



Reliable port calls must start with reliable information, finds
Dave MacIntyre

THERE WAS LITTLE fanfare when a document entitled Functional Definitions for Nautical Port Information was circulated among shipping companies and other maritime stakeholders by the International Harbour Masters' Association (IHMA) and the United Kingdom Hydrographic Office (UKHO) in September.

Yet these definitions will standardise terms for port calls and operations and are set to make a considerable difference to vessel movements throughout the world, providing consistency in the exchange of information such as navigable depths, admissions and safe departures.

This ensures that the nautical data on board vessels corresponds to the information held by the port, as well as the information used in hinterland logistics chains.

These new standards are the output of the International Taskforce Port Call Optimisation project, a unique initiative that brings ship operators and ports, shipping agents and industry bodies such as BIMCO together to work on a solution for every port, in every trade lane, instead of ports maintaining individual standards and keeping their distance from other terminals with whom they may be in competition.

The new standards are the result of these bodies cooperating through the international taskforce, responding to a call for action from large shipping lines such as Shell, Maersk Tankers, Maersk Line, CMA CGM and MSC for consistency in terminology and information exchanges.

LONG HISTORY

Since 2006, IHMA and UKHO have been working hard to come up with a defined structure and authoritative definitions for port information which can be distributed to both ports and vessels for the purpose of improving communications and port efficiency.

The taskforce asked shipping lines and their agents to identify the exact areas in shipping business processes that could be optimised when different types of information are provided and shared.

Ports and their service providers (such as terminals, bunkers and pilots) identified how to achieve high-quality data. International associations have since been invited to endorse the nautical and supply chain standards used.

The benefits are expected to include lower costs, a cleaner environment, more reliability and safety improvements for vessels, terminals and ports.

Although the standards aren't due to be published formally until 2018, the Port of Rotterdam is already using them. Other ports which

Standards to share



PULLED ALONG: the new standards will help port service providers, such as tugs and pilots

have backed the initiative include Algeciras, Busan, Gothenburg, Houston, Rotterdam, Singapore and Ningbo Zhoushan, so they too can be expected to be early adopters.

The new standards focus on improving the quality and availability of two types of data: master data and event data. 'Master data' embraces things such as depths, admission policies and berth compatibility to ensure there is clear understanding of when it is safe for a ship to arrive or leave. These standards are being tackled through the Avanti project.

'Event data' includes, among other things, the planned time of arrival at the berth and the estimated time of completion of cargo operations. This will enable just-in-time planning to get the

pilot on board, pre-plan all port services and allow forward planning to the next port of call. These standards are being tackled through the Pronto project.

Both projects use existing nautical and supply chain standards and formats suitable for shipping's worldwide requirements. Backed by internationally-recognised organisations with a commitment to co-operation, the hope is that this project will deliver a future-proofed step forward in port call optimisation and high-quality port services.

CUTTING OUT ERRORS

So, what do these standards mean in operational terms? Will they streamline port calls and remove a lot of human error?

Ben van Scherpenzeel, director Nautical Developments, Policies and Plans at the Port of Rotterdam, chaired the International Taskforce Port Call Optimisation project. He says that, in the past, there have been instances of errors caused by the transfer of information in non-standard form.

"Every day, there are many endless discussions regarding maximum draft or arrival time. There is miscommunication about the correct pilot boarding time or incorrect ordering of lighting services due to miscommunication of maximum draft."

Asked if the new standards will lead to more efficient and safer port operations, Mr van Scherpenzeel says: "Absolutely. The benefits will be fewer operational expenses for all involved parties, fewer emissions and more safety."

He says the project team is already working with Singapore on the first berth-to-berth exchange of data. And while the standards aren't officially

Ben van Scherpenzeel
Port of Rotterdam



“The benefits will be fewer operational expenses for all involved parties, fewer emissions and more safety”

An authoritative and clear voice

HIGH PRIORITY HAS long been given to the ability for vessels and the various port agencies to communicate using clear and authoritative definitions for the terms used daily in port operations.

For this project, the International Taskforce on Port Call Optimisation sourced definitions from existing standards within the shipping industry. Only when no applicable definition could be found was a new one introduced and published via the glossary of the UKHO's Mariners' Handbook (NP100), the publication available most frequently on the bridge of all SOLAS ships and in most offices of harbourmasters globally.

An initial project, Avanti (Access to Validated, Nautical Information) and later Pronto (Port Rendezvous Of Nautical and Terminal Operations), examined the needs of all stakeholders involved in vessel operations in ports and produced a website designed to address those needs.

Avanti is based on a standard, off-the-shelf ArcGIS Cloud Platform and uses existing nautical standards, making it easy for other ports to upload their data and for end users to use the data. By basing Avanti on nautical standards the information can be used in conjunction with nautical charts and publications.

Avanti helps harbourmasters to manage their nautical port information so that this information is always available, up-to-date and accessible to all port users. It displays the controlling sizes and conditions from A to B for the port community, the port's trading partners and hydrographic offices.

This improves the safety and efficiency of shipping operations and significantly reduces the workload related to data management, removing the need to answer questions regarding port data.

Pronto, meanwhile, is a social business communication platform for the port community, using existing supply chain standards. By basing Pronto on these standards the onward linkage to logistics companies is simplified. It invites interested parties to share and receive information regarding the planning of all services related to the vessel call.

Pronto allows all service providers, including terminals, bunker barges and pilots, to update their starting and completion times. This creates a timetable per vessel per berth that is available to the port community and the port's trading partners, thus significantly reducing the many person-to-person calls that are made currently.



FIRST MOVER: the Port of Gothenburg will be an early adopter of the new standards

released until next year, Rotterdam has become the first port in the world to apply them in practice.

"With these standards as a base, we can not only optimise the services to our clients but also develop new services that make the logistics chain more efficient," says Allard Castelein, president of Port of Rotterdam Authority. "These standards provide a strong impetus for safety, sustainability and efficiency."

Rotterdam believes international unambiguity in communication will mean that lower port margins can be maintained, eventually resulting in vessels calling at ports faster and with more cargo. This will lead to a reduction in costs and pollution.

Rotterdam's initial calculations predict up to \$80,000 in additional revenue and savings of 240 tonnes in CO₂ emissions per port visit, depending on where the vessel comes from and at which berth it is located.

GOTHENBURG ON BOARD

The Port of Gothenburg will also be an early adopter of the new standards. Harbour Master Åsa Kärnebro

says Gothenburg supports the project, saying that errors caused by the transfer of information in non-standard form happen "every day more or less about ETA, ETD and drafts for example. A lot of time is lost due to miscommunication."

Mr Kärnebro adds that the new standards will "improve safety, sustainability and efficiencies within the port chain".

Other ports that have not yet signed up for the new standards are following their progress carefully.

A spokesperson for International Container Terminal Services, Inc. (ICTSI), which is headquartered in the Philippines and operates in Asia-Pacific, the Americas, Africa, Europe and the Middle East, said: "We are definitely following the developments and support any standards that can improve the safety and efficiency of our ports. We put a premium on safety and efficiency.

"However, in many cases the areas for improvement fall under the control of the port authorities. We are, therefore, working with them on improving and meeting whatever standards are applicable in the jurisdictions we operate in." **PS**



JOINED UP: the standards will streamline port calls and remove a lot of human error

Credit: Erop Xyloaenés