



**WORLD SHIPPING COUNCIL**  
PARTNERS IN AMERICA'S TRADE

Statement of

**John W. Butler**

President & CEO

**World Shipping Council**

Before the

**House Committee on Transportation and Infrastructure  
Subcommittee on Coast Guard and Maritime Transportation**

on

***“Maritime Transportation Safety and Stewardship Programs”***

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Mr. Chairman and members of the Subcommittee, thank you for the invitation to testify before the Subcommittee today. My name is John Butler. I am President and CEO of the World Shipping Council.<sup>1</sup> WSC members comprise an industry that has invested over \$400 billion in the vessels, equipment, and marine terminals that are in worldwide operation today. Approximately 1,500 ocean-going liner vessels, mostly containerships, make more than 27,000 calls at ports in the United States during a given year – almost 70 liner vessel calls a day. This industry provides

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<sup>1</sup> The World Shipping Council (WSC) is a non-profit trade association whose goal is to provide a coordinated voice for the liner shipping industry in its work with policymakers and other industry groups with an interest in international transportation. Liner shipping is the sector of the maritime shipping industry that offers regular service based on fixed schedules and itineraries. WSC members carry over 90% of the United States' containerized ocean commerce, and include the full spectrum of carriers from large global lines to niche carriers, offering container, roll-on/roll-off, and car carrier service as well as a broad array of logistics services. A complete list of WSC members and more information about the Council can be found at [www.worldshipping.org](http://www.worldshipping.org).

American importers and exporters with door-to-door delivery service for almost any commodity to and from roughly 170 countries. In 2014, approximately 32 million TEU<sup>2</sup> of containerized cargo were imported into or exported from the United States.

Today, my testimony will focus on an important international maritime safety problem that the shipping industry has been working for more than eight years to address: the problem of mis-declared container weights.

My testimony is organized into four parts. Part 1 discusses the nature of the problem of mis-declared weights for packed containers that are loaded on ocean-going vessels for international transportation. Part 2 of my testimony discusses the development of a solution to the weight mis-declaration problem through an amendment to the Safety of Life at Sea (SOLAS) Convention, adopted through the International Maritime Organization. In part 3, I address a common misunderstanding about the application of the SOLAS regulation, as well as a point of disagreement about means of compliance that has been raised by some shippers. Part 4 of my testimony discusses the state of preparation for the amended regulation and our expectations for implementation starting on July 1, 2016.

## **1. Mis-declared Container Weights**

The issue of mis-declared container weights has been a maritime safety problem for many years. Although there is an existing obligation under the Safety of Life at Sea (SOLAS) Convention for the shipper (the carrier's customer) to provide an accurate container weight declaration to the ocean carrier, there are too many cases in which that requirement is not met.

The safety and operational problems resulting from mis-declared container weights are real and include the following:

- Personal injury or death to seafarers and shore side workers;
- Loss of vessel stability;
- Collapsed container stacks;
- Containers lost overboard (including containers that were not mis-declared);
- Stability and stress risks for ships;
- Incorrect vessel stowage decisions;
- Damage to ships, cargo and container handling equipment;
- Overweight containers being transported on roads and highways;

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<sup>2</sup> A TEU is a standard container measure that represents a twenty-foot container. Most containers moving in the U.S. trades are forty-foot units equal to 2 TEU.

- Liability claims for vessel and marine terminal accidents;
- Impairment of service schedule integrity which causes supply chain delays for shippers of properly declared containers;
- Re-stowage of containers (and resulting delays and costs), if the incorrect condition is ascertained;
- Last minute shut-outs of booked and confirmed shipments when the actual weight on board exceeds what is declared, and the total cargo weight exceeds the vessel limit or port draft limit; and
- Impairment of optimal vessel trim and draft, which causes suboptimal fuel usage and increased vessel air emissions.

In short, mis-declared containers present tangible risks not only to maritime industry workers, ships, cargo and equipment, but also to operational reliability and to shippers of accurately declared shipments. Mis-declared containers also lead to higher operating costs, to highway safety problems, to liability claims, and to higher administrative costs.

## **2. History of the Effort to Fix the Problem of Mis-declared Container Weights**

Container vessels do not have the capability to weigh the containers that are loaded onto them. General practice for ocean carriers has therefore been to instruct their shipper customers on the appropriate and permissible packing of containers and on the existing SOLAS provision requiring that the shipper provide an accurate weight declaration to be used in stowage planning.

Following the structural failure and breakup of the containership *MSC Napoli* in 2007, mis-declared container weights were identified by the U.K. government as a factor contributing to the structural failure. In response to this casualty and several other container vessel safety incidents involving mis-declared cargo weights, the World Shipping Council (WSC) and the International Chamber of Shipping (ICS) jointly produced a document: *“Safe Transport of Containers By Sea: Guidelines on Best Practices”* (STC Guidelines). That document was published at the end of 2008 and presented to the IMO Maritime Safety Committee.

The STC Guidelines, which were endorsed by the international shipper association Global Shippers’ Forum, specifically addressed the issue of containerized cargo weight, noting in part that:

- Under the SOLAS Convention, the shipper or party stuffing the container is legally responsible for ensuring that “the gross mass of the container is in accordance with the gross mass given on the shipping documents;” and
- As a recommended best practice, Marine Terminal Operators should: “Verify the container weight against documentation by use of a weighbridge or weight gauge/load indicator on yard equipment or, alternatively, verify that weighing has occurred before entry and that such weighing was compliant with accepted best practice.” Container ships do not have cranes that can weigh containers and thus by necessity must rely on container weight verification to be performed on-shore.

Unfortunately, these voluntary Guidelines and other industry “best practice” guidelines, which noted that accurate container weights needed to be provided in advance of vessel stowing, had no discernible effect on reducing the incidences of shippers providing incorrect weights for packed containers. When it became clear that voluntary industry actions had not solved the problem, governments communicated to the International Maritime Organization (IMO) that they wanted the issue addressed.

In December 2010, the IMO’s Maritime Safety Committee discussed joint industry/government recommendations to ensure that the correct weight of each container is provided to the ocean carrier prior to vessel loading, and the Committee invited submissions for such a new IMO work item to address mis-declared container weights.

In 2011, the IMO approved a work item to consider requiring packed containers to be weighed. As a 2012 paper (co-sponsored by the United States government, WSC and others) to the IMO noted: “It is not sufficient to say that shippers should be required to provide accurate weights. That requirement already exists. The only way to ensure compliance and knowledge of actual weights is for a container to be weighed prior to vessel loading.”

Since the existing SOLAS regulation’s terms on container weight declarations were seen as in need of tightening, IMO undertook to amend that SOLAS regulation. The SOLAS amendment was drafted to require that the marine terminal operator and carrier have a shipper-declared container weight obtained by weighing the packed container, and specifying that the weighing could be done outside the marine terminal. This proposal was supported by industry, including some shipper interests.

In 2012, the need to address the mis-declared container problem was reinforced when Ukrainian Customs authorities weighed containers at their ports and found that 56% of the

containers' actual weights exceeded the shipper-declared weights. Other countries, including India and New Zealand, conducted similar tests and found similar results.<sup>3</sup>

Despite the proposal at the IMO that the shipper-declared weight be obtained by weighing all containers before they are loaded on a ship, some shipper and marine terminal operator interests wanted to keep the weight verification solely a matter of the shipper's declaration, and not require a weighing of the container. In 2013, a compromise was developed within the IMO by 15 governments and 13 industry organizations to allow two methods to be used by a shipper to generate a verified container weight, namely:

- Method 1: Weigh the packed container at the conclusion of stuffing the container; or
- Method 2: Weigh all the contents of the container (i.e., the cargo plus any packaging and bracing materials) and add that to the container tare weight (i.e., the empty weight of the container, which is listed on the container door).

Under the compromise, the shipper could provide a signed Verified Gross Mass (VGM) to the carrier electronically and the shipper would have to provide the VGM sufficiently in advance to be used in the preparation of the ship's stowage plan.

The compromise also required the vessel operator and marine terminal operator to have a verified container weight before loading a container aboard a vessel. If the shipper did not provide a VGM, the situation could be remedied by the marine terminal operator weighing the container, although SOLAS would not require a marine terminal operator to do this.

The "VGM" compromise received the full support of the Global Shippers Forum and various governments who received the views of their export communities. The IMO established working groups to develop recommendations and guidance for how to implement this new SOLAS provision. The last IMO working group, which oversaw the drafting of the SOLAS amendment and the Implementation Guidelines, was chaired by the U.S. Coast Guard.

***A Universal Container Weighing Requirement Prior to Vessel Lading:*** In May, 2014, the IMO Maritime Safety Committee approved the SOLAS amendment containing the "VGM" compromise. The SOLAS amendment is attached as Exhibit 1 to this testimony. The Committee gave the regulated parties more than two years – until July 1, 2016 – to implement the new

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<sup>3</sup> See also, the letter from Mr. James Newsome of the South Carolina State Ports Authority to Chairman Duncan Hunter, dated April 7, 2016. There, on page 1 of his letter, Mr. Newsome describes a sample weighing recently conducted at the Port of Charleston, which also revealed material discrepancies between the declared weights and the actual weights of containers.

requirements and also approved for immediate circulation IMO Implementing Guidelines to allow the affected parties the maximum possible time for implementation.

Since the IMO approved the SOLAS amendment and circulated its Implementing Guidelines in 2014, the WSC also circulated guidelines (on July 1, 2015) to assist ocean carriers and their customers in understanding and implementing the requirements. In December, 2015, WSC, the TT Club (insurers), ICHCA (international cargo handling association), and the Global Shippers Forum jointly published a frequently asked questions (FAQ) document on the implementation of the SOLAS amendments. WSC has participated in dozens of seminars, web meetings, and conference calls with industry groups representing shippers, ports, terminal operators, and carriers as part of its efforts to increase awareness of the revised SOLAS requirements. Other carrier groups and individual carriers have disseminated educational and operational materials to their customers in order to facilitate a smooth implementation of the requirements on July 1, 2016.

Copies of the SOLAS amendment, IMO Implementing Guidelines, industry guidance, and papers submitted during the IMO deliberative process (including pictures of container incidents involving containers with misdeclared weights) are available at: <http://www.worldshipping.org/industry-issues/safety/cargo-weight>

We are now approximately two and half months away from the July 1 implementation date. There is a common recognition that the amended SOLAS regulation requires the vessel operator and marine terminal operator to have a signed VGM from the shipper, or a weight from the terminal weighing the container, in order to load the container aboard ship. Ocean carriers have made substantial progress to be ready to comply with this requirement on July 1 and will continue to work closely with their shipper customers and with marine terminal operators to ensure that implementation goes smoothly. Some outstanding issues remain; we address those further below.

### **3. Issues on Which There Has Been Some Misunderstanding or Disagreement**

#### **a. Inaccurate Weight Declarations versus Containers Loaded Beyond their Rated Capacities**

There has been some confusion about the nature of the problem that the revised SOLAS regulation is designed to address and the nature of the information that the shipper needs to provide to the carrier.

For example, the World Shipping Council has fielded a number of questions that ask whether the shipper may comply by providing a certification stating that the container has not been loaded beyond the maximum rated capacity of that container. Such overloading is both dangerous and illegal, and there are in-gate weighing processes and sensors on yard equipment and container cranes that are designed to alert workers to grossly overloaded containers. However, the SOLAS rule is designed primarily to address a broader issue, namely declared weights that are within the maximum carrying capacity of a container, but that are inaccurate and thus cause containers to be stowed with an incorrect assumption about their weight, resulting in problems ranging from stability and stress problems for the ship to container stack collapses resulting in damaged cargo, containers lost overboard, and risk of injury to ship's crew and shoreside workers.

It was these sorts of incidents that the IMO, national governments, and the industry (including ports, carriers, shippers and labor) have tried to address through this new measure, and that led to the amendment of the SOLAS regulation on container weights. The objective of that amended SOLAS regulation is not just to prevent overloaded containers, but to provide the vessel and terminal operator with accurate weight information so that the vessel can be stowed safely.

b. Efficient Use of "Method 2"

The revised SOLAS regulation prescribes two methods that the shipper may use to derive the "verified gross mass" (VGM) of a packed container. The first (Method 1) is to simply weigh the container after the cargo is packed into the container. The second way (Method 2), which was included at the request of shippers, is to weigh the cargo and packing materials, and then to add the empty or tare weight of the container to the cargo weight to derive a total loaded weight for the packed container and contents. The tare weight of every container used in international ocean transportation is conspicuously marked on the exterior of the container.

Some shippers have taken the position that under Method 2, the shipper should only have to provide the cargo and packing material weight, and the carrier should add in the container tare weight in order to complete the VGM required before the container may be loaded onto the ship. Carriers have objected to such a procedure. The disagreement over this issue appears to be the primary obstacle to compliance by some shippers.

There is both a legal dimension and a practical dimension to this disagreement.

On the legal side, some shippers have argued that if they choose to use Method 2, and add in the tare weight written on the container, then they as the shipper would be taking legal responsibility for the accuracy of the tare weight of the container. Shippers object on the basis that they are not the party that owns or controls the container, and that they do not mark the tare weights on the container. The answer to that concern is that the shipper's use of the tare weight marked on the container was an accommodation in the regulation to make Method 2 more user-friendly.

Ocean carriers have repeatedly, publicly, and in writing stated that shippers are not responsible for the accuracy of tare weights. Further, no government has taken the position that a shipper is responsible for any deviation that might exist between the tare weight marked on the container and its actual weight. In addition to the fact that any discrepancy between the marked tare weight and the actual tare weight is likely to be immaterial from a safety standpoint, it is clear that the carrier – as the entity offering the container marked with the tare weight – is the party responsible for the accuracy of that tare weight. In short, this legal concern raised by some shippers is unfounded.

Some recent shipper statements have objected to adding the tare weight to the cargo weight before transmitting the weight certification to the carrier simply because they do not want to change their existing processes. The reason that carriers have resisted this approach is not because they wish to inconvenience the shippers that have made the proposal, but because carriers want to avoid causing delays and disruptions at our ports for all shipper customers. Let me explain.

Because of the large number of containers that carriers handle, maintaining an efficient flow of cargo requires that electronic transmission of data among carriers, shippers, terminal operators, and others be used to the greatest extent possible. Uniform, consistent business processes are needed for the efficient movement of American commerce. Particularly relevant here, it is very important to avoid manual procedures or exception handling in processing the data required for commercial and regulatory purposes. When data received by the carrier from the shipper arrives in a format and with content that allows for automated processing of that data, the entire documentation process moves expeditiously and accurately. In the case of the verified gross mass (or "VGM") message from the shipper, if that information arrives complete and in a recognizable format, the carrier can both transmit that information automatically to the terminal operator that is loading the ship, and also automatically confirm in the carrier's system that the required information has been obtained. If, on the other hand, the carrier must examine incoming data to determine whether it is a complete VGM or a partial VGM, that introduces a manual step that would slow down the process and increase congestion at America's ports.

The way that the introduction of a manual process – and the delays that come with it – would apply in the VGM context is as follows. The SOLAS regulation specifies that the shipper must provide a VGM that includes the weight of the container and everything in it. Therefore, under Method 1 (weigh the full container after packing) or Method 2 (weigh the cargo and packing materials and then add the tare weight of the container), the number transmitted by the shipper must include the weight of the container and the weight of the contents. In order to handle such declarations, carriers must build their information systems to recognize and process a VGM as consisting of that total weight. The carrier has no choice in the matter if it is going to build an efficient information technology process for handing shipper weight certifications, and this is in fact how carriers have structured their information technology systems to deal with VGMs.

Once an IT system is configured to recognize and process a VGM as being the gross weight of the packed container, any shipper input to that system that did not include the weight of both the container and the weight of the cargo would either cause an inaccurate weight to go to the vessel stow-planning software system, or it would trigger a need for the carrier to manually review submissions by all shippers in order to determine whether those submissions are complete or partial. The first outcome would defeat the purpose of the regulation, because container weight accuracy would get worse, not better. The second outcome would undermine the carrier’s ability to efficiently process VGM submissions. Given that the primary concern about implementation of the regulation is that it could slow cargo flows and cause port congestion, carriers are very reluctant to accept a proposal under which the shipper would be allowed to choose whether to provide the full weight of the packed container or whether to provide only the weight of the contents.

To summarize, because carrier systems must be able automatically to process VGMs provided by shippers, all submitted weights have to be total weights in order to avoid manual processing and system disruptions and slow-downs. Put differently, providing an exceptional process for one group of shippers that may request it would have the effect of undermining the efficiency of the process for all exporters in the U.S. and around the world.

The first instinct of a carrier – as it is with any service provider in a highly competitive industry – is to say “yes” to its customer. Here, however, saying “yes” to those customers asking to be allowed to provide only the cargo weight would mean degrading service for all customers. That approach would lead to exactly the negative outcomes that everyone agrees must be avoided.

It is for this reason and in the interest of port efficiency in the U.S. that shippers need to include the container tare weight in every Verified Gross Mass that is calculated using Method 2.

#### **4. Status of Preparations**

There is no question that the amendment to the SOLAS regulation requires process changes by carriers, shippers, and terminals. Despite the fact that there have been very public discussions of the revised requirements since they were agreed at the IMO in 2014, it is probably the case that preparations should have started earlier than they did. That is probably the case with every regulatory change that has ever been imposed. However, a great deal of work has been done in the last six months, and there is no question that processes are available that will allow shippers to send – and carriers and terminals to receive – the information required to allow cargo to be loaded. Those processes include electronic transmission as well as web-based proprietary carrier systems and third-party portals. There is therefore no technical or process impediment to implementation of the regulation on July 1.

#### **5. Conclusion**

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to testify on this important maritime safety development, which will soon take effect and which will enhance not only the safety of container ships, seafarers, shore side workers, cargo and equipment, but also will reduce the supply chain delays and administrative and legal costs that result from mis-declared containers. It is 2016, and it is past time that everyone in the marine supply chain knows the accurate weight of the loaded containers that are moving this nation's international trade. The amended SOLAS regulation will provide that information.

We would be pleased to provide the Subcommittee with whatever further information may be of interest as it continues its oversight of environmental and maritime safety matters.

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**SOLAS CHAPTER VI**  
**CARRIAGE OF CARGOES AND OIL FUELS**

**Part A**

**General Provisions**

**Regulation 2 – Cargo information**

The following new paragraphs 4 to 6 are added after existing paragraph 3:

"4 In the case of cargo carried in a container\*, except for containers carried on a chassis or a trailer when such containers are driven on or off a ro-ro ship engaged in short international voyages as defined in regulation III/3, the gross mass according to paragraph 2.1 of this regulation shall be verified by the shipper, either by:

.1 weighing the packed container using calibrated and certified equipment; or

.2 weighing all packages and cargo items, including the mass of pallets, dunnage and other securing material to be packed in the container and adding the tare mass of the container to the sum of the single masses, using a certified method approved by the competent authority of the State in which packing of the container was completed.

5 The shipper of a container shall ensure the verified gross mass\*\* is stated in the shipping document. The shipping document shall be:

.1 signed by a person duly authorized by the shipper;

.2 submitted to the master or his representative and to the terminal representative sufficiently in advance, as required by the master or his representative, to be used in the preparation of the ship stowage plan\*\*\*.

6 If the shipping document, with regard to a packed container, does not provide the verified gross mass and the master or his representative and the terminal representative have not obtained the verified gross mass of the packed container, it shall not be loaded on to the ship."

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\* The term "container" should be considered as having the same meaning as defined and applied in the International Convention for Safe Containers (CSC), 1972, as amended, taking into account the *Guidelines for the approval of offshore containers handled in open seas* (MSC/Circ.860) and the *Revised Recommendations on harmonized interpretation and implementation of the International Convention for Safe Containers, 1972, as amended* (CSC.1/Circ.138/Rev.1).

\*\* Refer to the *Guidelines regarding the verified gross mass of a container carrying cargo* (MSC.1/Circ.1475).

\*\*\* This document may be presented by means of EDP or EDI transmission techniques. The signature may be an electronic signature or may be replaced by the name, in capitals, of the person authorized to sign."