

# Marine Trade and Insurance of Cargo.

## Main Topics

- Cargo definition
- Modes of transportation of Cargo
- Volume of Global carriage of Cargo per annum.
- Essentials of Marine trade
- Development of Marine Carriers/Trade.
- Discussion on Policy Wording.
- War Risk.
- Brief on claims.

## Cargo - Modes of Transportation | Features

### Ocean Marine

- Lowest Carbon emission.
- Bulk shipments are possible such as, a single ship can carry 400,000 tons of cargo.
- Cheapest.
- Can Carry, Liquids, Solids and even gaseous cargoes.
- Hazardous Cargoes

### Aviation

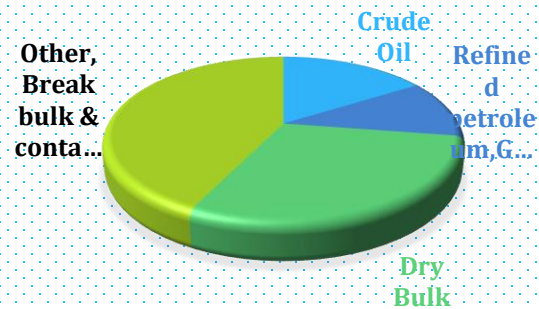
- Safer
- Faster
- More Expansive
- Consignment size is restricted.
- Suitable for precious and temperature controlled cargoes.
- Can not carry Hazardous Goods.

### Road Rail

- Generally restricted to 40 ft trailers for long Hauls.
- Cargo can move from Ware house to ware house direct.
- Cross border shipments.
- Only means for Land Locked countries.

## Exports World wide - 2020

Cargo Break Up 2020		
Type of Cargo	annual million tons	% of Total
Crude Oil	1,716	16%
Petroleum, Gas, Chemicals	1,202	11%
Dry Bulk	3,181	30%
Break bulk & containerized.	4,549	43%
Total Cargo	10,648	100%



### Other Interesting Facts

- 90% of the world Cargo moves by sea, by volume.
- Around 60% of this is containerized
- Around 4,500 container ships operate worldwide.
- 815.6 million Containers moved in 2020
- the total value of the annual world shipping trade is estimated at over 14 trillion US Dollars.
- Air shipments are over 6 trillion worth of cargo, 52 million tonnes.
- Balance by Cross border trains and trucks.

# Essentials of - Marine Trade



## Financial responsibility Buyer/Seller

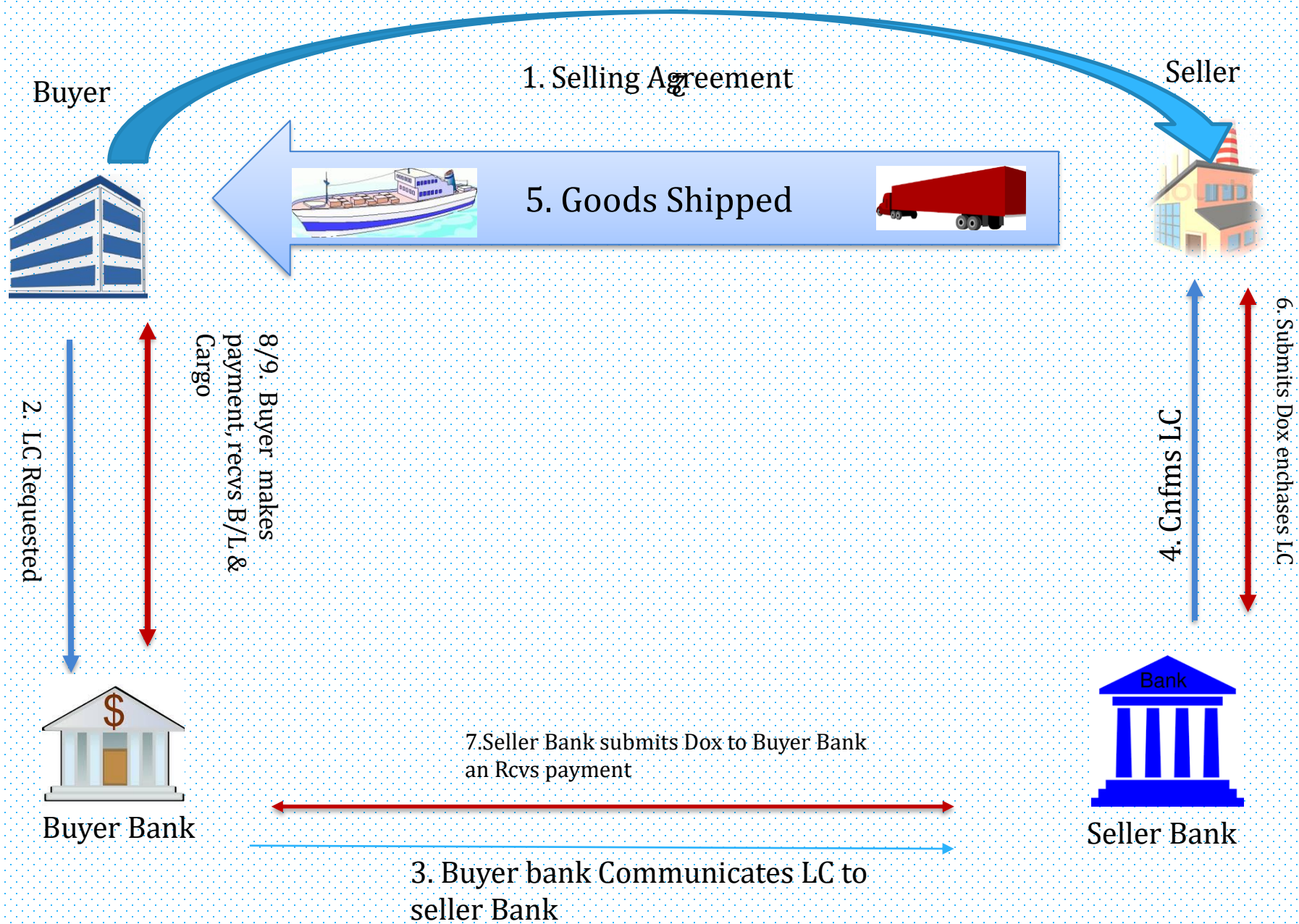
- Letter of Credit.
- IMCO Terms

## Contracts of Carriage. Shipper/Carriers responsibility

- Bill of Lading
- Charter Party

## Marine Insurance

- Cargo
- Hull
- Liability, P&I Marpol etc.



# Defining Boundaries – Buyer/Seller

## INCO Terms

Stands for **International Commercial Terms**. set of rules which define the responsibilities and financial interest in the cargo of sellers and buyers for the delivery of goods under sales contracts. They are published by ICC. The first. Incoterms® were issued in 1936

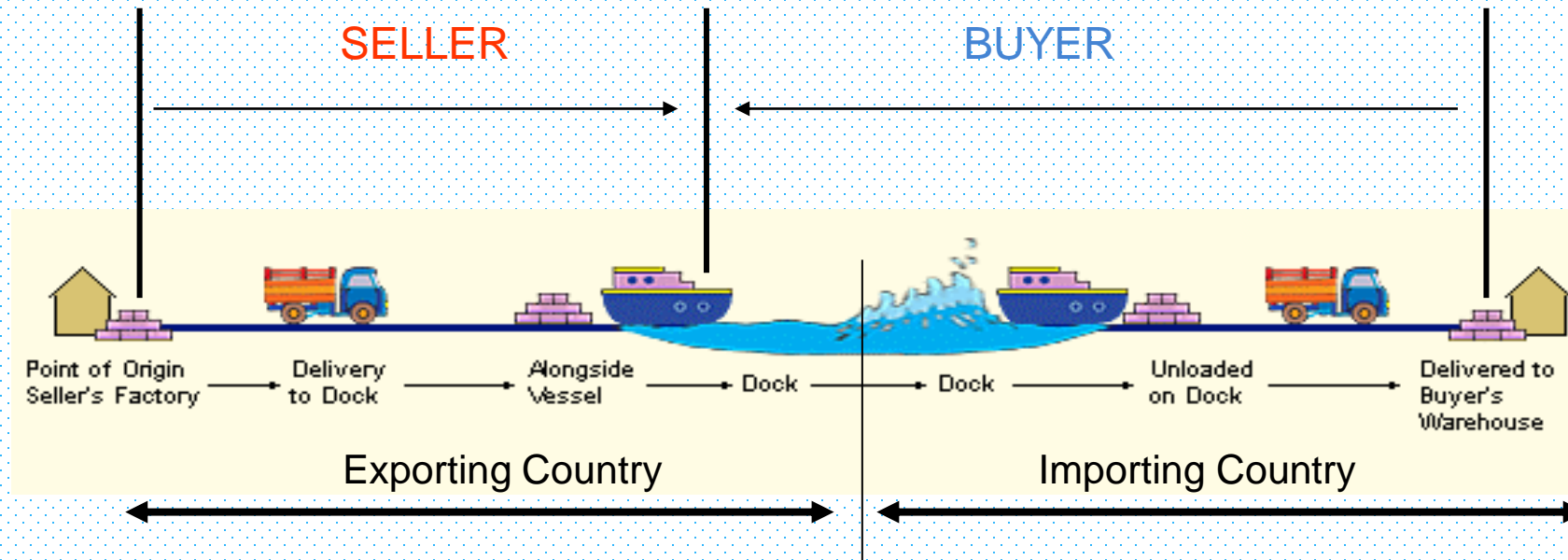
- **Free on Board (FOB):** seller responsible until the goods are loaded on ship. The buyer carries the risk thereafter.
- **Ex Works :** Buyer takes over the Delivery at Sellers Premises.
- **Cost, Insurance, and Freight (CIF):** in addition to above, the seller also pays for the insurance till destination.

There Exist a number of other kinds of contracts , here we will discuss above three, Only.

## How to determine insurable interest?

FREE ON BOARD VESSEL

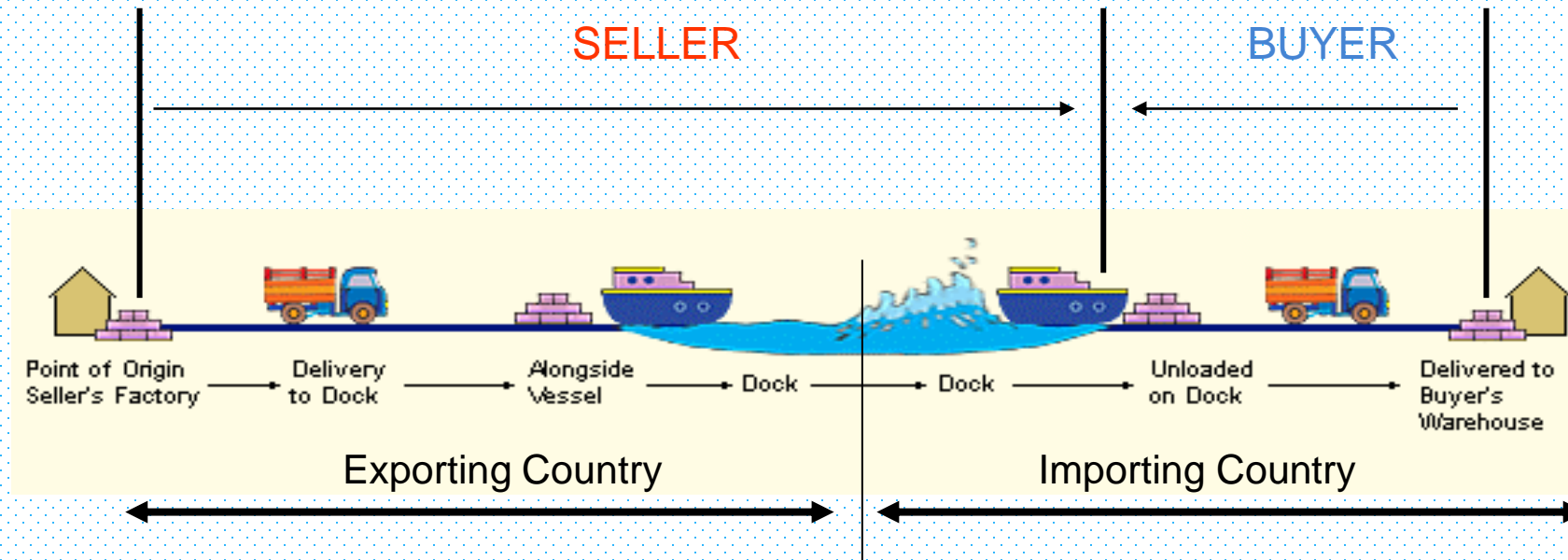
F.O.B.



# How to determine insurable interest?

COST, INSURANCE & FREIGHT

C.I.F.

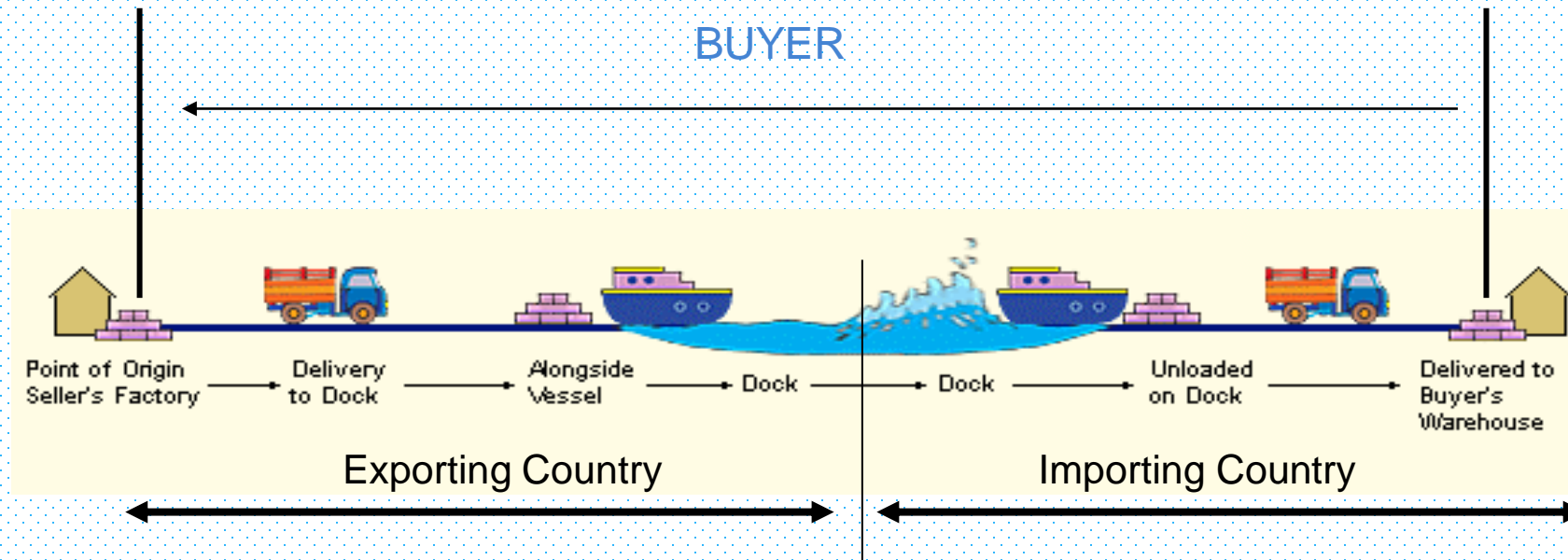




## How to determine insurable interest?

Ex Works

Ex.W.



# Contracts of Affreightments

## **CARRIAGE OF GOODS – BAILOR & BAILEE**

# Carrier's Liability – Absolute to limited

## Harter Act 1893

❖ *The carrier shall be bound before and at the beginning of the voyage to exercise **due diligence** to— (a) Make the ship seaworthy. (b) Properly man, equip and supply the ship. (c) Make the holds, refrigerating and cool chambers, and all other parts of the ship in which goods are carried, fit and safe for their reception, carriage and preservation.*

Pak  
Ratified

## Hague Rules 1924

- U.S, Carriage of Goods by Sea Act 1936
- U.K, Carriage of Goods By Sea Act 1924

## Hague Visby Rules 1968

- U.S COGSA 1999 was brought in but not ratified
- UK – Ratifies through COGSA 1971
- Hamburg Rules 1978 and Rotterdam Rules 2009 remain unratified by majority

# Common & Private Carrier

## Common Carrier – Bill of Lading

Common Carrier – carriage open to anyone who pays the agreed fare. B/L terms are uniform and governed.



## Private Carrier – Charter Party

Private Carrier: the whole space or whole part of the vessel is booked.  
Terms of contract governed, generally by CP



# Bill of Lading

- Around 1350, a ship Clerk was required to register the loadings and issue receipt in Italy.
  - The receipt of cargo existed during Roman era when goods were recorded in a register by a mate or clerk
  - By 1390 this entry was controlled by a statute which stipulated very harsh punishment for the clerk in case of a wrong entry.
  - The B/L existed in 14<sup>th</sup> century
- The B/L originally served as a receipt and a promise to deliver the cargo safely to consignee.
  - At later stages it became transferable.
  - The B/L was issued covering various factors and did therefore required proper rules balancing the responsibilities between shippers and carriers.

# Types of Charter Parties

## Voyage Charter

- The charterer pays the vessel owner on a per-ton or lump-sum basis.
- The owner pays the port costs (excluding stevedoring), fuel costs and crew costs. The payment for the use of the vessel is known as freight.
- A voyage **charter** specifies a period, known as Laytime, for loading and unloading the cargo.
- Demurrage and dispatch is applicable to the respective party.

## Time Charter

- In a time charter, the vessel is hired for a specific amount of time.
- The owner still manages the vessel but
- The charterer gives orders for the employment of the vessel, and may sub-charter the vessel on a time charter or voyage charter basis.
- Charterer pays for Bunkers, port, canal dues, stevedoring, dunnage etc.
- Charterer pays a daily hire every 15 or 30<sup>th</sup> day.

## Bare Boat Charter

- The charterer in this case virtually acts as owner
- Demise charters are created not so much with a view to the carriage of goods but more as part of a complicated financing arrangement, often with the intention that the charterer should become the owner of the ship in due course.
- Thus a contract for the purchase of a ship by installments will often incorporate a demise charter into the contract.

# Break Bulk

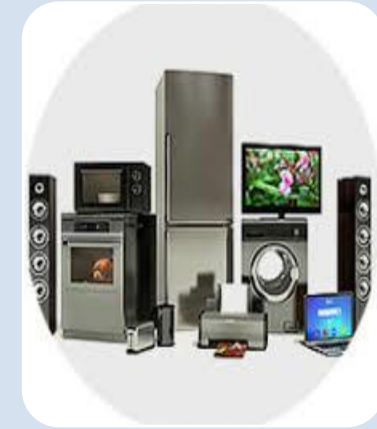
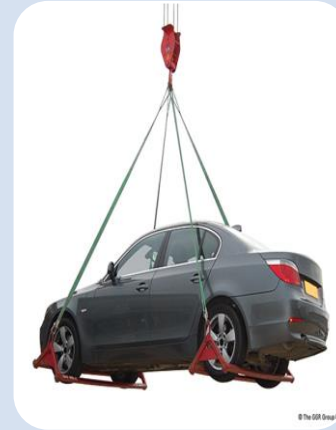


# A General cargo Jetty





# Break Bulk Handling - constraints



**Time consuming**  
**Torn Bags, Tally issues, expensive transportation.**

## Liquid Cargo

- Leaking drums
- Separate stowage
- Expensive handling
- Limited quantity

## Rolling Stock

- In-secure handling
- Space constraints
- Time consuming

## Small items

- Breakage
- Height restriction
- Wastage of space
- Theft, Pilferage

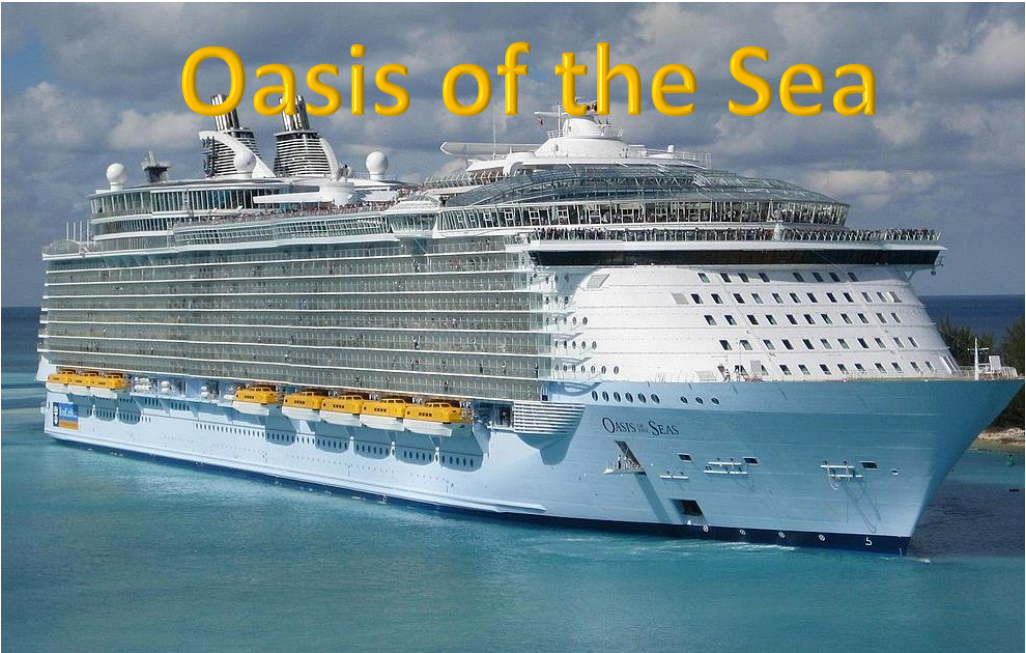


*from Break  
bulk to  
Bulk/BOX*





Courtesy Hammami Livestock



Oasis of the Sea



Vale Brasil 402,000 Tns Ore carrier



Around 24,000 TEU,










27/06/2024



Seawise Giant 565,000 ULCC

# Containers - types



Visualization									
Con Type	20'DC	40'DC	40'HC	20'OT	40'OT	20'FR	40'FR	20'RF	40'RF
<b>Outside dimensions</b>									
Length, m	6.058	12.192	12.192	6.058	12.192	6.058	12.192	6.058	12.192
Width, m	2.438	2.438	2.438	2.438	2.438	2.438	2.438	2.438	2.438
Height, m	2.581	2.591	2.896	2.591	2.591	2.591	2.591	2.896	2.591
<b>Internal dimensions</b>									
Length, m	5.898	12.032	12.032	5.898	12.032	5.612	11.656	5.506	11.207
Width, m	2.352	2.352	2.352	2.352	2.352	2.227	2.208	2.304	2.246
Height, m	2.385	2.385	2.698	2.348	2.348	2.213	1.955	2.602	2.183
<b>Other dimensions</b>									
Doorway	2340x2280	2340x2280	2340x2585	2340x2280	2340x2280			2300x2539	2216x2118
Tare weight, kg	2.330	4.000	3.840	2.300	4.300	2.750	4.900	3.325	3.700
Capacity, m <sup>3</sup>	33.1	67.5	76.4	32.5	65.9			28	58
Available load, kg	21.610	26480	26.640	28.180	26.680	31.250	45.100	23.675	25.000



TEU 20 feet equal units - FEU 40 feet equal units

# Cell Guides



## Marine Insurance - Variety & Scope

- Marine Hull including Running Down Clause
  - Marine Cargo
    - Ocean Marine
    - Aviation
    - Rail Road Clauses
    - War & SRCC
  - Marine Loss of Profit (Delay in Start UP)
  - Freight Forwarder's Liability (TT Club)
  - Protection & Indemnity (P&I) Clubs
- Institute Clauses



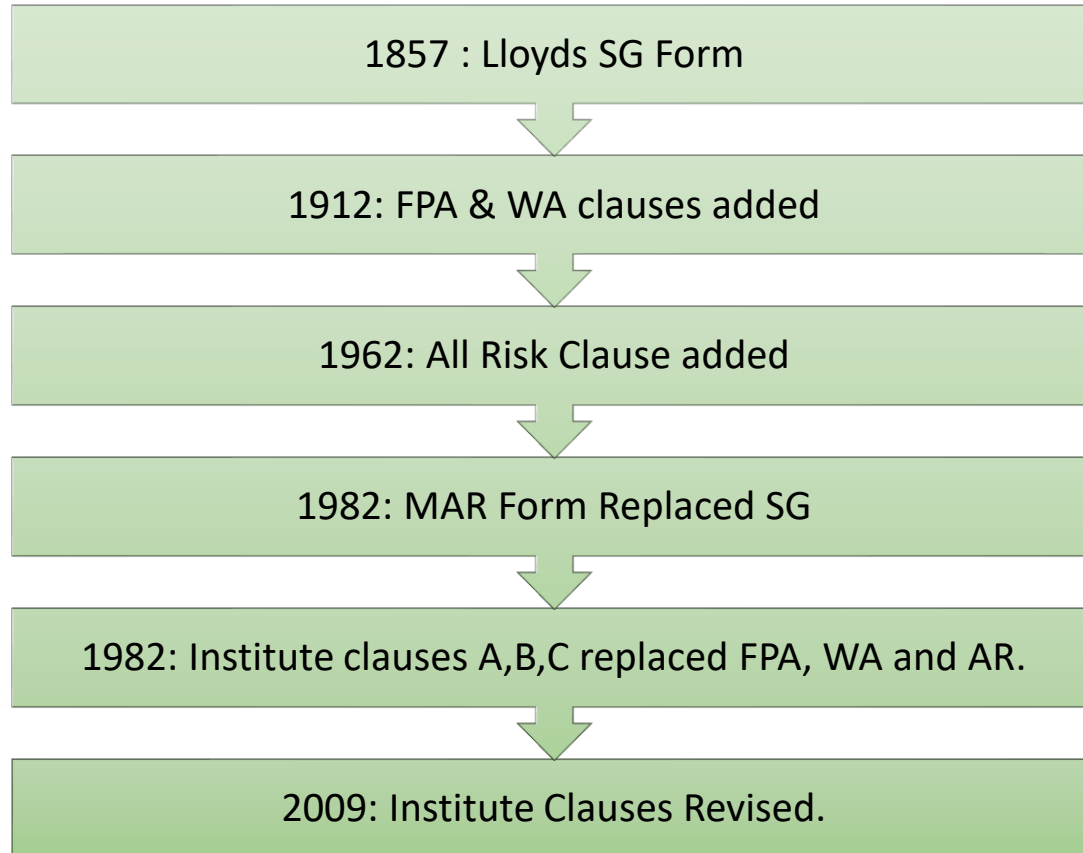
# Marine Cargo Insurance





# Marine Cargo Clauses – Development.

## Institute of London Underwriter Cargo clauses.



## Major Clauses in use and subject of study.

ICC 'A' Sea, Aviation - (All Risk)
ICC 'B'
ICC 'C' (Bulk Oil Clause)
War Clause
Strike Clause
Rail Road Clause
Classification Clause
Termination of Transit (terrorism)
Cargo ISM forwarding clause
Sanction Clause

## Marine Cargo Clauses – A, B, C

- Clause A is an all risks Form and covers all damages or loss of fortuitous nature unless excluded.
- Clause B and C are named perils Clauses which cover following;
  - Total Loss Actual or Constructive
  - Partial loss to cargo by an insured peril in case of B and C and by any fortuity/accidental cause(s) in the case of (A).
  - General Average Sacrifice
  - General Average and Salvage Contributions
  - Collision Liability (Both to Blame)
  - Expenses such as :
    - Survey Fee and Reconditioning costs
    - Sue & Labour expenses (Loss mitigation)
    - Forwarding Expenses (when transit is terminated short of destination)

# Institute Cargo Clause 'A' All Risk

Clause No.	Coverage	Wording
1	RISK	This insurance covers all risks of loss of or damage to the subject-matter insured except as excluded by the provisions of Clauses 4, 5, 6 and 7.
2	General Average	This insurance covers general average and salvage charges, adjusted or determined according to the contract of carriage and/or the governing law and practice, incurred to avoid or in connection with the avoidance of loss from any cause except those excluded in Clauses 4, 5, 6 and 7 below.
3	Both to Blame	In simple words, this clause covers liability which the carrier may incur to the cargo interests of other ship in case of collision

*That which has been sacrificed for the benefit of all shall be made good by the contribution of all*

General Average

This insurance covers general average and salvage charges, adjusted or determined according to the contract of carriage and/or the governing law and practice, incurred to avoid or in connection with the avoidance of loss from any cause except those excluded in Clauses 4, 5, 6 and 7'

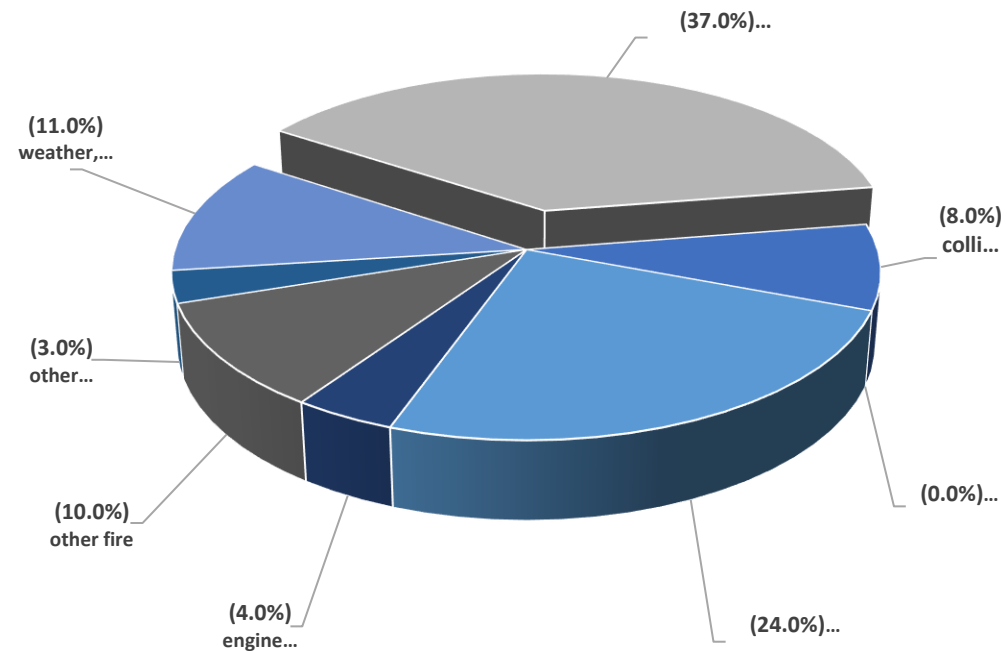
**TYPICAL EXAMPLES**

- I. Jettison of cargo (throwing cargo overboard to lighten the vessel)
- II. Hull and engine damage caused by efforts to refloat
- III. Tugs engaged to assist refloating
- IV. Hull and cargo damage caused by fire fighting
- V. Discharge and reloading of cargo at a port of refuge
- VI. Port of refuge expenses.

# Marine Cargo Clauses – Development.

*That which has sacrificed for the benefit of all shall be made good by the contribution of all*

- Decided under York Antwerp Rules
- 7 Lettered Rule stipulate the conditions in which G.AV may be declared.
- 23 numbered rules guide the mechanism of adjustment of G.AV





## Rail Road Clause. (inland Transit)

- Mainly duplicates the cover as of ICC 'A' with following differences.
- Can be issued stand alone for inland cargo movement.
- War on land is not covered.
- The transit period is 3 days

This insurance does not cover (The Perils)

- 4.1 Willful misconduct of the Assured
- 4.2 ordinary leakage, **ordinary loss in weight or volume**, or ordinary wear and tear
- 4.3 Insufficiency or unsuitability of packing. Only applies if the packing was done by the insured employees or it was done before the attachment.
- 4.4 Inherent vice (self heating, oxidation, sweating)
- 4.5 caused by delay, even though the delay be caused by a risk insured against (except expenses payable under Clause 2 above) **G.AV**
- 4.6 *Caused by insolvency or financial default of the owners managers charterers or operators of the vessel where the assured were privy to such default. Shall not apply if the insurance was assigned to a party who accepted in Good faith.* (Hanjin shipping 2 bn.
- 4.7 Atomic Weapon

# Exclusions.....

- Clause 5 - Unseaworthiness (implied)
  - Basically applies if insured is privy to unseaworthiness of vessel or container does not apply to a assignee.
  - Warranty of seaworthiness in the course of transit
- Clause 6;
  - War, civil war, Revolution, rebellion, insurrection, civil strife or any hostile act by against a belligerent power.
  - Capture, seizure, restraint (Piracy excepted Clause 'A' only)
  - Derelict, mines, torpedoes or other derelict weapons of war.
- 7, excludes Strike, Riot, Terrorism etc.



## 8. DURATION (Transit Clause)

8.1 Subject to Clause 11 below, this insurance attaches from the time the subject-matter insured is **first moved** in the warehouse or at the place of storage (at the place named in the contract of insurance) for the purpose of the **immediate** loading into or onto the carrying vehicle or other conveyance for the commencement of transit, continues during the **ordinary course of transit** and terminates either

- 8.1.1 on unloading at the final warehouse or place of storage at the **destination** named.
- 8.1.2 on completion of unloading at any other warehouse, which the Assured elects to use either for **storage other than in the ordinary course of transit** or **for allocation or distribution, or**
- 8.1.3 when the Assured or their employees elect to use any **carrying vehicle** any container for storage other than in the ordinary course of transit or;
- 8.1.4 on the expiry of 60 days after completion of discharge over side of the subject-matter insured from the oversea vessel at the final port of discharge,

**whichever shall first occur.**

**Air : 30 days**

**Rail Road: 3 days**

1. Reaches destination
2. Any other storage location chosen for distribution
3. If carrying vehicle or container is elected for storage
4. 60 days after discharge overside
5. Any alternative location chosen by insured.

## 8. Duration Cont.....

8.2; In case of change of final destination, the insurance ceases the moment goods are moved to that destination.

8.3 cover extends during the delay beyond control, deviation, forced discharge trans shipment,  
*(the duration is covered not the charges).*  
(conditions of 8.1 remain effective)

## 9. Termination of Contract of Carriage.

The insurance terminates if transit terminates before destination under circumstances beyond control of insured however,

*the insurance may be extended by underwriters on additional premium if so required and agreed.*

## 10. Change of Voyage (destination)

Any change of destination shall be declared to insurers who may review the rates and terms.

## 11. Claims – insurable Interest

Insured must have an insurable interest to recover a loss

An insured who has an insurable interest can recover even if the loss has occurred before the attachment as long as he is not privy to it.



## 12. Forwarding Charges

Unloading, storing and forwarding charges are paid if the venture is terminated before destination by operation of an insured peril

Clauses 13 to 19 Cover miscellaneous aspects of Insurance most of which are of explanatory nature to the contract

## Marine Cargo Clauses clause 16.

- **MINIMISING LOSSES**

- Duty of Assured

- **16.** It is the duty of the Assured and their employees and agents in respect of loss recoverable hereunder
  - 16.1 to take such measures as may be reasonable for the purpose of averting or minimizing such loss,  
and
  - 16.2 to ensure that all rights against carriers, bailees or other third parties are properly preserved and exercised

and the Insurers will, in addition to any loss recoverable hereunder, reimburse the Assured for any charges properly and reasonably incurred in pursuance of these duties.

# Marine Cargo War Risk.

Clause A excludes	War Wording covers verbatim exclusion
<p>Exclusion 6  <b>In no case shall this insurance cover</b> loss damage or expense caused by</p> <p>6.1 war civil war revolution rebellion insurrection, or civil strife arising therefrom, or any hostile act by or against a belligerent power</p> <p>6.2 capture seizure arrest restraint or detainment (piracy excepted), and the consequences thereof or any attempt thereat</p> <p>6.3 derelict mines torpedoes bombs or other derelict weapons of war.</p>	<p><b>This insurance covers</b>, except as excluded by the provisions of Clauses 3 and 4 below, loss of or damage to the subject-matter insured caused by;</p> <p>1.1 war civil war revolution rebellion insurrection, or civil strife arising therefrom, or any hostile act by or against a belligerent power</p> <p>1.2 capture seizure arrest restraint or detainment, arising from risks covered under 1.1 above, and the consequences thereof or any attempt thereat</p> <p>1.3 derelict mines torpedoes bombs or other derelict weapons of war.</p>



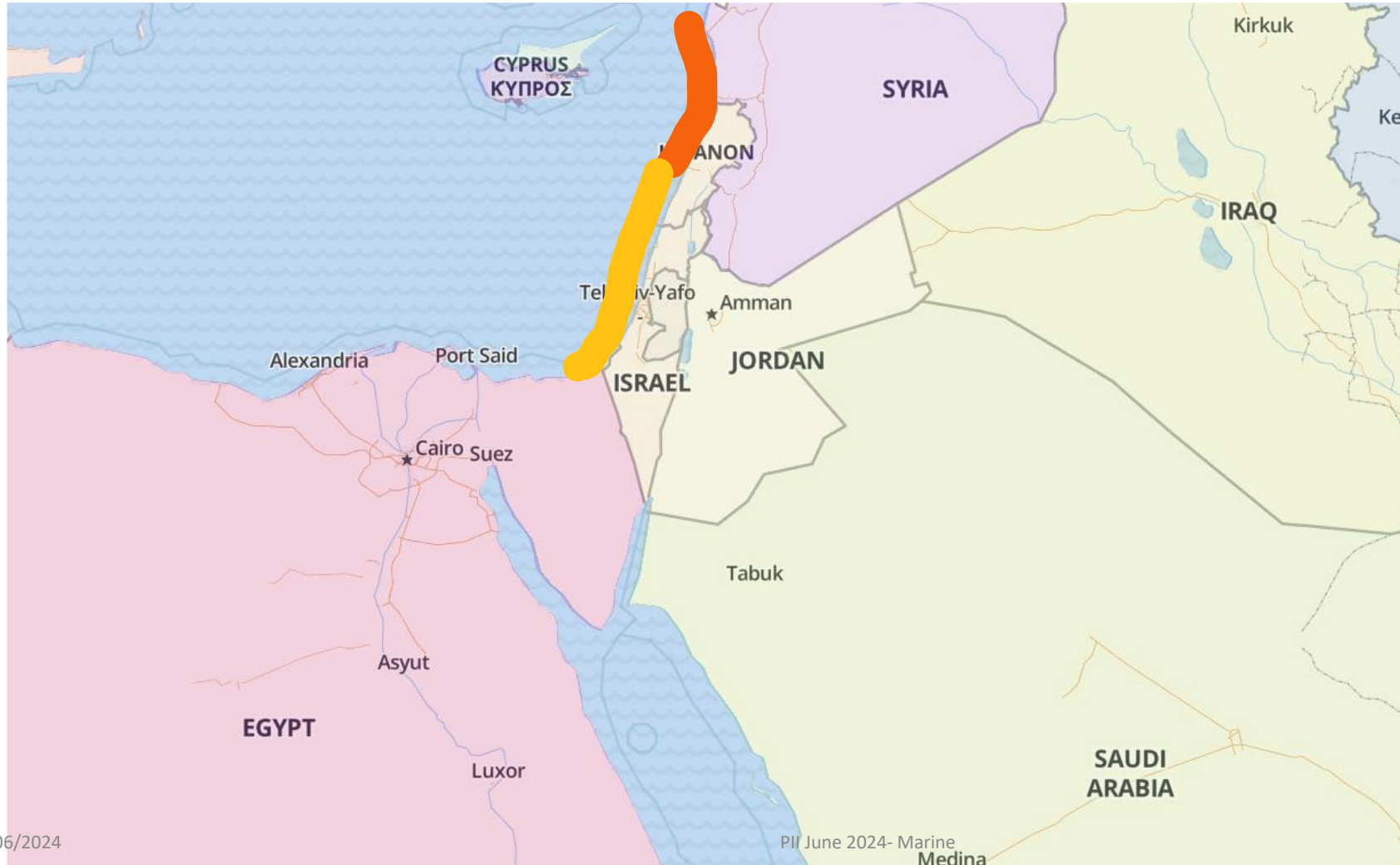
## Marine Cargo War Risk – other notables

- Arrival is deemed to have occurred when the vessel first anchors, moors or otherwise secures either at or off the intended port or place of discharge.
- DURATION. The risk attaches after loading on ship and terminates max 15 days after discharge.
- Duration against Derelict mines etc. while cargo is on a craft in transit to or from overseas vessel, is extended to 60 days

# Marine Cargo War Risk.

Exclusion 7 of Clause A	Strike Wording covers verbatim exclusion
<p>In <b>no case shall this insurance cover</b> loss damage or expense</p> <p>7.1 caused by strikers, locked-out workmen, or persons taking part in labour disturbances, riots or civil commotions</p> <p>7.2 resulting from strikes, lock-outs, labour disturbances, riots or civil commotions</p> <p>7.3 caused by any act of terrorism being an act of any person acting on behalf of, or in connection with, any organisation which carries out activities directed towards the overthrowing or influencing, by force or violence, of any government whether or not legally constituted</p> <p>7.4 caused by any person acting from a political, ideological or religious motive.</p>	<p><b>RISKS COVERED</b></p> <p><b>1. This insurance covers</b>, except as excluded by the provisions of Clauses 3 and 4 below, loss of or damage to the subject-matter insured caused by</p> <p>1.1 strikers, locked-out workmen, or persons taking part in labour disturbances, riots or civil commotions</p> <p>1.2 any act of terrorism being an act of any person acting on behalf of, or in connection with, any organisation which carries out activities directed towards the overthrowing or influencing, by force or violence, of any government whether or not legally constituted</p> <p>1.3 any person acting from a political, ideological or religious motive.</p>

# Israel and Adjacent area



War Rates Vary for

Cargo  
Hull  
P&I

# Red Sea and Persian Gulf



War Rates

Cargo Red Sea 0.6%

# Black Sea - Ukraine



War Rates Vary for

Cargo Ukraine 1%  
Russia 0.4%



# Common Claims

- 1) Grounding, Sinking
- 2) Fire, explosion.
- 3) Heavy Weather.
- 4) Collision.
- 5) Spontaneous Combustion
- 6) Theft, Pilferage, mishandling, water ingress.
- 7) **Short Landing**
- 8) General Average.
- 9) Liquid cargoes- contamination, pollution liability



May Involve Both,  
Particular & G.  
Average

# Sources of Damage to Dry Bulk



## Wet Damage

- Defective water tightness of Hatch covers.
- Water Ingress through bilge pipes or tank top.
- Leakage through sounding pipes or vents in heavy weather.
- Rain. During loading, discharging and at port
- Sweating damage

## Contamination

- Paint
- Poor Hold preparation, rusty holds, Fert and soda ash etc are most susceptible
- Poor stowage
- Pipe Leak, bunker
- Hold Leak, water or fuel.
- Residual cargo left in certain pockets, rots and mixes with new

# Short Landing



# Sinking



- July 6 2013 FU Sheng Hai
- China Sea.
- Cargo of steel



.Atlantic Confidence 31.03.2013

- Sank Off Masirah.
- 11,980 tones of steel for Karachi of 700 million Rs.

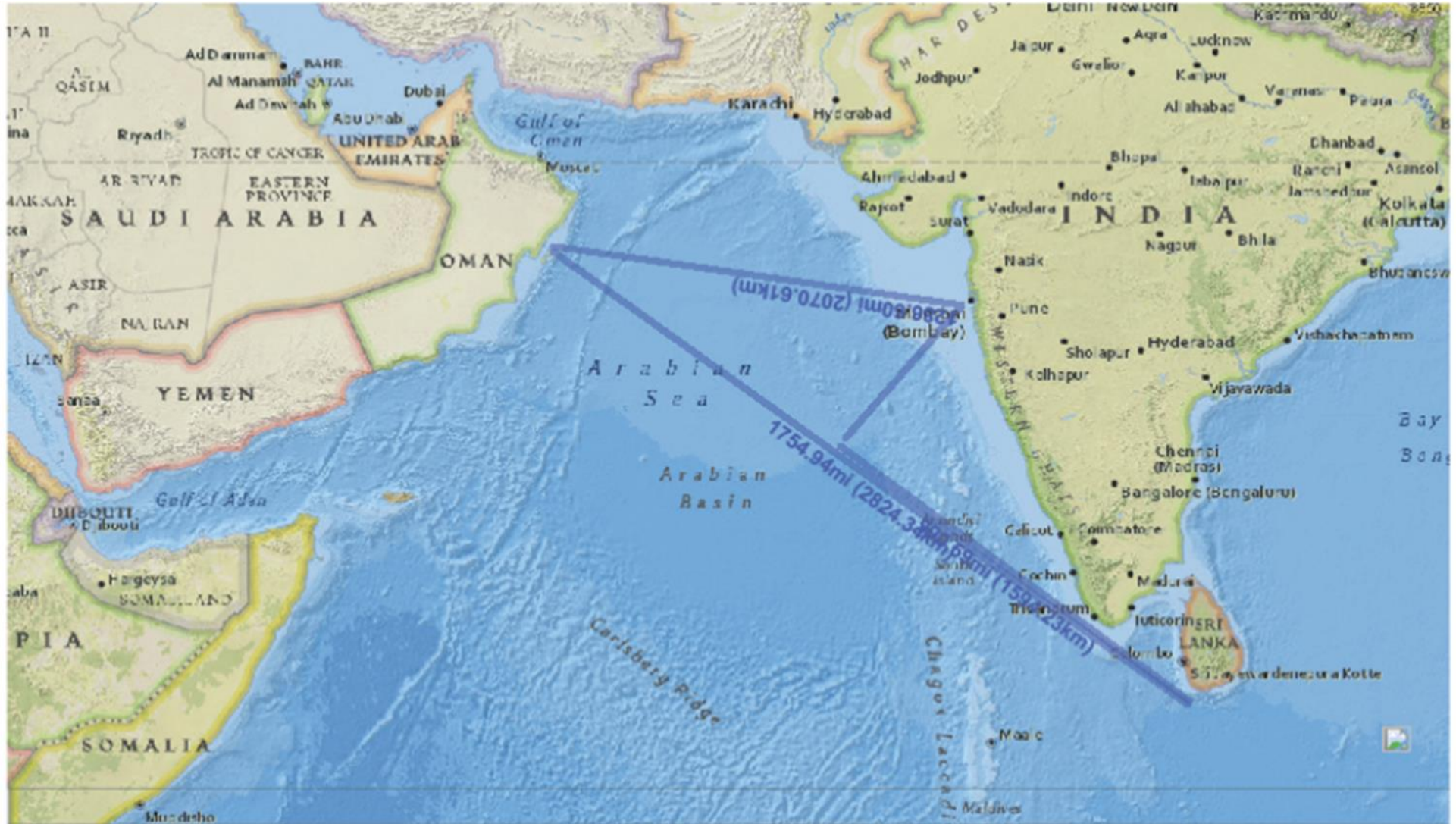
# Grounding



- 28.03.2003, ran aground in Karachi Harbor
- 67,535 tns Crude, over 27,000 spilled
- Smith Salvage removed the wreck
- General Average declared

## Tasman Spirit

# General Average Port of Refuge – the Concept



# Typical G. Ave. Calculation

Expense	PA	G.Av
Original Dist and time on Passage		1,524
revised distance/time		1,979
difference		455
Salvage Contract		100,000
Ship repair cost	350,000	
<b>detention in port 15 days for repairs</b>		
Fuel and stores	20,000	50,000
crew wages		60,000
Surve fee, Misc		100,000
over time		15,000
port Charges		50,000
misc stores etc		20,000
Toatal	170,000	395,000
<b>apportionment</b>		
Cost of Ship		6,000,000
Cargo 50,000 tons seed		15,000,000
		21,000,000
Contribution Of Ship	29	112,857.14
Contribution of cargo	71	282,142.86
Total		395,000.00
as percantage of cargo value		1.88%

Purely indicative

## Short Landing Dry Bulk Weighment

No technical means to determine the exact weight of a dry bulk cargo on a ship .

- Approximate weights may be found by space measurement on ship or by draught survey but none is accurate enough to verify shippers weight or loss in transit.
- The accuracy of shore weighing scale of bagged and bulk cargo is + - 0.2%.
- Conveyor weigh-belt systems are  $\pm 2.0\%$ .
- Draft Surveys are generally accepted as being accurate to + - 0.5%.
- Loss of moisture?

The problem arises when the B/L contains shore weighment and discharging could be a hybrid of shore weighment/draft survey

# Liquid Bulk Shortages; In general

- Oil shortage claims are based on B/L quantity and actual out turn at discharge Port.
- Both these figures are frequently derived from shore tank calibration data.
- Most Common argument;
  - The ship is bound B/L figures.
  - The shore tank calibrations are more accurate than the ship's tank calibrations.
  - The oil, if contaminated. has become so by water after loading or;
- Some oil remains on board the ship.

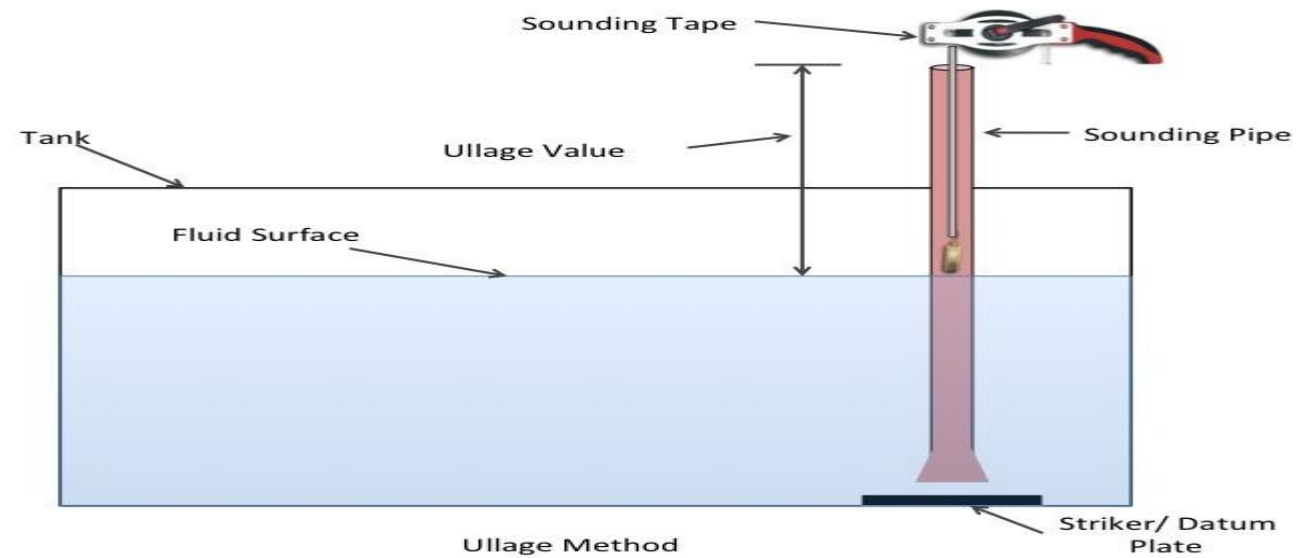
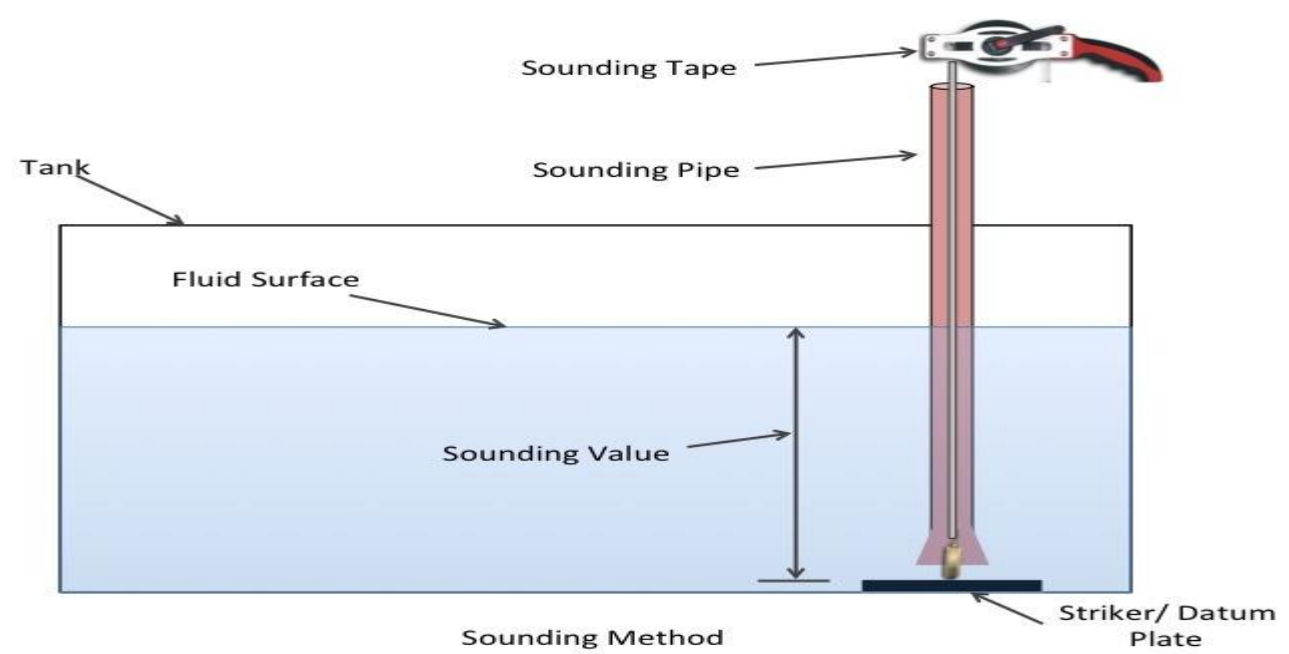
# Short Landing – Liquid Bulk

- Volumetric Measurement
  - Loading – discharging by flow meter
  - Ullage/density readings
  - Very fine density calculation – temperature
- Weight Measure
  - Draft survey
- Other Factors
  - Discharging order
  - Pigging
  - Length of pipeline. Live example
  - Tank certificate

Oil Tank

Volume  
calculation  
by

ULLAGE





# Arrival Ullage report of a ship



DISCHARGE PORT ULLAGE REPORT

SHIP TANKS NO. CORRECTED ULLAGES M OBSERVED CARGO TEMP. °C LOAD PORT DENSITY CORRECTED CUBIC METERS QUANTITY METRIC TONS

PRODUCT: RBD PALM OIL (ICOF PARCEL)

SHIP TANKS NO.	CORRECTED ULLAGES M	OBSERVED CARGO TEMP. °C	LOAD PORT DENSITY	CORRECTED CUBIC METERS	QUANTITY METRIC TONS
1 Port	2.005	54.0			
1 Stbd.	1.990	54.2	0.88740		
3 Port	1.575	54.5	0.88726	953.571	846.199
3 Stbd.	1.515	54.0	0.88705	956.746	848.883
5 Port	1.550	55.2	0.88740	1765.277	1565.889
5 Stbd.	1.525	54.0	0.88658	1768.404	1569.282
Ship Arrived Quantity as per Ullages				1770.304	1569.019
Ship Loaded Quantity as per Chief Officer				1771.241	1571.799
Total Lading Quantity (said to be)					7971.070
					7971.243
					7994.040
Draught		For'd : 6.05 M	Aft. : 7.35 M	Trim : 1.30 M	List : Nil

Actual Unloading sheet of Palm Oil.  
Note the difference in initial and final readings.

We the undersigned surveyors on behalf of our principals state that after completion of discharge of cargo we have checked the tentative shore received quantity and difference found as under.

Bill Of Lading Quantity (Stated To Be)	7,994.040	M. Tons
Tentative Shore Received Quantity	<del>7917.297</del>	M. Tons
Difference	(-) 76.743	M. Tons
Percentage	0.96	%

**CONCLUSION :**

Total Bill Of Lading Quantity	7994.040 Metric Tons
Total Shore Received Quantity	7934.352 Metric Tons
Total Shortages Quantity	59.688 Metric Tons
Percentage	0.75 %



*Thank You*