FIATA SOLAS Information Paper
SOLAS Chapter VI Part A Regulation 2 amendment
Verification of Container Weights
Effective July 2016

FIATA has drafted this information paper to cover facets of the amendment to the SOLAS Convention in 2014 that becomes effective on 1st July 2016. FIATA has tried to cover key aspects of the legislation and how it will affect Freight Forwarders.

It is intended to provide basic understanding and guidance. It is not exhaustive and you will find far greater detail on various industry related web-sites. FIATA has simply attempted to cover the key points in an easy to understand format. Please bear in mind that this paper should not be treated as legal advice. FIATA has tried to interpret the subject, however our joint opinions are not definitive and Freight Forwarders must make their own assessment of the material that has been published globally to ensure that their businesses are prepared for the legislative changes. Information is repeated in more than one place to support the specific section.

FIATA is confident that information provided in this briefing paper can be helpful and supportive but each local company or Trade Association must draw their own conclusions, taking into consideration their local practices and environment.

Explanatory notes and information sources

IMO
The International Maritime Agency. A United Nations specialised agency that maintains a comprehensive regulatory framework for shipping.

www.imo.org

List of IMO Member States
www.imo.org/en/About/Membership/Pages/MemberStates.aspx

SOLAS
The International Convention for the Safety of Life at Sea (SOLAS) is a maritime safety treaty. It ensures that ships flagged by signatory States comply with minimum safety standards in construction, equipment and operation.
The International Convention for Safe Containers (CSC) was finalised in 1972 in response to the rapid increase in the use of freight containers and the development of specialised container ships. It took effect in 1977 and applies to containers of a prescribed minimum size having corner fittings (devices which permit handling, securing or stacking).

Dangerous Goods Sub-Committee of the IMO (now known as the CCC Carriage of Cargos and Containers)

The World Shipping Council. A body representing approximately 90 percent of the global liner ship capacity

www.worldshipping.org/

The International Chamber of Shipping is the principle international trade association for merchant ship-owners and operators.

www.ics-shipping.org

Background

The main catalyst for the changes to SOLAS was a severe storm in January 2007 centred on the sea between England and France. The MSC Napoli 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.

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.

Following the MSC Napoli report, representations were made to the IMO by the WSC and the ICS to introduce weighing of containers before loading. The DSC of the IMO meets every six months and although initial proposals were not adopted, an amendment was passed by the IMO to SOLAS in 2014 to become law in 2016.
As mentioned in the introduction, amendments to any Convention have to be ratified by each signatory country so each local company or Trade Association should be liaising with their Governments to be fully aware of the progress of any change to SOLAS on a national level.

**The main legislative changes**

The main change is that “the gross mass” according to paragraph 2.1 of the regulation shall be verified by the Shipper, either by:

**Method 1**

Weighing the packed container using calibrated and certified equipment

OR

**Method 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.

The Shipper is responsible for obtaining and documenting the “verified” gross mass of a packed container:

*The shipper of a container shall ensure that the verified gross mass is stated in the shipping document, which is signed by a person duly authorised by the shipper. The document must be submitted to the master (or his representative) and to the terminal representative sufficiently in advance to be used in preparing the ships stowage plan. Where the verified weight has not been provided to the ships master and his representative or the terminal representative, the container shall not be loaded on to the ship.*

The main aims of the amendment to SOLAS are:

To improve the safety of the workforce, vessel and associated equipment, to reduce the loss of containers from vessels and to provide assurance to other parties in the supply chain

The amendment has been prepared in conjunction with:

- ISO 3874 (Freight containers handling and storage)
- Revision of the International Convention for Safe Containers (CSC)
- IMO/ILO/UNECE-CTU Code
The requirement to verify the gross mass of packed containers applies to all containers to which the CSC applies. This includes standard seafreight containers, tank containers, flat racks and bulk containers.

The regulation does not apply to:

- Containers carried on a chassis or trailer which are driven on or 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.”

Using Method 1 (Weighing the container plus contents) must be made using weighing equipment certified to meet the accuracy standards and requirements of the State, in which it is used e.g. calibrated and maintenance records must be maintained for inspection.

Method 2 is subject to certification and approval as determined by the competent authority of the State in which the packing and sealing of the container was completed. Using the UK as an example, the Government department that is responsible for maritime matters is creating a database of companies that meet their criteria to be “verified weighing companies”. To meet the criteria, the company has to be either an AEO or have their weighing procedures written into an ISO standard that they hold. Each will be issued with a unique identification reference.

The Shipper is required to verify the gross mass “And to communicate the verified mass in a shipping document”. The document can be either a shipping instruction to the line or a separate communication such as a weight certificate or an EDI message. The communication must highlight that the gross mass is the “verified gross mass” and must be signed by somebody duly authorised by the shipper. This can be an electronic signature or a written one depending on the medium. The verified gross mass must be provided to the ships master or representative and terminal operator “sufficiently in advance to be used in stowage planning”.

The revised requirement is for the shipper to provide the verified weight to the shipping line. The information can be submitted to the terminal upon delivery of the container to the port, but it must be received in time to be used by master and terminal representative in the ships stowage plan. If the shipper uses a third party loader, the Shipper is still responsible for the accuracy of the verified weight and providing it to the shipping line.
There are some cargoes that are difficult to weigh e.g. scrap metal, unbagged grain or other unbagged bulk cargo. SOLAS Annex 2, Paragraph 7.2.2 states that for these products that use of Method 2 is inappropriate and impractical so for these products and that “Method 1 should be used”

**Forwarders acting as Carriers**

A lot of material has been published on the SOLAS amendment and many organisations are providing summaries and information. Discussions with stakeholders on a National level has gained momentum and although there are no final decisions taken, it does seem that there are attempts to harmonise solutions (especially in Europe).

This section consists of detailed analysis of the scenario where Freight Forwarders act as Carriers. A Forwarder who acts as Carrier (by issuing his own Bill of Lading) is the Shipper towards the Shipping Line. Whilst this is a simple subject for professional Freight Forwarders, it might be complex for those who are not directly involved in the sector. For this purpose and in the absence of a globally agreed definition, this section has been prepared to support National Associations in their discussions with the stakeholders in their own countries.

**Definition of Contract of carriage**

**IMO Guidelines**

2.1.5 *Contract of carriage* means: a contract in which a shipping company, against the payment of freight, undertakes to carry goods from one place to another. The contract may take the form of, or be evidenced by: a document such as sea waybill, a bill of lading, or multi-modal transport document.

**WSC Guidelines**

*Contract of carriage*: means: a contract in which a shipping company, against the payment of freight, undertakes to carry goods from one place to another. The contract may take the form of, or be evidenced by: a document such as sea waybill, a bill of lading, or multi-modal transport document.

**Note:**

Obviously, the definitions in the IMO and WSC Guidelines are identical. Both refer to the “Shipping Company” undertaking to carry the goods. Possibly the term “Carrier” would have been more accurate as it would be clear that it refers to the contractual Carrier rather than to the company providing the vessel.
This small detail is perceived as being rectified with the WSC Guidelines defining the “Carrier” (see further note below).

Therefore the SOLAS amendment is valid for any contractual Carrier, including the forwarder who acts as Carrier issuing its own Bill of Lading.

**Definition of Carrier**

The carrier is not specifically defined in the SOLAS Guidelines.

In the WSC Guidelines the Carrier is defined as follows:

*Carrier:* The party who, in a contract of carriage, undertakes to perform or to procure the performance of carriage by sea.

**Definition of Shipper**

**IMO Guidelines**

2.1.12 *Shipper* means 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.

**WSC Guidelines**

*Shipper* means a legal entity or person named on the bill of lading or sea waybill or equivalent multimodal transport document (e.g. a "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. The shipper may also be known as the sender.

Note:

Interestingly, both guidelines are identical; however the WSC guidelines add the sentence: *The shipper may also be known as the sender*. Why the WSC has added this sentence we can only speculate. It could be that they wish to widen their scope to responsible parties (similar to the wide definition of the Bill of Lading “Merchant Clause”). It could be that they want to make reference to the actual Shipper and not to the Shipper being a forwarder acting as a Carrier?
Forwarder acting as Carrier

For the purpose of this document, we are illustrating three different scenarios:

FCL NVOCC
In this document, a FCL NVOCC refers to a forwarder acting as Carrier transporting a full container load. The Shipper in the Bill of Lading issued by the FCL NVOCC is the actual Shipper.

Consolidator
In this document, a Consolidator refers to a forwarder acting as Carrier loading and transporting a consolidated container, i.e. combining various LCL loads into one container. The Shipper in the Bill of Lading issued by the Consolidator may be the actual Shipper or another forwarder acting as Co-Loader.

Co-loader
In this document, a Co-loader refers to a forwarder acting as Carrier who co-loads LCL cargo with a Consolidator. The Shipper in the Bill of Lading issued by the Co-loader is the actual Shipper.

FCL NVOCC: Contract of carriage – two levels

There are two levels of contracts involved:
Level 1: Between the Shipping Line and the FCL NVOCC (acting as Carrier).
Level 2: Between the FCL NVOCC (acting as Carrier) and the actual Shipper.

Consolidator/Co Loader- Contract of Carriage – various levels

For the Consolidator, there are at least two different scenarios:

Simple Consolidation
There are two levels of contracts involved:
Level 1: Between the Shipping Line and the Consolidator (acting as Carrier).
Level 2: Between the Consolidator (acting as Carrier) and the actual Shippers.

Co-Load Consolidation
There are three or even more levels of contracts involved:
Level 1: Between the Shipping Line and the Consolidator (acting as Carrier)
Level 2: Between the Consolidator (acting as Carrier) and a Co-Loaders (acting as Carrier).
Level 3: Between the Co-Loaders (acting as Carriers) and the actual Shippers.

Contract of Carriage Liabilities
The responsibilities of freight forwarders do not change with the SOLAS amendment. There has always been a legal requirement for an accurate declaration of weight on the Bill of Lading.

In December 2008, the International Chamber of Shipping (ICS) and the World Shipping Council (WSC) published a widely respected and supported document: ‘Safe Transport of Containers by Sea: Guidelines on Industry Best Practices’.

In paragraph 6.6, it reads:

Quote

6.6 Final Weighing of Container

After finalisation of stuffing and securing of containerised cargo, the total container weight must be verified and documented.

Unquote

The SOLAS amendment does not change anything concerning the main principles of the Contract of Carriage. What it does is to give rules on exactly how the weight must be verified and documented.

A Country where the Government has already incorporated the SOLAS Convention into National Law automatically accepts the amended Convention. Therefore the documented weight verification now becomes a legal requirement under National law subject to an International Convention rather than a “Best Practice”.

As the main principle for the declaration of the weight does not change, the liabilities and responsibilities of the contract of carriage remain the same and there should not be a need for additional insurance cover.

Weight verification: Method one

It is assumed that an official weighing note will clearly identify the container, by mentioning the container number. Such a weighing note is neutral and should be acceptable back to back for the various levels. In other words, one and the same weighing note should be acceptable and fulfil the requirements of both the FCL NVOCC as well as for the Shipping Line.

The same weighing note will serve as a legal document between the actual Shipper and the FCL NVOCC as well as between the FCL NVOCC and the Shipping Line.

For Method one, it is logical for the commercial parties to agree on the “back to back” or “handshake principle”. 
There are some assumptions that any authority will require on a weighing note such as:
- It clearly identifies the weighing company.
- It clearly identifies that the equipment is approved and calibrated by the appropriate Government agency.
- It clearly identifies the container number.
- It clearly identifies the weight.
- It clearly identifies the Seal number.

Another assumption is that the container must be sealed before being weighed. When a container is weighed once it is already loaded on a truck it is the vehicle registration number rather than the container number that may be the focus for weighing companies as they are weighing both items.

Forwarder acting as Carrier – the FCL NVOCC

As mentioned, there are two levels of contract of carriage:
Level 1: Between the Shipping Line and the FCL NVOCC (acting as Carrier).
Level 2: Between the FCL NVOCC (acting as Carrier) and the actual Shipper.

The FCL NVOCC will need to ensure that the actual Shipper complies with the SOLAS amendment. The official document verifying the weight will need to be provided by the actual Shipper well in time. This appears straightforward and in case the actual Shipper is not authorized to provide the weight using method two, a weighing note under method one will be required. As previously mentioned, in the case of a weighing note the same document should be accepted by the Shipping Line from the FCL NVOCC (back to back).

A key question is, what kind of document the FCL NVOCC should provide to the Shipping Line in case the actual Shipper has provided the verified weight using method two.

The FCL NVOCC is on one hand acting as Shipper towards the Shipping Line and thus the party responsible to declare the verified weight. On the other hand, the FCL NVOCC has not loaded the container, so the FCL NVOCC cannot provide the verified weight without reference to data provided by the actual Shipper.

Strictly following the SOLAS amendment the FCL NVOCC would have to weigh the container following method one.
This however, would be impractical for various reasons:

- The verified weight has been established by the actual shipper using method two. As such, a legal document (referring to the container in question) that fulfils the SOLAS requirement does exist.
- In the interest of avoiding extra handling that leads to extended risks and adds to further congestions in the ports, the legal document issued by the actual shipper should be accepted.
- If required to follow method one, the FCL NVOCC would be at a competitive disadvantage.

The SOLAS amendment documentation refers in various places to the commercial parties involved who should come to practical agreements. In the case of the described FCL NVOCC, there are two practical solutions:

1. Back to Back
   The FCL NVOCC provides the same legal document that he receives from the actual shipper as a verified weight document to the Shipping Line. Similar to the weighing note under method one, the same document would be used for the two different levels of contract.

   This assumes that the “back to back” or “handshake principle” is valid as well.

   The problem is, that the FCL NVOCC would compromise confidential commercial information that should be protected. The Shipper in the Bill of Lading issued by the Shipping Line would not match with the letterhead of the verified weight document, but as mentioned, for practical reasons, this should be possible.

2. FCL NVOCC own document
   The FCL NVOCC issues a document on their letterhead following the information of the shipper “back to back”.
   An outstanding question is whether a FCL NVOCC would be required to record the related procedures to create their own document subject to information contained in the paperwork provided by the actual shipper.

   FIATA conclude that procedures must be identified for the FCL NVOCC to create a separate document on their own letterhead that follows the verified weight provided in the legal document of the actual Shipper.
   In order to harmonise this documentation, FIATA could consider providing a “FIATA Weight Declaration”. This point can be considered at a later stage.
Forwarder acting as Carrier – Consolidator (simple consolidation)

As mentioned, there are two levels of contract of carriage:
Level 1: Between the Shipping Line and the Consolidator (acting as Carrier).
Level 2: Between the Consolidator (acting as Carrier) and the actual Shippers.

The decisive difference between the FCL NVOCC and the simple Consolidator is that the actual Shipper in a simple consolidation environment is shipping LCL cargo. The SOLAS amendment clearly refers to Full Container:

*Quote*
The shipper is responsible for the verification of the gross mass of a container carrying cargo (a packed container).
*Unquote*

In other words, for an actual Shipper in a (LCL) consolidation environment, the SOLAS amendment does not apply. It is the Consolidator who packs the container and who acts as Shipper towards the Shipping Line.

The solution appears simple in that the Consolidator should be required to weigh the container using method one. Unfortunately it is not that simple. Customs offices and other authorities often require that the total weight of single shipments / NVOCC Bill of Ladings match with the total weight as declared on the Shipping Line (Master) Bill of Lading. The total weight taken under method one (which should appear on the Shipping Line (Master) Bill of Lading) will never match the total weight of all individual shipments. Authorities will not accept a tolerance and the total weight of the individual shipments must exactly match with the total weight. The consequence will be delays and extra charges.

The only solution for the consolidator is to weight each and every piece of cargo. Due to the fact that consolidated cargo is not homogenous and due to the high number of shipments handled in a Container Freight Station, it may not be practical or even possible to weigh each and every single shipment. Furthermore, can the Consolidator simply accept and rely on the weight declared by the actual Shipper?

The SOLAS amendment is very clear:

*Quote*
Individual, original sealed packages that have the accurate mass of the packages and cargo items (including any other material such as packing material and refrigerants inside the packages) clearly and permanently marked on their surfaces, do not need to be weighed again when they are packed into the container.
*Unquote*
In conclusion, the Consolidator does not seem to be allowed to simply accept the weight provided by the actual Shipper and is required to take the weight following method one for each piece of cargo received for shipment.

The SOLAS amendment indicates the commercial parties should arrive at practical solutions in various places. In the case of LCL cargo in a consolidation environment a forwarder could consider implementing a LCL document verifying the weight of the cargo. Similar to the FCL NVOCC, the Consolidator is then able to use the actual Shippers verified weight declarations to prepare its own verified weight declaration towards the Shipping Line – by adding up the individual weight following method 1.

The unique function of the Consolidator should be considered and procedures should be put in place to receive an official verified weight declaration from LCL Shippers.

Consolidators should be allowed to work on procedures to combine and sum up the total of all verified weight declarations (plus dunnage, securing material, tare weight etc.) to create their own verified weight declarations to the Shipping Lines.

**Forwarder acting as Carrier – Consolidator (Co-load Consolidation)**

As previously indicated there are at least three or even more levels of contracts involved:
Level 1: Between the Shipping Line and the Consolidator (acting as Carrier).
Level 2: Between the Consolidator (acting as Carrier) and a Co-Loaders (acting as Carriers).
Level 3: Between the Co-Loaders (acting as Carriers) and the actual Shippers.

These scenarios make the whole process and documentation slightly more complex, but the principles are similar if compared to the simple Consolidator – however additional levels are added.

**Conclusion**

Whilst in terms of liabilities and responsibilities out of the Contract of Carriage, the SOLAS amendment does not change anything; procedures must be put in place to recognise the special function of Forwarders acting as Carriers.

Such procedures must foresee that Forwarders acting as Carriers can produce their own verified weight document as requested by the SOLAS amendment, using information provided by verified weight documents issued by actual Shippers.
As previously identified, the SOLAS amendment indicates (in several places) that the commercial parties should arrive at practical solutions. These suggested procedures are such practical agreements.

Next steps

Having detailed in this paper why changes have been made, what those changes are and also explored the question “who is the shipper”. This last section is designed to assist involved parties on the next steps to take.

There are two main points to consider:

- Have you identified and opened a dialogue with the Government department that will be introducing the SOLAS amendment as legislation in your country?
- Are you speaking to the shipping lines and asking how they want the verified weight information transmitted?

Meetings between the stakeholders and Government lawmakers are gaining momentum and are taking place on a National level. It is important for each member country to protect their interest as well as the interest of the global forwarding community in general.

Because it is for each country to implement the SOLAS amendment in accordance with their legislative system FIATA cannot make an official global recommendation. However, in this paper we are providing supportive information. We see our role in sharing and exchanging information on the development of the discussions in the various countries. By doing so, we hope to be able to share good practices decided in some countries that might be useful for other countries too.

Current developments on country level

The following developments that have been reported to FIATA:

Europe – harmonized approach
It is very encouraging that the various European countries are communicating with each other in an effort to harmonize the various national decisions.

Method Two
There is poor feedback on the functioning of the Government agencies that will be in charge for the certification and approval of the weight verification under method 2. However, it appears that Governments will favour existing standards such as AEO, ISO or Enterprise Resource Planning.
In some countries, companies that have AEO status may be trusted to provide a verified weight document.

**Variance / Margin of Error– 5%**
We understand from a number of countries that a variance of 5% is likely to be accepted. In addition, there are also discussions to implement a fixed amount of 500 kilos for containers with a weight of less than 10,000 kilos. In this context, it should be noted that the tare weight on official plates may not always be accurate. Variances of 5% seem to be common.

**Electronic weight verification**
We understand that the SMDG (an organisation that develops and promotes UN/EDIFACT EDI-messages for the maritime Industry) has been developing UN/EDIFACT messages to facilitate the communication of the verified container weight as well as the verified container weight document itself.

FIATA's aim is to assist all parties to fully understand the forthcoming changes and particularly the implications where the Forwarder is acting as a Carrier.