondary distribution into North America.

# SUBSURFACE CONTAMINATION METHODS

As topside vessel controls tighten under ISPS parameters, organized crime has migrated downwards. Cartels deploy professional, highly equipped **divers** to intercept ships at remote anchorages. Using magnetic welding or high-torque bolting, they secure waterproof, ballast-weighted narcotics containers directly inside the vessel's **sea chests** or within the **rudder trunk**.



## Recent Operational Precedents in the Amazon Arc:

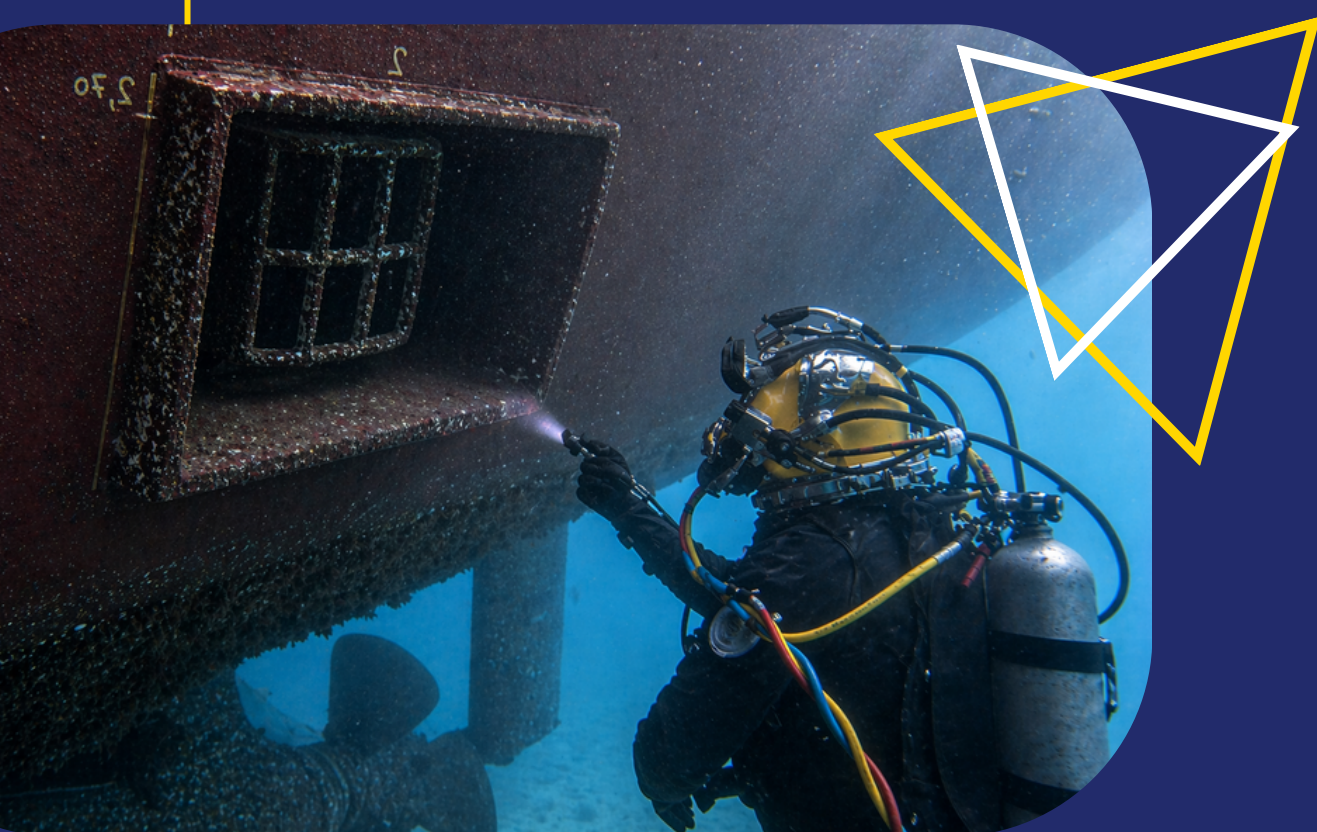
- Federal authorities executed major seizures involving **high-purity cocaine secured deep inside the hull structures of long-haul vessels** operating out of Vila do Conde (PA). Targeted ships included livestock carriers returning from European loops, proving that cartels monitor and exploit predictable fleet rotations.
- At Itaqui (MA), joint task forces have intercepted significant **payloads attached to the sea chests of bulk carriers waiting in external anchorage sectors**. Smugglers utilize modified fishing vessels to masquerade as local traffic, approaching target vessels at night to execute underwater attachments without land-based radar or optical detection.



## 341.75 kg of cocaine in just one seizure in Santos

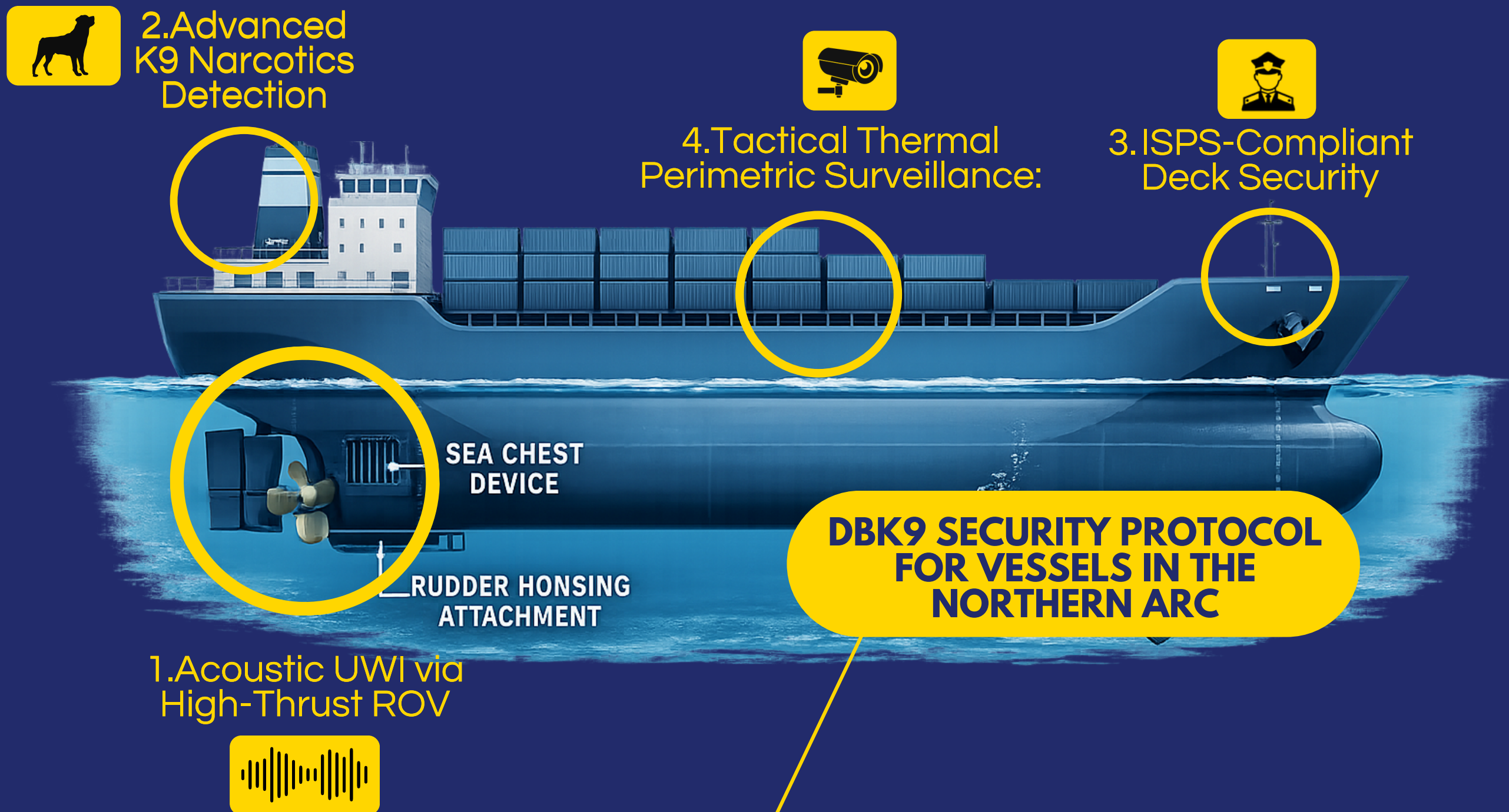
The largest volume of drug seizures concealed in submerged compartments of sea chests occurred in the Port of Santos, in 2026. In one single operation **divers from the Federal Police and the Navy intercepted 341.75 kg of cocaine** hidden in the sea chest of a cargo ship bound for Europe.

In the Northern Arc region, the Port of Vila do Conde has the longest history of this type of seizure. The Pará terminal also faces the infiltration of illicit cargo in typical local products, such as in containers of açaí.



# INTEGRATED SECURITY ARCHITECTURE

To shield international shipowners, charterers, and P&I clubs from catastrophic legal liabilities, severe international port bans, and daily off-hire losses (which can exceed USD 100,000), DBK9 prescribes a multi-layered, synergistic security umbrella above and below the waterline:



## Acoustic UWI via High-Thrust ROV:

Mandatory pre-departure and post-arrival scans of sea chests, sacrificial anodes, bilge keels, and the rudder assembly. This replaces dangerous manual diving with rapid acoustic telemetry, delivering time-stamped video and sonar logs validating hull integrity to port state controls.



## Advanced K9 Narcotics Detection:

Simultaneous deployment of certified high-drive detection K9s to sweep the vessel's internal spaces (engine room, steering gear flat, crew quarters, storerooms, and provisions), neutralizing the threat of internal crew complicity.



## ISPS-Compliant Deck Security:

Static and roving specialized maritime security operators covering the gangway and main deck perimeters throughout the entire port stay. Focus lies on preventing unauthorized approach, illicit line tossing, and monitoring vendor access points.



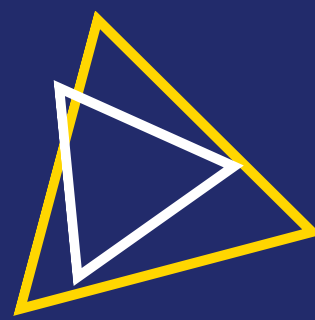
## Tactical Thermal Perimetric Surveillance:

Temporary deployment of long-range thermal cameras on the ship's wings to actively sweep the surrounding water line (port and starboard). This counters nocturnal approaches by swimmers, divers, or low-profile riverboats operating with extinguished running lights.



# DBK9

## RISK ANALYSIS IN THE NEW EXPANDING BRAZILIAN PORT ZONE: NORTHERN ARC



### Data Sources Summary:



#### POWDER FOREST REPORT

The report and investigative piece by The Intercept Brazil highlight the link between cocaine trafficking and threats to the Amazon, indigenous peoples, and international criminal factions. It emphasizes the role of religious groups as agents of coercion and recruitment of individuals for crime.



#### CNN BRASIL

The CNN Brasil news article titled "Northern Arc consolidates its leading role in crop outflow" shows the progress of ports in the North and Northeast regions in soybean and corn exports, but warns of challenges in infrastructure, storage, and transportation in the country.



#### CONAB ANUARY 2026

The annual publication consolidates strategic information on the logistics of moving agricultural products in Brazil. The material also highlights the role of ports in the export of corn and soybeans and in the import of fertilizers.



#### Brazilian Journal of Public Security

River Piracy in the Amazon: Traces for River Public Security; Amazonas Military Police; Amazonas Agency; International Maritime Bureau (IMB) – Piracy and Armed Robbery Report 2024.

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