All of them

- EXW
- FCA
- FAS
- FOB
- CFR
- CIF
- CPT
- CIP
- DAP
- DPU
- DDP



Transport according to mode

- FCA ...
- If agreed the seller must contract for carriage on usual terms at the buyer's risk and cost
 - CPT CIP DAP DPU DDP
 - To procure the contract for the carriage, **if delivery placed is not precisely named**, it will be the seller choice
 - To comply with transport security rules

Transport according to mode



Transport according to mode

CFR CIF

- The seller must contract or procure a contract for the carriage of the goods at the agreed point of delivery or if agreed at any point of the port
- To know who is owner of handling means at the port of discharge is a criterion to choose the incoterm
- Unloading expenses at the agreed port of discharge might be at the charge of the seller when previously agreed
- Also applicable to CPT / CIP

Container shipment by sea / waterway

- Shipment key locations
 - Loading plant / warehouse place
 - Container terminal of the carrier at the port of departure
 - At the quay side of the port of departure
 - Carrier container terminal at the port of discharge
 - Place of delivery

Container shipment by sea / waterway



USEFUL BORDER CY / CY (CONTAINER YARD)



PORT TERMINAL FCA AND FOB



OF DISCHARGE AS AN
ANSWER

Case studies to review possible choice

Goods are packed

Packing

Shipment and export formalities

Pre carriage (sea / air / consolidation by road)

Terminal of departure / loading

Main transport

Minimum insurance, extra coverage

Port charges at destination, unloading

Post carriage

Clearance formalities, duties, taxes

Incoterms 2020 code 3 letters+ place name	Packing	Loading	Export clearance		Cost to logistic platform/ port charges /from departure	Loading on main transport		Unloading of main transport	Logisitc platform cost/ port of arrival	Post-carrigae	Insurance	Import clearance duties and taxes
						ultimodal transport, airway, ı						
	Seller	Buyer, support	Buyer, support		Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer
FCA	Seller	Seller	Seller	Seller/ Buyer	Seller/ Buyer	Acheteur/ BL on board possible	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer
СРТ	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller/ Buyer	Seller/ Buyer	Buyer	Buyer	Buyer
CIP	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller/ Buyer	Seller/ Buyer	Buyer	Seller ICC A or C	Buyer
DAP	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Buyer
DPU	Seller	Seller	Seller		Seller	Seller	Seller	Seller	Seller	seller including unloading	Seller	Buyer
DDP	Seller	Seller	Seller	Seller	Seller		Seller	Seller	Seller	Seller	Seller	Seller
						Lieu Maritime et flu	vial					
FAS	Seller	Seller	Seller	Seller		Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer
	Seller	Seller					Buyer	Buyer	Buyer	Buyer	Buyer	Buyer
CFR	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller/Buyer	Buyer	Buyer	Buyer	Buyer
CIF	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller/Buyer	Buyer	Buyer	Seller ICC C or A	Buyer

4- TRANSPORT MODES

Intermodalism to the customer

- Safety security
- Cost savings
- Reducing duplicate functions within the organization
- Rolling stock

The objective

 To maintain continuous flows throughout the entire transportation and transfer processes



Frédéric Gauthier

BY ROAD

Size and regulation

- Minimum is 2.44 m
- Maximum width 2.60 m for controlled temperature equipment
- 2.55 m related to other vehicles
- Maximum length Trailer 12 m
- Articulated vehicle 16.50 m
- Semi trailer 13.65 m
- road train 18,75 m
- public works vehicles 22 m



WEIGHT

Maximum Load 2 axles load 19t

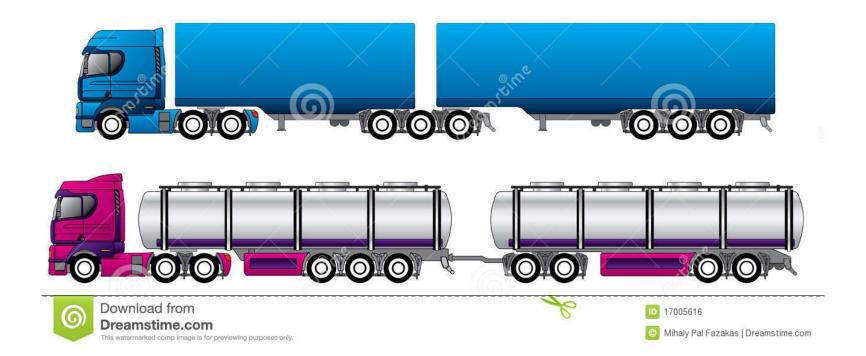
3 axles 26 t

4 axles 32t

Road train

5 axles or more 40t or 44t

2 axles + 2 axles 38t



Articulated vehicle

2 axles+2 axles 38t

5 axles and more 40t or 44t

Double Road train 40t or 44 t

Maximum load per axle

maximum weight on one axle 7,350 t

Engine axle: 13,15 t

Nota also depending on the distance between axles

still WEIGHT

Market conditions: kind of goods

- On pallets
- Containerized
- Bulk
 - not forgetting density
- Long size goods, large diameter, specific goods (hazardous, car industry ...)



Market conditions

distance, market and quantity

- Equipment in accordance with handling equipment
 - at departure
 - at destination
- According to requirements, constraints
 - city center delivery example
- Distance
 - long,
 - short
- Combined transport and roll on roll off
- Circulation conditions
 - geographic place,
 - way,
 - weather conditions

Offer conditions

Service frequency, overcrossing boarder transportation

Key information number of packages, weight, volume, sizes

Constraints: number of drivers per truck, drivers attending to handle, extra tasks (cash against delivery ...)

Customer access, shipping and delivery places (fixed or variable), speed ...

key to security

(heavy goods have to be secured)

Loading conditions

	Full length of the	Full width of the	Full height of the
	vehicle (a)	vehicle (b)	vehicle ©
Length of the package (d)	1=a/d	2=b/d	3=c/d
Width of the package (e)	4=a/e	5=b/e	6=c/e
Height of the package (f)	7=a/f	8=b/f	9=c/f

Loading conditions

And we calculate the matrix with: 1x5x9, 3x4x8, 5x3x7, 2x6x7, 4x2x9, 6x8x1

We integer the result to the upper digit

We have to fill remaining empty spaces

We have also to identify goods shipment constraints such as for instance we have to put in height sense of the package ...

With several goods, heavy density goods have to be loaded on the floor...

Pallets

Wooden, plastic, steel, corrugated

EUR, owner , expendable pallet, rented pallet

Possibility of exchange system

Pallets are included in the gross weight declaration of the shipment Security agreement needed as most of security problem in road transport are due to handling: loading and discharge

Road transport exceeding dimensions in France (example)

Category	Category 1	Category 2	Category 3
Gross comination weight rating (GCWR)	Less than 48t	Between 48 and 72 t	More than 72 t
Width	Less then 3 m	Between 3 and 4 m	More than 4 m
Length	More than 20 m	Between 20 and 25 m	More than 25 m

Under previous authorization

- Accompanying pilot and vehicle depending on the category :
 - more than 25m long with category 2

Picking (usually less than 3t) then receiving the goods and new shipment

Thanks to haulage vehicles

Star oriented network is frequent

Is usually managed by a consolidator and/or carrier

The network of several carriers is usually used to cover a wide territory such as France

Information tracking is crucial here

registration, control, identifying problems, proof to get in case of claim

the transport order than the transport receipt are the key starting points of information

Consolidation platform and disconsolidating platform

Document

date and signature

A routing tag sticked by the shipper is needed and might be supplied by the carrier (bar code to offer scanning at each step)

one for the shipper

one for the consolidation platform,

one for the transport invoice,

one for the arrival platform, for the consignee

Document



To check possible gaps between what is really on the platform and what has been registered (movements):

missing or exceeding quantities have to be inquired





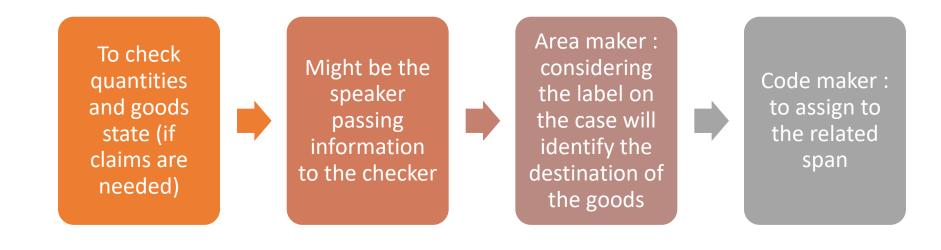
invoice copy, delivery receipt copy, transport order copy



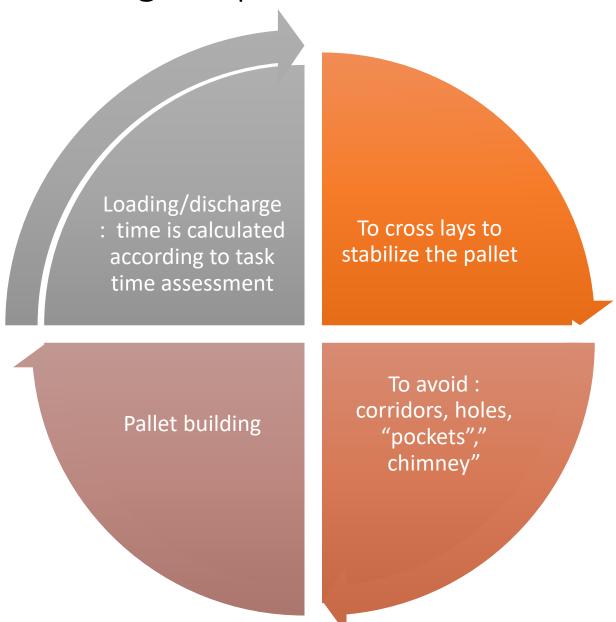
We can identify areas for:

quays, rod bay (travée de stockage),
non shipped goods bay,
preparation area,
maintenance area
(handling equipment ..),
storage bay,offices;

Handling steps, skills



Building the pallets



Example

Discharge and sorting goods

To take goods in the vehicle, put them on the floor (quay) to pile them up to take them with a hand pallet truck

Vocabulary

One shipment = one position = one transport receipt form

Productivity transport tour information

number of number of Tour number, driver name, customer positions, deliveries, departure time, , actual deliveries number of disputes about past actual positions, compared with customer pickups, claims, expected ones, information about non delivery to other difficulties customers,

Transport contract

The driver is obviously representing the carrier during the transport operation

What the carrier has to offer his customer:

Shipping time is usually about 30° mm as accepted

the empty vehicle is moved to the shipping place, preparation of the trailer for loading, and discharge, safe positioning of the vehicle, shim (caler) the bottom plate or landing legs of the trailer Other services have to be duly requested

The shipper obligations



- Packing, packaging and labelling
- A pallet which is the reason for a damage during the transport engaged the responsibility of the shipper
- To remit goods at the expected time and the expected quantity
- For more than 3 t loading the shipper is responsible for securing of the load
- The belt is supplied by the carrier but fixed by the shipper (sangle)

The carrier obligations



- The vehicle has to be adapted but the shipper has not to accept it either if it is not convenient
 - The vehicle is dirty inside (trailer)
- The driver has to inform before leaving whether the load is not satisfactory
- The driver has to check the security along the transport operation
- Transport time in France is 450 kms per day
- Delivery has to be made to the right consignee at the right place

Consignee

The contract is achieved when delivery is made to the consignee



The consignee is obliged to accept to discharge except if there is a risk to discharge considering the pallets are broken for instance ...



The consignee has the right to check outside and inside packages before signing document receipt

International road transportation contract

CMR convention: 55 countries

Management of contract related to road transportation against payment loaded and delivered in **two different**States with at least one country member of the convention

Example **Ireland** hasn't signed the CMR convention

Even related to a **subcontracto**r achieving a national part of the leg (consolidation example)

In case of claim, the proof of the contract is given by transport order, commercial offer, shipping instructions ...)

By the way CMR is applicable even without roadway bill

The CMR waybill has to be issued in 3 copies

CMR AVC-183 Code transporteur No Vervioendemoode Code Frachet/Vervi Nr NL 675232 2 Destinatore (nom, adresse, pays) / Geadresseede (naam, adres, land) Empflinger (Name, Anachvill, Land) Like prive over is firmson de is marchandise (leu, pays) / Plasts (besterd) voor de aflevering der goedene (plasts, isnd) / Auslieferungsort des Golles (Ort, Land) Liso ef date de la prise en charge de la manzhandise (lieu, paps, date) / Ploate en det. v. inonivangef-neming der goedenn (plaate, land, datum) / On und Tag der Übernahme des Gulles (On, Land, Datum) Réservée et observations du transporteur / Wortehoud en opmerforgen van de vervoorder Vorbehalte und Bemerkungen des Fracétibleurs 5 Documents annexés / Bigavoegde documentan Bolgofügte Dokumente 6 Manages of numbers / Market on numbers 7 Numbers on codes / Authol coll 8 Main Sections of Manages of Numbers of Number Non franco / Nes franco / Units
21 Etable à / Opgemaakt te
Ausgefertigt in le / de-am 15 Remboursement / Richardson 23 Linu / Plants in / de Ort am S-4vZ Signature et timbre de l'expéditeur / Handestening en stempel van de afzender / Unterechnit und Steripel des Absenders Signature et fimbre du transporteur / Handlekening en etempei van de vervoerder / Unterschrift und Stempei des Frachtführers

t Stichting Vervoerad 1070-3 51 07 89 Art. 3010 - Model IRU / Auteursrecht tel. 070-3 51 07 51 - BVA-bestellijn



SEAWAY

Key to international trade

80% of world freight

• 1500 billions dollars turn over

Geographical and strategic space

• Some corridors of a few miles wide

Sea network with regular routes

Key cross places

- Ormuz straight 11m
- Panama more than 18 m and Suez 23 m canals
- Malacca 25 m; Pas De Calais 20 m
- Due to
 - physical contraints
 - Such as winds, oceans flows, rocks ...
 - Political borders
 - Coastal itinerary

rld's 50 Busiest Container-Shipping Seaports in 32.5 31.7 23.1 22.9 17.0 16.8 14.7 14.5 13.3 123 11.9 10.0 Notes: How busy a seaport is depends on the unit of measure, and could 9.8 or value of shipments. The data displayed here are based on twenty-foot which is a metric of cargo capacity (volume). Values represent the total 8.6 including filled and empty TEUs. As such, the busiest seaports may not b 8,1 move the most cargo.

Inland waterway transport is limited

• In Africa, Australia and Asia ... except ...

Water transport picture

- Oceans and rivers
 - Seasonal use as far as rivers are concerned
- The most important rivers
 - Chang Chiang (6379 kms), Yang tsé Kiang (4672 kms)
 - Mississipi, Rhine, Amazon
- Oceans: 71% of world surface

Sea freight

- intercontinental
 - Trafic capacity and continuity
- Geaographical scale and density
- Heavy industries

Technical Innovations are Infrastructures

Expensive

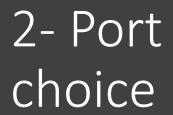
- locks to canals, transshipment capacities
- About speed : from 15 to 30 knots
- And saving energy : ships shape, material hull
- Engine : double propeller
- Automatisation : navigation : assistance system
- Specialization
 - Ships: bulk, breakbulk, containers
 - Routes

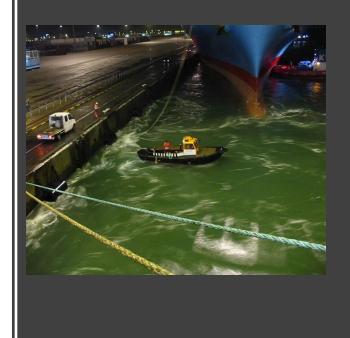
Sea transport

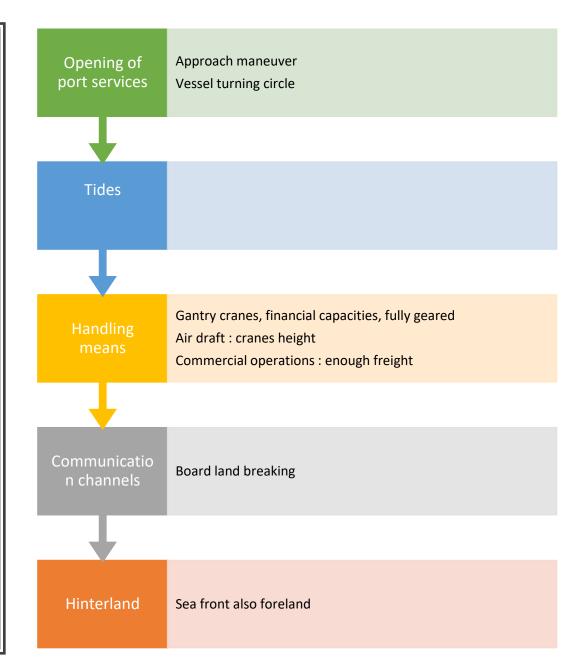
- The most economical transport mode
 - ▶ 1 I of fuel :312 kms by sea, 75 kms by truck
 - Turn over in 2020 : 2000 billions \$
 - But high investment
- Public sector
 - security, dredging, guiding /
 - private sector : terminals, ships, handling
- States influence
 - economical power, ships yards industry
- Flags of convenience
- Inland waterways : Volga, St-Laurent
- Trans continental connections
 - Energy
 - Sea mega firms
 - concentration

Flows organization

- Repetitive operation
- Flows
- Which volumes which products which period
 - At manufacturer premises
 - Intermediary stock
- Deliveries frequency
 - Volume and cost of transport
 - Fixed cost drop and inventory increasing cost
- Storage cost
 - Physical
 - Finance
 - commercial

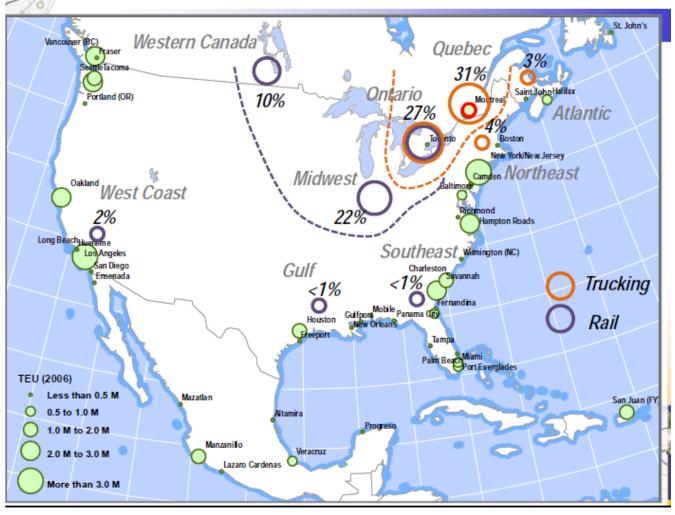








L'arriere-pays du port de Montréal



A range: several ports connected together



Main ports examples

Northern range : from Dunkirk to Hamburg North America seafront from St Laurent to Mexico Gulf Western seafront : From Puget Sound to California

Asian seafront : from Singapore to Korea



Feedering

Increases due to big ships and limited number of ports



2- Intermodal moves

Export shipping- one shipping document

Ocean shipping

Liner – charter

- On demand a given period
- Bulk and heavy

Type of cargo

- Conventional : oversized cargoes
- Container: to unitize cargo —loading and unloading



Crude oil tankers

Very large crude carrier 200,000 dwt* plus

Suezmax crude tanker 120,000-200,000 dwt

Aframax crude tanker 80,000-119,999 dwt

Panamax crude tanker 60,000-79,999 dwt

Dry-bulk and ore carriers

Capesize bulk carrier 100,000 dwt plus

Panamax bulk carrier 60,000-99,999 dwt

Handymax bulk carrier 40,000-59,999 dwt

Handysize bulk carrier 10,000-39,999 dwt

Container ships

Post-panamax container ship beam of >32.3 metres

Panamax container ship beam of <32.3 metres

000 tons load

Geared bulk carriers

- Feature **a series of holds** (from 5 for a 35,000 ton vessel to 9 for a 250,000 ton vessel)
 - They have cranes or derricks which allow them to discharge cargo in ports without shore-based equipment.
 - This gives geared bulkers flexibility in the cargoes they can carry and the routes they can travel.

Selfdischargers

 are bulkers with conveyor belts which allow them to discharge their cargo quickly and efficiently

Table 2.3: The average dimensions of different generations of container vessels.

Generation	Capacity in TEU	LOA (m)	Beam (m)	Draught (m)
First (1968)	1,100	(NA)	(NA)	(NA)
Second (1970–1980)	2,000-3,000	213	27.4	10.8
Panamax (1980–1987)	3,000-4,500	294	32.0	12.2
Post-Panamax (1988–1995)	4,000-5,000	280-305	41.1	12.7
Fifth (1996–2005)	6,400-7,500	300-347	42.9	14.0
Sixth (2006–2007)	8,000-9,000	330-380	47	14.5
Seventh (2007–2013)	12,500-15,000	380-400	58	15.0
Near future (2013–2014)	18,000	400	58	16.0

Source: OSC (2002) and Drewry (2011).

Breakbulk Vessels

carry non-containerized general cargo

As containerization proceeded, these ships were **forced off major trade routes** by more efficient containerships and ro/ro ships.

Today, breakbulk vessels remain in operation on secondary and tertiary routes.

FAS ISTANBUL

Capacity	At 14 T	450	Teus	G.R.T.	6638
	Total Intake	560	Teus	N.R.T.	3737
				S. DWT	9729
Speed	Service	14	Knots	L.O.A.	126.08
	Maximum	15	Knots	Draft	8.26
				Beam	18.6
				Geared	Yes
Charter Rate	8,314 \$			Cellular	No

Port	Dist			TIME	(hours)			Cumul		Port	
Name	Miles	Sea	Manouv	Wait	Berth	Port	Total	Days	Cost	Moves	Product.
DMT			2	0	46.7	48.7	48.7	2.0	3,540 \$	700	15
LPI	590	42.1	2	0	12.5	14.5	56.6	4.4	1,800 \$	150	12
CNZ	548	39.1	2	0	22.7	24.7	63.9	7.0	4,600 \$	250	11
ODS	173	12.4	2	0	27.3	29.3	41.6	8.8	12,000 \$	300	11
BRG	299	21.4	2	0	12.0	14.0	35.4	10.3	14,000 \$	120	10
LPI	478	34.1	2	0	11.7	13.7	47.8	12.2	1,800 \$	140	12
DMT	590	42.1					42.1	14.0			
Reserve											
TOTAL	2678	191.3 7.97	12 0.50	0 0.00	132.8 5.53	144.8 6.03	336.1 14.00	Hours Days	37,740 \$	1660	

Vess	sel Consumption (t/	day)		Voyag	ge Consumption		Bunke	er Price	
									Place
	FO 180 cst	DO		FO	DO		FO	114 \$	
Sea	17	0		135.5	0.0		DO	208 \$	
Man	8.5	1		4.3	0.5				
Port	0	1		0.0	5.5	Total	FO	15,931 \$	
			Total	139.7	6.0	Cost	DO	1,255 \$	

VOYAGE (COST SUMMARY		S	LOT COS	ST
CHARTER HIRE	116.437 \$	68%	%	Teus	Cost
BUNKER COST	17,186 \$	10%	100%	450	381 \$
PORT COST	37,740 \$	22%	95%	428	401\$
			90%	405	423\$
VOYAGE COST	171,363 \$		85%	383	448 \$
			80%	360	476 \$
YEARLY COST	4,466,103\$		75%	338	508\$

Specialized Vessels

- Tailored for certain functions such as transporting vehicles to overseas markets like those described under the heading of ro/ro.
- Specialized heavy-lift vessels are used to carry extremely large and heavy items.
- There are also customized ocean vessels for carrying livestock, and reefer containerships with plug-in facilities for maintaining low temperatures in fruit, vegetable and meat containers.





Combination Vessels



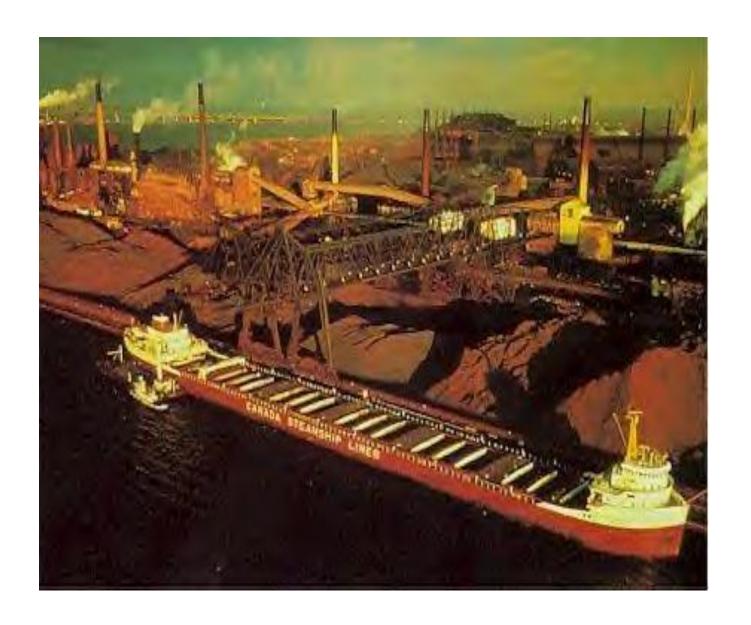




ARE DESIGNED TO TRANSPORT BOTH LIQUID AND DRY BULK CARGOES. IF BOTH ARE CARRIED SIMULTANEOUSLY, THEY ARE SEGREGATED IN SEPARATE HOLDS AND TANKS. COMBINED CARRIERS REQUIRE SPECIAL DESIGN AND ARE EXPENSIVE.

ARE OF NUMEROUS TYPES AND CONFIGURATIONS, INCLUDING RO/RO-LO/LO; THREE-WAY COMBINATION SHIPS FOR CONTAINERS, RO/RO AND BREAKBULK CARGO; AND LASH SHIPS FOR CARRYING COMBINATION CARGOS. AN UNUSUAL TYPE IS THE OBO (OIL/BULK/ORE), WHICH CARRIES BULK, OIL OR LIQUID PRODUCTS.

IN FINDING THE **SPECIFIC HYBRID SOLUTION** TO PARTICULAR TRADING
CIRCUMSTANCES, CARGO MIX AND
OPERATIONAL FLEXIBILITY MUST BE
EXAMINED IN TERMS OF PRICE
CHARGED, AVAILABILITY AND LOCATION
OF THE SHIP, OPERATING AND CAPITAL
COST DIFFERENCES, AND ANY
RESULTING CHANGE IN OVERALL VESSEL
PRODUCTIVITY



Gearless carriers

are bulkers without cranes or conveyors.

These ships depend on the shorebased equipment of the ports they visit for loading and unloading.

Due to their large size, they can only dock at the largest and most advanced ports.

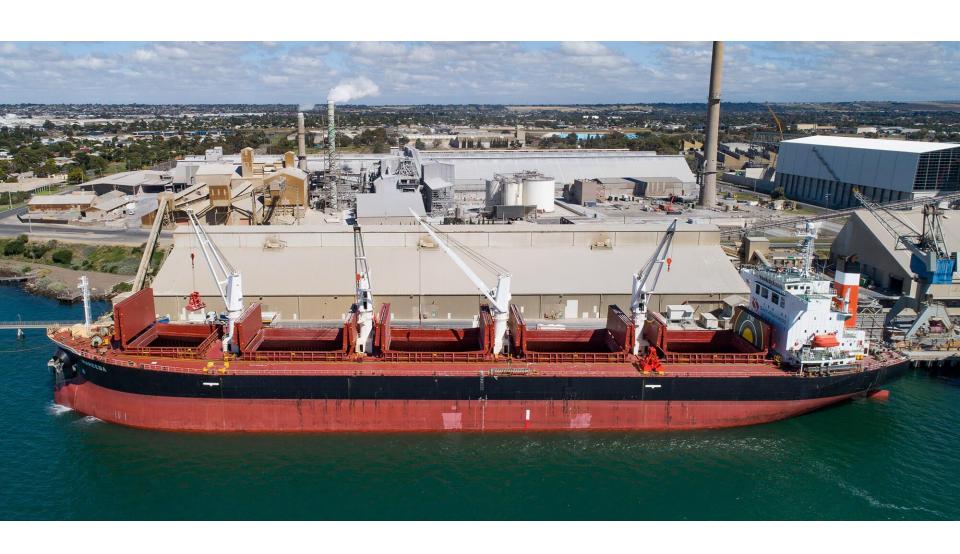
The use of gearless bulkers avoids the costs of installing, operating, and maintaining cranes.

Dry Bulk and Tanker Vessels

Bulk ocean vessels are constructed for transporting **basic commodities** like coal, grain, bauxite and iron ore, or primary products like wool and cotton.

Petroleum and other liquid bulk commodities and products are transported in vessels called tankers, specifically designed for these types of cargos.

In a few, but **growing** number of instances, bulk commodities are being **containerized** for carriage in containerships such as cacao and coffee.



BIBO or "Bulk In, Bags Out"

bulkers are equipped to bag cargo as it is loaded.

In one hour, this kind of ship can load and package 300 tons of bulk sugar into 50 kg sacks



Merchant oil tankers

- A wide range of hydrocarbon liquids ranging from crude oil to refined petroleum products.
- Their size is measured in deadweight tons (DWT).
- Crude carriers are among the largest, ranging from 55,000 DWT Panamax-sized vessels to ultralarge crude carriers (ULCCs) of over 440,000 DWT.
- Supertanker is an informal term used to describe the largest tankers. Today it is applied to verylarge crude carriers (VLCC) and ULCCs with capacity over 250,000 DWT.
- These ships can transport two million barrels of oil. Byoil consumption of Spain and the UK way of comparison, the combined is about 3.2 million barrels (510,000 m³) of oil a day.
- On the other end of the journey, they often pump their cargo off to smaller tankers at designated lightering points off-coast.

Containerships



Built	Name	Length overall	(m)	Length overall	(ft)	Beam (m)	Beam (ft)	
	Maximum TEU	J GT	Owner					
2015	MSC Oscar[1]	395.4	1,297	59	194	19224	193000	MSC
(Switzerland	l)							
2014	CSCL Globe[2]	400	1,300	58.6	192	19100	187541	CSCL
(China)								
2013	Magleby Maers	sk[3]	398	1,306	58	190	18270	174500
	Maersk (Denma	ark)						
2014	MSC Newyork[[4]	399	1,309	54	177	18270	176490
	MSC (Switzerla	and)						
2013	Madison Maers	sk[5]	398	1,306	58	190	18270	174500
	Maersk (Denma	ark)						
2013	Mærsk Mc-Kin	ney Møller[6]	398	1,306	58	190	18270	174500
	Maersk (Denma	ark)						
2013	Majestic Mærsl	k[7]	398	1,306	58	190	18270	174500
	Maersk (Denma	ark)						
2013	Mary Mærsk[8]] 398	1,306	58	190	18270	174500	Maersk
(Denmark)								
2013	Marie Mærsk[9	0]398	1,306	58	190	18270	174500	Maersk
(Denmark)								
2012	CMA CGM Ma	arco Polo[10]	396	1,299	54	177	16020	175343
	CMA CGM (Fr	rance)						
2013		exander von Hun	nboldt[11]	396	1,299	54	177	16020
	153022	CMA CGM (Fi	rance)					
2013	CMA CGM Jul		396	1,299	54	177	16020	153022
	CMA CGM (Fr	rance)						

Container

Includes any equipment used **to unitize cargo**, all types of containers and/or flats with iso accepted.

The acronym **ISO** stands for the International Organization for standardization with headquarters in Geneva.

The ISO freight container refers to a container complying with the ISO container standards in existence at the time of its manufacture.

In 1960's, export shipments often relied on conventional (break bulk) vessels. The cargoes were placed alongside a vessel for hoisting on board. The **stevedores (dockers) were often employed** to carry cargoes on and off the vessel.

Container inside dimension s

SEA CONTAINER SPECIFICATIONS

DRY CARGO CONTAINERS

Dimensions



	Container Weight				Interior Me	Door Open			
Type	Gross (kg)	Tare (kg)	Net (kg)	Length (m)	Width (m)	Height (m)	Capacity (m³)	Width (m)	Height (m)
20' DC 40' DC	24,000 30,480	2,370 4,000	21,630 26,480	5.898 12.031	2.352 2.352	2.394 2.394	33.20 67.74	2.343 2.343	2.280 2.280

CHARACTERISTICS

Manufactured from either Aluminium or steel, they are suitable for most types of cargo / general cargo. Aluminium containers have a slightly larger payload than steel, and steel containers have a slightly larger internal cube.

HIGH CUBE CONTAINERS

Dimensions



	Co	ntainer Wei	ght		Interior Me	Door Open			
Type	Gross (kg)	Tare (kg)	Net (kg)	Length (m)	Width (m)	Height (m)	Capacity (m³)	Width (m)	Height (m)
40' HC 45' HC	30,480 30,480	3,980 4,800	26,500 25,680	12.031 13.544	2.352 2.352	2.698 2.698	76.30 86.00	2.340 2.340	2.585 2.585

CHARACTERISTICS

With high cube containers, you gain an extra foot in height compared with general-purpose containers. Ideal for light, voluminous cargo or bulky cargo. These extra volume containers come in steel and aluminium.

REFRIGERATED CONTAINERS

Dimensions



	Container Weight				Interior Measurement				Door Open		
Туре	Gross (kg)	Tare (kg)	Net (kg)	Length (m)	Width (m)	Height (m)	Capacity (m ³)	Width (m)	Height (m)		
20' RF	24,000	3,050	20,950	5.449	2.290	2.244	26.70	2.276	2.261		
40' RF	30,480	4,520	25,960	11.690	2.250	2.247	57.10	2.280	2.205		

CHARACTERISTICS

Recommended for delicate cargo. Bottom-air delivery system ensures refrigerated cargo reaches its destination in optimum condition.

OPEN TOP CONTAINERS

Dimensions



	Co	ntainer We	ight		Interior Me	easuremen	:	Door	Open
Type	Gross (kg)	Tare (kg)	Net (kg)	Length (m)	Width (m)	Height (m)	Capacity (m³)	Width (m)	Height (m)
20' OT	24,000	2,580	21,420	5.629	2.212	2.311	32.00	2.330	2.263
40' OT	30,480	4,290	26,190	11.763	2.212	2.311	65.40	2.330	2.263

CHARACTERISTICS

Allowing cargo to be loaded from the top, open top containers are particularty suitable for bulky cargo such as machinery. They are fitted with a PVC tarpaulin cover and attachable bows with cable sealing devices. The container doors can be removed to make the stuffing of cargo more convenient. Manufactured from steel.

FLAT RACK CONTAINERS

Dimensions



	Cor	tainer Weig	Interior Measurement				
Type	Gross (kg)	Tare (kg)	Net (kg)	Length (m)	Width (m)	Height (m)	Capacity (m ³)
20' FR	30,480	2,900	27,580	5.624	2.236	2.234	27.90
40' FR	34,000	5,870	28,130	11.786	2.236	1.968	51.90

CHARACTERISTICS

Flatracks are especially suited to heavy loads or cargo that needs loading from the top or sides, such as pipes and machinery. There are collapsible and non-collapsible containers with or without walls. Manufactured from steel.

Load to prepare in a container?

- This order to Singapore is about
 - 800 products packed in 32 outer cases not stackable
 - To be loaded on euro pallets
 - Outer case
 - weight 565 kg
 - L 0.60 x I 0.40 x h 1.50 m
 - Europallet
 - 0.80x 1.30 x 0.15 m
 - Maximum load 2.5 t
 - Gross weight 30 kg
 - 20' container dimensions
 - as before
 - How many pallets do we need
 - How many pallets in a 20' container
 - Add any useful comment

The loading and unloading

vessels consumed too much time, which caused dockside bottlenecks and delayed shipments.

With the increased use of containers the congestion was decentralized and transferred from the docks or piers to the container freight stations or terminals.

Carry **standardized** containers that greatly facilitate the loading and unloading of cargo and intermodal transfers

The time a ship has to stay in a port is reduced

FCL / FCL (House to House), LCL/LCL (Pier / Pier)

to avoid disrupting points

goods protection

Suez Canal bridge











Suez max

Suezmax is a naval architecture term for the largest ships capable of transiting the Suez Canal fully loaded, and is almost exclusively used in reference to tankers.

The current channel depth of the canal allows for a maximum of 16 m (53 ft) of draft, meaning many fully laden supertankers are too deep to fit through, and either have to unload part of their cargo to other ships ('transhipment') or to a pipeline terminal before passing through, or alternatively avoid the Suez Canal and travel around the Cape of Good Hope instead. Currently, the canal is deepened to 20-23 m.

The typical deadweight of a Suezmax ship is about 150,000 tons and typically has a beam (width) of 46 m (151 ft). Also of note is the maximum head room -'air draft' - limitation of 68 meters,

Special containership

- The Panamax size ship: less than 294 m length and 32.20 m width
- In 1988: 292 m length, 32 m width for 4000 containers loaded
- Panamax is determined principally by the dimensions of the canal's lock chambers, each of which is 33.53 metres (110 ft) wide by 320.0 metres (1050 ft) long, and 25.9 metres (85 ft) deep. The usable length of each lock chamber is 304.8 meters (1000 ft). The available water depth in the lock chambers varies, but the shallowest depth is at the south sill of the Pedro Miguel Locks and is 12.55 metres (41.2 ft) at a Miraflores Lake level of 16.61 metres (54 feet 6 in).

Overpanamax ships



They are unable to cross Panama canal



In 1996 with overpanamax ships, their size reaches 320 m length, 43 m width for 7000 containers



The container ships used in the international traffic are designed with the cells (compartments with cell guides) resembling a honeycomb wherein the containers are placed, thus named cellular container ships. The ships are bigger and faster nowadays especially those used in the deep sea voyage



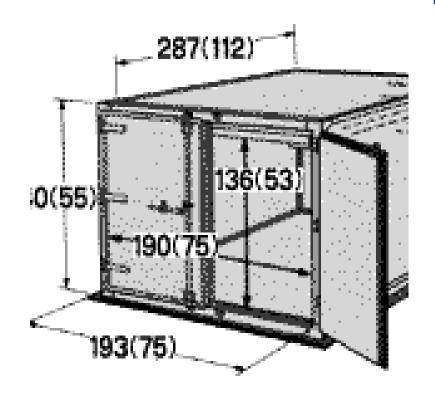
especially those used in the deep sea voyage (long haul). Those rated below 20 knots are commonly used in the short sea voyage (short haul. .

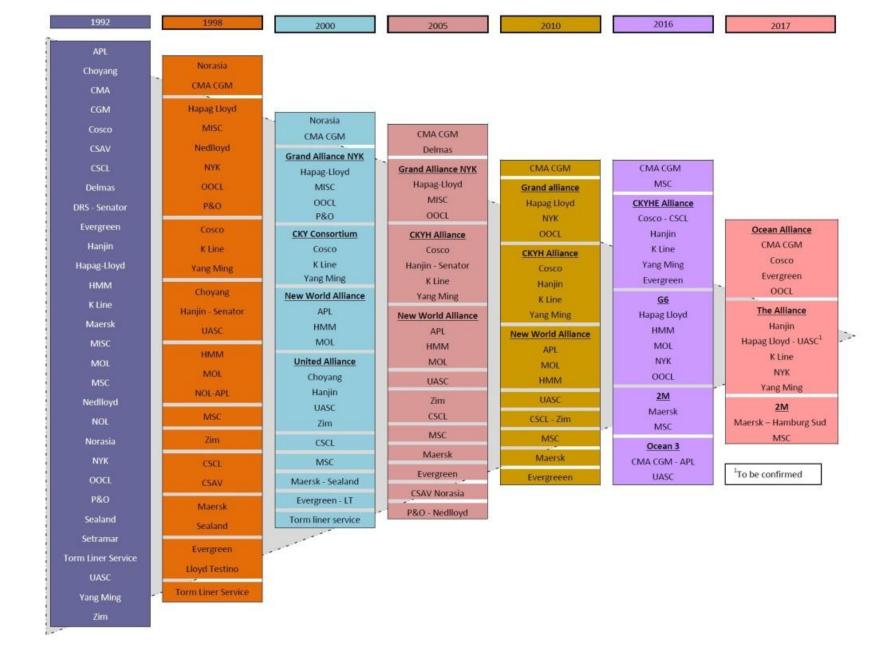


Some rated 24 Knots have a carrying capacity of 4000 to 4.900 TEUs and load to 75000 metric tons and more

TRANSPORT COST

- Sea freight
 - Alliances
- Freight calculation
 - Bulk
 - Container
- Road transport cost
- Asking for a quotation











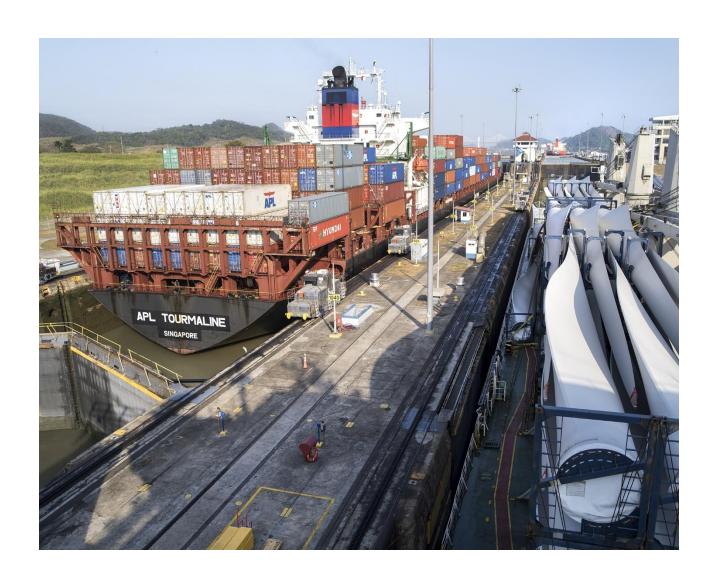
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he of nal ed

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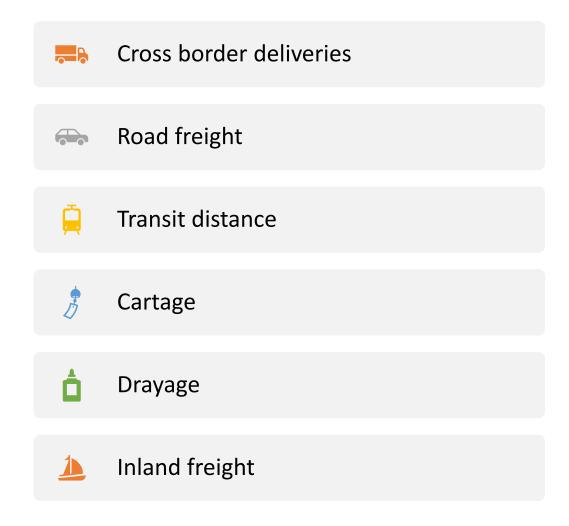




Still Panama

- 17640 EVP
- Toll \$1.3 millions

3-road freight



Cross border deliveries

the delivery of export goods between mainland European countries and between north American countries.

About 50 to 80% of cross border deliveries are completed using **road freight**.

Generally a **transit distance** within 100 kilometers using road freight is competitive compared to rail and air freight.

The delivery charge is called the **cartage** or trucking fee.

The hauling charge for transporting the ocean freight container on land, normally not including the loading and unloading of the cargo, is called **drayage**.

Together with waterway freight and rail freight they are known as **inland freight**.

4- RORO vessels

Trucks can drive onto built in ramps and roll off at destination.

The cargo on a trailer may be **accompanied** by a driver who completes the trip to the final destination,

or another driver continues the journey with the same trailer at certain juncture to the final destination,

or a subsequent carrier collects the cargo and trailer or the cargo only and continues the transit to the final destination such as in the case of a transshipment.

- Rail cars
- TOFC
- COFC
- Double stack train system
- Rail sidings

5- Rail freight

Rail freight

- Flat cars can be 40' to 89' long and trains can run at 120 kms. per hour.
- Some rail cars are specially designed to carry road trailers in a road rail service or TOFC (trailer on flat car) service, which is often referred to as the piggyback.
- In a COFC (container on a flat car) service for example using 50 flat cars each with a 60 ton capacity, the combined flat cars may carry loads weighing up to 3000metric tons, which is far more than a truck or an airplane can carry.
- The USA Canada and other countries have a double stack train system that moves more freight. The 80' feet and longer container flat cars may carry 8 TEUs when the ocean containers are double stacked.
- Large shippers who have rail sidings at their facility, may arrange directly with the rail carrier to have the rail cars moved to their facility for loading.

AVAILABILITY OF MODES

- Intermodal movements
 - Liner or tramp services
- Ocean shipping
 - Cargo
 - Bulk
 - General cargo
 - Vessels
 - Container ships
 - Breakbulk
 - BulK such as ULCC
 - RORO vessels
- Inland waterways
 - And LASH
- Road and rail



Shipper's choice

Pre and post carriage conditions

Transshipment

Transit time

Frequency

Security and safety

Available lines

2- Intermodal moves

Export shipping- one shipping document

Ocean shipping

Liner – charter

- On demand a given period
- Bulk and heavy

Type of cargo

- Conventional : oversized cargoes
- Container : to unitize cargo —loading and unloading

Geared bulk carriers

Feature a series of holds (from 5 for a 35,000 ton vessel to 9 for a 250,000 ton vessel)

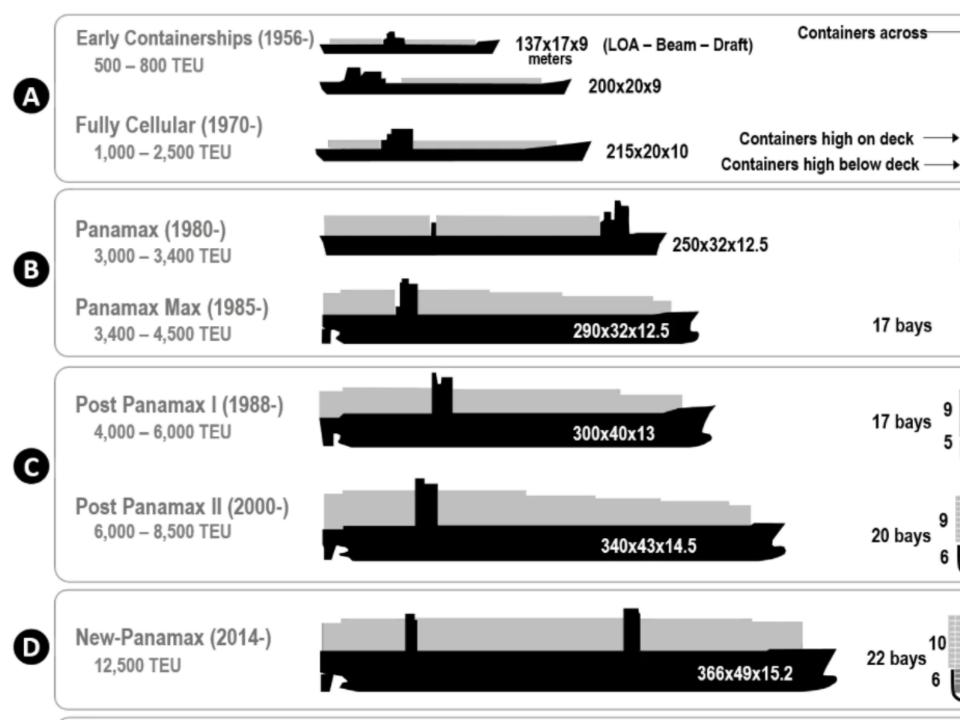
- They have cranes or derricks which allow them to discharge cargo in ports without shorebased equipment.
- This gives geared bulkers flexibility in the cargoes they can carry and the routes they can travel.

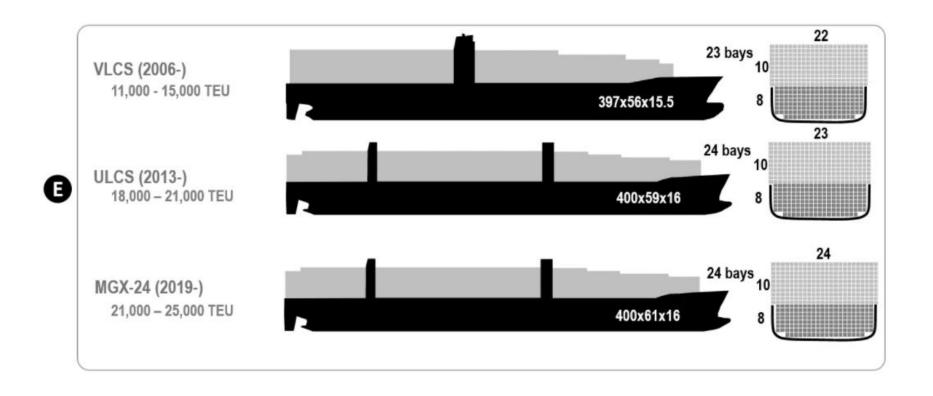
Selfdischargers

 are bulkers with conveyor belts which allow them to discharge their cargo quickly and efficiently

Special containership

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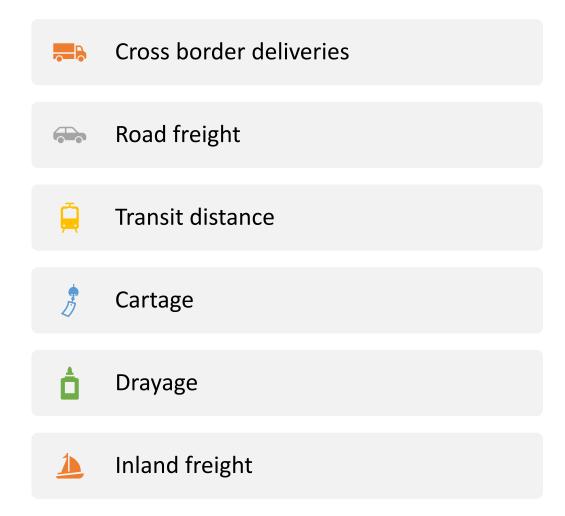


Geography of transport systems Jean-Paul Rodrigue

The time a ship has to stay in a port is reduced

- FCL / FCL (House to House),
- LCL/LCL (Pier / Pier)
- to avoid disrupting points
- goods protection

Road freight



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Charter contract

- Related products
- Utilization rate
- Charter party

Charter

- tramp
- Time period
- Bareboat charter contract

Ship owning charges

- Salaries of crew members
- Supplies
- Insurance

Ship choice

- A compromise
- Ship rent
- Offer and demand
- Size, capacity, speed
- Cargo gear for handling on board
- Useful and maximum capacity

Vessel stability parameters

consumption

Pavillion

Fuel choice

- Heavy fuel oil and diesel oil
- Quality charter of supplies

Contract deal

RE: M/V VESSEL NAME

WE ARE PLEASE TO OFFER FIRM ON THE ABOVE MENTIONED VESSEL FOR REPLY HERE DEC 31ST -1.00 HRS AM FRENCH TIME

- -NEGOCIATIONS TO BE KEPT STRICTLY PRIVATE AND CONFIDENTIAL NOT TO BE DISCLOSED TO ANY THIRD PARTY
- -DELIVERY: APS FOS SUR MER ATDNSHINC
- -LAYCAN: 27-28TH JANUARY 1997-00.00/24.00HRS
- -TC PERIOD: 6 MOS IN CHARTERS OPTION 6 ADD MOS, 15 DAYS MOLCHOPT ON FINAL PERIOD.

OPT FOR 6ADD MOS TO BE DECLARED 5 MOS AFTER ACTUAL DELY.

-TRADING : FULL MED INCL ADRIATIC, BLACK SEA, RED SEA ALWAYS WITHIN IWL

VIA

SAFE PORT(S) SAFE BERTH(S).

INTENTION WITHOUT COMMITMENT FOS SUR MER / BARCELONA /

VALENCE / GENOA / ALGIERS / ORAN AND MAYBE MAROCCO.

- -REDELIVERY: DOP ONE SAFE PORT FULL MED OR BLACK SEA OR RED SEA IN CHOPT.
- -HIRE: USD 6 100 -PDPRINCLOT
- -LESS: 3.5 PCT ADDCOM (PLS ADVISE TTL COM)
- -SUB DETAILS BASED ON CHRS ASBATIME EXECUTED PROFORMA
- -SUB CHRS BOD TO BE LIFTED 2 WORKING TIME DAYS AFTER FIXING MAIN TERMS END OF OFFER

COMMENTS

PLS BEAR IN MIND 'PRIM VIVID ' REPORTED ON THE MARKET FIXED FOR 6+6 MOS AT 6100 USD HAVING A MUCH LOWER SPEED OF 14.5 KN .THEREFORE ABOVE RATE IS MARKET LEVEL.

BETS REGARDS

contre-offre est la suivante :

Citation:

RE: M/V VESSEL NAME

THANKS TO YOUR OFFER TO WHICH OWNERS NOW REVERTING AS FOLLOWS:

WE COUNTE RAS FOLOWS FOR RPLY 10.30 HRS

ACC/EXC

M/V SUZANN -DETAILS AS BELOW-

- -LAYCAN 20/28 JAN
- -PERIOD 8 MOS-OPT FOR 6 ADD MOS TO BE DECLARED 4 MOS AFTER ACTUAL DELY
- -REDELIVERY -DOP ONE SAFE PORT FULL MED
- -HIRE: USD 6550-1ST PERIOD -USD 6650 2ND PERIOD
- -SUB ALL FURTHER DETS.

LATEST POSITION -ETS SKIKDA ARND 13/14 JAN

COMMENTS:

IN ORDER TO SPEED UP DID VERY BEST TO MEET CHRTS BEST POSSIBLE THE SHIP SAILED CAEN LAST NITE FOR DISCH 4 PORTS ALGER - SO PLS DE BEST AND OBTAIN THE ABV REQUIRED LAYCAN AND RVT BEST CLOSEST POSSIBLE-

DETAILS M/V SUZANNE HAS BEEN SENT BY PREVIOUS FAX.

Fin de citation

Main terms

Counter offer

Usually 48 hours

Broker

Time agreement

Sea transport market Tanker freight rates

Dry bulk freight rates

Concentration in liner shipping

Container leading operators

Freight rates

W/M weight or measure

Comparative relation

Sea freight

Charge basis

Metric ton

Units of weight or measure used in the freight cost calculation

Mode of transportation

• Weight - measure

Weight or measure

- The freight rate on export goods is often based on W/M weight or measure that is based on the weight or the volume of cargo (cube or measurement of cargo).
- The rate uses the **comparative relation** between weight and volume of cargo.
 - A cargo that is large in relation to its weight is charged according to its total cube, while a cargo that is heavy in relation to its size is charged according to its gross weight.
- The unit of ton being used in freight cost calculation may differ among carriers.
 - A metric ton (2204.6 lbs or 1000 kgs),
 - A short ton (2000 lbs or 907 kg)
 - Or a long ton (2240 lbs or 1016 kg)

Weight or measure 2

Mode of transportation	weight	measure
Ocean freight	1 MT 1000 kg	1 CBM 35.3 CU FT
AIR FREIGHT	1 MT 1 KG 1 LB	6 CBM 6000 CU CMS 166 CU INS
ROAD AND RAIL FREIGHT	1 MT 1 KG 1 LB	3.3 CBM 3300 CU CMS 91.3 CU INS

Measure unit

MT metric ton

Kg kilogram

Lb pound

Cbm cubic meter

Cu cms cubic

Cu ft cubic feet

Cu ins cubic inches

Sea freight





Agreement

Group of operators of vessel

Most ocean freight



Service

Guarantee

Independant carrier
 Sailing schedules and freight rates

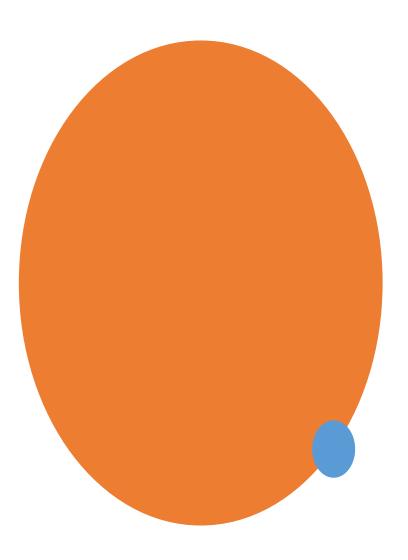


this is a **group of operators of vessel** who operate on the same routes and cooperate on shipping schedules at the standardized freight rates between ports.

Most ocean freight is carried by conferences.
 Conference carriers or their agents issue an ocean bill of lading.

SERVICE

- this service is a guarantee :
 - of ships good condition,
 - of expected dates of departure even if there is not enough freight to fill the ship.
 - All companies member of a conference will offer same freight rates and will grant same rebates on freight rates for all customers



Sea freight

- Attractive freight rates to fill their ships
- World service
- Pools
- consortiums

POOLS

- considering huge investments needed to build and to run big ships like container ships or tanker ships, some companies buy together these kinds of ship.
- CONSORTIUMS: COMPANIES CREATING A POOL, GO FURTHER AND CREATE A COMMON COMMERCIAL SERVICE TO FIND FREIGHT: FOR INSTANCE SCANDUTCH OR TRIO ...
- Strategic alliances are powerful (except MSC) but unstable

Freight calculation

- ► Volume of freight on a given route
- ► Kind of cargo
- ► Bulk transport cost
- Case sample
- ► Container transport cost
 - ► Flat rate
 - ► Positoning cost
 - ► Loading cost
 - ►FCL versus LCL
 - ► Full payload







WHEN AN EXPORTER CONTACTS THE CARRIER FOR THE FREIGHT RATE THE INFORMATION NORMALLY REQUIRED OF AN EXPORTER IS THE KIND OF CARGO AND ITS

INTENDED



CONSIDERING VOLUME AND WEIGHT OF A SHIP, THE FOLLOWING **EQUIVALENCE IS** ACCEPTED: 1 CBM = 1 TON



BULK TRANSPORT COST



COMMODITIES NOT SHIPPED THROUGH A **CONTAINER ARE** CONCERNED.



THE HIGHEST WILL BE **KEPT TO CALCULATE** FREIGHT COST.



FOR INSTANCE, A SPRAYING DEVICE IS MEASURED BY: 7 CBM AND 3 TONS, WHAT WOULD BE THE UNIT **KEPT FOR THE CALCULATION?**

CONTAINER TRANSPORT COST

- a flat rate is calculated for each container, taken into consideration :
 - the link,
 - nature of the goods,
 - offer and demand situation (by instance Singapore).
 - We will not fail to add the positioning cost (transport from the container pool to the shipping place), transport to the shipping port, surest Aries (if the container needs more than 4 hours to be loaded and to clear the goods),
 - **loading cost** at the port of departure, disloading cost at the port of arrival.
 - In case you have different kinds of goods in the container, a bulk tarification will be applied.

Freight calculation

LCL freight rate

Carrier's container freight rate

Container freight station

Example

Risk of damage and loss

CY versus CFS

- Company yard
- Container freight station premises legal limitation

CY/CY-CY/CFS- CFS/CY-CFS/CFS

Turn over rate of containers

 24-48 hours – demurrage-substatial amount of business **FCL** the whole container is intended for the consignee.

The FCL means the load reaches it allowable maximum of full weight or measurement.

However the FCL in the ocean freight does not always mean packing a container to its **full payload** or full capacity.

- CY versus CFS
- The **company yard** is the delivery or receipt of a whole container from or at shipper's or the forwarder's or the consignee cargo yard or premises.
- The Container freight station is operated by the carrier for the receipt, forwarding, and assembling or disassembling of cargo:
- The kind of cargo and quantity does not warrant the use of a whole container
- The shipper's or the consignee's premises are inaccessible by container due to poor road conditions or
- The overall load of vehicle exceeds the legal limitation
- CY/CY: door to door or house to house container service
- CY/CFS : door to port container service
- CFS / CY : port to door container service
- CFS / CFS : port to port container service or pier to pier container service

- Turn-over rate of containers
- The carrier allows the shipper to retain (hold) the container at their premises normally for 24-48 hours only, in order to maximize the turn rate of the container.
- An overtime use charge, know as demurrage, is collected on overstayed containers.
- In special cases such as when the shipper or consignee is doing a substantial amount of business with the carrier, some carriers may allow a longer time without charging demurrage.

Freight calculation



In roll on roll off shipment



Adjustments

BAF - CAF

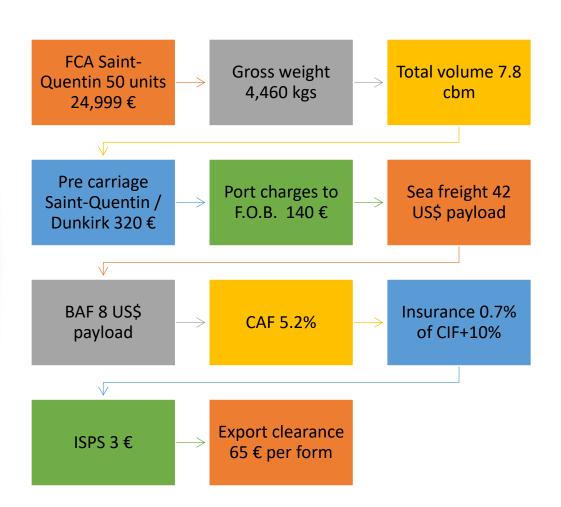
Sea freight basis

Possible rebate

• Fidelity – promise

- In roll on Roll off shipment (you load the trailer directly in the ship)
 - A METER COST WILL BE APPLIED.
- Adjustments
- **B.A.F.**: BUNKER ADJUSTMENT FACTOR WILL BE APPLIED BY INSTANCE IF OIL PRICE INCREASED DRASTICALLY,
- C.A.F.: CURRENCY ADJUSTMENT FACTOR WILL BE APPLIED FOR INSTANCE IN CASE OF DROP OF US DOLLAR AGAINST EURO ...
- THESE ADJUSTMENTS ARE CALCULATED ON SEA FREIGHT BASIS.
- Possible rebate
- YOU CAN BENEFIT OF FIDELITY REBATE WITH MOST OF CONFERENCE SERVICE FROM 8 TO 9.5% OF FREIGHT COST.
- ANOTHER REBATE CAN BE MADE AVAILABLE FOR **A PROMISE** TO USE A COMPANY OR A SERVICE. THE RESULT IS TO GET REDUCED FREIGHT RATES HOWEVER VOLUME NEEDS TO BE SIGNIFICANT.

Freight calculation CIF Kaoshiung

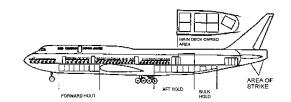


Air shipping

- Developping countries
 - Ineffective to protect
- International airfreight
 - And concentration
- Developping airfreight
 - U.L.D. ex. 317.5x243.8x299.7cm
- Commodities using air transport
 - Expensive value
 - Fragile
 - Perishable
- Sea air

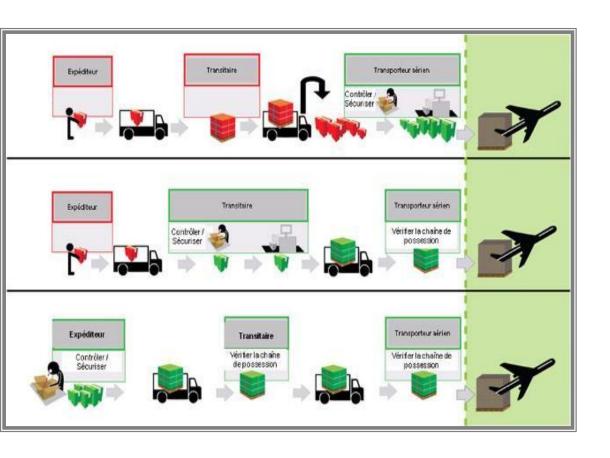


Air Shipping

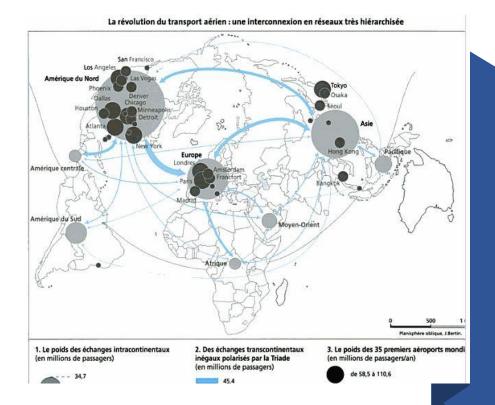


- Cargo handling at airports
 - Traditional airports
 - Freight for domestic flights
 - Freight for international flights
 - Terminals and equipment
 - International shipment
 - Classification of handling equipment
 - Intermodal air surface containers
 - Small package express equipment
 - Intermodal airports and equipment





A CONNECTION IS NEEDED



A POLARISED CONNECTION

AN INCREASING KEY ROLE

- 4%OF GOODS CARRIED WORLDWIDE
- however...
- 10 % OF VALUE...



IATA CONVENTION



- Conventions
 - IATA
 - OACI
 - DGAC IN FRANCE
 - EU REGULATION
- alliances

IATA CONVENTION

- Conventions
 - IATA
 - Some agreements are outside iata convention: bilateral or by governments
- Deregulation in the U.S.
- Outsiders increasing development



IATA CONVENTION

- Alliances
 - Skyteam example
 - Air france



A FREE SKY

- FLIGHT RIGHT
- TECHNICAL RIGHT
- TERRITORY OF ORIGIN
- THIRD STATE TO THIRD ONE

INTERNATIONAL REGULATION OF AIR TRANSPORT

INTERNATIONAL REGULATION OF AIR TRANSPORT

- Overflight rights
- To land in an third part country for technical reasons
- To drop off passengers or freight in a third country coming from the departure country
- The same when the country of destination is yours
- Or from one third country to another one, one needs to be member of the convention

A FF

INTERNATIONAL REGULATION OF AIR TRANSPORT

- OACI
 - navigation AND MANAGEMENT USE OF WHAT DOES FLY
- NON GOVERNMENTAL ORGANISATIONS: IATA et ATAF
 - IATA
 - International Air Transport association
 - TO PROMOTE TRANSPORT
 - TO SUPPORT AIR TRANSPORT DEVELOPMENT
 - PARTNERSHIP WITH oaci
 - ATAF
 - ABOUT Franc ZONE

INTERNATIONAL REGULATION OF AIR TRANSPORT

- Dgac example AUTORISATION IN FRANCE
 - RESPONSIBLE FOR SECURITY AND SAFETY
 - infrastructures
 - TRAININGS: pilots AND AIR CONTROL STAFF
 - PREVENTION OF NEGATIVE IMPACTS

International transport regulation

Contents

- Ability to be air carrier
- Air carrier certificate
- Licence authorisation
- Autorisation to carry

Air transport regulation

Changing points

- Transport documents: A.W.B. But not only, substitution transport
- Carrier responsability
- Damage during transport
- Exoneration responsability of the carrier: nature, inherent vice to the goods, packaging, public authority act
- Maximum indemnity
- Responsability for delay

About the demand

Varsaw convention, Montreal (successive carriage, 19 SRD per kg but excluding freight cost including commission)

Deregulation

- US
 - Collapse in freight rates together with stopping some lines
- EU
 - Eu license and State members limits

Demand

- Per ton or per loading unit: 1 t=6 cbm
- Expected traffic: +4% per year till 2030

EXAMPLE: France / other countries worldwide: more than 1 287 937 TONs

DEMAND

First approach, difficult connection with other transport modes packing

Bulk

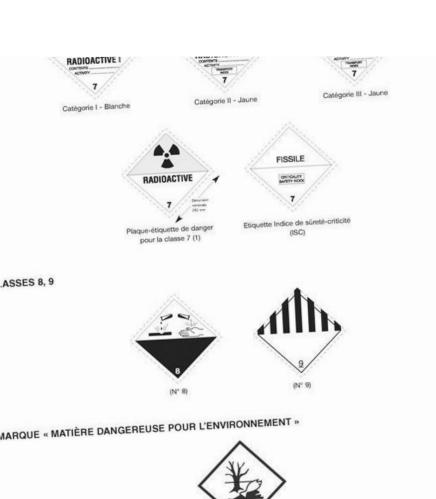
Container

Consolidation

Express parcel

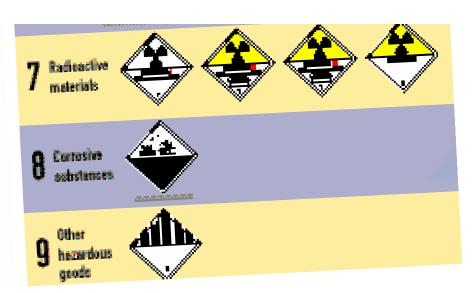
Integrated service

Concentration and alliance, cargo 20% of air traffic









LASSES 4.1, 4.2, 4.3







CLASSES 5.1, 5.2





Masses magnétisées



110 mm x 90 mm

Étiquette batterie au lithium



120 mm x 110 mm

Liquides cryogéniques





Avion cargo uniquement



120 mm x 110 mm



120 mm x 110 mm

Sens de chargement Jautre possibilité d'étiquettel,



Air freight security

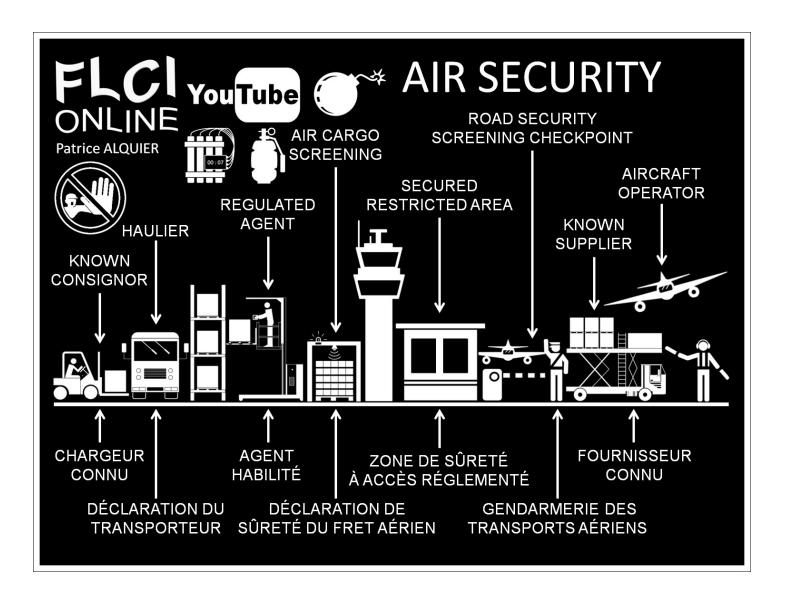
Key

- X-raying control
- Approved control companies
- Known consignor agreement is needed

Air freight security

Key

- The cost increases without known consignor
- Includes also the need for an approved agent
- Specified goods, obligation of knwon consignor



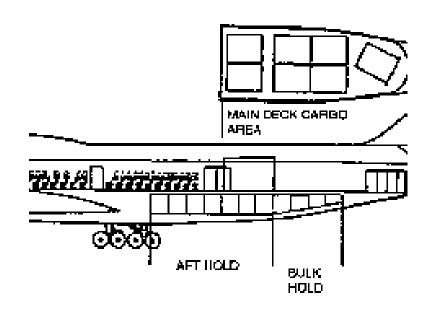
Technics

- An aircraft is identified: Name, address, NATIONALITY
- COMBINED AIRCRAFTS
 - LUGGAGE AND POST PARCELS ARE A PRIORITY
 - Airbus a300b AND b747 combi
- ALL CARGO AIRCRAFTS
 - MAIN DECK AND UNDER DECK
- COMBINED PLANES EXAMPLES
- SHORT, MEDIUM, long SERVICES
- SOME dc3 a 2,3 t TILL antonov 125 AND a380 Ao 150 t of freight



Technics

- Substitution transport
 - Competitive advantage
- products
 - Bulk, CONTainer, consolidation, express parcel, integrated service
- World fleet
 - Air companies
 - AIR France KLM, JAPAN AIRLINES, LUFTHANSA, KOREAN AIR



Technics

Competitivity

- AIR France TRANSIT HUB IN ROISSY
- Tracking
- Issuing and control efficiency of the air transport document

Distributors

- 94% market share = air forwarding agent
- The 5 first companies62% of total turn over



AIR FREIGHT

LOADING

- NON DIVIDED CARGOES
- GENERAL CARGOS

Unit loading devices

 Time to pack diverse packages together

Full loads

- On pallets or full containers
- Real drop in freight rates



AIR FREIGHT

10 or 20' pallets

- Aluminium made
- Safety cage
- 16 to 24 mm deep
- Util volume till
 5,92x2,3x2,35 i.e.
 one container
- till 28 850 kg



To sum up

- Under deck container
- Deck container
- Pallets with securing package



handling

- U.L.D. LOADING
 - By the neck, by the deck gate, by a rear door, by an under deck gate
- Honrizontal loading
- Airport choice

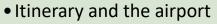


Airport infrasgtructures

- Handling air stations
- In bond warehouses and regular warehouses
- Landing lines

Leading cargo airports

HK, Memphis, Shanghai, Séoul, Anchorage, Paris, Francfort, Dubai, Tokyo, Louisville



- Companies and aircrafts
- Technical constraints : goods and plane



Constraints

Air lines

 Attached services: more and more haulaGe, storage, marking...

Forwarding agents

- Approved IATA (AWB)
- Approved DGAC (security)
- Clearing agent

Handling companies

- Handling, storage
- Freight safety

integrators

Door to door service





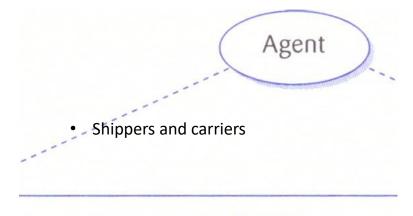
Achievement

proof

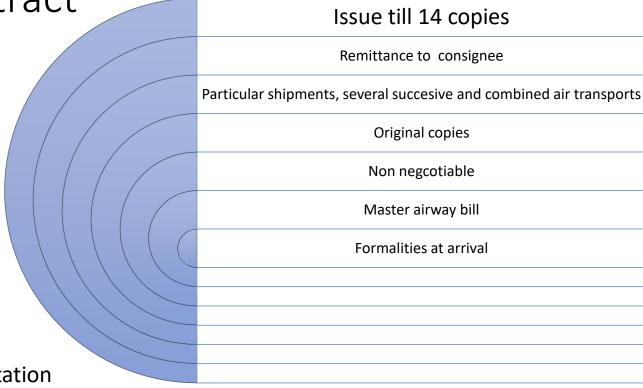
Carrier responsability

Intermodal transport

- Air forwarder
 - Promoting and selling air freight, to pay for
 - mandatory
 - forwarder
- ataf agent
- Exclusive air way bill
 - Air company chosen by the agent

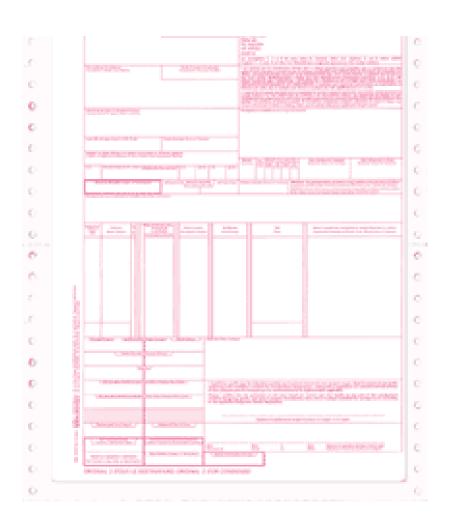






- House Airway Bill
- Exclusive AWB
- International transportation

- The Airway bill
 - Boxes
 - Transport contract proof
 - This not an ownership proof of the goods
- Useful as
 - Instruction document
 - Accompanying document
 - An invoicing proof
- copies



- Shipper
- Cannot be to order
- Flight and successive TRANSPORTS
- Declared value
- Insurance value
- Attached documents
- pricing

Value according incoterm

Boxes

COPIES

- Original copies : carrier, shipper, consignee
- Delivery receipt
- Airport of destination
- Other carriers
- Issuing carrier

• INSTRUCTIONS FORM

hipper's Name and Address	Shipper's Accou	nt Number	Not Negotiable	SOUTH	AFRICAN			
lavin as Chinnav		Air Waybill	ALRWAY	SOUTH AFRICAN				
lario as Shipper			SOUTH AFRICAN AIRWAYS					
7 Home address			South Africa Cooles 1, 2 and 3 of this Air Waybill are originals and have the same validity					
onsignee's Name and Address	Consignee's Acco	ount Number	It is agreed that the goods described herein are accepted in apparent good order and					
	100000000000000000000000000000000000000	***********	condition (except as noted) for carriage SUBJECT TO THE CONDITIONS OF CONTRACT ON THE REVERSE HEREOF, ALL GOODS MAY BE CARRIED BY					
Mario as Consignee			ANY OTHER MEANS INCLUDING ROAD OR ANY OTHER CARRIER UNLESS SPECIFIC CONTRARY INSTRUCTIONS ARE GIVEN VIA INTERMEDIATE					
88 The street			STOPPING PLACES WHICH THE CARRIER DEEMS APPROPRIATE. THE SHIPPERS ATTENTION IS DRAWN TO THE NOTICE CONCERNO, CARRIER'S LIMITATION OF LIABILITY. Shipper may increase such limitation of liability by declaring a higher value for carriage and paying a supplemental charge if required.					
Marine Paris								
suing Carrier's Agent Name and City			Accounting Information					
emo Agent 2 Rivonia Rd			THIS IS A KNOWN SHIPPER - KNOWN SHIPPER CERTIFICATION NUMBER: 112233445566					
andton			22.1.2.2.3.110.110					
genits IATA Code	Account No.		23					
irport of Departure (Addr. of First Carrie	r) and Requested Routi	ng	Reference Number	Optional Shipping information	on /			
R. TAMBO INTERNATIONA	L JNE	97	KING NUMBER STATE					
By First Carrier Routing and De	stination to by	to by	ZAR DE PRO COLUMN	ther Declared Value for Carriage	Declared Value for Custo NVD			
Airport of Destination	Requested FI	light/Date/	XX	URANCE - If Carrier offers Insurance	A STATE OF THE STA			
EATHROW, GB			NIL req	uested in accordance with conditions ured in figures in box marked 'Amoun	thereof, indicate amount to			
andling information	1		4					
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o. of Gross Weight kg Rate Class eces Comm	odity Weight	Rate	Total		Quantity of Goods raions or Volume)			
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0.00 Valuation Charge	/							
Tax /								
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Total Other Charges Due				face hereof are correct and that i such part is properly described by				
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		43	Signature of Shipper or his Agent					
Total Prepaig/	Total Collect		og date	- mayor or manyors				
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LIABILITIES

SHIPPER LIABILITY

- OBLIGATIONS: to pack and to mark, information, to pay the price
- DUTIES

Liabilities for

Loss

Delay

Responsability exoneration

Claim against the carrier

Responsability limit

Insurance

Property transfer

FCA SALE

CIP SALE

DAP AND DDP SALES

INSURANCE OF CARRIER LIABILITY

CLAIMS TO THE INSURANCE COMPANY

PRICING

PRICING

COMMON

- ACCORDING TO WEIGHT CLASSES
- PAYING FOR

SPECIAL RATES

- Co rates
- Class rates
- PRICES PER LOAD UNIT, pivot weight and maximum weight

PRICING

OVERCHARGES AND OTHER COSTS

- TEMPORARY: bunker, Security tax
- ATTACHED COSTS : AWB tax, security tax, Ad valorem and treatment tax
- CODES

EXTRA COSTS

- AC ANIMAL CONTAINER
- AS ASSEMBLY SERVICE FEE
- AW AIR WAY BILL FEE PACKAGING
- CD CLEARANCE AND HANDLING DESTINATION
- DB DISBURSMENT FEE
- DF DISTRIBUTION SERVICE FEE
- GT GOVERNMENT TAX
- LA LIVE ANIMALS

EXTRA COSTS

- MAI MISCELLANEOUS DUE AGENT
- MC MISCELLEANEOUS DUE CARRIER
- RA DANGEROUS GOODS SURCHARGESD SURFACE CHARGE DESTINATION
- SI STOP IN TRANSIT
- SQ STORAGE ORIGIN
- SP SEPARATE EARLY RELEASE
- SS SIGNATURE SERVICE
- SU SURFACE CHARGES
- UH ULD HANDLING

TRANSPORT ORGANISATION

CONSOLIDATION

- INTEREST
- MODALITIES



AIR FREIGHT CHARTERING

SECURED PAYMENT WITH AIR FREIGHT

COMMERCIAL INVOICE

CASH AGAINST PAYMENT

LETTER OF CREDIT

Shipper advantage

POSTAL PARCEL

- WHAT IS AT STAKE WITH EXPRESS SERVICE 0 to 30 kg
- TRADITIONAL SERVICE
 - SERVICES
 - WEIGHT AND dimensions
 - DELAY
 - CLEARANCE

5 -	Nom			Procédure simplifiée postale n° (facultatif)					TION EN DOU	
	Société						N° de l'envoi (code à barres, s'il existe). Peut être ouvert d'office			
	Adresse									
-	Code postal Ville									
	FRANCE									
Jestinataire	Nom									
	Société									
	Adresse	Adresse					Référence de l'importateur (code fiscal/n° de TVA/code de l'importateur/procédure simplifiée postale n°) (facultatif)			
	Code postal	Ville					N° de téléphone/fax/e-mail de l'importateur (si connus)			
	PAYS									
	Description détaillée du contenu (1) Quantité			Quantité ((2) Poids net (en k		(g) (3) Valeur (5)	Pour les envois commerciaux seulement		
									N° tarifaire du SH (7)	Pays d'origine des marchandises (8)
						Poids brut tot	al (4)	Valeur totale (6)	Frais de port/Frais (9)	
	Catégorie de l'envoi (10) Cadeau			itillon commerci ir de marchand					Bureau d'orgine/Date de dépôt	
	Document		Autre							
	Document Autre Observations (11): (p. ex. marchandise soumise à la quarantaine/à des contrôles sanitaires, p ou à d'autres restrictions)						phytos	sanitaires	1	
									Je certifie que les renseignements donnés dans la présen- déclaration en douane sont exacts et que cet envoi ne contie aucun objet dangereux ou interdit par la législation ou réglementation postale ou douanière.	
ŀ	Licence (12)		Certificat (13)			Facture (14)		Date et signature de l'exp	éditeur (15)	
	N° (s) de la/des licences			s certificats			acture			



QUIZ AIR Quiz3air.pdf

THE FORWARDING AGENT

- A coordinator of transport
- Clearing agent
 - Formalities
- Consolidator
- Freight forwarder
- Pricing
 - Export
 - import
- Criteria of choice
- Selection
 - Geographical
 - Mean of transportation
 - specialty

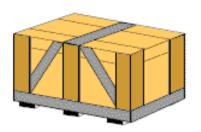


Case: a freight consolidation

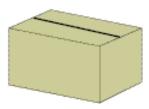
- Vamos consolidator 'buys' 100 containers of 20' from RS Shipping on vessel S/S/AMIGO voyage no 8 the route is from Antwerp to Vera Cruz (importing country) at a discounted box rate of US\$ 1300/ container.
- To explain the case, it is assumed that the freight is charged on measure basis only, instead of weight or measure, and assumed that the capacity of a 20' container is 33 cbm.
- As such Vamos consolidator 'buys' a total fixed shipping space of 3,300 cbm at the ocean freight cost of US\$39.394/CBM.
- If the shipper VIXTOOL books 10 cbm of space for its product directly with RS Shipping, on the same vessel and voyage number, the LCL rate is US\$55/CBM. If the shipper KRUGER books a 20' container directly with RS Shipping the FCL flat rate is US\$1500/container which is US\$45.455/CBM.
- In case Kruger is able to load 28 cbm only due to the odd sized export packages, the freight cost is US\$53.571/CBM.
- In general the CBM cost of FCL is lower than the LCL.
- Vamos consolidator, which does not operate or own any ships, offers VIXTOOL and other LCL shippers to transport their goods at US\$ 54/CBM against US\$55/CBM from RS Shipping.
- VAMOS offers KRUGER and other FCL shippers at US\$1,450/container against the US\$1,500/container from RS Shipping.
- In practice, the consolidator 'selling' at the same rate as the shipping company is not uncommon.
- Vamos groups all LCLs of individual shippers into FCLs, and then delivers all FCLs to RS Shipping in one lot, that is 100 containers of 20' or less, if the space is not fully 'sold'.
- In such a case, VAMOS consolidator operates as a NVOCC and issues freight forwarder bill of lading to each shipper, without receiving a commission from RS Shipping.

INTERNATIONAL PACKAGING ISSUES

- Main goal
- Stresses in intermodal movements
 - · Insufficiency of packing
 - Major maritime casualties
 - Climate
- Case of a Taiwan firm
- Weight of packaging, a dual purpose







TRANSPORT RESPONSABILITY

- Transport liability
 - Liabilty insurance
 - Carrier insurance
 - Quay insurance
 - Warehousing insurance
- Transport risks
 - Damage
 - delay
 - Forwarding agent's responsability
 - Various sea transport guarantees



Risks that can be covered

Fire or explosion

Vessel sunk, burnt ...

Land conveyance overturned or derailed

Collision or contact of vessel with any external objects except water

Discharge of cargo at port of distress

Earthquake, volcanic eruption

Malicious damage: theft

Delay

Inherent vice or nature of the subject matter insured

Willful misconduct of the assured

General average sacrifice

Jettison (délestage)

Entry of sea, river or lake into vessel or place of storage

Total loss of any package lost overboard, or dropped while loading on to

Piracy

War

Strikes riots and civil commotions includes terrorsits or any persons acting from a political motive

Use of any atomic or nuclear weapon

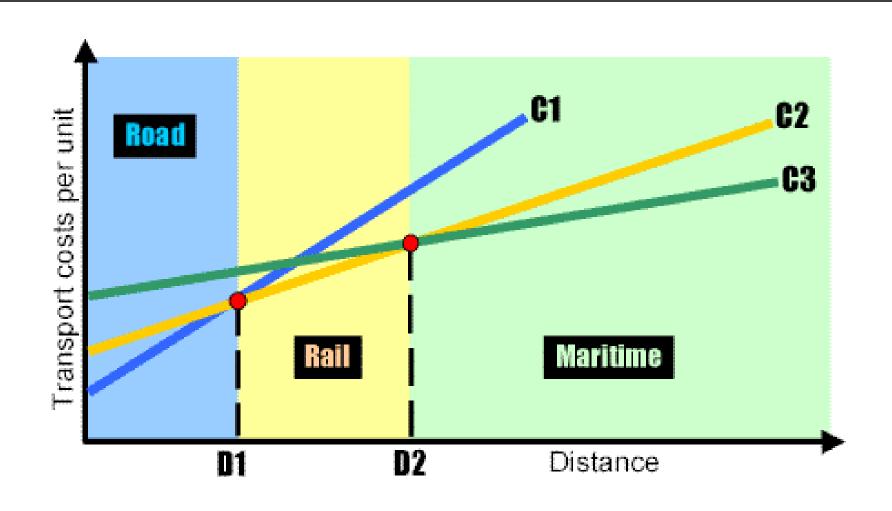
Ordinary leakage, ordinary loss in weight or volume

Insufficiency of packing

Unseaworthiness of vessel at the time of loading

Insolvency or financial default of the owners or operators of the vessel

Intermodal costs



Seller

Asking for a quotation

Load

Insurance information

Seller

- Company
- Name of contact
- Occupation of contact
- Email
- Company phone
- Cell phone
- Fax
- Postal address
- Zip code
- City
- Country
- Company website
- European vat no

Load

- Description
- Number of pallets / of parcels
- Unit weight (tone), Length (m), Width (m)
- Height (m), Volume (m)
- Regulated product : yes no
- Should it be yes, kind of product
- Packaged product, Paletized product
- Company for delivery, Adress for delivery
- Zip code for delivery, City of delivery
- Country of delivery
- Expected date of delivery
- Type of favourite transportation : none, sea, rail, air, road, barging

Insurance information

- Cargo insurance : yes , no
- Coverage required
- Insurance value to be covered

Transport quiz QuizTransport.pdf