



Supply Chain Integrity
Project
World Customs Organization

REPORT

Infiltration of maritime cargo supply chains

Organized crime, cocaine
and the internal conspirator





REPORT

Infiltration of maritime cargo supply chains

Organized crime, cocaine
and the internal conspirator



Table of contents

Foreword	4
I. Executive summary	6
II. Overview of the cocaine supply chain	10
III. Container concealments – combined internal conspirator methodologies	14
IV. Cocaine and the banana industry	30
V. Maritime and at sea smuggling	36
VI. Conclusion	48



Foreword

As members of the global Customs and law enforcement community, we find ourselves at a pivotal moment in working to address widespread, systemic and prolific criminal infiltration of global cargo supply chains. The threats posed by ‘internal conspirators’ are more pervasive, and organized crime groups are becoming increasingly brazen in their attempts to circumvent Customs and border controls.

These illegitimate actors are undermining our collective efforts with industry to promote a system of trade that is safe, secure and free flowing. Amidst this complex landscape, Customs often stands as a nation’s first line of defense, tasked with identifying and addressing such threats while fostering a culture of vigilance, preparedness, and meaningful collaboration with both our partner enforcement agencies and the broader trade community. As threats continue to evolve and become more sophisticated, our approaches to addressing them must do so as well.

The World Customs Organization (WCO), through the Australian Border Force (ABF)/WCO Supply Chain Integrity Project, has taken significant steps to address these challenges through research and analysis into the proliferation of the ‘internal conspirator’ and the methods they employ in assisting organized crime groups to advance their illicit ventures. Through this report and analysis of available data pertaining to global drug detections, primarily cocaine, occurring throughout 2023-2024, the WCO aims to highlight contemporary trends and illegitimate supply chain activities that pose the most pervasive threats to our operational environments.

In addition, this report will equip our Members and the international trade community with knowledge and insights to better enhance our shared commitment of preserving the integrity of global supply chains and promoting a system of trade that supports sustainable economic growth.

The sheer quantities of illicit narcotics being detected around the globe clearly demonstrates that those responsible are well-resourced, skilled and persistent. And they deserve to receive responses of equal focus and dedication. This type of collaborative response is vital to actively suppress channels that enable the exploitation of legitimate cross border trade.

I look forward to continuing our strong and productive partnerships.



Ian Saunders
*Secretary General,
World Customs Organization*



I. Executive Summary¹

The modern, globalized cocaine trade is backed by a highly mature industry and well-established supply chain, capable of mass production and maintaining steady flows of cocaine to illicit consumer markets globally. Production, domestic and international transport, logistics, sales and other core 'business' functions of the illicit trade are overseen by nefarious experts who are well versed in their part of the cocaine supply chain.²

A. Scope

This report considers the role of the notoriously opaque 'internal conspirator' (enabler or trusted insider). A 2023 - 2024 analysis of over 2,600 global drug seizures made by Customs and border law enforcement agencies across the maritime cargo and shipping domain, focused on trafficking ventures that leverage internal

conspirators with supply chain roles who exploit maritime supply chain vulnerabilities that exist in control and regulatory processes.

Overall, the analysis shows a total of 1,347,000 kilograms (1,347 tonnes) of illicit drugs seized of which 97% was cocaine.

**On a conservative analysis,
about 68%³ of detection events**
were assessed to have had some level of involvement from an internal conspirator employed within the maritime cargo supply chain, accounting for
**about 41% of total intercepted drug volumes
or 548,500 kilograms (548.5 tonnes).**

1 The ABF/WCO Supply Chain Integrity Project would like to acknowledge the support and contributions of ABF Supervisor, Mr. Andrew Michel, as the lead author of this report and analysis, and the various WCO Members and partner entities that contributed seizure data for the analysis, most notably, Mr. Hans Dekker.

2 ABF/WCO Supply Chain Integrity Project 2025.

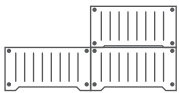
3 The balance of events (32%) excluded from the analysis mostly involved traditional narcotic concealments within containerised cargo and intercepted fishing vessels or small craft where a clear connection to internal conspirators in the maritime domain could not be made or inferred.

The report further considers key regions and maritime ports around the globe most impacted by the illicit narcotics trade and makes comparative assessments of the volume of narcotics detected by national authorities against detections made by authorities in overseas ports. For example, German authorities experienced a decrease in container-based cocaine detections in 2024, however, the

amount of cocaine that was seized abroad and destined for Germany had doubled from 2023.⁴

B. Frequency of illicit methodologies

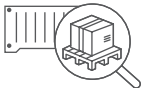
The primary drug trafficking methods involving internal conspirators observed through the analysis were:



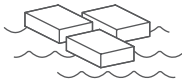
Container rip on - rip off or 'rips'
**767 seizures /
378.4 tonnes**



Underwater hull attachments
**76 seizures /
12.2 tonnes**



Concealments in container structures
**752 seizures /
66.4 tonnes**



Drug drops at sea
**108 seizures /
71.5 tonnes**

4 The report's analysis of the impacts of cocaine trafficking serves to provide a view of the pervasiveness of organized crime's stronghold on cocaine trafficking both in European and global maritime cargo supply chains more broadly.

While the seizure volumes referenced are commendable, when compared against very substantial cocaine production levels during the same period, it is apparent that greater effort and smarter regulatory approaches are required. The answer could lie in the continued and increased investment in supply chain integrity, ensuring cargo supply chains remain resilient and capable of withstanding persistent attacks by organized crime groups.

C. Overview of findings

The findings of this analysis emphasize that organized crime groups continue to successfully infiltrate global cargo supply chains and remain reliant on internal conspirators to undertake large scale drug trafficking operations across the globe. What is also clear is the need for heightened awareness and coordinated efforts across jurisdictions, including with the private sector, to mitigate adverse impacts of illicit trade. Coordinated and collaborative efforts should focus on:

- **Strengthening international law enforcement cooperation:** proactive detection, disruption, timely and fluid information exchange.
- **Stimulating new, innovative cargo targeting regimes:** mitigating supply chain infiltration risks requires non-conventional border targeting regimes – beyond the import declaration level.

- **Recognizing a better sense of shared purpose:** Customs, border authorities, liner shipping and the ports communities all have a role to play – the pursuit of common safety and security objectives.
- **Broadening the scope of awareness-raising:** heightened awareness, better enabling policy makers and empowering respective administrations to enhance their operational responses.

While the data obtained is comprehensive, particularly for Europe,⁵ some regions are underrepresented including the major North American drug markets. This in part is due to limited open-source reporting of individual drug seizures but also reflects the prevalence of land and at sea smuggling routes into the United States due to the proximity to Mexican and South American drug manufacturing centres – see ‘*Narcotic interventions at high seas*’ later in this report. This analysis is therefore not a complete picture of global narcotic flows across the entire maritime domain, but provides an accurate assessment of recent trend shifts, activity and likely near-term smuggling trends most prevalent in the maritime cargo supply chain.⁶

5 The report’s analysis of the impacts of cocaine trafficking serves to provide a view of the pervasiveness of organized crime’s stronghold on cocaine trafficking both in European and global maritime cargo supply chains more broadly.

6 As data feeds were in different languages, formats and with varying levels of detail, individual seizure records were harmonized to ensure consistency, accuracy, and completeness regarding methodology and locations in terms of origin, transshipment and destination, and to avoid inclusion of duplicate records.

In addition, maritime drug seizure data, gleaned primarily through open-source reporting, was reconciled with information collated by the World Customs Organization (WCO) Regional Intelligence Liaison Offices (RILO) and in some cases, sought directly from Customs agencies in key European drug entry jurisdictions. Drug seizure data from containers exported or transhipped via countries in Latin America was also sourced from the United Nations Office on Drugs and Crime (UNODC) and WCO partnered Passenger and Cargo Control Programme (PCCP).



II. Overview of the cocaine supply chain

The prolonged surge in cocaine supply and demand is a major contributor to escalating global drug seizures. A record 2,757 tonnes were reportedly produced in 2022 alone⁷ and the quantities being generated by cocaine producing countries in South America is continuing to increase markedly.

This is likely expanding demand in established drug consumer markets and enabling new drug markets to emerge. The production surge has also seen a rise in violence along cocaine supply chains, most notably in Ecuador and the Caribbean, but also around the key entry ports that facilitate much of the flow of cocaine into the lucrative European market.

The two-year analysis shows that, of all the cocaine detected in shipping containers, 30% (385 tonnes) had a reported container loading port in Ecuador. This suggests an escalating dominance of global cocaine supply – one that comes at a terrible social cost. Ecuador’s homicide rate reached 44.5 murders per 100,000 people in 2023, a 75% increase on the previous year which itself was 500% higher than the rate in 2016 when both homicides and cocaine exports dramatically increased.⁸

This exponential escalation in violence is strongly correlated with Ecuador’s increasing cocaine export dominance,⁹ and many maritime cargo supply chain workers in Ecuador have lost their lives after being lured or coerced into the cocaine trade by organized crime networks, or as innocent victims working in high-risk environments infiltrated by violent organized crime gangs.

There is private sector recognition of this issue. In late 2023 Keith Svendsen, chief executive of APM Terminals acknowledged that shipping companies are dealing with some of the most dangerous people in the world who are infiltrating the whole supply chain, not only the shipping side or the port side, to an extreme degree.¹⁰

7 See United Nations Office on Drugs and Crime, 'World Drug Report 2024', [online](#).

8 See R. Evan Ellis. 'Ecuador's security Challenges and the Government's Response', Florida International University, 10 February 2025, [online](#).

9 See Newton C. and Manjarrés J. 'InSight Crime's 2023 Cocaine Seizure Round-Up', InSight Crime, 20 March 2024, [online](#).

10 See 'Drug gangs have infiltrated shipping supply chains, warns Maersk executive', The Financial Times, 17 October 2023, [online](#).

A. Maritime container shipments and cocaine trafficking

Through the analysis period, the vast majority of maritime drug detections occurred via shipping containers, accounting for 85% of seizure events and 80% of seized narcotics by volume. Collectively, Western Europe continues to dominate global cocaine detection statistics (partly due to the availability of information), which overwhelmingly occurs in the maritime cargo domain. There have been considerable shifts in maritime cocaine flows over the course of 2023 and 2024 as transnational organized crime networks adapted to improved law enforcement and interdiction efforts in countries that had been most heavily targeted in previous years.

Media reporting from 2024 references a significant drop in drug detection volumes at the busiest European container ports of Antwerp and Rotterdam and suggests Dutch seaport seizures dropped 40% from 57 tonnes to 38 tonnes and seizures in Antwerp dropped from a record level of 116 tonnes in 2023 to about 44 tonnes in 2024.¹¹

These figures and some of the complexities in understanding containerized cocaine smuggling pathways into Europe are illustrated in [Table 1](#) which shows the number and total weight of cocaine detections from shipping containers per quarter within the major European drug economies of Belgium (BE), Germany (DE), Spain (ES), France (FR), United Kingdom (GB) the Netherlands (NL) and Portugal (PT), and compares the annual in-country seizure volumes to the yearly seizures in Latin American loading and transshipment countries from containers recorded as being destined for each of these European countries (in purple). These seven countries accounted for 97% (2023) and

96% (2024) of Western European containerized drug seizures by total weight.

Apart from France, which saw cocaine seizure quantities double in number and weight from 2023 to 2024, and the United Kingdom which rose slightly (likely due to a data reporting lag)¹² all saw a marked decrease in detections. Combined, there was a 34% decrease in containerized cocaine detections from 311 tonnes to 206 tonnes.

Although the amount of cocaine seized decreased, neither the availability nor the price of cocaine in European markets was affected in 2024. This phenomenon speaks to the 'waterbed effect' whereby transnational organized crime networks are believed to have shifted more of their smuggling efforts into smaller ports in other parts of Europe, and possibly diversified operations to include non-containerized smuggling methodologies.

The Latin American container detection numbers further clarify some of the shifting trends with respect to Europe. Seizures made offshore from containers bound for France again almost doubled in 2024, suggesting that France will continue to surge as a European cocaine entry pathway. Recent reporting has highlighted that smaller French container ports like Dunkirk – which saw a recent record cocaine detection¹³ – will continue to be targeted, exacerbated by port expansions to take on more container transshipment trade as Antwerp and Rotterdam reach capacity.

While container detections in Germany fell 22% in 2024, the volume of cocaine seized from German-bound containers in Latin America doubled in 2024 and involved average cocaine loads of over 1 tonne – much bigger than those seized in Germany which averaged just under 400 kg.

11 See Minchin, J. 'Volume of cocaine seized in Belgium and Netherlands plummets', Lloyds List, 24 January 2025, [online](#).

12 This rise occurred despite there being no recorded detections since quarter 1 of 2024. This peculiarity may suggest that the reporting has yet to account for all detections.

13 See 'France seizes 10 tonne of cocaine in Dunkirk port', The Straits Times, 5 March 2025, [online](#).

Cocaine seizures in Spain more than doubled from 2022 to 2023¹⁴. Interestingly, through the analysis period, Spain is reflected as Europe's second most heavily targeted entry point for containerized cocaine shipments and also shows a 10% increase in the amount seized in Latin America and destined for Spain in 2024. Increases in maritime drug smuggling activity were also seen in Scandinavian and Eastern European jurisdictions.

Perhaps most striking was the shift in dynamics for Belgium. In 2023 there were a combined 224 container seizures made in South America prior to departure for Belgium (104) plus seizures made in Belgium (120) itself. These seizures totalled 174 tonnes of cocaine with an average load of 776 kg. In 2024 there was a combined 269 seizures totalling 125 tonnes with an average load of 467 kg highlighting a shift to more regular, smaller cocaine concealments within refrigerated container ('reefer') structures.

Table 1. Quarterly container-based cocaine detections in Europe compared with South America (detections and weights)

		BE	DE	ES	FR	GB	NL	PT	Total
Q1 - 2023	# detections	30	11	24	7	4	41	1	118
	Weight (kg)	22,442	3,099	8,931	3,984	4,239	13,219	217	56,131
Q2 - 2023	# detections	30	9	24	3	2	46	3	117
	Weight (kg)	15,971	6,463	9,765	1,380	1,734	16,724	6,140	58,177
Q3 - 2023	# detections	24	4	30	2	7	24	2	93
	Weight (kg)	28,911	10,361	33,448	140	1,699	15,480	9,310	99,349
Q4 - 2023	# detections	36	1	38	4	2	28	2	111
	Weight (kg)	47,890	38	30,844	246	338	13,615	4,777	97,748
2023	Total #	120	25	116	16	15	139	8	439
	Total weight	115,214	19,961	82,989	5,750	8,010	59,038	20,444	311,406
2023	# seized (S.Am)	104	22	53	8	8	80	10	285
	Total kg (S.Am)	58,634	18,755	35,286	3,243	2,959	27,312	3,775	149,964
Q1 - 2024	# detections	37	11	28	9	9	33	5	132
	Weight (kg)	15,874	2,714	23,681	5,284	8,901	7,224	1,997	65,675
Q2 - 2024	# detections	36	14	28	9		32	4	123
	Weight (kg)	20,472	6,089	10,378	2,564		7,363	1,726	48,592
Q3 - 2024	# detections	37	10	24	13		42	5	131
	Weight (kg)	11,916	4,996	13,368	3,032		9,981	4,101	47,394
Q4 - 2024	# detections	35	2	17	1		32		87
	Weight (kg)	10,583	727	24,593	1,502		7,318		44,723
2024	Total #	145	37	97	32	9	139	14	473
	Total weight	58,845	14,526	72,019	12,382	8,901	31,886	7,824	206,383
2024	# seized (S.Am)	124	32	55	15	3	55	7	291
	Total kg (S.Am)	66,649	37,261	45,745	5,199	282	34,130	4,451	193,717

14 See Oretga Dolz, P. 'Drug trafficking, more powerful than ever, floods Europe with cocaine', El Pais, 11 March 2024, [online](#).



III. Container concealments – combined internal conspirator methodologies

Organized crime groups are also evolving their drug smuggling operations and diversifying across multiple shipping and maritime cargo vectors.

A. Geographical distribution of container rips and structural concealment

When viewing container rips and structural concealments in aggregate, most of the 1,519 detections were directed through the

major Western European sea ports of Antwerp and Rotterdam, with Spain and Germany also strongly represented. These methodologies are increasingly being detected in all parts of the world, highlighting the global and pervasive nature of the threat, as shown in *Figure 1*.

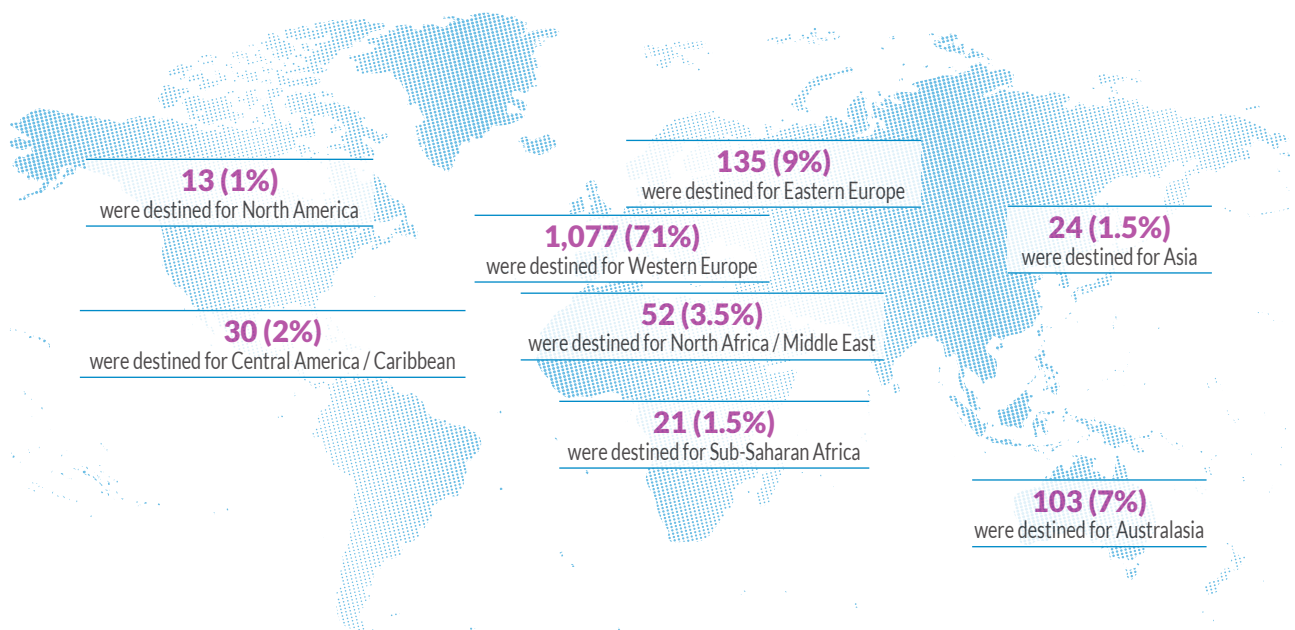
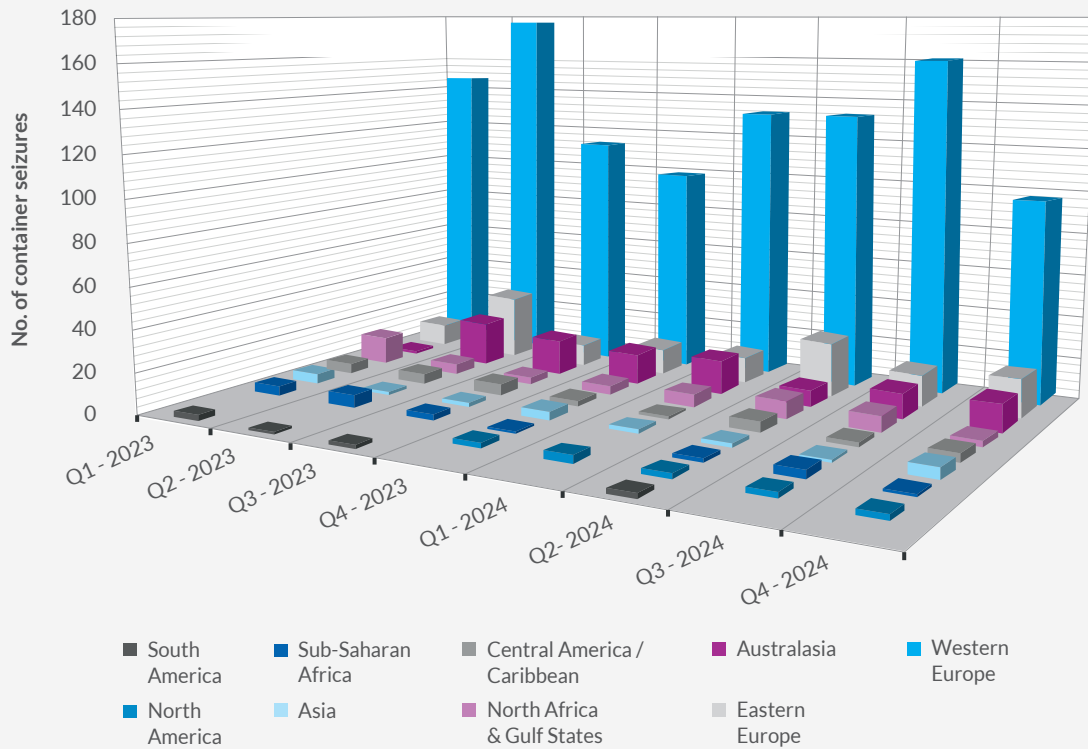


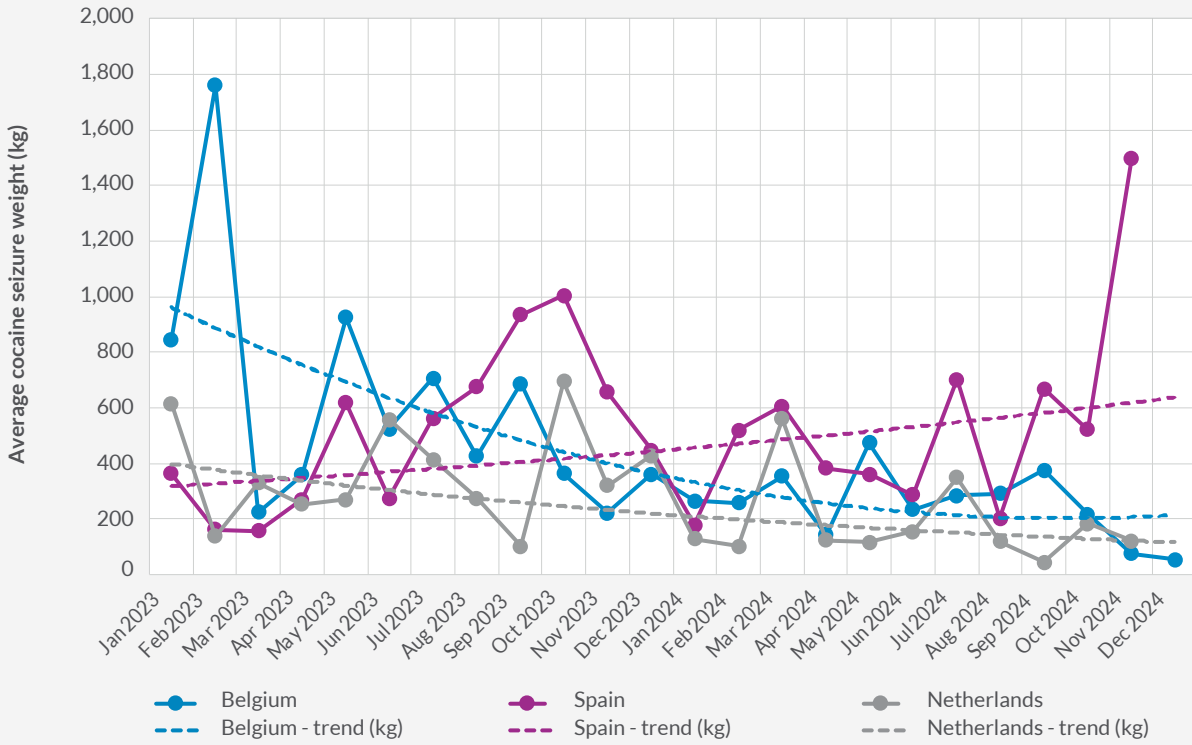
Figure 1. Quarterly number of container detections (internal conspirator related) by destination region



The volume of internal container cocaine seizures over the analysis period in the major European entry pathways of Spain (61 tonnes), Belgium (67 tonnes) and the Netherlands (48 tonnes) appear relatively even. However, when container rip and structural concealment results are combined and the average quantity of cocaine per detection each month plotted, it shows that transnational organized crime groups are applying different container trafficking strategies over time to target each jurisdiction, as shown in *Figure 2*.

Over the previous two years the average cocaine load seized from internal conspirator container ventures in Belgium dropped from nearly 900 kg in January 2023 to about 200 kg in December 2023. In the Netherlands it dropped from over 400 kg to 100 kg. Conversely the average monthly cocaine load size targeting Spain rose from about 350 kg in January 2023 to about 700 kg by the end of 2024. While not a straight-line transition this suggests that fewer large scale rip attempts are being directed through Antwerp and Rotterdam with an increase in smaller structural concealments. Spain is essentially experiencing the reverse of this trend.

Figure 2. Change in average kg cocaine loads (internal conspirator related) by main EU entry countries



B. Methodologies

In addition to the aggregate and geography-specific data, the analysis revealed several findings based on the smuggling methodology. This section focuses on each of those methods in turn.

i. Rip on - rip off or 'rip' contamination

The rip method is the pre-arranged placement of bags or bales of drugs into the internal cargo area of legitimate shipping containers (rip on) followed by their covert extraction (rip off), as the containers move through maritime supply chains. Rips continue to be the primary internal conspirator-leveraged method favoured by transnational organized crime networks. The size and placement of drug rip loads varies depending on where in the supply chain the contamination event occurs, the amount of available space around the cargo, and the type of shipping container targeted, as shown in *Image 1*.

Crime groups rely on internal conspirators to source information from logistics systems (which helps identify the most appropriate containers for contamination) and obtain the manifested security

seal number to then produce duplicate or fake container seals. Additionally, the methodology often requires well organized criminal actors at the destination port who have the ability extract the drug load before it can be delivered to the legitimate importer or diverted for Customs examination.

The reported data confirmed that internal container rip contaminations occur at several nodes of the supply chain:

- Truck transport from exporter/packing facility to original load port.
 - Within the origin port terminal prior to loading.
 - Within transhipment port terminals.
 - During road or rail transfer between transshipment terminals – primarily an issue in Panama.
 - On board container ships after drugs are transferred from smaller vessels while at anchorage or during ocean transit, involving corrupt or coerced crew.
-

Image 1. Cocaine rip behind doors of dry container¹⁵ (L) and in a refrigerated container of bananas (R)¹⁶



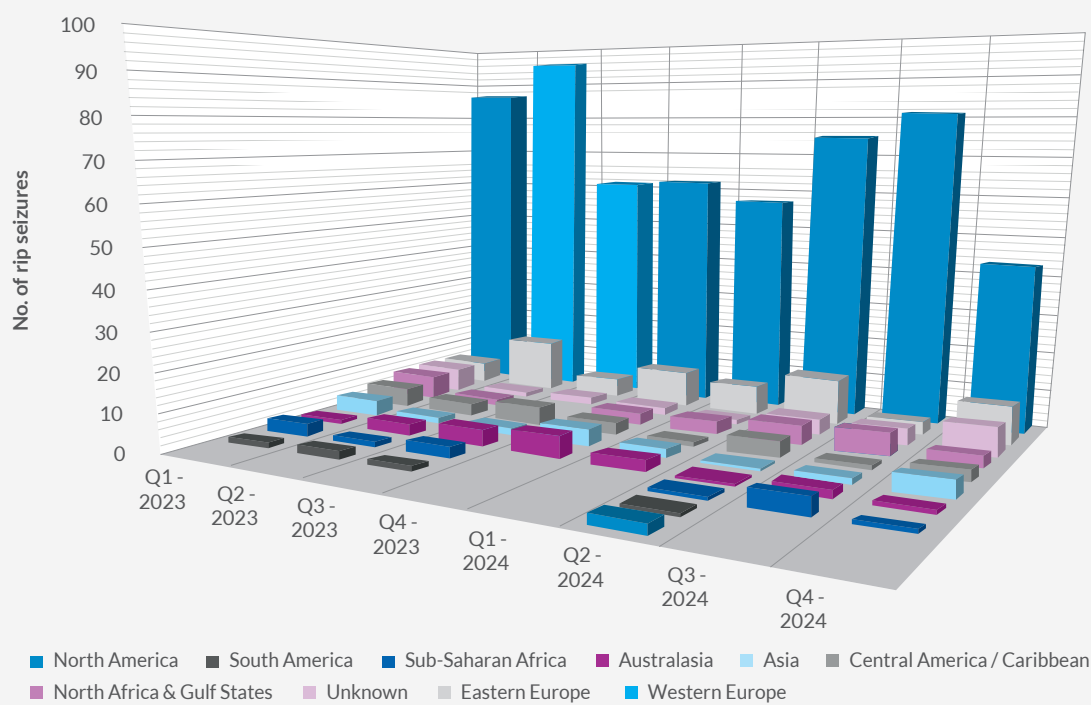
15 Image courtesy of WCO Member administration.

16 See Brigati, M.S. 'Rip-on/rip-off modus operandi - what is the impact for the shipping industry?' Risk Intelligence, 29 June 2023. [online](#).

Regarding regional distribution of rips, the analysis showed 767 internal container rips seized totalling 378.4 tonnes for an average rip size of 493 kg, with 73% destined for Western European ports (81% by weight / 306 tonnes) and 8% for Eastern Europe (30 tonnes). The destination of the remainder was

distributed evenly around the world with 2-3% in each of Sub-Saharan Africa (13 / 4.2 tonnes); Asia (20 / 10.3 tonnes); Australasia (20 / 1.9 tonnes); Central America/Caribbean (25 / 7.3 tonnes) and North Africa & Gulf States (29 / 10.2 tonnes), as shown in *Figure 3*.

Figure 3. Quarterly internal container rip seizures numbers by detection region



In terms of seizure locations, 53% (201.5 tonnes) were detected in Western European ports with 21% occurring in South America (80.5 tonnes) and 23% in Central America/Caribbean (85.5 tonnes). Australasia (1.6 tonnes) and Eastern Europe (5.2 tonnes) each accounted for 2% of internal container rip detections with 17 and 16 respectively.

There was an 11% drop in the number of internal container rips seized in Western Europe in 2024 (166) compared to 2023 (208), with the downward trend more pronounced in terms of total cocaine volumes detected with 123 tonnes (an average

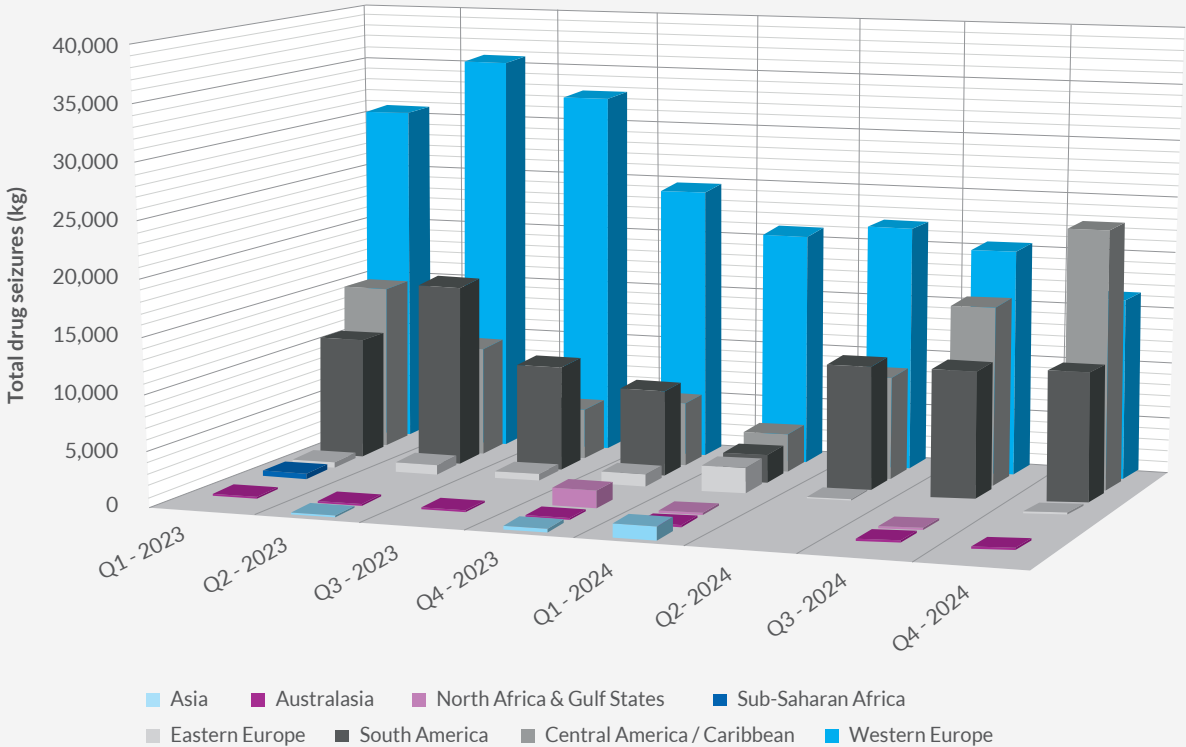
cocaine load of 591 kg) in 2023 compared to 79 tonnes (average load of 496 kg) in 2024. The downward trajectory commenced in the second half of 2023. Globally, this trend was offset by significant detection increases in Central America from the second quarter of 2024, reversing a downward trend also observed in that region in 2023. South American detections also declined over 2023 but have picked up and stabilized since the second quarter of 2024, as shown in *Figure 4*.

Central American seizures comfortably eclipsed Western European volumes in the last quarter of 2024, dominated by 19 detections spread evenly across the four main terminals in Panama (total of 11 tonnes) and 4 detections at the Caucedo port terminal in the Dominican Republic (total of 10.5 tonnes) which included a 9.6 tonne cocaine seizure involving the ‘switch rip’ methodology. Acting on intelligence, authorities identified an anomalous container movement within the Caucedo port terminal and interrupted criminal actors transferring drugs from a container of bananas from Guatemala into another open container that was being transhipped to Belgium.¹⁷

The 9.6 tonne seizure was one of fifteen reported switch rip events and the only one to occur in a port other than Antwerp and Rotterdam who experienced twelve and two switch rip events respectively. In total, nine events occurred in 2023 (5.1 tonnes) and six in 2024 (14.8 tonnes).

The in-port switch rip method is the most egregious in terms of number of internal conspirators involved, as several legitimate port workers must collaborate to coordinate the placement of two in-transit containers in a discrete part of the terminal and facilitate the opening of a ‘high risk’ container and transfer the contraband to a lower-risk origin container. This transfer reduces the risk that the container will be scrutinized by law enforcement.

Figure 4. Quarterly internal container rip seizures (kg) by detection region



17 See Diario, E.N. ‘9.5-ton shipment of cocaine seized, the largest in the history of the DR’, *El Nuevo Diario*, 6 December 2024, [online](#).

ii. Concealments in container structures

The insertion of smaller narcotic loads into the structure of containers containing legitimate cargo continues to challenge border authorities. The more simplistic placement of cocaine, usually in brick format, behind the externally accessible rear panels of reefers is well known, as shown in *Image 2*, and traditionally internal conspirators or criminal actors would extract these drug loads within the destination port terminal environment during or shortly after the container is unloaded from the vessel.

However, in recent years this methodology appears to have become more industrialized in line with escalating cocaine production and now extends beyond the port terminal environment. Contaminated reefers are increasingly being tracked to empty container yards, which often have minimal security measures, allowing easy entrance by retrieval crews who then locate and extract the narcotics. While this approach may increase the risk of detection by law enforcement, it is common for organized crime groups who regularly arrange these smaller loads to consider occasional losses as part of the cost of doing business.

Less common but still pervasive are the more sophisticated drug concealments within internal reefer rear wall and cooling system void spaces, container floors and ceilings. These deeper, structural concealments can be performed or facilitated by insiders employed at empty container yards or container packing facilities and require retrieval at post-border container yards after completion of the legitimate import process.

Such structural concealments require that the Customs and border enforcement, liner shipping, and ports communities change long-held views of where borders and maritime cargo supply chains begin and end. Organized crime groups have capitalized on vulnerabilities in pre-hire and post-hire empty container yards which are poorly regulated and offer lax security. Additionally, these concealments inflict considerable damage to container assets, thus reducing the overall efficiency of the supply chain.

Image 2. Cocaine bricks behind upper evaporator fan access panel (L) and lower control panel voids (R)¹⁸



¹⁸ Images courtesy of WCO Member administration.

iii. Floor concealments

There were 92 detections of cocaine concealed in the flooring of shipping containers totalling 31 tonnes with an average cocaine load of 369 kg. The majority involved the placement of cocaine bricks under the internal floor of reefers (*Image 3*) with 30% of concealments being under the internal floor or concealed within the underside beam structure of dry containers.

The prevalence of this method appears to be decreasing – there were 58 seizures in 2023 (23.5 tonnes) and 34 in 2024 (7.5 tonnes), as shown in *Figure 5*. Containers originating from Ecuadorian ports represented nearly half of all floor contaminations (58% by seized cocaine weight) with Colombia and Panama the other major contributors. The small number of intercepted floor contaminations emanating from minor export countries including Costa Rica (2), Dominican Republic (3), Suriname (2) and Honduras (1) confirms that this concealment capability and intent is widespread across Latin America. Half of all container floor concealments were detected in Latin American source or transshipment countries.

Over half of all floor concealments (64% by weight) were destined for either Belgium (8.3 tonnes) or Spain (11.3 tonnes) but there was a wide distribution of targeted countries across Europe including Germany (4), Greece (2), Hungary (2), Portugal (4), Sweden (3), France (1), Croatia (1), Romania (1), Ukraine (1) and Türkiye (1). Floor concealments destined for Canada (4), Libya (3), Jordan (1) and Syria (1) were also intercepted.

The cause of the downward trend is unclear but may be related to law enforcement disruption of organized crime syndicates that specialise in floor concealments (see Case Study 1) or the inherent logistical challenges with coordinating access to the container as it flows through the post-border supply chain at its destination. Significant time,

resources and skill are required to both insert and extract narcotics concealed this way, and it is not uncommon for containers to be re-hired for export before the crime group has had the opportunity to remove the drugs.

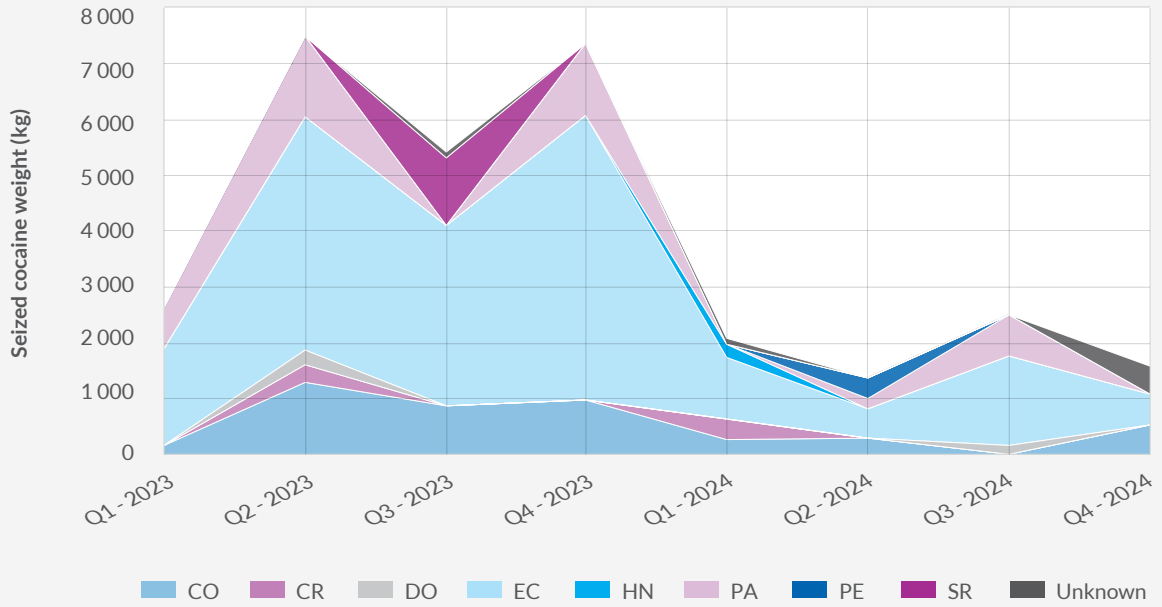
These situations can prove messy and require that organising syndicates issue a contract among criminal circles for retrieval in the country to which the contaminated container is subsequently exported. This was the case for a detection in Australasia in 2024 when a 66 kg cocaine reefer floor concealment was detected after a failed extraction on the previous voyage from Ecuador to Hungary. These crime groups may be shifting to other, simpler maritime drug trafficking methodologies as outlined in this report.

CASE STUDY 1 ***Evolution of structural concealments - syndicate***

In September 2023 a Spanish national police and tax agency joint operation identified the phased transition of a Balkan drug cartel targeting the Spanish port of Valencia. Over 1.7 tonnes of cocaine was intercepted across seven attempted structural concealments within Ecuadorian banana reefers. Initially multiple smaller loads were placed into reefer rear engine compartments. A second phase involved a larger 200 kg concealment within a reefer floor, followed by a sophisticated 550 kg concealment built into the underside floor beams of a container.¹⁹ This particular crime group likely relied on insiders placed at an empty container facility in Ecuador with the ability to control where their contaminated reefers would be exported to, adapting the complexity of their structural concealments in response to Spanish law enforcement interventions.

¹⁹ See 'Blow to the main route used by the "Balkan Cartel" criminal organisation to smuggle cocaine into Spain', *Agencia Tributaria press release*, 26 September 2023, [online](#).

Figure 5. Quarterly floor concealments (kg) by container origin country



iv. Ceiling concealments

Conversely (but on a smaller scale) the trend in deep concealments within container ceilings (again predominantly in reefers) is increasing. There were 30 ceiling contamination detections with a total cocaine weight of 3.4 tonnes, of which 25 occurred in 2024 (2.5 tonnes). Ecuador was again the primary container origin country accounting for 70% of all ceiling concealments, with a broad geographical distribution of intended destinations including Belgium (624 kg), Germany (449 kg), Spain (155 kg), France (591 kg), United Kingdom (93 kg), Italy (247 kg), New Zealand (380 kg), Panama (222 kg), Poland (140 kg), Portugal (99 kg) and Russia (200 kg).

v. Reefer rear wall and refrigeration voids

By far the most prevalent structural concealment involves the placement of drugs within void spaces that exist within the rear wall of reefers, where the refrigeration unit is housed (*Image 2*). The most common and least invasive approach involves accessing the external reefer panels that allow vessel crew and reefer technicians to service mechanical components. The void space behind these panels differs in size depending on the reefer model. Two upper panels that access evaporator fans have larger void spaces than those behind lower panels either side of the reefer control panel. Drug loads placed within these external voids usually weigh up to 60 kg.

These void areas can be easily accessed at many stages along the reefer supply chain, either by maritime internal conspirators or criminal entities able to identify and gain access to reefers going to the desired destination country, often assisted by internal conspirators with access to cargo logistics

Image 3. 795 kg cocaine reefer floor concealment²⁰ (L) and 110 kg reefer ceiling concealment²¹ (R)



20 See social media post, *Seized in Ecuador*, 21 September 2023, [online](#).

21 Images courtesy of WCO Member administration.

systems. The method is attractive to organized crime groups as these smaller loads can be inserted and extracted quickly and discretely without the need to open container doors and organise the production of duplicate container seals.

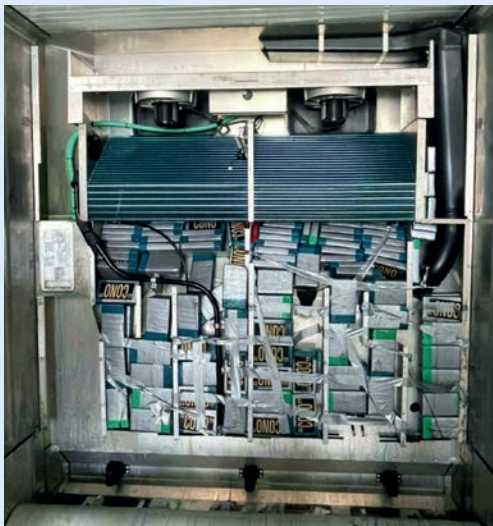
Less common are larger structural loads of up to 150 kg that can be inserted into void spaces between the inner rear wall structure beside and below the internal condenser unit. This is done from inside the reefer prior to or during the packing process at the origin port, as shown in *Image 4*.

Organized crime groups are increasingly enlisting young offenders – including teenagers – to break into port terminals and container yards to locate and retrieve such concealments, creating dangerous situations for themselves, port workers and the security guards that may encounter them. Container concealments of all kinds routinely have GPS trackers attached to assist with retrieval from supply chain premises.

There were 627 detections from reefer rear wall areas, comprising 42% of all internal conspirator assisted container smuggling ventures. The combined weight was 31.5 tonnes with an average cocaine load of 52 kg.

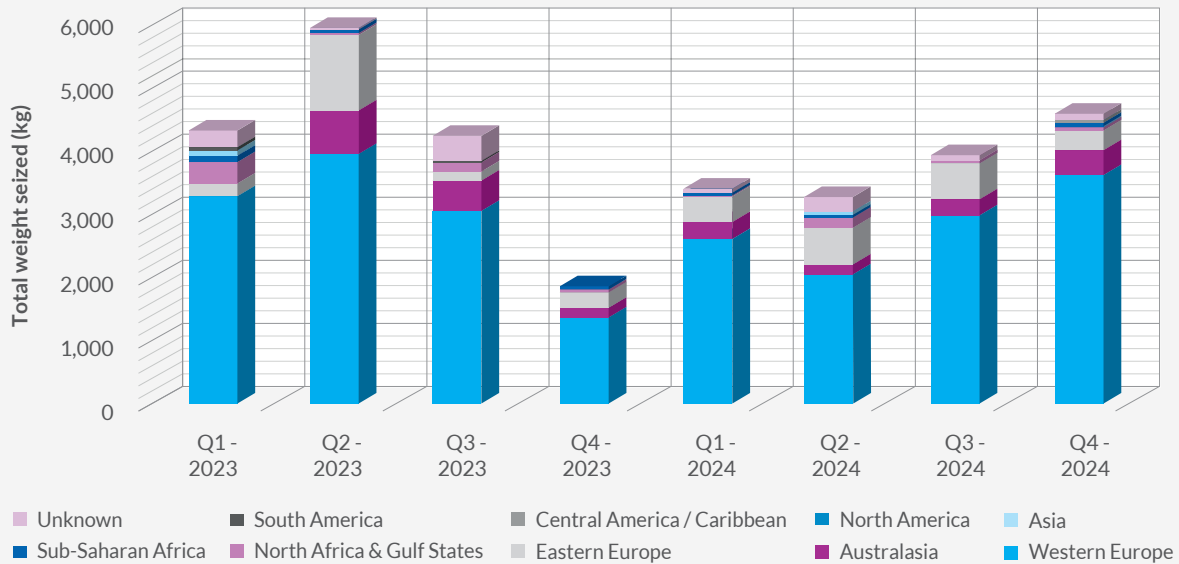
After peaking in the second quarter of 2023 when there were 108 detections (6 tonnes) there was a rapid decline in rear wall seizures over the following 6 months, dropping to 40 (1.9 tonnes) in the last quarter of 2023. This trend just as quickly reversed with 84 seizures in the first quarter of 2024, with detections on an upwards trend over the course of 2024, as shown in *Figure 6*.

Image 4. 140 kg internal rear wall concealment – fruit export warehouse in Peru²²



²² See social media post, *Customs and Tax Administration of Peru*, 4 August 2023, [online](#).

Figure 6. Quarterly reefer rear wall detections (kg) by destination region



While this ‘V’ shaped trend was driven by Western European (mainly Antwerp and Rotterdam) destined concealments which comprised 68% of detections, other prominent regions (Australasia, Eastern Europe and North Africa & Gulf States) displayed the same pattern. The trend was also the same with rear wall seizures made in South and Central American load and transshipment ports.

It is possible that the crime groups generating these concealments in Latin American ports were losing too many loads due to enhanced enforcement efforts in key European ports and elsewhere in mid-2023 and subsequently scaled back their attempts. To combat increasing scrutiny, new contamination techniques emerged in the first quarter of 2024 whereby cocaine loads inserted via rear access panels were chained together and suspended within more covert voids beyond the space directly behind the rear access panels.²³

C. Ports and countries most impacted by internal rips and structural concealments

It is difficult to know where and how internal conspirators are positioned for each drug smuggling attempt. However, the combination of high detection rates reported in the main Latin American (primarily Panama) and European transshipment hubs, as well as the concentration of associated criminality identified in these port environments, warrants consideration for targeting and risk assessment purposes. The high number of cocaine detections in Panamanian transshipment ports strongly suggests that much of the internal conspirator leveraged contamination occurs there, and to a lesser extent, in other criminally infiltrated Latin American ports.

Table 2 highlights the port and amount of cocaine seized from the rip on - rip off method. *Table 3* highlights the port and amount of cocaine seized from concealments in container structures.

²³ See ‘Australian authorities ramp up reefer checks in cocaine crackdown’, *World Cargo News*, 12 February 2025, [online](#).

Table 2. Ports with multiple container rip on-rip off seizures in 2023 and 2024

Port	2023			Port	2024		
	No. rips	Total weight (kg)	Avg detection (kg)		No. rips	Total weight (kg)	Avg detection (kg)
Antwerp (BE)	54	43,431	819	Antwerp (BE)	37	22,278	602
Rotterdam (NL)	47	29,993	638	Rotterdam (NL)	33	13,274	402
Guayaquil (EC)	37	21,833	662	Balboa (ES)	28	4,334	155
Balboa (PA)	17	10,257	603	Valencia (ES)	20	5,904	295
Barcelona (ES)	16	15,132	946	Guayaquil (EC)	18	12,112	673
Cristobal (PA)	16	7,634	477	Manzanillo (PA)	17	12,774	751
Valencia (ES)	15	5,101	340	Barcelona (ES)	16	16,708	1,044
Santos (BR)	12	6,580	548	Colon (PA)	13	4,150	319
Caucedo (DO)	11	5,440	495	Cristobal (PA)	13	3,969	305
Cartagena (CO)	11	4,236	385	Cartagena (CO)	11	8,732	873
Algeciras (ES)	10	3,193	319	Rodman (PA)	10	4,907	491
Paranagua (BR)	9	1,214	135	Le Havre (FR)	10	4,743	474
Vlissingen (NL)	8	4,288	536	Algeciras (ES)	10	3,693	369
Manzanillo (PA)	8	3,203	400	Santos (BR)	7	4,178	597
Gioia Tauro (IT)	8	896	112	Marsaxlokk (MT)	7	1,695	242
Colon (PA)	7	2,105	301	Paranagua (BR)	7	854	122
Buenaventura (CO)	7	1,811	302	Caucedo (DO)	6	12,844	2,141
Sydney (AU)	7	497	71	Gioia Tauro (IT)	6	2,133	427
Livorno (IT)	7	428	61	Hamburg (DE)	5	2,867	573
Santa Marta (CO)	6	1,856	309	Moin (CR)	5	2,789	558
Hamburg (DE)	5	1,538	308	Machala (EC)	5	2,278	456
Vado Ligure (IT)	5	341	68	Buenaventura (CO)	4	1,467	367
Malaga (ES)	4	7,693	1,923	Santa Marta (CO)	4	741	185
Moin (CR)	4	756	189	St. Petersburg (RU)	2	2,200	1,100
Posorja (EC)	4	726	182	Salvador (BR)	2	1,519	760
Le Havre (FR)	4	433	108	Fort-de-France (MQ)	2	738	369
Navegantes (BR)	3	1,189	396	Vlissingen (NL)	2	545	273
Machala (EC)	3	787	262	Callao (PE)	2	518	259
Rodman (PA)	3	723	241	Genoa (IT)	2	376	188
Paita (PE)	3	368	123	Posorja (EC)	2	218	109
Tauranga (NZ)	3	111	37	Livorno (IT)	2	203	102
Constanti (ES)	2	3,086	1,543	Manzanillo (MX)	2	200	100
Unknown	2	2,124	1,062	Sydney (AU)	2	171	86
Oslo (NO)	2	1,311	656	Dunkirk (FR)	2	150	75
Santos (BR)	2	810	405	Adelaide (AU)	2	100	50
Mersin (TR)	2	655	328	Ghent (BE)	2	65	33
Vigo (ES)	2	555	278	Piraeus (GR)	2	47	23
Lazaro Cardenas (MX)	2	516	516	Dégrad des Cannes (GF)	1	1,820	1,820
Civitavecchia (IT)	2	254	127	Stockholm (SE)	1	1,200	1,200

Table 3. Ports with multiple structural container seizures in 2023 and 2024

2023				2024			
Port	No. detections	Total weight (kg)	Avg detection (kg)	Port	No. detections	Total weight (kg)	Avg detection (kg)
Rotterdam (NL)	51	3,766	74	Rotterdam (NL)	73	4,566	63
Antwerp (BE)	31	4,751	153	Antwerp (BE)	62	4,509	73
Valencia (ES)	27	8,089	300	Balboa (PA)	32	1,860	58
Guayaquil (EC)	22	2,238	102	Santa Marta (CO)	18	860	48
Balboa (PA)	21	861	41	Cartagena (CO)	13	605	47
Cartagena (CO)	18	2,310	128	Marsaxlokk (MT)	13	549	42
Paita (PE)	17	1,125	66	Sydney (AU)	13	403	31
Sydney (AU)	16	534	33	Posorja (EC)	12	1,487	124
Paranagua (BR)	16	502	31	Machala (EC)	12	956	80
Santa Marta (CO)	13	1,662	128	Moin (CR)	12	842	70
Buenaventura (CO)	9	1,895	211	Guayaquil (EC)	11	1,665	151
Bremerhaven (DE)	7	1,155	165	Paranagua (BR)	9	341	38
Moin (CR)	7	339	48	Turbo (CO)	9	260	29
Melbourne (AU)	7	262	37	Melbourne (AU)	9	209	23
Livorno (IT)	6	430	72	Gioia Tauro (IT)	7	675	96
Southampton (GB)	5	908	182	Livorno (IT)	7	381	54
Barcelona (ES)	5	213	43	Tauranga (NZ)	6	279	47
Machala (EC)	4	1,790	448	Hamburg (DE)	5	380	76
Algeciras (ES)	4	784	196	Paita (PE)	5	277	55
Rijeka (HR)	4	610	153	Rodman (PA)	5	149	30
Mersin (TR)	4	224	56	Piraeus (GR)	4	237	59
Santos (BR)	4	194	49	Santos (BR)	4	169	42
Helsingborg (SE)	3	640	213	Colon (PA)	4	164	41
Callao (PE)	3	407	136	Barcelona (ES)	3	424	141
Caucedo (DO)	3	204	68	Brisbane (AU)	3	155	52
Le Havre (FR)	3	171	57	Cristobal (PA)	3	127	42
Vigo (ES)	3	134	45	Valencia (ES)	3	115	38
Turbo (CO)	3	103	34	Vigo (ES)	2	568	284
Luanda (AO)	3	45	15	Caucedo (DO)	2	166	83
Manzanillo (PA)	2	642	321	Benghazi (LY)	2	128	64
Hamburg (DE)	2	277	139	Callao (PE)	2	122	61
Vado Ligure (IT)	2	177	89	Manzanillo (PA)	2	87	44
Barranquilla (CO)	2	171	86	St. Petersburg (RU)	2	71	36
St. Petersburg (RU)	2	150	75	Itapao (BR)	2	53	27
London (GB)	2	100	50	Ploče (HR)	1	500	500
Cristobal (PA)	2	68	34	Burgas (BG)	1	170	170

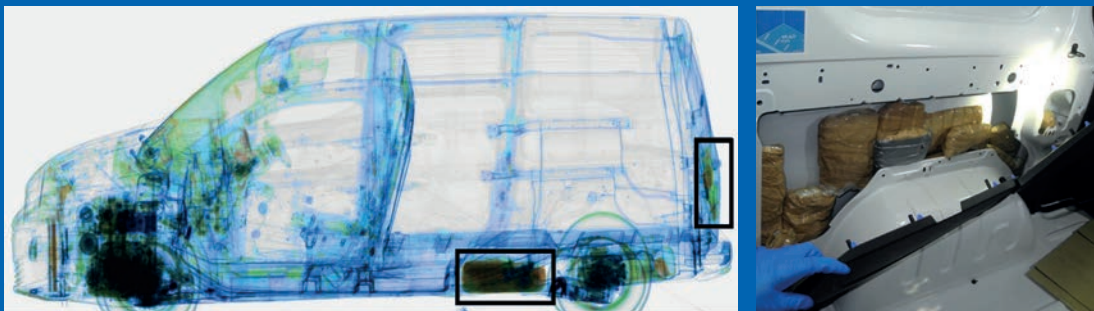
The most prominent ports consistently remained so across both years. Notably, Marsaxlokk in Malta which had only one 40 kg structural detection in 2023, saw a rapid escalation in both rip and structural concealments detections throughout 2024. This may suggest that some crime networks

are looking to exploit Maltese cargo supply chains to open new cocaine trafficking pathways into mainland Europe via Italy. Another port that saw a significant increase in rip activity in 2024 was Le Havre in France.

CASE STUDY 2

Roll on Roll off (RORO) structural concealments

There were 21 drug seizures (2.3 tonnes) from the structure of newly manufactured vehicles shipped as break bulk cargo, placed by internal conspirators operating within Roll on Roll off (RORO) shipping supply chains. The majority (16) were detected in or destined for Australia and New Zealand in commercial vans exported from Le Havre, France (involving combinations of cocaine, MDMA, ketamine and methamphetamine²⁴) or in large passenger buses and heavy construction equipment exported from Brazil. There were no recorded RORO detections since February 2024. While this emerging trend primarily targeted Australasia, there were two detections in heavy vehicles loaded in Brazil bound for Antwerp in June 2023 (973 kg cocaine) and a 222 kg seizure from passenger buses loaded in Peru bound for Fos-sur-Mer in France in October 2023. Authorities in Uruguay intercepted a truck in the port of Montevideo in May 2023 that was in the process of loading 1.4 tonnes of cocaine bricks concealed in plastic tubs onto the RORO vessel GRANDE NIGERIA bound for Europe²⁵. It is likely the crew intended to conceal bricks in the structure of the vehicular cargo while on route. The RORO cargo stream is vulnerable to internal conspirator corruption and likely being exploited much more widely than currently known.



24 Images courtesy of WCO Member administration.

25 See 'Almost 1,500 kilos of cocaine were seized in proceedings at the Port of Montevideo', *Uruguay Customs*, 6 May 2023, [online](#).



IV. Cocaine and the banana industry

Transnational organized crime groups have long targeted the banana industry as it is a high-volume containerized trade out of Latin American cocaine producing (or neighbouring) countries. Cocaine is concealed within the container or among the organic commodity and the sheer scale of the banana trade creates greater opportunities for contaminated containers to evade border interventions.

A. Scope of the problem

Criminal infiltration of Latin American banana exports and the supporting maritime supply chain continues to see containerized banana shipments dominate global cocaine seizure statistics. Of the 2,252 container-based drug detections in the analysis period, a commodity description was recorded for 1,613 (72%). Of those, 35% (564) had a reported commodity of bananas, although the actual number would be higher due to the large number of ‘unknown commodity’ containers contaminated with cocaine that were shipped from well-known banana exporting countries.

Of the 564 contaminated banana reefers, 260 (46%) involved structural or rear wall concealments totalling 28.2 tonnes of cocaine (average size 108 kg) – 87% of which were destined for Western Europe. These trafficking attempts are more related to exploitable vulnerabilities in the container supply chains of banana exporting countries rather than the legitimate banana load itself.

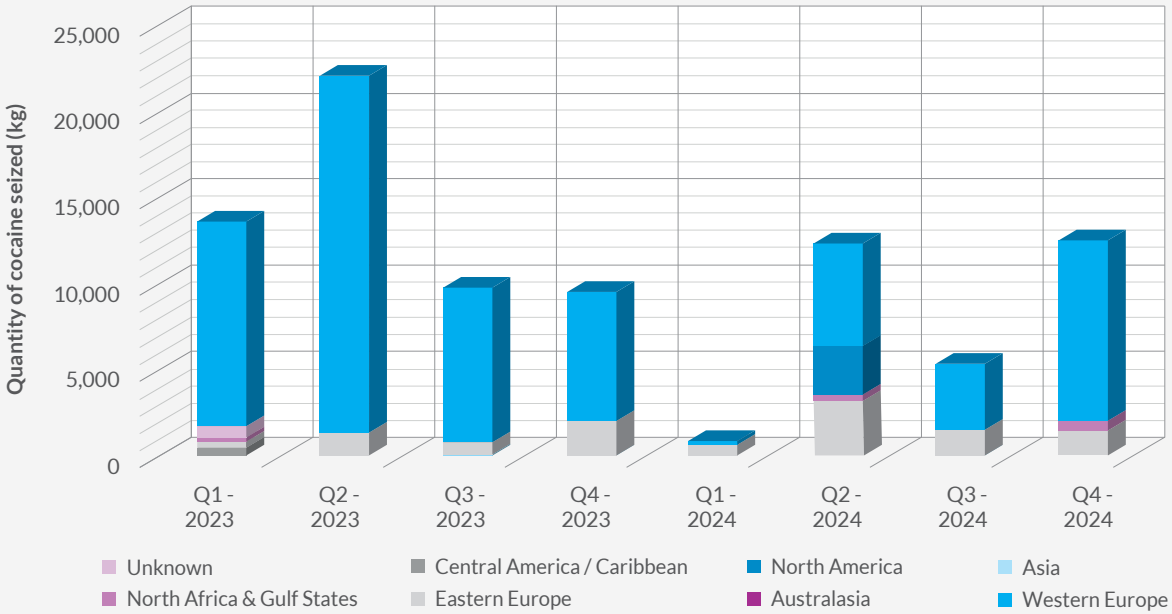
Seizures classed as internal rips were detected in 135 banana reefers, totalling 82.7 tonnes of cocaine with an average rip size of 613 kg. Of these, 80% (69 tonnes) were destined for Western European jurisdictions, and 12% (11 tonnes) for Eastern Europe. The number and seized cocaine quantity of banana internal container rips peaked in the second quarter of 2023 and trended down dramatically to the first quarter of 2024, stabilising somewhat since then, as shown in *Figure 7*.

The remaining 169 banana reefer detections (230.4 tonnes, average cocaine load 1.4 tonnes) were recorded as traditional concealments with a banana cover load, whereby cocaine bricks were hidden inside many of the banana cartons with bananas covering on top (i.e. no internal conspirator

connection could be made or inferred), as shown in *Image 6*. It is possible but remains unknown if the importing and exporting businesses were complicit in the drug trafficking venture. Almost all (90%) were destined for Western European ports.

Figure 7. Quarterly internal banana container rip seizures (kg) by destination region

It is likely that many banana container cocaine detections deemed as traditional concealments in 2023 and 2024 were in fact container rips leveraging supply chain facilitators.



Of the 135 deemed to be rip loads by the detecting agency or open-source reporting that indicated the import company was not involved, 39 were also recorded as having the cocaine bricks concealed within individual banana cartons rather than bags or bales behind the container doors. The total cocaine seized from these 39 reefers was 30 tonnes (average rip size 762 kg). This cohort included 9 post-border detections (3.6 tonnes)

that were reported to law enforcement by employees at ripening/distribution warehouses or wholesale/retail businesses across Europe, after crime groups failed to retrieve drug loads earlier in the supply chain. Some of these reports mention that GPS tracking devices were located with the cocaine in the banana cartons – a key tool used by crime groups to monitor and retrieve drug loads.²⁶

26 See '247 kilos of cocaine discovered in a stock of bananas in Colmar', *France Info*, 24 May 2024, [online](#).

Diverting containers during transport to the original load port allows for more sophisticated concealments among the manifested cargo. In April 2025 a British Broadcasting Corporation (BBC) journalist interviewed an Ecuadorian truck driver who said the rise of (banana) container contamination makes him vulnerable, stating “if you don’t contaminate the containers, you have two options: leave the job or end up dead.”²⁷ It is evident that organized crime networks routinely intercept legitimate containers moving through export supply chains to substitute banana cartons with replicas concealing cocaine bricks, and corrupting transport workers on the import side to perform the reverse. On occasions plans go awry resulting in cocaine bricks ending up in supermarket banana cartons.

There are of course examples of organized crime networks with members posing as legitimate businessmen who have purchased banana export and import businesses with an extensive trade history or exert control over established businesses. These criminal enterprises have ended control over banana shipments which can assist in evading law enforcement scrutiny.

A Spanish criminal syndicate that operated a banana export company in Machala, Ecuador imported regular cocaine shipments concealed in bananas through the ports of Algeciras and Vigo to different Spanish companies they controlled. This syndicate was disrupted when one of their containers was intercepted with 9.4 tonnes of cocaine concealed within the banana cartons. This syndicate was capable of shipping 40 banana containers a month to Europe – many of which were legitimate.³⁰

Examples of this include:

- A truck delivered a banana reefer to the port of Guayaquil in April 2024 where a search by Ecuadorian authorities detected 2.5 tonnes of cocaine concealed within the banana cartons. The truck made a two hour stop at a service station on route to the port where the substitution likely occurred.²⁸
- A truck driver that picked up a banana reefer from Ecuador at the port of Hamburg in September 2024 was instructed to take it to a container testing facility but deviated and stopped at a warehouse attached to a freight forwarding business. Here he intended to substitute 2.1 tonnes of cocaine concealed among the banana cartons with actual banana cartons.²⁹

27 See Wells, I. ‘Tracking the world’s major cocaine route to Europe - and why it’s growing’, *BBC*, 9 April 2025, [online](#).

28 See ‘Prosecutors prosecute two arrested individuals with 2.48 tonnes of cocaine hydrochloride’, *Ecuador State Attorney General’s Office*, 22 April 2024, [online](#).

29 See Manzke, T., Dobers, JH. and Zitzow, M. ‘Coke seized for 100 million euros’, *Bild*, 27 September 2024, [online](#).

30 See ‘Seized in Algeciras Port, the largest cache of cocaine ever intervened in Spain’, *Spanish Tax Agency*, 25 August 2023, [online](#).

Image 6. 5.7 tonnes cocaine concealed in banana cartons from Colombia³¹



B. Ecuador's banana industry

Rip contamination of banana containers is particularly pervasive in Ecuador, which is the world's largest exporter, accounting for 27% of global banana production volumes in 2022 and generating US\$3.68 billion in revenue. An April 2025 BBC article quoted Ecuadorean president Daniel Noboa who stated that 70% of the world's cocaine flowed through Ecuador's ports. Banana exports make up 66% of containers leaving Ecuador with 30% going to the European Union. In 2021 "Albanian organized crime group took off" in Ecuador with an influx of Albanian citizens and a spike in banana exports, according to an Ecuadorian defence lawyer. January 2025 saw 781 murders in Ecuador making it the deadliest month in recent years, with many related to the cocaine trade.³²

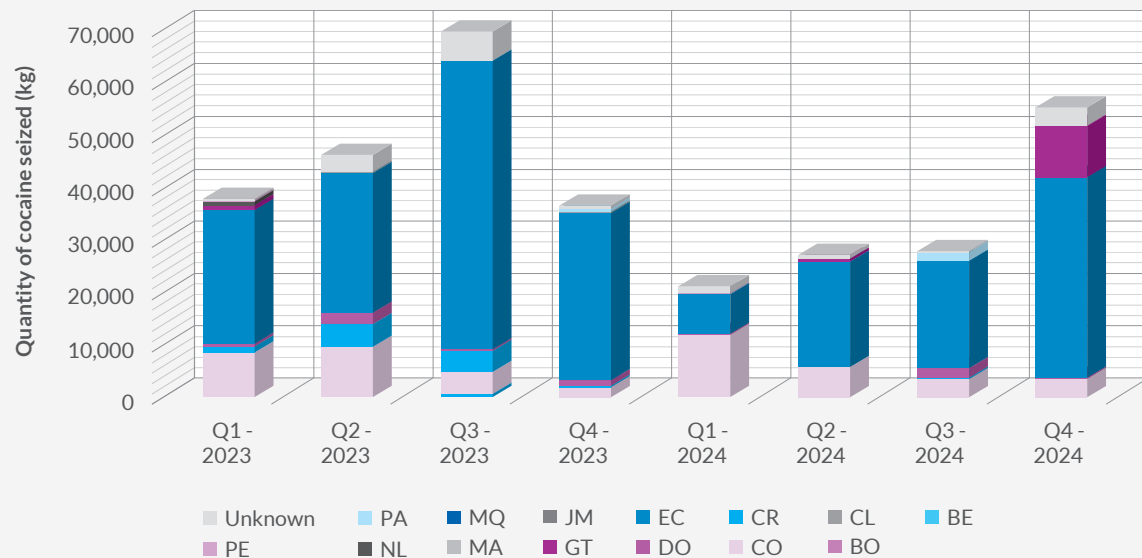
Of the 304 cocaine detections from inside banana reefers identified in this analysis, the

origin country could be determined for 287, with Ecuador comprising 56% by number and 70% in terms of seized cocaine weight (220 tonnes). There was again a significant downwards trend in total internal banana container cocaine detections after a major spike in the third quarter of 2023, however this ramped up considerably again in the last quarter of 2024, as shown in *Figure 8*.

This 'V' trend was likely driven by enhanced law enforcement scrutiny at the major European entry ports in the second half of 2023, but the effect of this appears to have been short lived. After very subdued detection volumes in banana containers destined for Belgium in the first three quarters of 2024 (totalling 6.5 tonnes) this shot up dramatically in the last quarter of 2024 when over 18 tonnes were seized, courtesy of 3 massive cocaine seizures – 3.7 tonnes in Ecuador, 9.6 tonnes in the Dominican Republic, and 4.6 tonnes (from Ecuador) seized in Antwerp.

31 See 'NCA and Border Force make record breaking 5.7 tonne cocaine seizure', *UK National Crime Agency*, 23 February 2024, [online](#).

32 See Wells, I. 'Tracking the world's major cocaine route to Europe - and why it's growing', *BBC*, 9 April 2025, [online](#).

Figure 8. Quarterly internal banana container cocaine seizures (all) by load country

This trend reversal in Ecuadorian internal banana container concealments was evident across all three major European entry countries. After seeing consistently high quarterly totals in 2023 (totalling 24 tonnes for the year) there was only 1.7 tonnes of cocaine seized from inside Netherlands bound banana containers from Ecuador in the first three quarters of 2024, jumping to 4.2 tonnes in the last quarter alone. Spain had the most dramatic trend reversal. After 29 tonnes of cocaine was seized from inside Spanish bound banana containers from Ecuador in 2023, this dropped to 12.5 tonnes over the first three quarters of 2024 and ramped up to over 19 tonnes in the last quarter of the year.

The only other country to see a similar marked increase in cocaine seized from inside Ecuadorian banana containers was Russia, which saw 2 detections (5 tonnes) over 2023, and 10 detections (12 tonnes) since the second quarter

of 2024. Six of these containers had cocaine loads of over 1.4 tonnes. Russia is the largest importer of bananas from Ecuador, receiving 16.8% of all exports in 2023.³³ It is likely that Russian organized crime groups are increasingly looking to exploit their banana trade with Ecuador to fuel both increased domestic cocaine consumption and the stockpiling of cocaine to be funnelled into lucrative Western European markets.

Also notable was the 1.5 tonnes of cocaine seized by Ecuadorian authorities from a single United States (US) bound banana container in May 2024. The US is the second biggest importer of bananas from Ecuador after Russia, and the scale of this detection suggests that this rip attempt did not occur in isolation. It is possible that US authorities are encountering rip methodologies at their seaports with much greater regularity than was identified through this study.

33 See 'Bananas in Ecuador', OEC, [online](#).



V. Maritime and at sea smuggling

A. Underwater hull attachments

Border controlled drugs continued to be smuggled in large quantities via parasitic attachments affixed to the underwater external hulls of commercial vessels. Contamination occurs while vessels are at anchorage or berthed in Latin American ports, conducted by specialist dive teams recruited and overseen by organized crime groups. Drug loads are commonly affixed to attachment points within the sea chest (*Image 7*) but can also be attached in the rudder trunk area or affixed to the hull magnetically, often using a ‘torpedo’ like construction.

There is an inherent amount of danger in attaching and retrieving these underwater drug loads, and

vessel crew members, shipping agents or port workers can be co-opted by organized crime groups to provide logistical and scheduling information that can assist with planning and executing the contamination and retrieval operations, while remaining sufficiently at arm’s length of criminality.

There were 76 cocaine seizures from hull attachments in the analysis period, with a combined weight of 12.2 tonnes and average drug load of 163 kg, as shown in *Figure 9*. It is unclear why almost a third (24) of the hull attachments were seized in the first quarter of 2023 alone. In 20% of cases the likely destination was unreported, as 58% (44) of detections occurred in Latin American ports at or close to the contamination location.

Image 7. Colombia: Navy divers seize 200 kg cocaine from vessel sea chest in Buenaventura - 6 April 2024³⁴



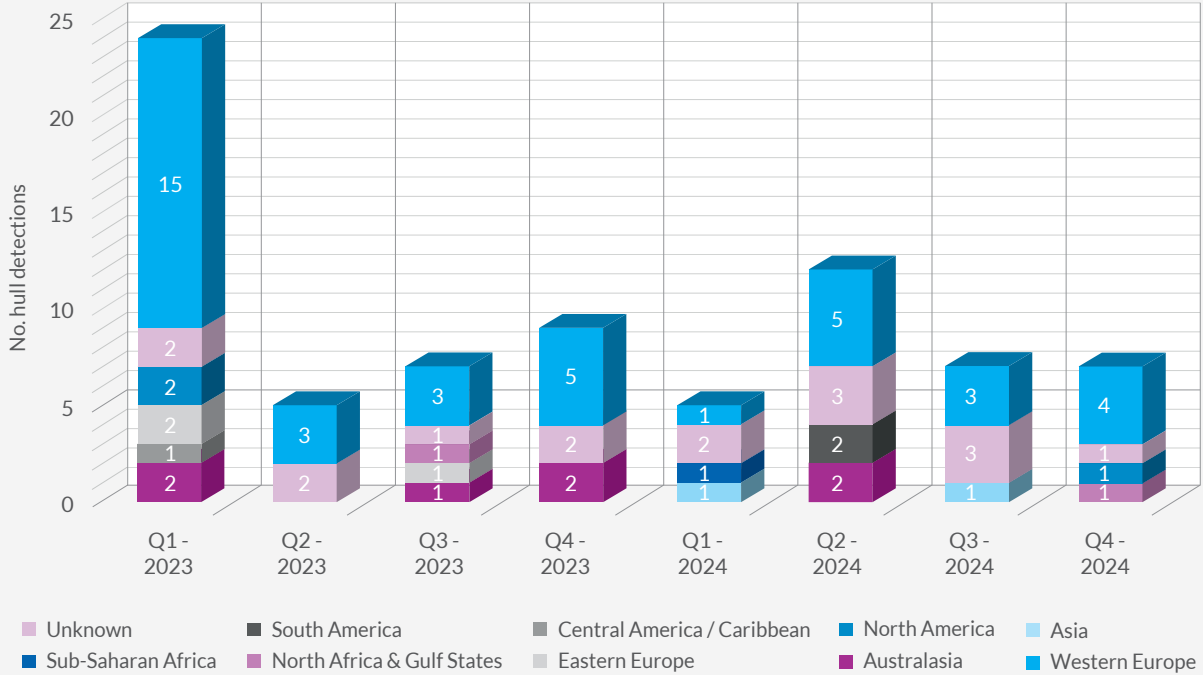
³⁴ See Urrea, A. (edited by) ‘300 kilos of cocaine discovered attached to merchant ship in the port of Buenaventura’, *Noticias Caracol*, 6 April 2024, [online](#).

Over half of the hull attachments (39) had planned retrievals in Western European ports. While the specific port of extraction was rarely known, the likely country of removal was deduced in the cases of 33 of these detections. Spain (10) and Italy (7) accounted for half, with smaller numbers spread evenly across the rest of the region (Germany, Denmark, France, United Kingdom, Netherlands, Norway, Portugal and Sweden). Seven hull attachments (9%) were destined for Australasian ports and the remainder had likely planned retrievals spread evenly across the world including Türkiye, Morocco, China, Mexico and the US, highlighting the global impact of this drug trafficking methodology.

The load country could be determined in 83% of cases which overwhelmingly identified Brazil as the source of the hull contamination in 63% (40) instances. Colombia (8) and Costa Rica (5) were the only other load countries to feature more than twice.

Information regarding the specific port of contamination was available with 51 detections. Of the Brazilian ports, Santos (16) was by far the most prominent, with Paranagua (4) and Rio Grande (2) the only other ports linked to multiple hull attachments. Individual events were linked to several smaller Brazilian ports. All 5 Costa Rican hull attachments were linked to the port of Moin. Buenaventura (3) and Cartagena (2) were the only Colombian ports linked to multiple hull contaminations.

Figure 9. Quarterly hull attachment seizures by destination region



The name or type of merchant vessel involved is not often reported but when it was (or could be determined from the cargo type) hull attachments were found to be overwhelmingly affixed to bulk carrier vessels. This is likely a contributing factor to Brazil being the dominant country of known hull contaminations, being a high-volume exporter of many natural resource commodities shipped in bulk, with Santos a busy bulk commodity port. Bulk carriers are loaded and unloaded in port facilities that are often remote with less sophisticated infrastructure and law enforcement oversight compared to container ports, which also assists criminal dive crews in operating more discreetly.

Since the first quarter of 2023 the number of parasitic hull attachment detections has remained quite low. It is thought that law enforcement is intercepting only a small fraction of drugs being trafficked this way, and contaminations are occurring regularly and systematically by well organized criminal syndicates. Examples of law enforcement detections are indicated below.

- In January 2023 law enforcement discovered over 3 tonnes of cocaine at an abandoned house in the Peruvian port city of Callao. Police seized 51 watertight bundles each containing between 50 and 80 bricks of cocaine, along with radios, life jackets, diving lights and other devices to be used by the traffickers.³⁵ Callao is a busy container and bulk commodity port. It is possible that this operation was feeding regular hull attachment events, or a single large scale drop at sea venture that was interrupted at the last minute.
- In May 2023 Brazilian federal police seized nearly 1.5 tonnes of cocaine in a Rio de Janeiro house and arrested several people including a professional diver. This crime group was conducting regular hull attachments, assisted by corrupted port workers that advised on the

routings of commercial vessels mooring at the port of Rio de Janeiro to ensure appropriate vessels were selected for contamination.³⁶

- In March 2025 a Belgian national and drug fugitive, Mounir Namoussi, was arrested in Barranquilla, Colombia after having spent 8 years in Colombia coordinating drug shipments for a powerful Balkan cartel. Namoussi used magnetic parasitic hull attachments to smuggle 270 - 300 kg of cocaine to Europe every week, recovered before the ships reached the ports of Rotterdam and Antwerp.³⁷

B. Drug drops at sea

Commercial shipping vessels and crew members continue to be complicit in the trafficking of drug loads that are either directly transferred to small craft or fishing vessels or dropped into open seas for retrieval by these smaller vessels, at offshore locations from the intended country of landing.

These 'drop at sea' drug transfers involve large (often multi-tonne) drug loads and can be difficult for border agencies to detect and interdict, often occurring outside of enforceable national maritime borders with domestic non-commercial vessels performing the ultimate border incursion. Due to the scale of these smuggling ventures, several if not all the crew on the commercial 'mother' ship can be complicit in the criminal venture.

There were 108 individual narcotic drop at sea related events detected for a total of 71.4 tonnes of drugs (69.4 tonnes of cocaine and 2 tonnes of methamphetamine). In several cases law enforcement or naval assets did not intervene or disrupt the drug drops, and either full bundled drug loads were found floating in the open ocean, or partially or completely disaggregated drug loads were found washed ashore after organized crime groups failed in their retrieval missions. The

35 See 'Callao: More than 3 tonnes of cocaine seized in abandoned house', *El Comercio*, 6 January 2023, [online](#).

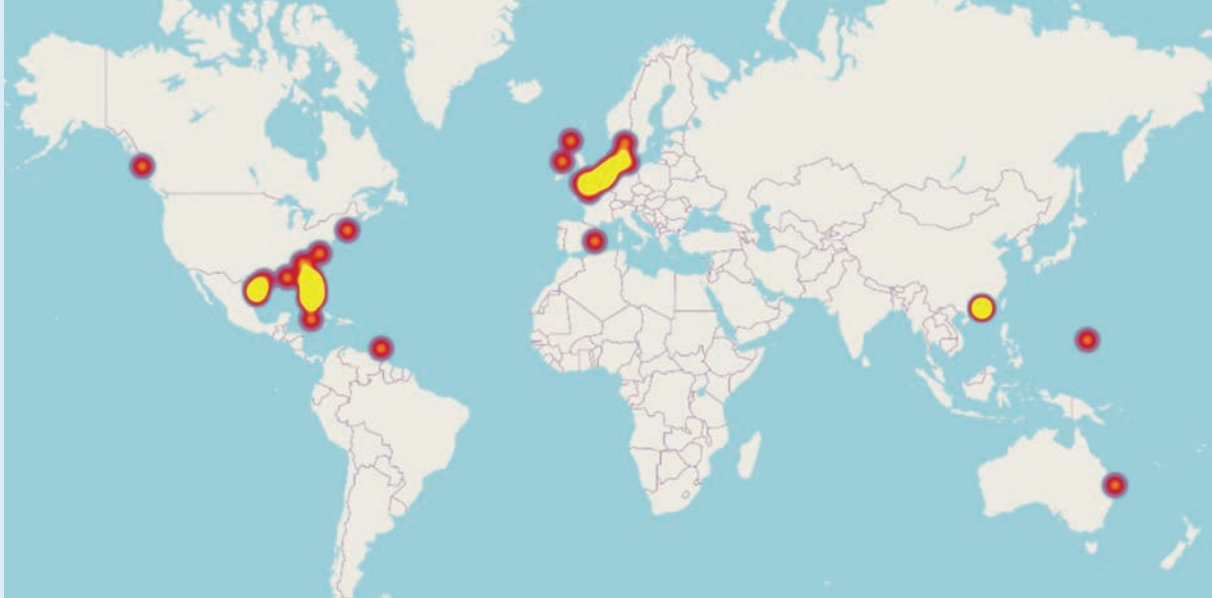
36 See 'PF conducts operation against international drug trafficking', *Brazilian Federal Police media release*, 24 May 2023, [online](#).

37 See 'Belgium asks Colombia to extradite Flemish drug lord', *Brussels Times*, 7 March 2025, [online](#).

108 detections includes 50 events (8.5 tonnes) of coastal drug detections by the public in all parts of the world, as shown in *Image 8*. On several occasions there were multiple smaller beach

detections in the same area at around the same time that undoubtedly related to a single drug drop that had broken down and dispersed. Significant detections from failed drop at sea ventures were:

-
- February 2023**
3.2 tonnes of cocaine in 81 joined bails found floating a significant distance off the coast of New Zealand, likely destined for the Australian market, as shown in *Image 9*.
 - March 2023**
850 kg of cocaine in joined bails washed onto the coast of Normandy in France, along the English Channel.
 - April 2023**
2 tonnes of cocaine in 70 joined bails found floating in the sea off the coast of Sicily by Italian authorities.
 - April 2023**
1 tonne of cocaine found floating in the English Channel by British authorities.
 - July 2023**
60 kg of cocaine in two bails washed ashore on the Donegal coastline in the north-west of Ireland – likely part of a much bigger load.
 - October 2023**
Several hundred kg of cocaine washed ashore at different locations along the southern English coast, along the English Channel.
 - October 2023**
210 kg of cocaine in 7 bails located 19 km off the coast of Belgium in the North Sea.
 - December 2023**
700 kg of cocaine in dozens of joined bails located at sea off the Normandy coast in the English Channel by a French fisherman.
 - January-April 2024**
256 kg of cocaine washed up along the east coast of Australia – part of a confirmed 900 kg failed drop at sea venture.
 - April 2024**
3 tonnes of cocaine in 66 connected bails found by the Mexican navy floating 33 km off the coast near Lazaro Cardenas.
-

Image 8. Heat map of locations where cocaine washed ashore

The overall trend of drug quantities detected through this methodology increased over the analysis period with some notable lulls. The third quarter of 2024 had the lowest total of 2.2 tonnes but was shouldered by the most active periods with 15.5 tonnes detected in the second quarter of

2024 and 16 tonnes in last quarter. As with other maritime internal conspirator methodologies, Western European countries were the main intended destination with 51 cases (47% of events and 64% of total drug volumes), as shown in *Figure 10*.

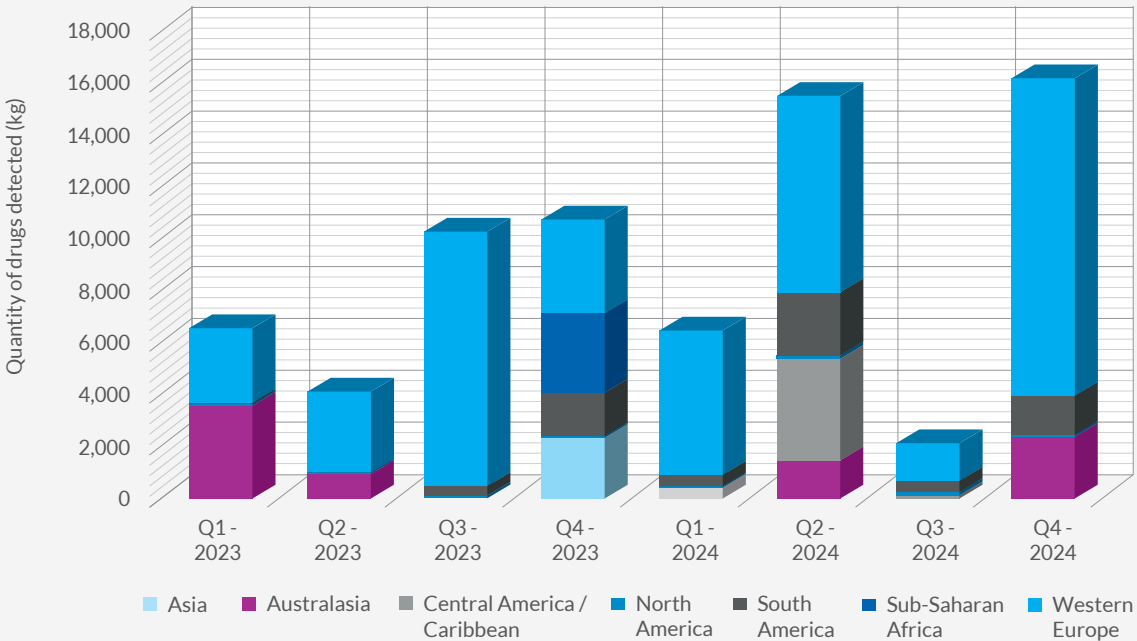
Image 9. New Zealand: 3.2 tonnes of cocaine recovered from ocean by navy – 8 February 2023³⁸

38 See 'New Zealand intercepts 3.2 tonnes of cocaine worth \$500m floating in Pacific Ocean', *The Guardian*, 8 February 2023, [online](#).

The reasons for failed ventures are not clear, but it is likely that retrieval crews lacking marine experience and bad weather conditions play roles in unsuccessful drops at sea. Commercial ‘mother’ ships would be hesitant to remain idle around the planned drop zone to wait out inclement weather as this could draw unwanted attention from authorities or shipping company administrators,

and such unscheduled deviations would only be possible if the Master or senior officers were criminally complicit. Drug loads dropped in wild weather or into rough seas are at risk of breaking up or having tracking equipment or timed flotation devices fail, making it impossible for retrieval crews to locate them.

Figure 10. Quarterly drop at sea detections by destination region



Despite these risks, relatively regular detections – particularly through the English Channel and North Sea off Western Europe – suggests that large scale drug drops at sea are being conducted with increasing frequency. The overall trend shown in *Figure 10* supports this. It is possible that enhanced law enforcement effectiveness

in major European container ports has caused some organized crime groups to pivot away from container-based attempts and diversify into drops at sea as a primary smuggling methodology, particularly those supplying drug markets either side of the English Channel.

C. Narcotic interventions at high seas

Naval forces and coast guard authorities, particularly those operating in the Pacific, Caribbean and Atlantic, continue to encounter large scale and increasingly brazen attempts to move narcotics into highly lucrative markets across North America, Europe, Africa and Australasia.

The United States Coast Guard has made escalating drug seizures from open sea vessel interventions over recent US financial years (1 October to 30 September):

- **FY 2023:**
96 tonnes of cocaine and 23 tonnes of marijuana
 - **FY 2024:**
106 tonnes cocaine and 19 tonnes of marijuana
 - **FY 2025:**
118 tonnes of cocaine and 6 tonnes of marijuana in just six months since October 2024³⁹
-

During November 2024, Colombian authorities led the 14th edition of Operation Orion – a cooperative law enforcement operation involving 62 countries – that seized 225 tonnes of cocaine, 1,000 tonnes of marijuana, and 66 vessels, also arresting over 400 alleged members of criminal organizations.⁴⁰

In December 2023, Thai authorities intercepted a vessel about to enter international waters with 2 tonnes of methamphetamine, intending to transfer the drugs onto boats of various sizes to distribute them to Australia, and other countries such as the Philippines.⁴¹

Conventional links to maritime supply chain insiders usually cannot be made with the level of information available for many of these high seas seizures. However, it is likely that several intercepted fishing and go-fast vessels received their narcotic payloads through coordinated drops or direct transfers from merchant vessels in open seas. Many of these detections have been the result of joint agency collaboration and intelligence sharing with the Europe-based Maritime Intelligence Analysis Operational Centre for Narcotics (MAOC-N).

In risk assessing and processing merchant vessels arriving from high-risk areas, Customs administrations have important intelligence and enforcement roles to identify drug trafficking or indicators of it and collaborate in joint agency forums to crack down on rapidly escalating criminal exploitation of shipping routes and fleets.

39 USCG, Global Maritime Operational Threat Response Coordination Centre, National Command Centre.

40 See Appleby, P. 'After Historic International Crackdown, Are Multinational Drug Ops the Future?', *InSight Crime*, 6 December 2024, [online](#).

41 See 'Police catch a drug gang in the water and seize ice for Australia', *Khaosod English*, 5 December 2023, [online](#).

D. West Africa – a resurgent maritime trafficking route

Also contributing to increasing at-sea drug transfer seizure statistics is the uptick in detections off the coast of West Africa. This region is well-established as a drug stockpiling and transit zone for Latin American sourced drugs on route to Europe but diminished in the scale of detections until a resurgence in recent years.

During the analysis period, the French Navy had been increasingly effective patrolling the maritime smuggling routes between South America and West Africa:

● **In April 2023**

a Caribbean flagged bulk carrier was intercepted off the coast of Guinea carrying 4.7 tonnes of cocaine.⁴²

● **In December 2023**

a semi-rigid 'go fast' boat carrying over 5 tonnes of cocaine was intercepted in the Gulf of Guinea as the result of an at-sea transfer.

● **In April 2024**

a Brazilian fishing vessel was intercepted off the coast of Guinea and 10.7 tonnes of cocaine seized.⁴³

The Senegalese navy also intercepted a tugboat moored 150 km off the coast of Dakar in November 2023 carrying 3 tonnes of cocaine in large bundles which is also highly likely the result of another drug transfer at sea.⁴⁴

During 2024 the French Navy were also very active in the Caribbean waters surrounding the French overseas territories of French Guiana on mainland South America and the islands of Guadeloupe, Martinique, Saint-Barthélemy, and Saint-Martin. Ten naval intercepts of fishing vessels, sloops and sailing vessels in these waters between February and August 2024 yielded 26 tonnes of cocaine. This activity is likely correlated with recent large scale cocaine detections in containers shipped from Guadeloupe to mainland France (domestic cargo shipments), including a 2.1 tonne rip load detected at Le Havre on 27 December 2024, and a record 10 tonne cocaine haul at the French port of Dunkirk on 5 March 2025.

E. The proliferation of narco-submarines

Narco-submarines vary in their structure and design. A common version is the self-propelled, semi-submersible (SPSS). Generally, SPSS are constructed in clandestine shipyards and designed with very low profiles enabling stealth operations that minimize the likelihood of detection. SPSS drug trafficking ventures pose significant risks – in 2023, the Colombian Navy intercepted a SPSS in the Pacific Ocean loaded with 2,630 kg of cocaine. Two of the four traffickers were found deceased onboard, presumably due to inhalation of toxic fumes.⁴⁵

42 See 'Chief Petty Officer High Seas Patrol Vessel L'Her seizes 4.7 tonnes of cocaine off the coast of Africa', *Service-Public, France*, 7 April 2023, [online](#).

43 See 'Drug trafficking: a record seizure of ten tonnes of cocaine made by the French Navy in the Gulf of Guinea', *Radio France*, 20 March 2024, [online](#).

44 See 'Senegalese Navy seizes nearly 3 tonnes of cocaine aboard a tug vessel, reaffirming its excellent cooperation with the Centre' MAOC-N, 29 November 2023, [online](#).

45 See Smith, S. 'Submarine with 2 bodies, 3 tons of cocaine seized in the Pacific Ocean off Colombia', *CBS News*, 14 March 2023, [online](#).

The Colombian Navy first seized a SPSS back in 1993 – since then, they have intercepted 228 SPSS and submersible devices. In 2023, a SPSS measuring 30 meters long and 3 metres wide was intercepted in the South Pacific Ocean. The SPSS, reported to be the largest ever seized by the Colombian Navy, was loaded with 3,058 kg of cocaine.⁴⁶

A series of recently captured SPSS suggest that they are built with enough durability to traffic narcotics from the West Coast of the Americas,

through the South Pacific, into Oceania. In 2024, the Colombian Navy intercepted an SPSS in the Pacific Ocean, bound for Australia. Officials noted it was the third such vessel intercepted in that region, and that the vessels were capable of sailing at least 16,000 kilometres without needing to refuel.⁴⁷

The proliferation of the *narco-submarine* continues to challenge authorities around the globe. [Table 4](#) highlights several high-volume interceptions made throughout 2024:

Table 4. Intercepted SPSS ventures in 2024

Publication date	Agency	Cocaine KG	Area of interdiction
February 2024 ⁴⁸	Colombian Navy and LEA	4,000	Off Colombia coast
April 2024 ⁴⁹	US Navy, LEA from US & Guyana	2,370	Off Guyana coast
September 2024 ⁵⁰	UK Navy, US Coast Guard	2,000	South of the Dominican Republic
October 2024 ⁵¹	Mexican Navy	2,177	Pacific Ocean, off Mexico
November 2024 ⁵²	Mexican Navy	3,600	Pacific Coast, off Acapulco
November 2024 ⁵³	Colombian Navy, multi-LEA	5,000	Pacific Ocean

46 See 'Colombian Navy press release', 12 May 2023, [online](#).

47 See 'Colombian navy uncovers 'narco sub' in new drug trafficking route to Australia', *Euronews*, 28 November 2024, [online](#).

48 See '4 tonnes of cocaine seized that were going in semi-submersible to Australia', *El Universal*, 9 May 2025, [online](#).

49 See 'Narco-Sub intercepted off Guyana with cocaine', *Loop*, 5 April 2024, [online](#).

50 See Buitendijk, M. 'Royal Navy hunts down narco-sub filled with cocaine', *SWZ Maritime*, 13 September 2024, [online](#).

51 See 'Record 8.3 tons of drugs seized from "narco sub" and convoy of other boats in Pacific Ocean off Mexico', *CBS News*, 21 October 2024, [online](#).

52 See 'The Mexican Navy seizes 3.6 tons of cocaine aboard a boat off the Pacific coast', *AP News*, 5 November 2024, [online](#).

53 See Taylor, L. 'Colombia-led operation seizes world record 225 tonnes of cocaine, and uncovers new Australia trafficking route', *The Guardian*, 28 November 2024, [online](#).

F. Combined exploitation of multiple vulnerabilities

Several drug detections involved the staggered or combined exploitation of multiple maritime supply chain vulnerabilities. For example, Panamanian authorities seized 400 kg of cocaine tied together in waterproof bales within a Chilean origin container being transhipped to Spain in February 2024. Similarly, in April 2024 Panamanian authorities seized 920 kg of cocaine in joined waterproof bales attached to buoys held within a deck level Ecuador-loaded banana reefer on route to Russia.⁵⁴ These are likely examples of criminally complicit crew involved in on-board container rip concealments in order to later remove them for at-sea drug transfers, and designed to insulate themselves from any law enforcement interventions that may occur on board.

Smaller scale drop-at-sea drug ventures involving stowaways were also detected. From February to October 2023, Spanish authorities intercepted stowaways on four commercial vessels (three originating in Colombia) that had secreted cocaine loads of between 100 kg to 200 kg on board. One report confirmed the stowaway had hidden the

cocaine within a container on board the vessel, and another described a duo of stowaways in wetsuits that jumped into the ocean with three GPS tracked waterproof cocaine bails with as the ship approached the port of Algeciras where three of the stowaway vessels were to berth.⁵⁵

A fifth stowaway venture was more complex, involving a 318 kg cocaine rip placed into a container of marshmallows that was loaded in Mexico and bound for Jordan, via Hong Kong. While the vessel was berthed in Hong Kong in November 2023, two men planning to board as stowaways were arrested. The men were to guard the drugs (concealed in 9 waterproof bags attached to life jackets and buoys) before jumping into the sea with the rip load during the vessel's approach to Jordan, where they would be picked up by a smaller vessel, as shown in *Image 10*.

With this and one of the Spanish stowaway cases, crew reportedly detected anomalies and alerted authorities – highlighting the complexities in maritime enforcement whereby crew can act as either criminal accomplices or front-line deterrents.

54 See '920 kilos of cocaine destined for Russia seized in a maritime container', *YouTube*, 21 April 2024, [online](#).

55 See 'Two stowaways arrested transporting 100 kilos of cocaine on a container ship', *Ministry of Interior, Spain*, 31 October 2023, [online](#).

Image 10. Combined container rip / mid-voyage stowaway / drop at sea cocaine venture⁵⁶



⁵⁶ See Mayen, B. 'Hong Kong Police Seize Cocaine Shipment Hidden Among Marshmallows from Mexico', *Infobae*, images courtesy of *Hong Kong Customs*, 11 November 2023, [online](#).



VI. Conclusion

This study highlights the scale at which transnational organized crime continues to exploit maritime supply chain vulnerabilities, assets and workers to fuel the world's seemingly insatiable appetite for illicit narcotics, particularly cocaine. While there was a reported drop in maritime related cocaine seizure volumes globally from mid-2023 into 2024, this trend emphatically reversed from mid-2024 and is expected to continue rising in line with escalating cocaine production in South America. A breakdown of the maritime detection analysis is shown in *Table 5*.



Table 5. Summary of maritime cargo sector drug detections

	2023		2024		Total	
	#	Tonnes	#	Tonnes	#	Tonnes
Total maritime detections	1,307	711.5	1,321	635.2	2628	1,347
Internal rips - dry	269	154	243	125	512	279
Internal rips - reefer	138	52.7	109	44.5	247	97.2
Internal rips - undetermined	5	1.2	3	0.9	8	2.1
Structural - floor	58	23.4	34	7.6	92	31
Structural - ceiling	5	0.9	25	2.5	30	3.4
Structural - reefer rear wall	294	16.7	336	15.3	630	32
RORO related	17	3.3	5	0.4	22	3.7
Hull attachment	45	8.2	31	3.9	76	12.1
Drop at sea related	45	31.4	63	40	108	71.4
Residual maritime IC related ⁵⁷	28	13.4	31	3.2	59	16.6
TOTAL seizures – involving internal conspirators	904	305.2	880	243.3	1784	548.5

Breakdown of banana containers and switch rips	#	Tonnes	#	Tonnes	#	Tonnes
Banana - internal rip ⁵⁸	100	53.3	35	29.4	135	82.7
Banana - internal non rip ⁵⁹	84	131.8	85	98.6	169	230.4
Banana - structural ⁶⁰	113	17.4	147	10.8	260	28.2
Switch rips ⁶¹	9	5.1	6	14.8	15	19.9

57 Residual seizures that did not fit into the four primary drug trafficking methods defined in this report but still leveraged internal conspirators. Examples include ship's crew involvement; smaller concealments in vessels, bulk commodity concealments, port terminal detections, and on-land disruptions of imminent hull attachment and drop at sea ventures.

58 These figures have already been included in the 'Total seizures involving internal conspirators'.

59 These 169 detections were not classified as 'internal conspirator' assisted events.

60 These figures have already been included in the 'Total seizures involving internal conspirators'.

61 These figures have already been included in the 'Total seizures involving internal conspirators'.

Ever-increasing violence in the primary cocaine exporting country of Ecuador continues to exact a toll on that society and the maritime supply chain workers that are exposed to it by choice or coercion. The extreme security concerns that this trade creates across the entire maritime supply chain carry not only a high human cost, but significant costs to shipping and port operations through forced disruptions to services and realignment of resource and capital to mitigate risks.

Organized crime groups are intensifying the scale of concealments in container structures which requires costly repair work and takes assets out of circulation. Tampering and structural damage to reefers in transit can also result in foodstuff spoilage and further costs to industry and reputational damage. Some of these methodologies place narcotics into close proximity of mechanical parts such as reefer evaporator fans, which can and has resulted in the obliteration of cocaine bricks and potential contamination of internal cargo, jeopardising the health and safety of consumers.

This analysis highlights the main and emerging maritime pathways being exploited to shift vast quantities of cocaine into major global drug markets, particularly those in Europe. While Spain, Belgium and the Netherlands will continue to be heavily targeted by organized crime and supply chain internal conspirators, more nuanced analyses by other agencies explore the relationship between drug entry jurisdictions and the levels of consumption and social cohesion that play out as cocaine flows across the continent.

The global shipping industry will continue to thrive, even through challenging times, and must continue its firm commitment to strengthen public-private partnerships and exchange information to address the new and evolving vulnerabilities, trade routes, and methodologies that transnational organized crime will always look to exploit.

As container shipping volumes increase over time, smaller well-positioned ports will expand to take on larger transshipment volumes. Such port infrastructure developments need plans and strategies – as do the world's more established global ports – to prevent organized crime from infecting and undermining their integrity and the end-to-end integrity of the international supply chain.

Customs and border agencies and the ports and shipping communities should continue collaborative approaches to harden their respective areas of operations, identify and remove vulnerabilities, and promote security cultures that better mitigate the threat of internal conspirators. This includes recognising that organized crime have infiltrated empty container yards and similar facilities to insert and extract illicit narcotics, on a large scale. Such environments may fall beyond the realm of what are currently considered to be conventional supply chain sectors, that would be subject to more rigid and routine border controls.



Contact us:

compliance@wcoomd.org

Visit our website:

wcoomd.org

Copyright © 2025 World Customs Organization.

Photo credits: Cover, p. 2, 10, 23, 49: © Stock.adobe.com – Inside front cover: U.S. Customs and Border Protection (CBP) – P. 4: World Customs Organization – P. 6, 17: © Freepik.com – P.14: National Customs Service of Costa Rica (SNA) – P.30: Danish Customs Agency – P.36: Peru's Tax Administration (SUNAT) – P.48: Federal Revenue of Brazil (Receita Federal do Brasil) – Inside back cover: Customs Collection and Control Agency (ARCA) of Argentina.



