

# Narco-sub design evolves to evade detection

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**So-called 'narco-submarines' have become increasingly sophisticated, even though they ship only a fraction of the total cocaine entering the United States. *H I Sutton* analyses the innovations and evolutions that the vessels have undergone**

## Key Points

- Since 2014, there has been a steady increase in recorded 'narco-sub' incidents, with vessel changes introduced to reduce production costs and to mitigate the risk of interception.
- Narco-subs have become smaller over time, with the payload also shrinking, from six to eight tonnes of cocaine in early intercepts to less than two tonnes in many later examples.
- A new model design seized in February 2019 – combining characteristics of earlier, different vessels – may not be a new design trend, but it could become a common configuration that makes detection more difficult.

The ongoing role of so-called 'narco-submarines' in facilitating drug trafficking in the Americas was illustrated on 25 July by the intercept of a three-person low-profile vessel (LPV) by the destroyer USS *Michael Murphy* (DDG-112) in the Pacific Ocean. The vessel, its illicit payload, and its crew were handed over to the US Coast Guard (USCG) cutter *Midgett* (WMSL 757) the next day, making it the 15th recorded narco-submarine incident of 2019.

*Jane's* has analysed data on more than 130 'narco-submarine' incidents since 1993 for this article. The number of reported incidents varied, with the highest figures in 2008 (14) and 2011 (11), and the lowest in 2009 (3) and 2012 (2). The reduced number of incidents, particularly at-sea interdictions, likely reflects the lower availability of naval assets for interdiction. The US Navy was decommissioning its Oliver Hazard Perry-class frigates and the P-3C Orion patrol aircraft fleet was becoming less available, so the navy was increasingly forced to limit patrols supporting counter-narcotics operations.

Although there were numerous other variables at play, it is likely that the total amount of cocaine being smuggled by low-profile vessels remained at a similar level during the 2008–14 period. In 2018, *Jane's* recorded 32 narco-sub incidents – defined mainly as at-sea interdiction, wreckage washed up on beaches, or discoveries in jungles – which was more than double any previous year, and this increased level appears likely to be repeated in 2019. On 11 May 2019, for example, a narco-sub was discovered beached near Playa Llorona in the Corcovado National Park region on Costa Rica's Pacific coast, the 10th reported narco-submarine incident of 2019.

## **Evolving designs**

Narco-sub, in most cases more properly called low-profile vessels (LPVs) or self-propelled semi-submersibles (SPSSs), are built in batches in a range of designs that have clear differences between different master boat builders. The Costa Rican discovery was a generic LPV with a cockpit at the rear and outboard motors.

More specifically, it was almost identical to an example intercepted in the Pacific by the USCG on 24 May 2018. *Jane's* assesses that these two separate incidents involved LPVs built by the same builder, and were distinct from all other reported narco-sub.



*A glass fibre drug-smuggling submarine used to transport up to two tonnes of cocaine, displayed by the Colombian Coast Guard in Cartagena on 31 October 2014. Narco-sub have become progressively smaller, sleeker, and more sophisticated, to evade detection. (Chris Jackson/Getty Images)*

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Since 2014, there has been a steady increase in the number of incidents recorded. This has corresponded to changes in the vessels themselves to reduce production cost – they have become cheaper and simpler to build, and more standardised – and to mitigate the risks of interception.

Early examples of LPVs were typically powered by two inboard diesel engines, and could transport around six tonnes of cocaine at 12 knots. They had sufficient range to reach the United States from offshore Colombia, although there have not been any reports of LPVs being used to land cocaine directly in the US. Instead, most were destined for Mexican gangs.

Over time, the vessels became smaller, with a single engine becoming more common, and reported payloads also reduced to around two tonnes. In 2016, LPVs with outboard motors began to appear. This was significant because the previous generation of LPVs, still in use, had inboard motors and custom-made screws. Outboard motors are likely to be easier to source. Following the logic of simplifying construction, some of the new type are modified speedboat hulls to reduce build time and expense, while others continue the use of custom-built hulls.

Earlier narco-subbs were often built in batches, as seen during raids on jungle boat yards. Two or three craft were often present in various states of construction, suggesting that the moulds for the glass fibre hulls were being reused. However, the new generation takes mass production to a new level, with multiple batches built to a nearly identical design.

This is demonstrated by the long timeframe over which near-identical craft of a single family are intercepted, as well as the reduced variance between individual examples of the same family. For example, a vessel found abandoned on the Guatemalan shore on 22 April 2017 was essentially identical to an example interdicted by the USCG in the Pacific on 10 May 2019.

In addition to these two, 11 other nearly identical craft have been reported: three in Costa Rica (between July 2017 and July 2018), two off Colombia (in June and September 2018), one off Panama (September 2018), and five further out in the Pacific (between June 2017 and January 2019). In some cases, small design changes visible in one intercept are then propagated in subsequent examples of the same family, showing continuous refinement over time and implying multiple batches of ever-refining designs.

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