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USER GROUP FOR SHIPPING LINES AND CONTAINER TERMINALS

New Edifact Message Type

VERMAS – Verified Gross Mass

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New Edifact Message Type
VERMAS – Verification of Mass

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In this presentation

- New SOLAS regulation + IMO guidelines
- Business requirements
- Existing Edifact messages
- New VERMAS message: Use cases
- New VERMAS message: Final structure
- Time line – Next steps

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IMO Guidelines Regarding The Verified Gross Mass of a Container Carrying Cargo (SOLAS chapter VI, part A, regulation 2)

The SOLAS Convention has been ratified by 162 contracting states.
SOLAS represents 99% of the tonnage of the global merchant fleet.

The SOLAS Convention is Binding International Law
even without extra National Legislation.

The SOLAS amendments become effective on 1 July 2016

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Requirements and consequences of the IMO Guidelines

1. The **Shipper is responsible** for providing a Verified Gross Mass (VGM) for each full container.
   He may decide between two methods: 1) to weigh the packed container or 2) to add the weight of all cargo items plus the weight of the packing material plus the tare weight of the container.
2. The VGM can only be ascertained for a completely **packed container**.
3. The shipper may **delegate** the actual procedure of ascertaining the VGM to a **3rd party**, for example a weighing facility at an inland depot or at a terminal. This does not release the shipper from his responsibility according to 1 above.
4. The terminal **must not load** a packed container on a SOLAS ocean vessel as long as it is not in possession of its VGM.
5. The **vessel command** must not accept a packed container on board until they have been informed about its VGM.
6. The VGM is part of shipping documents. Besides the weight itself, the **name of the responsible person authorized by the Shipper** must be contained.
7. A container status may change from “VGM not available” to “VGM available”.
   An existing VGM may be revised by means of EDI messages.
8. EDI messages must be able to distinguish “VGM” and “gross mass without verification”.
9. The typical reporting chains is: Shipper ➔ Carrier ➔ Terminal ➔ Vessel
   but different variants are possible.

Additional information can be found on: http://www.worldshipping.org/industry-issues/safety/cargo-weight

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Why are these guidelines needed? Example MSC NAPOLI in 2007

A major incident at sea caused by many overweight containers.
This was the actual starting point for discussing stricter rules on container weight declaration.

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Why are these guidelines needed? Example MSC NAPOLI in 2007

Weight Difference Problem
- Container Overload –
E.D.I. to approach SOLAS

msc for the real world

We remember as MSC, a BIG SHIP DISASTER…

Jan 17° 2007…

…on ENGLISH CHANNEL (named in Italian «La Manica»)…

…MSC NAPOLI had a BIG PROBLEM with Weather…

…On Jan 18°, she began to break hull.

"…around 660 containers stowed on deck, which had remained dry, were also weighed. Of these containers, 137 of them (that is, around 20%) weighed at least 3 tons more than their declared weight.

The largest difference was 20 tons, and the total weight of the 137 containers was 312 tons heavier than on the cargo manifest, according to the report into the investigation of the structural failure of the vessel by the UK Marine Accident Investigation Branch (MAIB)"

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Why are these guidelines needed? Example HUSKY RACER

Hansestadt Bremisches Hafenamt

Stability incident at Bremerhaven

- container feeder HUSKY RACER at Bremerhaven on 2 Oct. 2009
- containers on deck had been unlashed upon arrival
- discharge started from holds upon ships request (repair intended)
- the consequence was a reduced stability
- heavy rolling of the ship occurred,
  when discharge from deck in outside position started
- 26 containers toppled, 18 containers were lost overboard

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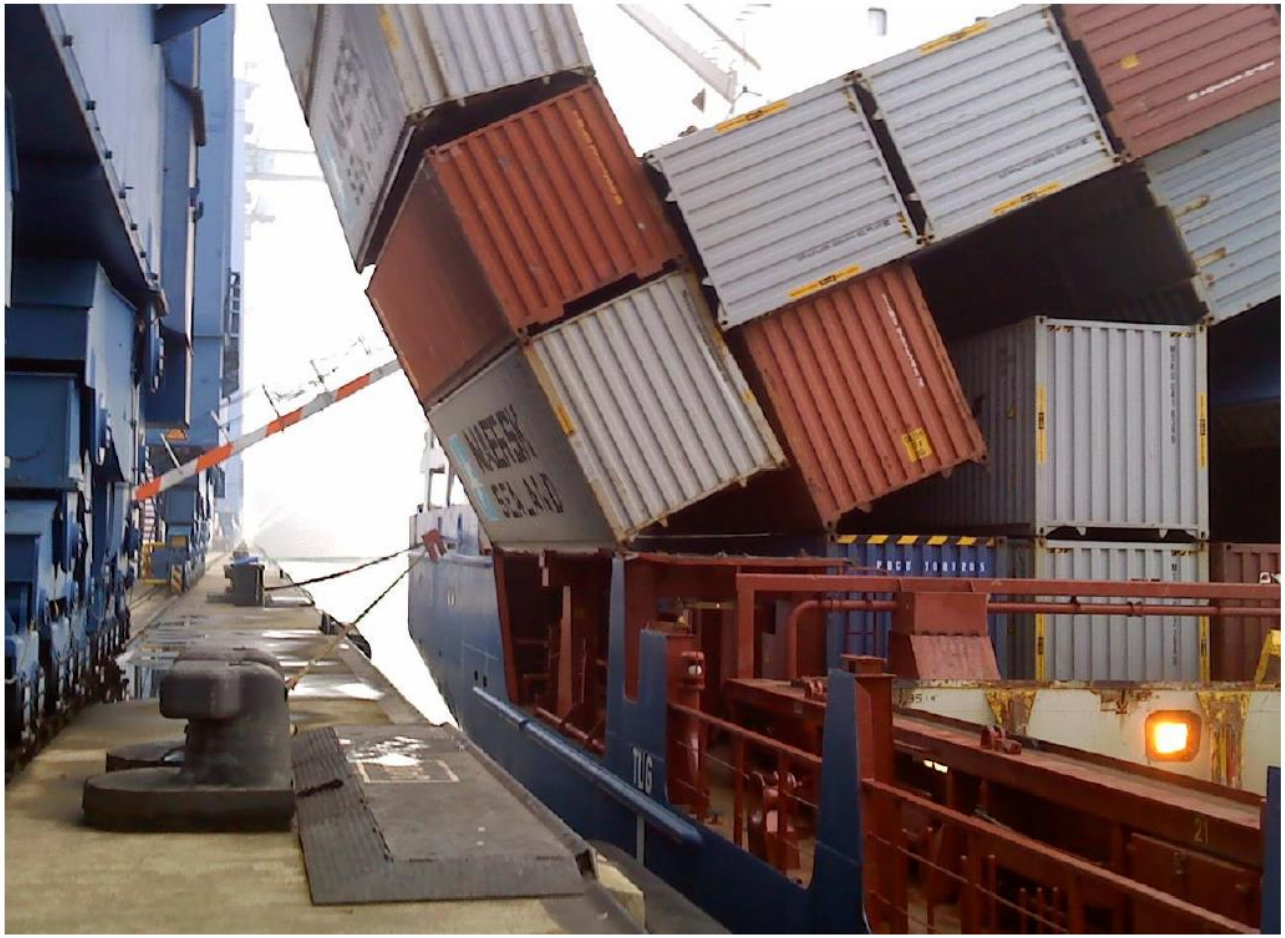
Why are these guidelines needed? Example HUSKY RACER

Hansestadt Bremisches Hafenamt



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Why are these guidelines needed? Example for a common incident

Smaller incidents with overweight containers happen too often in daily port operations work around the world.
Each incident puts human life at danger and disrupts the supply chain.

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Business requirements resulting from the IMO Guidelines

Standard reporting chain for the Verified Gross Mass:
Shipper ➔ Carrier ➔ Terminal ➔ Vessel

Non-standard reporting chains possible:

Weighing facility ➔ Party ordering the weighing service	
Weighing facility ➔ Terminal	(if so agreed by the business parties)
Shipper ➔ Terminal ➔ Carrier	(if the Shipper has a business relationship with the terminal)
Terminal ➔ Carrier ➔ Shipper	(if re-weighed)

challenge

The detailed business requirements and the possible VGM reporting chains are not clear yet, they might differ in various countries.
But the VERMAS has to be made available now, in order to meet the implementation deadline 1st July 2016.

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Why a completely new message?

1. New processes

There are new process steps that are not covered by existing message types. For example reporting from a weighing station to the shipper, or the weight from the terminal to the carrier or from the carrier to the shipper.

2. Different timing for weight transmission in current messages

In many cases the existing messages are sent at a different time than the weight is known or is needed. The existing messages are sent too early or too late for transmission of the VGM.

3. One new message easier than changing many existing messages

Shippers, carriers and terminals need to change a large number of message versions on a fixed date. Many of them find it easier to implement one new message for this special purpose of VGM reporting than upgrading many existing message versions and test simultaneously with many EDI partners.

4. Message identification determines the purpose

The receiver can detect the purpose (VGM update) from the message identification VERMAS. He does not have to go into the message to detect the function.

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SMDG Activities

The structure of following messages is being enhanced by the SMDG in order to enable VGM reporting. New versions have been published. Details on www.smdg.org

Message	Activity	Purpose	Sender-Receiver
BAPLIE	Enhanced	Stowage Plan	Carrier <> Terminal
MOVINS	No change	Move Instructions	Carrier > Terminal
COPARN	Enhanced	Pre-arrival notice	Carrier > Terminal
COPRAR	Enhanced	Load List	Carrier > Terminal
CODECO	Enhanced	Gate-In confirmation	Terminal > Carrier
COARRI	Enhanced	Load/Discharge	Terminal > Carrier
VERMAS	New development	VGM Reporting	Between various parties in the transport chain

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Principles (from Boiler Plate)

• The VERMAS incorporates information on the Verified Gross Mass (VGM) of a packed container, the time, place and method of obtaining the VGM, the responsible parties, and references required by the receiver to assign the VGM to his transactions.
• The message is used to transmit information related to one or many containers belonging to a clearly defined transport from a shipper to a consignee.
• The message can be exchanged between any two parties in the maritime transport chain as per mutual agreement. The sender may have obtained the Verified Gross Mass himself or he may forward a VGM received from a 3rd party. Each party in the transport chain can be a sender or a receiver of a VERMAS message.
• The only mandatory information in the message is on the container and on the VGM. All other information is optional and transmission depends on the role of sender and receiver in the transport chain. It is essential that sender and receiver agree on the information and references to be transmitted.
• The VERMAS is a small message for a clearly dedicated purpose. It shall only be used for transmission of the VGM as required by SOLAS and directly related information.
• It shall not be used as a handling order.
• The message will not be used for reporting of empty containers.
• The SOLAS Convention was ratified by and therefore applies to literally all sea going states worldwide. But at the time of developing the VERMAS message not all states have published their national legislation. Future legislations may result in additional reporting requirements that may lead to an enhanced message scope.

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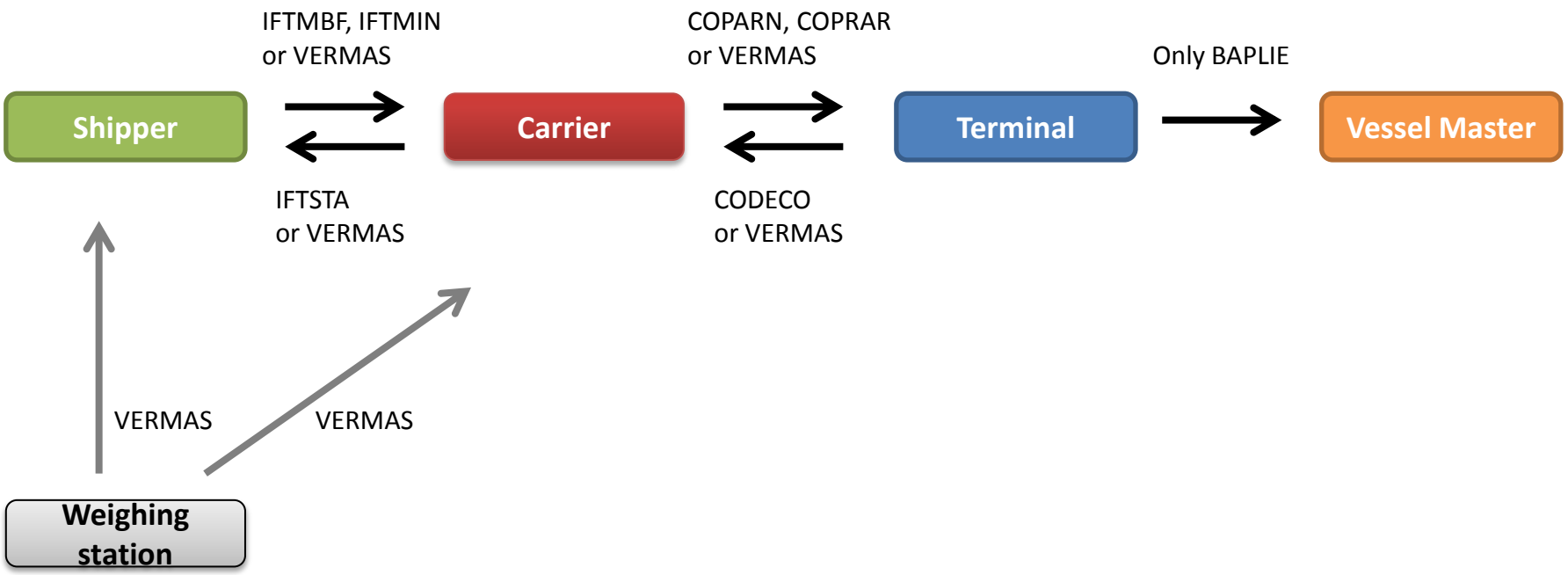
VERMAS in the Process Chain



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Use Cases for the VERMAS message
Details in separate document

	Sender	Receiver	Purpose
1	Shipper	Carrier (Shipping Line)	Shipper has determined the weight himself
2	Shipper	Carrier (Shipping Line)	3rd party has weighed, as instructed by the shipper
3	Shipper	Carrier (Shipping Line)	3rd party will determine the weight, the shipper only reports his responsibility
4	Weighing Station	Shipper	Shipper had ordered the weighing
5	Weighing Station	Carrier	Shipper had ordered the weighing and instructed the weighing station to report to the carrier
6	Terminal	Carrier	If weighing at the terminal is a standard procedure, or in an exceptional case of a container showing up without VGM
7	Terminal	Carrier	Container was re-weighed so that the terminal has two different weights available
8	Carrier (Shipping Line)	Terminal	Standard process, if other messages are not suitable
9	Carrier	Shipper	Carrier has got knowledge of a weight (e.g. from Terminal) that he forwards to the Shipper

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Who should use the new message ?

The VERMAS message is an offer to the maritime industry and its usage is left to agreements between the trading partners.

It is by no means mandatory to use the VERMAS. If the trading partners are happy to use the enhanced versions of IFTMIN, COPRAR, CODECO etc for VGM transmission they may of course do so. Only if that is not suitable, they may decide to exchange the VERMAS in addition.

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Content of the VERMAS message - overview

For each container, the message can hold:

- The unique **container ID** (e.g. HLXU1234567) and its size/type.
- The **Verified Gross Mass** in kilogram or lbs.
- All **details** that a paper **certificate** would show: date and place of weighing, the responsible company, method used (1 or 2 according to SOLAS), reference number etc.
- The name of the **authorized person** in capital letters, as electronic equivalent of the signature.
- Reference to a particular **transport order or purchase order**, by means of booking number, B/L number, seal number, port of loading, port of discharge, vessel name, voyage number etc.
- Related **transport parties**: Shipper, carrier, terminal, weighing facility.

Only the container ID and the VGM itself are mandatory.
All other data elements are optional, depending on the business context.

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Content of the message page 1/2. One message may contain *multiple* containers.

Reference	Data element	Remarks
Message sender		Indicating the party function of the sender
Shipper	Company name, address and contact	Party responsible to provide the VGM as per SOLAS
Authorized person at the Shipper	Responsible person at the Shipper, with contact details	Name in capitals
Weighing station	The party that has actually ascertained the weight, with address and contact details	E.g. the weighing station in case of method 1 or the party that has performed the VGM calculation in case of method 2
	Responsible person at the weighing facility	Name in capitals
Generic reference to VGM documentation	Company holding the VGM documentation	In case the actual shipper shall not be disclosed, the company holding the VGM documentation can be e.g. the carrier's agent
Shipper identification	DUNS Number	issued by Dun & Bradstreet (D&B)
	AEO number	Authorized Economic Operator
	Tax ID and Tax Authority	
	INTTRA Company ID	
	EORI number	Economic Operators Registration and Identification
Container Reference	Container ID	
	Size Type	

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Content of the message page 2/2. One message may contain *multiple* containers.

Reference	Data element	Remarks
Weight reference	Verified gross mass of the container incl. unit of measurement	in KGM or LBS
Weighing reference	Date+time when the container was weighed or the weight was ascertained	
	Date+time when the weight certificate was issued	
	Place where the container was weighed or the weight was ascertained	
	Country of verification	
	SOLAS Method of weight verification	1 or 2 as per IMO rules
	Weight Certificate reference	unique reference for a single container weighing instance
Transport Order Reference	Booking Number	
	Bill of Lading Number	
	Seal Number	
	Shipper's internal refeence	
	Port of Loading	
	Port of Discharge	
	Final Destination	
	Vessel Name	
	Voyage Number	

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DMRs already submitted to UN/CEFACT for D.15B directory

	Segment	Data Element	Code requested	Description	Message
1	MEA	C502. 6313	VGM (new)	Transport equipment verified gross mass (weight)	Coxxxx and VERMAS
2	DTM	C507. 2005	(new)	Date/Time when a gross mass (weight) of a packed container was obtained.	Coxxxx and VERMAS
3	NAD	3035	SPC (new)	Party responsible for declaration of a packed container's verified gross mass according to SOLAS …	Coxxxx and VERMAS
4	NAD	3035	AM (change)	Code Name (unchanged) : Authorized official Definition (enhanced): Employee of a company or firm authorized to act on behalf of that company or firm e.g. to make a Customs declaration or sign documents for the verified gross mass	Coxxxx and VERMAS
5	CTA	3139	RP (new)	Authorized responsible person	CoPRAR and VERMAS
6	RFF	C506. 1153	VGR (new)	Transport equipment gross mass verification reference number	Coxxxx
7	RFF	C506. 1153	VOR (new)	Transport equipment gross mass verification order reference (Order reference for a weighing order to obtain a Verified Gross Mass)	Coxxxx

where Coxxxx = CODECO, COPARN, COPRAR, COARRI

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VERMAS Message Structure

The development of the VERMAS structure follows the KISS principle:
Keep it short and simple

The VERMAS is made for a dedicated purpose and contains only data elements that are clearly needed.
The message content is based on the best assessment of the business requirements (as per September 2015) depending on the IMO guidelines.
It shall not be overloaded with data elements that could be *potential* candidates or that *might* perhaps be required in future. Additional requirements resulting from national legislation of all seafaring countries will not be available before mid of next year.

The VERMAS is likely to be implemented by a large number of parties in a short time. Acceptance of the message will be much higher if the structure is kept simple.

VERMAS Message Structure on next slide:

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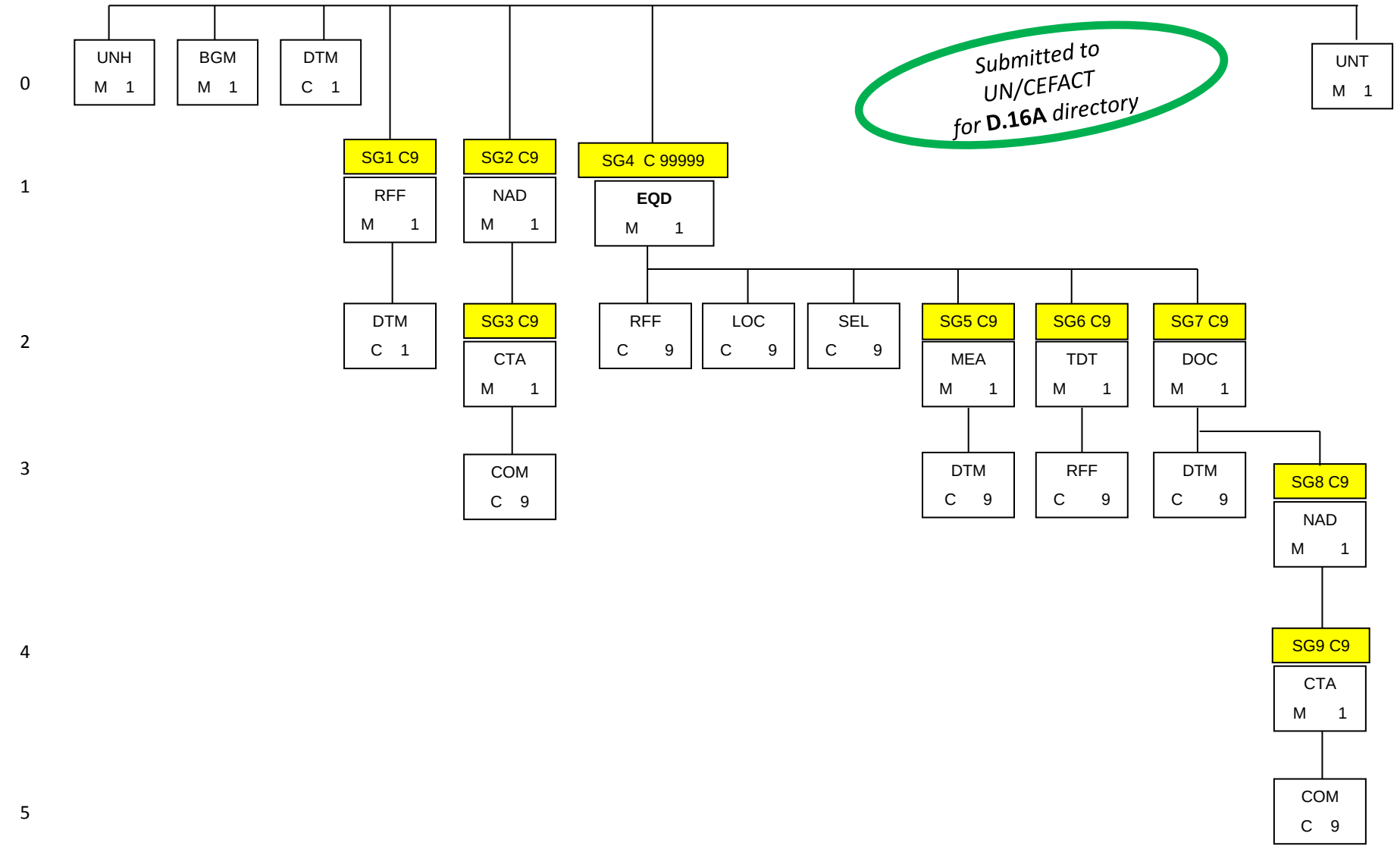

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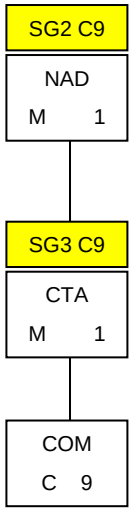

SG2.NAD
Message Sender function and Name + Address
Examples:

Message sent by terminal:
NAD+TR+DBF:TERMINALS:306'

Message sent by weighing station:
NAD+WPA+++QTW LTD+EAST STREET 107+MYTOWN++456A23+JP’

SG3.CTA
To identify a person or a department to whom communication should be directed
Example:

CTA+MS+ABC CORP.'

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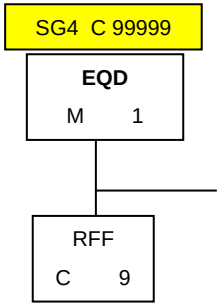

Segment Group 4
Group transmitting VGM information about a container: - identification and routing information - gross mass (status verified or not) - DOC group for documentation of VGM *(to be repeated for each container)*

SG4.EQD
ID and size/type of the container, as in other messages
Example:
EQD+CN+SUDU1234569:6346:5+42G1:6346:5+++5'

SG4.RFF
Reference to relate the transmitted VGM data to message recipient's internal business transactions.
Examples:
RFF+BN:37N023' (booking number, if receiver is a shipping line)
RFF+SI:US1603-2224' (shipper's internal reference, if receiver is a shipper)
RFF+BM … (Bill of Lading)

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SG4.LOC
Locations related to container's transport chain.
Usage as in other messages. To report Port of Loading, Port of discharge, port of final destination etc. Needed by the receiver as reference to the transport.
Example: LOC+9+NLRTM+DGE:TERMINALS:306'

SG4.SEL
To specify the seal number(s) attached to the container at the time of VGM determination.
Usage as in other messages.
Example: SEL+987654321+SH'

SG5.MEA *(mandatory segment)*
To specify the gross mass of the container (its tare weight with all contents)
Indicate whether the gross mass is "Verified" or not
Examples:
MEA+AAE+**VGM**+KGM:21700' (*G*ross mass, verified)
MEA+AAE+**AET**+KGM:20000' (*G*ross mass, not verified)

SG5.DTM
Date/Time when the gross mass was obtained
Usage as in other messages. New qualifier requested. Needed to differentiate if more than one weight was obtained for the container.

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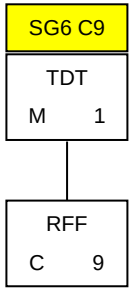

SG6.TDT
Vessel name + ID and the Import voyage number.
Usage as in other messages. Needed by the receiver as reference to the transport.
Example: TDT+20+123E45+++HLC:LINES:306+++9501344::11:BASLE EXPRESS'

SG6.RFF
To specify the Export voyage number
Usage as in other messages. Example: RFF+VON:124W51'

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SG7 C9
DOC
M 1

Segment Group 7
To specify the documentation related to SOLAS gross mass verification of a packed container.

SG7.DOC *(mandatory)*
To specify the type of documentation and a unique reference
A new SMDG code list is used for C002.1001 Document name code.

DOC+SHP	To specify the responsible party to provide the VGM ("The Shipper")
Example:	DOC+SHP:VGM:306+27G92ZZ'
Remark:	The NAD group specifies party and responsible person
DOC+DRF	To specify the reference to container's SOLAS VGM documentation in case the actual shipper shall not be disclosed.
Example:	DOC+DRF:VGM:306+KJH1607-782'
Remark:	The NAD group specifies the party who holds the VGM documentation
DOC+SM1	To specify which SOLAS method was used (1 or 2) and the documentation of the actual weight determination, e.g. the weighing slip. Qualifiers SM1 or SM2 can be used.
Example:	DOC+SM1:VGM:306+QCT000784'
Remark:	The NAD group specifies the party who determined the weight, e.g. the weighing station.

DTM
C 9

SG7.DTM
Date/Time when the Verified Gross Mass was determined
or Date/Time when the document/certificate was issued.
Usage as in other messages. New qualifier requested for "Transport eqpmt. VGM ascertained date/time"

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SG8 C9
NAD
M 1

Segment Group 8
Group for specification of
a) Party responsible of SOLAS verified gross mass declaration ("The Shipper")
b) Weighing party for the method as specified in DOC segment
c) Party to be referred to for obtaining identified document
d) Party who ordered the weighing
For each party the responsible person can be specified in the CTA group.

SG8.NAD
Name and address of the party

NAD+SPC	**The responsible party to provide the VGM ("The Shipper")**
Example:	NAD+SPC+++BEST FRUIT LTD.+LONG STREET 987:P.O. BOX 321123+NEW YORK CITY++10007+US'
NAD+WPA	**The weighing party who determined the VGM**
NAD+WC	**The party that holds the VGM documentation**
NAD+OB	**The party that ordered the weighing (at the weighing station)**
NAD+AM	**The person authorized to sign a document**

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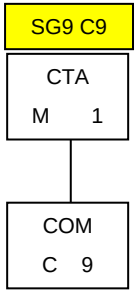

Segment Group 9
Group for specification of
- contact information and/or signature of a responsible person
- communication details for party or person

SG9.CTA
To identify a person or a department to whom communication should be directed

CTA+BN	**The party or person name (communication contact with details in subsequent COM segment)**
Example:	CTA+BN'
	CTA+BN+A1 LTD DESPATCH DEPT'
CTA+RP	**The *signature* of a person**
Example:	*CTA+RP+:LUCY P. SMITH'*

SG9.COM
Communication details (mail, fax, telephone etc.) related to the previous CTA segment.

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Timeline

21.9.2015	DMRs for new codes submitted to UN/CEFACT for **D.15B**
SMDG plenary meeting in Malta 30.9.2015	Proposal for VERMAS message was approved
4.11.2015 UN/CEFACT Forum Marseille	**Approve VERMAS message structure**
6.11.2015	SMDG publishes first VERMAS MIG as version 0.5
Soonest	SMDG provides the BRS for the VERMAS message
January 2016	SMDG provides VERMAS Boiler Plate for D.16A
29.4.2016 UN/CEFACT Forum in Geneva	Final VERMAS approval
May / June 2016	Publish VERMAS in D.16A directory

Backup Slides

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VERMAS working group in the SMDG

- Michael Schröder — Hapag-Lloyd (chair)
- Jost Müller — Müller&Blanck Software
- Paul Wauters — PSA Antwerp
- Stefano Ottonello — MSC Le Navi
- Yoshi Kito — EDI Expert

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Scope of the new message VERMAS

To transmit the verified gross mass (the weight) and all details of the related weighing certificate for a packed container including the name of the authorized person.
It is a legal requirement that all parties along the transport chain are informed about the Verified Gross Mass of the container:
Shipper, Carrier, Vessel Operator, Terminal and the vessel itself.

Different process steps

Unlike other EDIFACT messages, the VERMAS is not dedicated to a certain process step in the transport chain. It can be used by different parties at different times in the process chain.

Not to use as an order

The VERMAS purpose is only to report a weight that was determined earlier. It will *not* be used to *order* a service such as weighing a container. For the purpose of ordering services, for example the COHAOR should be used.