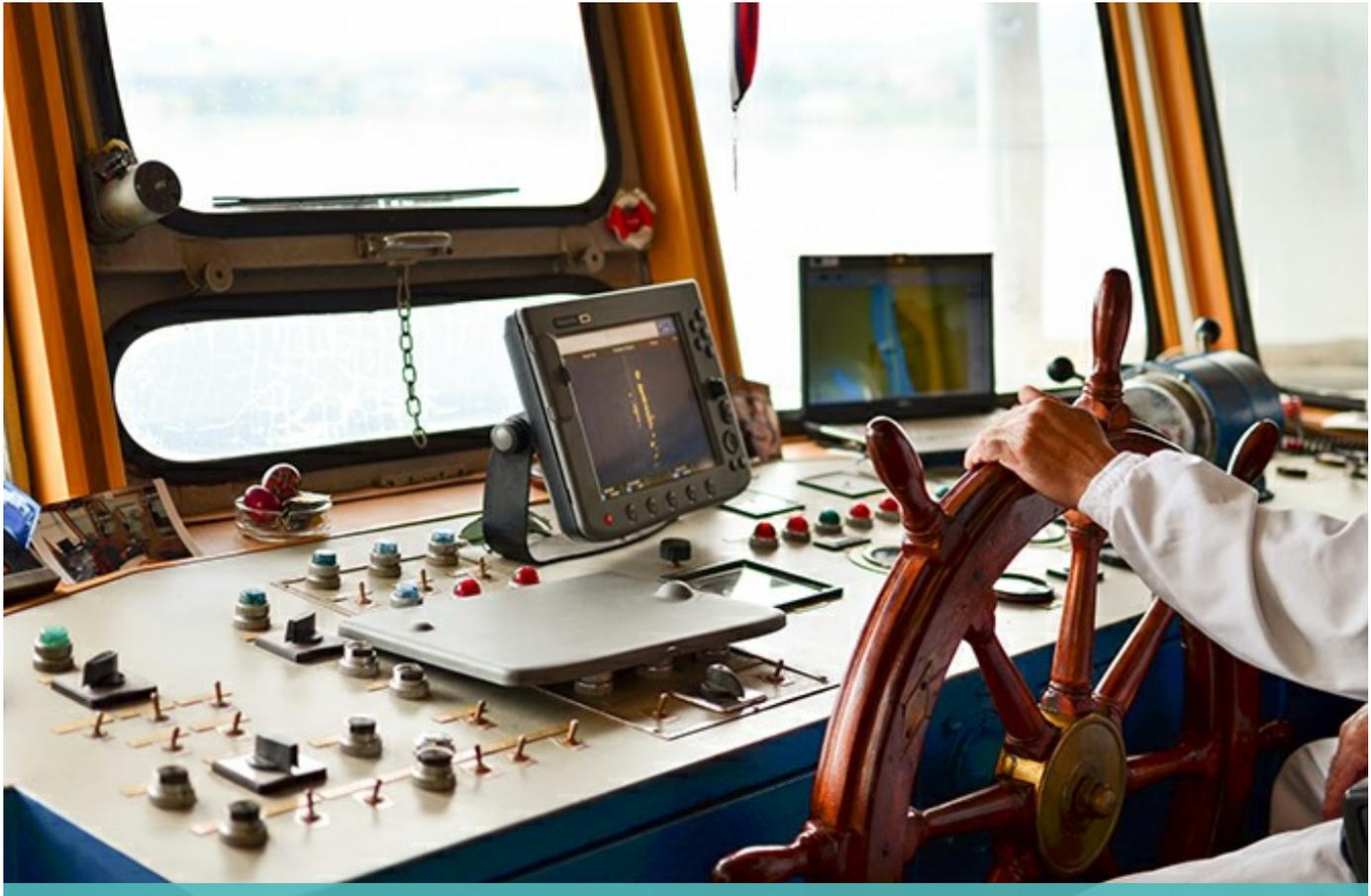


## Blockchain on board!



Colin M. Battersby | Wednesday, July 3, 2019

Title 46, § 11301 of the United States Code sets forth the two types of vessels required to maintain an official logbook:

1. A vessel on a voyage from a United States port to a foreign port (except a Canadian port).
2. A vessel in excess of 100 gross tons on a voyage between a United States port on the Atlantic Ocean and a United States port on the Pacific Ocean.

Traditionally, a ship's log was a diary-style book with lined pages, where the officers would hand-write important events and data regarding the ship's management and operations. The logbook's entries are generally presumed accurate, and may be considered an admission against the interests of the vessel owner. Thus, their accuracy and reliability can greatly impact the outcome of a case. As stated by Judge Wright in *Capehorn S.S. Corp. v. Texas Co.*, 152 F. Supp. 33, 36 (E.D. La. 1957): “[s]uffice it to say that under the law of the sea, when a party comes into court with log entries which will not stand the test of credibility, that party's chance of success in the litigation is little short of nonexistent.”

Over time, the handwritten logs have made way to electronic logbooks, and the benefits can be seen across the board – with improvements in data reliability, increase in regulatory compliance, and the reduction of human error. The Registro Italiano Navale (RINA), a ship classification society, recently went a step further and employed blockchain technology to develop a new, tamper-proof electronic logbook.

Blockchain technology has gained mainstream attention as the backbone of cryptocurrencies, most

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prominently Bitcoin. But it has application well beyond the electronic currency realm. A blockchain is simply a distributed ledger, meaning there is not a single copy of a logbook, for example, but rather multiple copies maintained by multiple parties (called nodes), the majority of whom have to verify the legitimacy of any addition before it is made. As such, there is no ability to go to a single record and alter it. Through RINA's platform, the logbook is linked to a public blockchain which is time-stamped and immutable, so the data cannot be altered after-the-fact and is accessible to port authorities.

Like all blockchains, the reliability of the RINA blockchain will depend on the legitimacy and good faith of the nodes reviewing and approving the transactions. For it to work, it will be imperative that the nodes employ cybersecurity best practices to avoid compromise by malicious attackers that might approve fraudulent additions to a logbook and undercut the reliability of the platform.

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