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Training challenges

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The maritime industry faces a huge challenge with regard to timely and proper training of merchant mariners and other individuals within the industry. The industry is changing rapidly. These changes are driven partly by regulation, but more so through technological advances and economic pressures. Ships are evolving. The individuals who operate and maintain those ships must learn new methods of performing their duties in order to keep up.

No government mandates the use of containers for shipment of cargo, but the taskmaster of economic competition has driven almost all shippers and carriers of many cargoes to adopt their use. The industry had to re-learn cargo handling to accommodate that revolutionary change.

Likewise, no government mandates the use of azimuthing thrusters to propel ships. They have been found, though, to offer important advantages to many types of vessels. As with containerization, adoption of this new technology brought with it new training requirements. The list could go on and on.

Certain changes, though, are driven by regulation, particularly with regard to environmental protection measures. Double hulls, ballast water management, air emission controls, and the electronic chart display and information system (ECDIS) stand out as examples.

Another primary reason that training presents such a challenge for the maritime industry is the basic business model utilized by many companies. Crew members are acquired through agents and management companies. Few crew members, particularly among the unrated personnel, stay long with one ship or one company. The crew has a continual turn-over. Even experienced mariners, who may have sailed on tankers or containerships or another particular type for most of their careers seldom sail on the same ship for very long. As a result, these mariners are constantly working in new environments. The owners and operators of ships expect that every new crew member that reports aboard is fully able to perform all of his or her assigned duties, but that owner or operator seldom is involved in the training process.

When new equipment, such as ECDIS, is installed on a ship, the technical representative of the manufacturer provides basic training and familiarization to crew members, such as deck

officers, who will be operating the device. The representative also provides an operator's manual. This is barely adequate for those particular crew members. It does nothing for the replacement crew members. Courts have ruled that just having an operator's manual available on the bridge is inadequate – the owner/operator must ensure that the crew member charged with operating a particular device has been provided the training required to properly operate it. ECDIS is a good example, because each model of each make of the ECDIS is different. The displays are slightly different from model to model. The control panels are different. The capabilities are different. To make matters more complex, each model is subject to continual upgrade. Being proficient on one model does not make a person proficient on all models.

The Seafarers' Training, Certification and Watchkeeping (STCW) Code, as amended by the Manila Amendments, provides, at Section A-I/14.2:

The company shall provide written instructions to the master of each ship to which the Convention applies, setting forth the policies and the procedures to be followed to ensure that all seafarers who are newly employed on board the ship are given a reasonable opportunity to become familiar with the shipboard equipment, operating procedures and other arrangements needed for the proper performance of their duties, before being assigned to those duties. Such policies and procedures shall include:

- .1 allocation of a reasonable period of time during which each newly employed seafarer will have an opportunity to become acquainted with:
 - .1.1 the specific equipment the seafarer will be using or operating;*
 - .1.2 ship-specific watchkeeping, safety, environmental protection, security and emergency procedures and arrangements the seafarer needs to know to perform the assigned duties properly; and**
- .2 designation of a knowledgeable crew member who shall be responsible for ensuring that an opportunity is provided to each newly employed seafarer to receive essential information in a language the seafarer understands.*

For US-flag vessels, the US Coast Guard addresses the ship-specific requirement with two regulations. For all US commercial vessels, the Coast Guard requires that:

Each credentialed individual must become familiar with the relevant characteristics of the vessel on which engaged prior to assuming his or her duties. As appropriate, these include but are not limited to: general arrangements of the vessel; maneuvering characteristics; proper operation of the installed navigation equipment; fire-fighting and lifesaving equipment; stability and loading characteristics; emergency duties; and main propulsion and auxiliary machinery, including steering gear systems and controls. 46 CFR § 15.405.

The USCG regulation for vessels subject to the STCW Convention (46 CFR § 15.1105) is more specific, but to the same effect. One difference between the two USCG regulations relates to the wording. The general regulation is addressed to and places the burden of

familiarization on the individual seafarer. The STCW regulation is addressed to and places the burden of familiarization on both the individual seafarer and the seafarer's supervisor.

Crew changes almost always occur in port. Because port calls now are measured in hours rather than days, it is difficult to see how owners, operators, masters, and individual mariners meet their professional and legal obligations for shipboard familiarity prior to assuming duty. One change that might be adopted, albeit expensive, would be for the relieving crew member to join the ship at the port call prior to the port call at which the relieved crew member departs. Another would be for the port call to be extended – again potentially expensive. These expenses, though, are much less than the costs of an onboard accident or marine casualty that could have been avoided if the oncoming mariner had received the required familiarization before assuming duties. My limited research has failed to disclose a case where an owner or operator has been found liable for a marine casualty due to failure to provide the required shipboard familiarization, but such liability will eventually occur (if it hasn't happened already). The requirement for shipboard familiarization is professionally sound. Owners, operators, and masters should adopt the prudent approach and provide their crew members with a fair opportunity to properly perform their duties.

Some owners and operators do an excellent job of ensuring that their shipboard and shoreside personnel are properly trained – and my hat goes off to them. In my admittedly limited experience, though, these are in the minority. Many owners and operators set training standards for their managers and crew suppliers, but don't carefully examine the new crew members proffered to determine whether they actually measure up. Gaps in training, particularly with regard to shipboard familiarization, are widespread. Economic pressures in the past few years have resulted in reductions in many training efforts. This development is short-sighted and will lead to higher costs in the future.