

International Maritime Organization (IMO) Safety Of Life At Sea (SOLAS) Verified Gross Mass (VGM)



CFCFA Board Members Standards Review Meeting

CFCFA Board Meeting | Tashkent, Uzbekistan | 15 August 2017 | Tashkent, Uzbekistan



IMO-SOLAS VGM...The Catalyst

- ✓ Thursday, 18th Jan 2007 - The main catalyst for the changes to SOLAS was a severe storm centred on the sea between England and France. The **MSC Napoli** (900' long, 275m) **was abandoned in gale force winds and huge waves**. There was serious damage caused to the hull and the engine room was flooded. The crew were rescued by helicopter and the ship was eventually beached off of the coast of England.



<http://www.ship-disasters.com/commercial-ship-disasters/container-ship-disasters/msc-napoli/>

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The Telegraph

MSC Napoli second most expensive wreck in history, shows insurance report

The grounding of the storm damaged MSC Napoli off east Devon coast was the second most expensive wreck in maritime history, according to an insurance report.

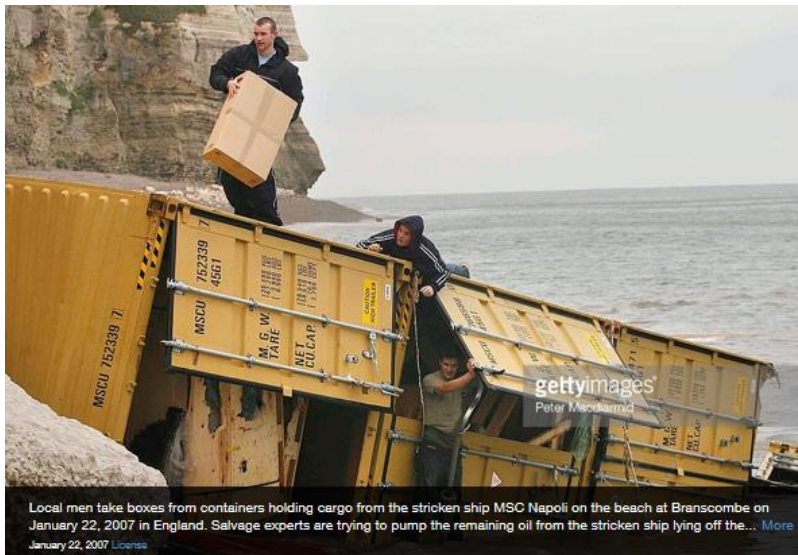
Insurers of the 62,000-ton container ship, which suffered a "catastrophic" hull failure, have estimated the total bill for the wreck at £120 million.



<http://www.ship-disasters.com/commercial-ship-disasters/container-ship-disasters/msc-napoli/>

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- ✓ Whilst there had been other maritime accidents **where overweight or underweight containers had been identified as a problem**, the subsequent report by the British Marine Accident **Investigation Branch identified discrepancies between the declared and actual weight of the 660 deck-stowed containers on the MSC Napoli**, as being a **contributory factor to the catastrophe**.



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The Problem...

- ✓ The consequences of mis-declaring the gross mass of a packed container can be far-reaching.
- ✓ Should a **discrepancy between the declared gross mass and the actual gross mass** of a packed container go unnoticed, it could have an adverse impact on the **safety of the ship, seafarers and shore-side workers**, by leading to incorrect vessel stowage decisions and potentially collapsed container stacks or loss of containers overboard.

<http://www.imo.org/en/OurWork/Safety/Cargoes/Containers/Pages/Verification-of-the-gross-mass.aspx>

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The Problem...



<http://www.imo.org/en/OurWork/Safety/Cargoes/Containers/Pages/Verification-of-the-gross-mass.aspx>

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Damage to Cargo carried



**Excessive compression on corner post,
leading to failure of the post**

The Problem...



Baltic Sea 2007 - A stack of 7 containers toppled during rough weather. The upper containers (not shown) were tank containers fully loaded with butylene gas (IMDG Class 2.1)

The Problem...



The Problem...



The Problem...



AL FLORIDA
TRIESTE

IMO 9308039

22.06.2007

The Problem...



22.06.2007

The Problem...





The Problem...

22.06.2007

AP| 6

M/V Torm Alexandria 2001 –

Attempting to lift a heavy container from the wharf whilst not having residual stability



**– or
capsized !!!**

The Problem...

The Problem...



- **1.1.3. overturning or derailment of land conveyance**

The Problem...



The Problem...



The Problem...





- **1.3. total loss of any package lost overboard whilst loading on to, or unloading from, vessel or craft.**

The Problem...

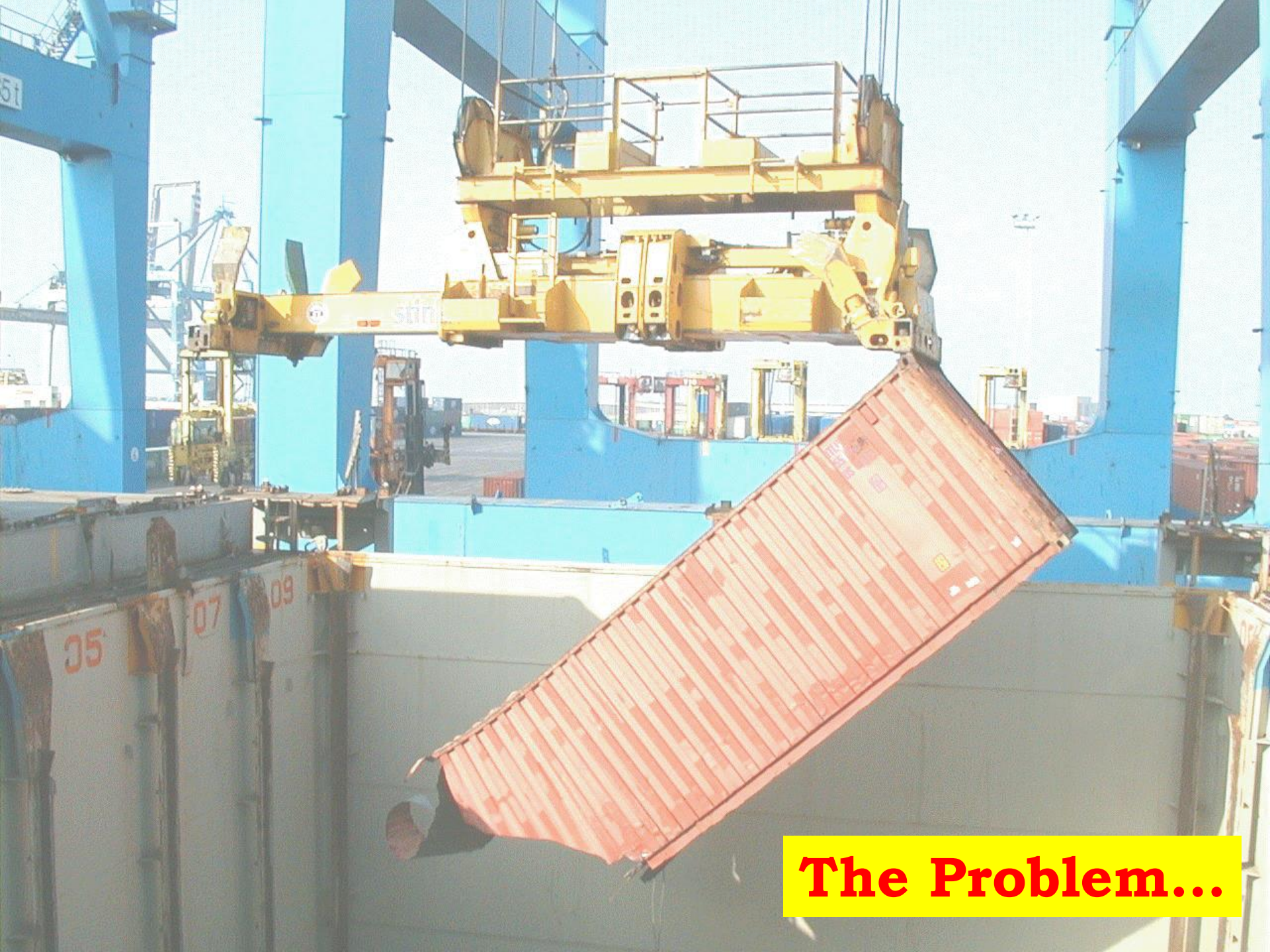


The Problem... ia Antwerp, Belgium 2002



The Problem...

Under-declared Weight and Weight Distributions



The Problem...

The Problem...



The Problem...



- **1.3. total loss of any package lost overboard whilst loading on to, or unloading from, vessel or craft.**



The Problem...

- **1.3. total loss of any package lost overboard whilst loading on to, or unloading from, vessel or craft.**

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In 2011, work started at IMO on the **development of measures to prevent loss of containers**. In view of marine casualties and incidents in which mis-declared container mass had been a contributing factor, one strand of the work was the possible establishment of a requirement that packed containers be weighed **to obtain their actual gross mass prior to vessel loading**.

The work culminated in the approval of the Guidelines regarding the verified gross mass of a container carrying cargo (MSC.1/Circ.1475) and the adoption of amendment to SOLAS regulation VI/2 to require the **mandatory verification of the gross mass of packed containers** (resolution MSC.380(94)).

<http://www.imo.org/en/OurWork/Safety/Cargoes/Containers/Pages/Verification-of-the-gross-mass.aspx>

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- ✓ amendments to the International Convention for the **Safety of Life at Sea (SOLAS)**, 1974
- ✓ adopted by the **Maritime Safety Committee**, at its ninety-fourth session (17 to 21 November, 2014), through resolution MSC.380(94), were **accepted on 1 January 2016**
- ✓ enter into force on **1 July 2016**, in accordance with SOLAS article VIII(b)(vii)(2)
- ✓ introduce the requirement for the **gross mass of a packed container to be verified by the shipper prior to loading on a ship**

IMO – SOLAS VGM

- ✓ **The Maritime Safety Committee also approved the ‘Guidelines regarding the verified gross mass of a container carrying cargo’ (MSC.1/Circ.1475), with a view to establishing a common approach for the implementation of the SOLAS requirements regarding the verification of the gross mass of packed containers**

May, 2016

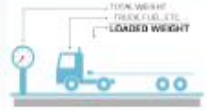
THE SOLAS AMENDMENT

A PRACTICAL GUIDE FOR FORWARDERS


On July 1st, 2016 the SOLAS amendment will come into effect and it will be illegal for shipping lines to ship a container without a valid VGM (Verified Gross Mass).

The new regulations prescribe **two methods** by which the shipper can obtain the verified gross mass of a packed container:

Method 1: After packing and sealing a container, the shipper may weigh or arrange a third party to weigh the packed container.



Method 2: The shipper or a third party (as arranged by the shipper) may weigh all packages and cargo items, including the mass of pallets, dunnage, and other packing materials securing the cargo to be packed in the container, and add the tare mass of the container to the sum of the single masses of the container's contents.



Non-automatic weighing (Royal Decree April 22, 2016) - Automatic weighing (Royal Decree April 15, 2016) @ info@vnm.vlaanderen.be

The weighing equipment used for both method 1 and 2 must meet the applicable accuracy standards and requirements of the state in which the equipment is being used.

A practical guide for forwarders

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The SOLAS amendment

- Into effect as from July 1st, 2016
- Shipping lines require a valid VGM
- 2 methods by which the shipper can obtain the VGM
- The Belgium authorities will use 5% for legal enforcement

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SOLAS amendments introduce two main new requirements:

- ❖ the **Shipper** is responsible for providing the verified weight by stating it in the shipping document and submitting it to the master or his representative and to the terminal representative **sufficiently in advance** to be used in the preparation of the ship stowage plan; and
- ❖ the verified gross mass **is a condition for loading** a packed container onto a ship.

*(However, it does not constitute an entitlement for loading. Nothing in the SOLAS regulations limits the principle that **the master retains ultimate discretion in deciding whether to accept a packed container for loading onto his ship**).*

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The **Shipper** is defined as **a legal entity or person named on the bill of lading or sea waybill or equivalent multimodal transport document** e.g. "through" bill of lading) as shipper and/or who (or in whose name or on whose behalf) a contract of carriage has been concluded with a shipping company (*paragraph 2.1.12 of the Guidelines regarding the verified gross mass of a container carrying cargo - MSC.1/Circ.1475*).



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<http://www.imo.org/en/OurWork/Safety/Cargoes/Containers/Pages/Verification-of-the-gross-mass.aspx>

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New paragraph 6 of SOLAS regulation VI/2:

- 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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- ✓ While the Guidelines developed by the Organization provide the basis for **consistent implementation**, there is still a need for SOLAS **Contracting Governments** to **communicate** at a national level, with all parties involved in maritime containerized transport (e.g. shippers, port authorities, container terminals, shipping agents and carriers) how Methods 1 and 2 will be given effect, together with any measures that will be put in place to ensure compliance.



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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



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Contingencies for containers received without a VGM

In order to allow the continued efficient onward movement of such containers, the **master or his representative** and the **terminal representative** may obtain the verified gross mass of the packed container on behalf of the shipper

This may be done by weighing the packed container in the terminal or elsewhere, but whether and how to do **this should be agreed between the commercial parties, including the apportionment of the costs involved**

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How to meet the container weight mandate

As a shipper, what are your options?

OPTION A.

Take a loaded container over a **weighbridge**, subtract the weight of the truck, chassis, and fuel to get the weight of the packed container.



Scales must be certified and calibrated in line with the national standards of the country where the weighing occurred.



OPTION B.

Weigh each item – including its packaging, palleting, dunnage and other packing and securing materials – going into the box.

Add that sum to the weight of the container to find the weight of the packed container.



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What are you required to do?

Provide a document signed by the shipper to the shipping line and terminal declaring that the **shipper verified** the weight and that it was weighed properly.



The SOLAS amendment will be enforced by the coast guard or other agency responsible for SOLAS regulations in a given country and punishments for violations will vary by country.

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What happens in the case of noncompliance?

There are all kind of possibilities for what could happen to the box that failed to provide the certified weight document but none are settled.

Terminals may choose to hold a container or send it back, but whatever happens, the ship will leave and the container will not.



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The requirement to VGM of packed containers applies to all containers to which the **CSC** (*International Convention for Safe Containers*) applies. This includes **standard sea freight containers, tank containers, flat racks and bulk containers**



<http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-Safe-Containers-%28CSC%29.aspx>

IMO-SOLAS VGM Applications

Exclusions:

- Containers carried on a chassis or trailer which are driven on/off a **ro-ro ship engaged in short international voyages**.
- **“Offshore containers”** to which the CSC according to the Guidelines for the approval of offshore containers handled in open seas (MSC/Cir.860) and the Revised Recommendations of harmonized interpretation and implementation of the International Convention for Safe Containers, 1972 as amended (CSC.1/Circ.138/Rev.1) does not apply
- Certain types of container which **do not meet the definition of the term container as defined in the CSC** *(of a size that the area enclosed by the four outer bottom corners is either; at least 14 sq. m (150 sq. ft.); or at least 7 sq. m (75 sq. ft.) if it is fitted with top corner fittings).*

IMO-SOLAS VGM: Singapore

SOLAS Chapter VI/2 Cargo Information – Verified Gross Mass (VGM) of Containers

Current Situation

Shipper provides gross mass of the containerised cargo

- Mis-declared container weights causing safety concerns for ships
- Several high profile ship accidents may be linked to significantly under declared weights
- Calls by shipping industry to impose obligation on shipper to provide accurate weight



IMO-SOLAS VGM: Singapore

From 1 July 2016:

- Shipper to provide verified gross mass (VGM) of containers by -

Method 1 Weighing the container; or



Method 2 Sum up individual masses

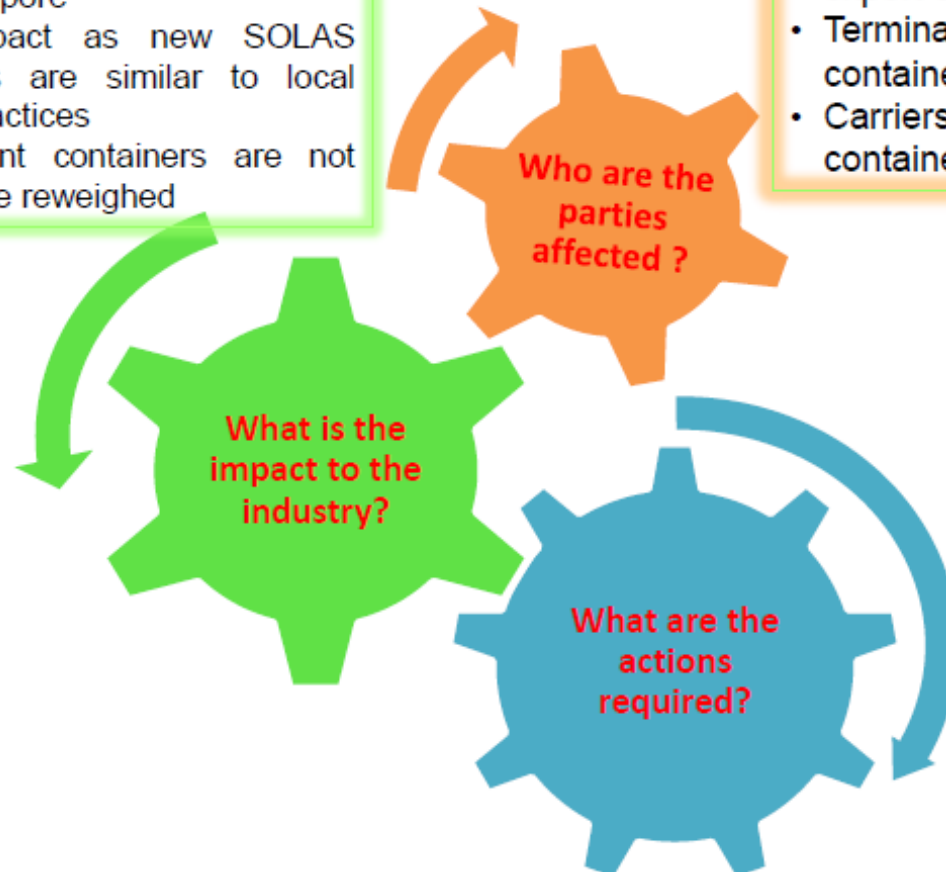


- A → mass of packages/ cargo items
- B → mass of pallets
- C → mass of dunnage
- D → mass of securing materials
- E → tare mass of container

IMO-SOLAS VGM: Singapore

- MPA has participated in IMO discussions to safeguard interest of Port of Singapore
- Minimal impact as new SOLAS requirements are similar to local industry's practices
- Transshipment containers are not required to be reweighed

- The shippers and hauliers of local export containers;
- Terminal operators loading containers;
- Carriers (ships) transporting containers



- Due diligence exercised by shippers in declaring the VGM of container;
- Terminal operator not to load containers without VGM;
- Ships not to accept containers without VGM

IMO-SOLAS VGM: Singapore

Engaging our Stakeholders

- MPA conducted several rounds of consultation with stakeholders
- Instil shipper's due diligence in proper declaration
- A new export workflow is developed with the industry stakeholders
- Minimal the disruption to Singapore's export containers and terminal operators
- Trial implementation with PSA on new export flow process prior to 1 July 2016

SINGAPORE
LOGISTICS
ASSOCIATION

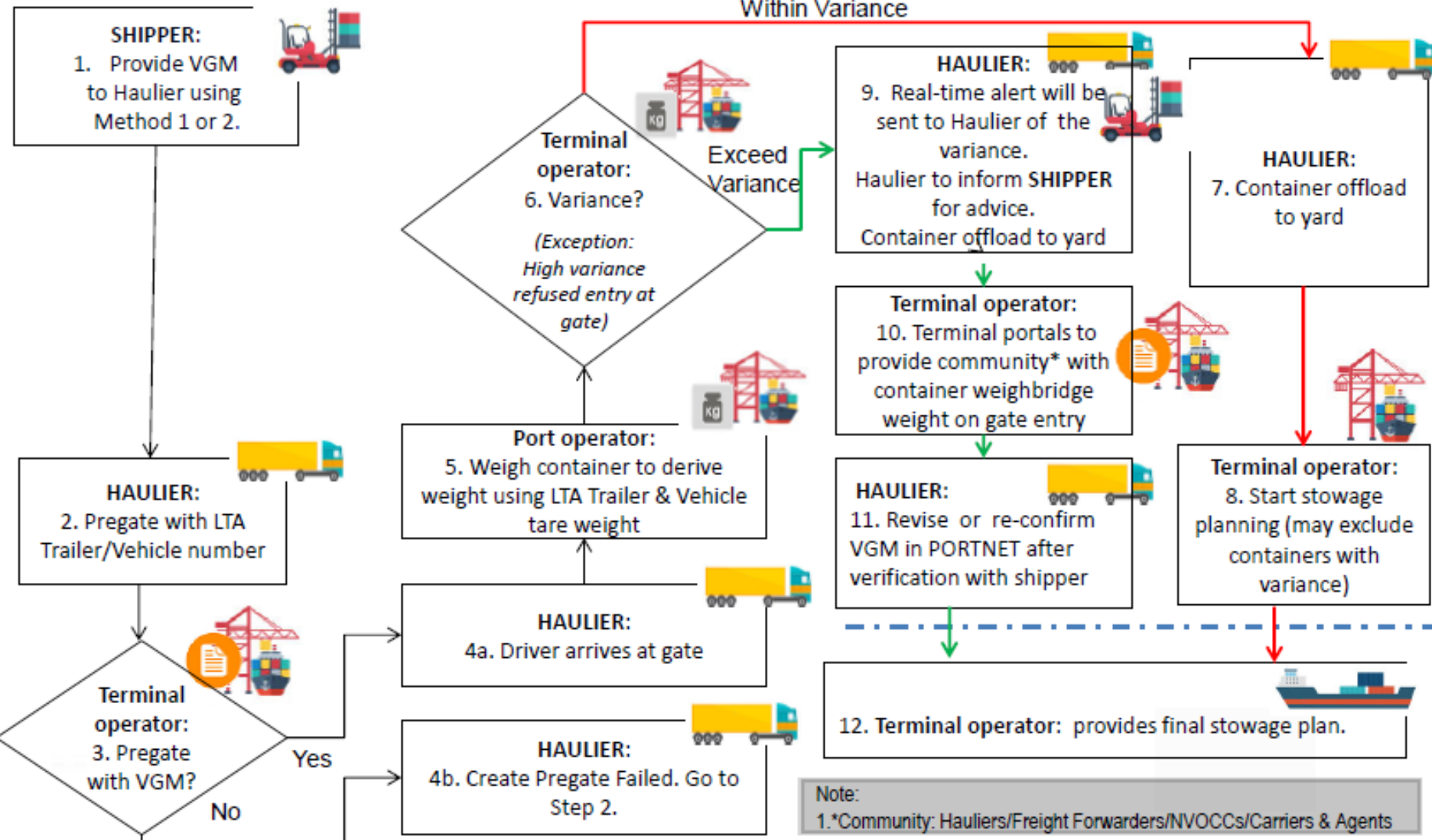


CDAS



Singapore

New Export Workflow Developed with Industry Stakeholders



IMO–SOLAS VGM: Singapore

- The SOLAS Regulation VI/2 requirements has come into force on 1 **Jul 2016**.
- MPA has published a **Shipping Circular (No. 12 of 2016)** and a set of **Frequently Asked Questions (FAQ)** to provide the necessary guidance to stakeholders involved in the marine logistic chain.
- Guided by the latest development during the IMO 96th MSC meeting, **MPA will adopt a practical and pragmatic approach when verifying compliance with the requirements**, in particular, relating to transhipped containers and communication of VGM information, for a period of three months after 1 July 2016.



IMO–SOLAS VGM: Singapore

- ✓ In addition, a coalition of industry experts, jointly lead by the **WSC**, the **TT Club**, **ICHCA** and the **GSF**, has compiled a list of frequently asked questions (FAQs) and their answers.
- ✓ The **FAQs** can be downloaded from any of the following links:
<http://www.worldshipping.org/industry-issues/safety/faqs>
<http://www.ttclub.com/loss-prevention/publications/container-weighing/>
<http://ichca.com/container-weighing>
- ✓ **FIATA** has also since developed "***The FIATA Verification of Container Weights Toolkit***" published in the FIATA Review No. 109 of October 2015.

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Video Screening...

***“VGM Guidelines-
Maersk Line”***

- 04:01 mins

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Thank
You