Practice & Regulations of Freight Forwarding

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Overview

- Setting the scene
- Market sectors
- Ship types and world fleet statistics
- Main features
  - container, dry bulk, tankers & LNG carriers
- Specific operation & B/L documentation
- Air waybill
- Transpacific service contract & US trade lane
- Case study: APL guaranteed service
Setting the Scene

- Shipping is largely an international business dominated by freight
- Passenger shipping only ferries and cruise ships (<10%)
- 7500 million tonnes of cargo moved worldwide per annum (one tonne for every human being in the world!)
- Only 1% weight by air freight
Approx. unit costs US cents per tonne-mile

<table>
<thead>
<tr>
<th>Mode of transport</th>
<th>Cents per tonne-mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td>55</td>
</tr>
<tr>
<td>Land</td>
<td>15</td>
</tr>
<tr>
<td>Sea (manufactured goods)</td>
<td>5</td>
</tr>
<tr>
<td>Sea (bulk)</td>
<td>1</td>
</tr>
</tbody>
</table>
Setting the Scene

- **Three main categories**
  - Bulk raw materials e.g. oil, coal, ore, carried in tankers and bulkers
  - Semi-processed and specialised materials, e.g. steel, chemicals
  - Manufactured e.g. consumer products, cars, carried mainly in container ships and ro-ro ships

- **Three main economic blocks generate or consume 70% of world trade, i.e. N America, Europe, Far East**
Major changes since World War II

- Large increase in fleet size (up nearly 10 times from 75M to 880M gross tons)
- Huge increase in typical ship size (up 20 times from 15,000 to 300,000 tonnes)
- Increased speed (up 50% from 10-15 knots to 14-25 knots)
- Development of specialised ships, e.g. bulkers, container ships, ro-ro’s, liquefied gas
- Trade shift from Atlantic to Pacific basin
Economies of Scale

- In general ships offer economies of scale as vehicle size is less constrained than other modes of transport.
- Doubling ship capacity does not double construction cost, manning or fuel consumption.
- Diseconomies of scale will arise if:
  - Cannot fill larger ship
  - Cannot handle cargo fast to keep port time low
  - Significant port restrictions e.g. draft
  - Inadequate frequency for customers
  - Infrastructure problems, e.g. accumulation of parcels, storage, inland movement, inventory cost
Types of Shipowner/Operator

- Cargo owner, e.g. BP
  - Will only own a modest proportion of the fleet and charter rest
  - Maximize flexibility and minimize capital requirements
  - Maximize benefit-cost to overall company

- Transport service provider, e.g. Maersk
  - Operate a network of services
  - Maximize efficiency and profit from logistics system

- „Plant hire”, e.g. Greeks
  - Choose right type and size of ship at right time
  - Maximize profits across a shipping cycle, buy and sell

- State owned, developing countries
  - Service the state needs and maximize fleet size
Most successful shipowners from a profitability viewpoint

- Either
  - Read the market trends better / quicker than their competitors

- Or
  - Operate in sectors of market with high barriers to entry, hence limits on supply of ships e.g. car carriers, cruise ships
International market encourages "transnationalism"

- Obtain services in lowest cost sectors of worldwide market
  - Borrow money in New York
  - Build ship in Korea
  - Charter to Japanese cargo interests
  - Insure in London
  - Manage in Syrus
  - Man with Filipinos
  - Repair in Dubai
  - Live in London, Athens or Oslo
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## Market Sectors

The 2 major sectors of the shipping market

<table>
<thead>
<tr>
<th></th>
<th>BULK</th>
<th>LINER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo on board</td>
<td>Shipload of raw material</td>
<td>Many small consignments of manufactured goods</td>
</tr>
<tr>
<td>Typical ship types</td>
<td>Tankers, bulk carrier</td>
<td>Container ships, ro-ro’s</td>
</tr>
<tr>
<td>Operating unit</td>
<td>Single ship worldwide</td>
<td>Fleet of ships on specific route</td>
</tr>
<tr>
<td>Freight rates</td>
<td>Fluctuates with supply and demand, $ per tonne</td>
<td>Stable; set to cover costs, $ per unit</td>
</tr>
<tr>
<td>Competition from</td>
<td>Price and delivery</td>
<td>Quality of service, alternative transport modes</td>
</tr>
<tr>
<td>Ports served</td>
<td>Single, close to terminal</td>
<td>Several, close to major cities on route</td>
</tr>
<tr>
<td>Final destination</td>
<td>Processing plant</td>
<td>Inland consumer</td>
</tr>
<tr>
<td>Speed</td>
<td>Unscheduled c15 knots</td>
<td>Scheduled 20+ knots</td>
</tr>
<tr>
<td>Analogy</td>
<td>Contractor plant hire</td>
<td>Bus service</td>
</tr>
</tbody>
</table>

In between:

- **Neo-bulk** = shiploads handled piecewise, e.g. steel products, forest products, cars.
- **Specialised liquids**: oil products, chemical parcels, LPG, LNG.
Tanker freight rate

FREIGHT RATES – SINGLE VOYAGE 2000-2009
Crude carriers

[Graph showing freight rates for VLCC, Suezmax, and Aframax from 2000 to 2009]
Bulk carrier freight rates

12 MONTHS T/C RATES FOR BULK CARRIERS

$1,000/DAY

CAPESIZE  PANAMAX  SUPRAMAX  HANDYSIZE

00  01  02  03  04  05  06  07  08  09  10
Container ship freight rates

Asia-Europe: +62%
Composite Index: +21%

Index

COMPOSITE INDEX  EUROPE SERVICE

600  08-2005  02-2006  08-2006  02-2007  08-2007  02-2008  08-2008  02-2009  08-2009  02-2010  08-2010

1,100  1,600  2,100

08-2005  02-2006  08-2006  02-2007  08-2007  02-2008  08-2008  02-2009  08-2009  02-2010  08-2010
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● “Gross tons’总吨 are a measure of volume, with approx 2.83 m³ of hull volume = 1 ton. Best measure across all ship types.
● “Deadweight tonnes’载重吨 (of 1000 kg) are used for assessing the cargo carrying capacity of ships, being the weight of disposable load, largely cargo, but also including fuel, stores and water. A good measure of cargo carrying fleet size, though not suitable for passenger, service or other near-constant draft ships.
● “Compensated gross tons’修正总吨 makes some allowance for ship complexity using a formula to adjust gross tons that increases ‘tonnage’ for complex ships like passenger vessels, but decreases it for simple types like tankers. Useful for shipbuilding statistics.
### World Fleet

## Cargo carrying ships at Dec 2009

<table>
<thead>
<tr>
<th>Ship Type</th>
<th>Number</th>
<th>Gross Tonnage M</th>
<th>Deadweight M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tankers, crude oil</td>
<td>2217</td>
<td>174.2</td>
<td>324.6</td>
</tr>
<tr>
<td>Tankers, products, chemical &amp; misc</td>
<td>9793</td>
<td>81.5</td>
<td>133.2</td>
</tr>
<tr>
<td>Liquefied gas tankers</td>
<td>1516</td>
<td>46.1</td>
<td>40.6</td>
</tr>
<tr>
<td>Bulk carriers</td>
<td>8081</td>
<td>252.5</td>
<td>455.5</td>
</tr>
<tr>
<td>Container ships</td>
<td>4704</td>
<td>145.5</td>
<td>169.1</td>
</tr>
<tr>
<td>Other dry cargo incl roro</td>
<td>20772</td>
<td>106.3</td>
<td>107.8</td>
</tr>
<tr>
<td>Passenger types</td>
<td>6865</td>
<td>34.4</td>
<td>7.1</td>
</tr>
<tr>
<td>Total cargo carrying types</td>
<td>53948</td>
<td>840.5</td>
<td>1237.9</td>
</tr>
</tbody>
</table>
**Fastest growing ship types**

<table>
<thead>
<tr>
<th>Ship Type</th>
<th>Growth in fleet 1998-2009 % per annum</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNG carriers</td>
<td>13</td>
</tr>
<tr>
<td>Chemical carriers</td>
<td>11</td>
</tr>
<tr>
<td>Container ships</td>
<td>10</td>
</tr>
<tr>
<td>Cruise ships</td>
<td>8</td>
</tr>
<tr>
<td>Bulk carriers</td>
<td>6</td>
</tr>
<tr>
<td>RoRo Cargo</td>
<td>5</td>
</tr>
<tr>
<td>LPG carriers</td>
<td>4</td>
</tr>
<tr>
<td>Crude oil tankers</td>
<td>3</td>
</tr>
<tr>
<td>Oil product tankers</td>
<td>3</td>
</tr>
<tr>
<td>Pass-vehicle ferries</td>
<td>3</td>
</tr>
<tr>
<td>General cargo</td>
<td>0</td>
</tr>
</tbody>
</table>

NB 7% p.a. doubles in 10 years
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The Container Ship
Container Ship

- Fastest growing sector of the shipping market
- Fleet capacity growth 10% p.a.
  - Typical large vessel size growth 5% p.a.
Container ship

- 4700 ships of 12.8M TEU (av 2500), 1469 M dwt (av 36000)
- TEU (Twenty foot Equivalent Units)
  - 20 ft container can carry up to 22 tonnes cargo
  - 40 ft container can carry up to 27 tonnes cargo
- Typical large vessel size 9000 TEU
- Average weight of cargo 10 tonnes per TEU (av $25000)
- Trading pattern
  - Biggest ships operate hub to hub (e.g. Rotterdam to Singapore)
    - Typical size > 5000 TEU
  - Feeder ships operate between hub and smaller ports
    - Typical size < 2000 TEU
Container ship

- Quick regular delivery of medium to high value goods
  - Manufactured and consumer products (over $1000 per tonne or $1/kg)
- Liner service = fixed route
- Fast cargo handling and short predictable port times
  - Typical port stays 12-24 hour for a 5000 TEU ship
- Port to port cost only 50% of door to door cost
- Ports are 'gateways' to inland, not terminals
- Bigger ships rely on shore cranes
- Smaller ships may have own cranes – „go-anywhere“ ability
Container ship

- Three main routes (>50% of trade)
  - Far East – North America (especially west coast)
  - Far East – Europe (via Suez)
  - Europe – North America
- Panama Canal restriction (locks)
  - Beam <= 32.2 m; Length <= 294.1 m; Draft <= 12 m
  - Ship capacity < 5000 TEU
  - Third set of larger locks (c 13000 TEU) by 2015
- Suez Canal restriction (no locks)
  - Draft < 18.9 m (to be 20 m)
  - Claim can handle largest possible container ships
Current order book
- 70% of current fleet
- Largest ship approx 14,000 TEU
- Same size as VLCC, but less deadweight

Relative fast ships – mid-20s knots, but some slower steaming now

100,000bhp (74 MW) barrier exceeded on single screw

300 tonnes of fuel / day

250+ days at sea in a year

$40M annual fuel bill (at $500 / tonne)

Relatively constant draft, limited to c15m by ports
Container ship

- Main routes dominated by
  - Maersk (including Sea-land and P&O Nedlloyd)
  - MSC
  - CMA-CGM
  - Evergreen
  - COSCO
  - NOL/APL

- Shipping groups regard themselves as logistics companies, offering a network of services
- Own half of their operating fleet, charter rest
- Service quality as important as freight rates
## World Fleet – Container

<table>
<thead>
<tr>
<th>Company</th>
<th>Rank</th>
<th>Total Fleet</th>
<th>Order Book</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>TEU</td>
<td>Ships</td>
</tr>
<tr>
<td>World Fleet</td>
<td>0 (0)</td>
<td>16,146,054</td>
<td>9,687</td>
</tr>
<tr>
<td>Maersk</td>
<td>1 (1)</td>
<td>1,779,267</td>
<td>399</td>
</tr>
<tr>
<td>MSC</td>
<td>2 (2)</td>
<td>1,734,249</td>
<td>417</td>
</tr>
<tr>
<td>CMA CGM</td>
<td>3 (3)</td>
<td>1,047,727</td>
<td>279</td>
</tr>
<tr>
<td>APL</td>
<td>4 (4)</td>
<td>590,343</td>
<td>144</td>
</tr>
<tr>
<td>Evergreen Line</td>
<td>5 (5)</td>
<td>584,253</td>
<td>160</td>
</tr>
<tr>
<td>Hapag-Lloyd</td>
<td>6 (6)</td>
<td>551,616</td>
<td>125</td>
</tr>
<tr>
<td>COSCON</td>
<td>7 (7)</td>
<td>543,947</td>
<td>144</td>
</tr>
<tr>
<td>CSCL</td>
<td>8 (8)</td>
<td>469,006</td>
<td>122</td>
</tr>
<tr>
<td>Hanjin</td>
<td>9 (9)</td>
<td>448,249</td>
<td>98</td>
</tr>
<tr>
<td>OOCL</td>
<td>10 (10)</td>
<td>377,652</td>
<td>85</td>
</tr>
<tr>
<td>MOL</td>
<td>11 (11)</td>
<td>374,491</td>
<td>97</td>
</tr>
<tr>
<td>CSAV</td>
<td>12 (14)</td>
<td>366,669</td>
<td>111</td>
</tr>
<tr>
<td>K Line</td>
<td>13 (13)</td>
<td>358,135</td>
<td>88</td>
</tr>
<tr>
<td>NYK</td>
<td>14 (12)</td>
<td>353,895</td>
<td>86</td>
</tr>
<tr>
<td>Hamburg Sud</td>
<td>15 (16)</td>
<td>326,706</td>
<td>97</td>
</tr>
<tr>
<td>YML</td>
<td>16 (15)</td>
<td>320,983</td>
<td>77</td>
</tr>
<tr>
<td>HMM</td>
<td>17 (18)</td>
<td>282,045</td>
<td>59</td>
</tr>
<tr>
<td>Zim</td>
<td>18 (17)</td>
<td>280,833</td>
<td>73</td>
</tr>
<tr>
<td>PIL</td>
<td>19 (19)</td>
<td>230,140</td>
<td>107</td>
</tr>
</tbody>
</table>

ci-online, updated 12/10/2010
Freight Rates – Container

Freight Rates for TRANSPACIFIC

- Price US/Asia WB
- Price Asia/US EB

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Freight Rates – Container

Freight Rates for ASIA/EUROPE/ASIA

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Freight Rates – Container

Freight Rates for TRANSATLANTIC

Price Eur/US WB
Price US/Eur EB

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Container ship

- Main countries of beneficial ownership
  - Germany
  - Japan
  - Denmark
  - China + Hong Kong
  - Greece

- Common flags of registry
  - Panama
  - Liberia
  - Germany
  - China + Hong Kong
The Bulker
**Bulk Carrier**

- 450M tonnes by deadweight (36%)
- 8000 ships over 10,000 tonnes
- 2400 M tonnes a year in international trade (33% of total)
**Main cargoes**
- Raw materials (iron ore, coal)
- Agricultural products (grain, sugar)
- Semi-finished products (e.g. steel, forest products)

**Low value cargoes** ($500 per tonne)
- Economies of scale essential
- Sea transport cost 10-35% of cargo value
- Fast cargo handling at port
- Modest speed (14-16 knots)
- Box like hulls where skin friction dominates
- Fuel consumption increased as (speed)^3
In bulk trades
- Charterer usually pays cost of loading and unloading
- Bulk cargo handling typically adds 20-40% to sea freight costs
- Typical bulk transport cost stockpile to stockpile $10-50/tonne
- Average haul 5000 nautical miles (1 n.m. = 1852 m)

Trading pattern
- Steaming in ballast 35-50% of total annual distance
- Main loading areas – USA, Brazil, Australia, Africa
- Main discharge areas – Far East, Europe
Bulk Carrier

- Popular sizes
  - Capesize 130 – 200,000 dwt 海峡型/好望角型
  - Panamax 55 – 75,000 dwt 巴拿马型
  - Hadymax/Supramax 40 – 55,000 dwt 大/超灵便型
  - Handysize 25 – 40,000 dwt 小灵便型
- Largest vessel 360,000 dwt (23 m draft ore carrier)
- 400,000 dwt ships on order
- Combination carriers (OBOs) can carry liquid or dry bulk, but fast disappearing 油品散货兼运船
Main countries of beneficial ownership
- Japan
- Greece
- China + Hong Kong

Common flags of registry
- Panama
- China + Hong Kong
- Liberia
- Malta

Small percentage of fleets owned by cargo interests
Bulk carrier freight rates and secondhand values
Tanker

- 460 M tonnes by deadweight (37%)
- 12000 ships (3500 under 10,000 dwt)
- Three main categories
  - Crude oil carriers – oilfield to refinery 320 M dwt
  - Product tankers – refinery to distributor 60 M dwt
  - Specialist, e.g. chemical (parcels) 80 M dwt
- 19000 M tonnes crude shipped by sea p.a. (47% of world production)
  - 38% in VLCCs (over 200000 dwt)
  - 60% of tonne-miles from Middle East
Tankers have
- Economies of scale
- Fast cargo handling: shore pumps to load, ship pumps to discharge, so short port time
- Modest speed (c15 knots)
- Box like hulls where skin friction dominates
- Crude carriers typically over 300 days at sea per annum

Average haul 5100 nautical miles
- 600 M tonnes oil product in international trade; local shortages
- Moderate value per tonne (<$600/tonne)
- Little competition to ships unless pipeline feasible on route
Popular sizes

- Very large crude carriers (VLCC) over 200000 dwt
- Suezmax 120000-200000 dwt ca 16-18m draft
- Aframax 80000-120000 dwt (LR2)
- Panamax 60000-80000 dwt (LR1)

- 5000 product tankers from <1000 dwt to over 100000 dwt
  - Multiple parcels, coated tanks
  - 96% of number under 60000 dwt

- 3000 tankers over 10000 dwt with coated tanks; rising trend
- Only 4 ships over 350000 dwt
- 600 single skin tankers built 1973-95 to be phased out by 2010
Under 10% of fleet owned by cargo interests

Majority of tankers are independently owned „plant hire’ to oil companies

(Independent) shipowners need to assess type, size and age of tanker required in the market

Oil companies meet ‘base load’ with owned and long term chartered ships

Meet short term fluctuations with shorter time charters and voyage charters (spot market)
Tanker

- Freight rates measured in Worldscale
  - W100 will give the same daily return to owner irrespective of voyage distance (unlike $/tonne), so show immediately if a rate is “good” or “bad”
- Freight rates fluctuate reflecting supply/demand balance
- Freight market slumps last longer than booms
- Low average rate of return historically, despite recent boom
- Some owners “asset play” (second hand market)
- Suez Canal deepening to 20m (fully loaded VLCC)
Tanker

- Cost structures international
  - Shipbuilding prices
  - Fuel prices
  - Port charges
  - Manning
  - Insurance
  - Repair

- Very competitive market, so technical and economic efficiency vital
Liquefied Natural Gas Carrier
LNG carriers

- Natural gas: clean fuel, 62 years reserves
- Liquefied at -162 °C to reduce volume for transport (1/600) where pipeline not feasible
- Fastest growing sector of shipping market (13% p.a.)
- 340 ships, with 40 on order
- Recent increase in size from long-standing 130,000 cu metres to some of over 250,000 cu m.
- Normally long term contracts which produce good financial returns
- Development of „spot“ market, so more speculative orders
LNG carriers

- Relatively high speed c19 knots to reduce boil-off of gas during voyage
- Boil-off of 0.15% per day can be used as propulsion fuel or reliquefied (but needs large power)
- Several propulsion options: steam turbine, dual-fuel diesel, electric drive
- High operational standards required
- Shortage of LNG qualified crews
- Expected life 30+ years
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Containerized Cargo

- Movement of containerized cargo
  - FCL – FCL
  - LCL – LCL
  - LCL – FCL
  - FCL – LCL
  - FCL – Full Container Load
  - LCL – Less than Container Load
Hand over and Take Over Points

- ① container yard, CY
- ② container freight station, CFS
- ③ door, D
Hand over and Take Over Points

shipper/carrier

carrier/consignee

①

②

③

A

B

C

A'

B'

C'

CFS

Door

Door

CY

CY
Hand over and Take Over Patterns

\[
\begin{array}{c c c}
\text{CY} & \text{CFS} & \text{D} \\
\hline
\text{CFS} & \text{CY} & \text{D} \\
\end{array}
\]
Hand over and Take Over Responsibilities

- **LCL**
  - Quantity
  - Apparent order and condition

- **FCL**
  - No special law / regulations
  - Printed clause & additional clause of B/L
Hand over and Take Over Responsibilities

- COSCON Standard Form 9805
  - Received in external apparent good order and condition except as otherwise noted. The total number of the packages or units stuffed in the container, the description of the goods and the weights shown in this Bill of Lading are furnished by the merchants, and which the carrier has no reasonable means of checking and is not a part of this Bills of Lading contract.
Hand over and Take Over Responsibilities

- Unknown Clause
  - STC: Said To Contain
  - SLAC: Shipper’s Load And Count
  - SLCAS: Shipper’s Load Count And Seal
  - SBS: Said By Shipper
  - OCO: One Container Only
Non-Vessel Operating Common Carrier

- Contractual Carrier responsible for the whole carriage
- NVOCC
- shipowner
- Actual Carrier responsible for his own stage
- Bank

H-B/L

M-B/L
**Consolidation**

**H-B/L:** LCL/LCL  CFS - CFS

**M-B/L:** FCL/FCL  CY- CY
Definition / Functions of B/L

- cargo receipt
- evidence of contract of carriage
- document of title
## Limitation of Liability

- **Carrier’s limitation of liability**

<table>
<thead>
<tr>
<th>Rule System</th>
<th>Currency</th>
<th>Amount of Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hague Rules</td>
<td>pound</td>
<td>100 / unit</td>
</tr>
<tr>
<td>Visby Rules</td>
<td>gold franc</td>
<td>10000 / unit, 30 / kg, whichever is higher</td>
</tr>
<tr>
<td>Hamburg Rules</td>
<td>SDR</td>
<td>835 / unit, 2.5 / kg, whichever is higher</td>
</tr>
<tr>
<td>CMC</td>
<td>SDR</td>
<td>666.67 / unit, 2 / kg, whichever is higher</td>
</tr>
</tbody>
</table>
Make delivery to whom?

- Return of original B/L
- Check the box **Consignee**
  - COMPANY X (straight B/L)
  - TO ORDER (order B/L)
  - HOLDER / BEARER (blank B/L)
- The right person is:
  - COMPANY X
  - The last endorsee
  - Holder of B/L
- Certification of identity (straight and order)
- Endorsement
Contents of B/L

- B/L No.
- Shipper
- Consignee
- Notify Party

- Pre Carriage by
- Place of Receipt
- Ocean Vessel
- Port of Loading
- Port of Discharge
- Place of Delivery
Contents of B/L

Goods
- Marks & Nos. Containers / Seal No.
- NO. of Containers or Packages
- Description of Goods
- Gross Weight kgs
- Measurement
- Total No. of Packages

Freight
- Freight & Charges
- Revenue Tons
- Rate
- PER
- Prepaid / Collect
- Prepaid At
- Payable At
- Total Prepaid
Contents of B/L

- Place and date of Issue
- No. of Original B/L
- Signed for the Carrier
- On board date
Letter of Indemnity

- We XXXXXX confirm and hereby authorize a telex release of the above mentioned containers/cargo for which we surrender all sets of original b/l (duly endorsed) and you are to release the containers to: YYYYYYY

- We accept full responsibility and all consequences for this release of the containers/cargo in this manner, with no liability to ZZZZZZZ, their principals or agents. The remaining original Bills of Lading are to be considered now null and void and are now of no value.
Notice of T/R

Please be advised that we are holding full set of original Bill of Lading for the above mentioned shipment, therefore please release said cargo/container to:

YYYYYYY

The shipper accepts full responsibility and all consequences of releasing the container in this manner. Furthermore please keep the record and collect all relevant charges at your end prior to release of shipment.
Buyer Nominated Cargo

- FOB Nomination
- A’ → OA → NVOCC → A
- Service offered by NVOCC to A good?
- Relationship between OA and A’?
- Risk: delivery by OA to A’ without H-B/L
- Use H-B/L of OA?
Overview

- Setting the scene
- Market sectors
- Ship types and world fleet statistics
- Main features
  - container, dry bulk, tankers & LNG carriers
- Specific operation & B/L documentation
- Air waybill
- Transpacific service contract & US trade lane
- Case study: APL guaranteed service
Terms on the face of AWB

- Copies 1, 2 and 3 of this Air Waybill are originals and have the same validity.

- It is agreed that the goods described herein are accepted for carriage in apparent good order and condition (except as noted) and SUBJECT TO THE CONDITIONS OF CONTRACT ON THE REVERSE HEREOF. ALL GOODS MAY BE CARRIED BY ANY OTHER MEANS INCLUDING ROAD OR ANY OTHER CARRIER UNLESS SPECIFIC CONTRARY INSTRUCTIONS ARE GIVEN HEREON BY THE SHIPPER. THE SHIPPER’S ATTENTION IS DRAWN TO THE NOTICE CONCERNING 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.
NOTICE CONCERNING CARRIER’S LIMITATION OF LIABILITY

- If the carriage involves an ultimate destination or stop in a country other than the country of departure, the Warsaw Convention may be applicable and the Convention governs and in most cases limits the liability of the carrier in respect of loss, damage, or delay to cargo to 250 French gold francs per kilogram, unless a higher value is declared in advance by the shipper and a supplementary charge paid if required.

- The liability limit of 250 French gold francs per kilogram is approximately US$20.00 per kilogram on the basis of US$42.22 per ounce of gold.
CONDITIONS OF CONTRACT

- As used in this contract “carrier” means all air carriers that carry or undertake to carry the goods hereunder or perform any other services incidental to such air carriage, “Warsaw Convention” means the convention for the Unification of certain Rules relating to International Carriage by Air, signed at Warsaw 12 October 1929, or that Convention as amended at The Hague, 28 September 1955, which ever may be applicable, and “French gold francs” means francs consisting of 651/2 milligrams of gold with a fineness of nine hundred thousandths.
Air Waybill

- Carriage to be performed hereunder by several successive carriers is regarded as a single operation.

- Except as otherwise provided in carrier’s tariffs or conditions of carriage, in carriage to which the Warsaw Convention does not apply carriers’ liability shall not exceed US$20.00 or the equivalent per kilogram of goods lost, damaged or delayed, unless a higher value is declared by the shipper and a supplementary charge paid.

- In case of loss, damage or delay of part of the consignment, the weight to the taken into account in determining carrier’s limit of liability shall be only the weight of the package or packages concerned.
Notwithstanding any other provision, for foreign air transportation as defined in the U.S. Federal Aviation Act, as amended, in case of loss or damage or delay of a shipment or part thereof, the weight to be used in determining the carrier’s limit of liability shall be the weight which is used (or a pro rata share in the case of a part shipment loss, damage or delay) to determine the transportation charge for such shipment.

Any exclusion or limitation of liability applicable to carrier shall apply to and be for the benefit of carrier’s agents, servants and representatives and any person whose aircraft is used by carrier for carriage and its agents, servants and representatives. For purpose of this provision carrier acts herein as agent for all such persons.
Carrier undertakes to complete the carriage hereunder with reasonable dispatch. Carrier may use alternate carriers or aircraft and may without notice and with due regard to the interests of the shipper substitute other means of transportation. Carrier is authorised to select the routing or to change or deviate from the routing shown on the face hereof.

Notice of arrival of goods will be given promptly to the consignee or to the person indicated on the face hereof as the person to be notified. On arrival of the goods at the place of destination subject to the acceptance of other instructions from the shipper prior to arrival of the goods at the place of destination, delivery will be made to, or in accordance with the instructions of the consignee. If the consignee declines to accept the goods or cannot be communicated with, disposition will be in accordance with instructions of the shipper.
Shipper’s Right to Alter Transport

- B/L is rendered by shipper & accepted by bank
- Shipper returns full set of original B/L
- Shipper returns only one original and duly endorsed B/L
Shipper's Right to Alter Transport

Bank

L/C

B/L

Shipper

B/L

Ship Owner

B/L

Ship Owner

B/L

Consignee

Another Consignee

symbolic delivery
Shipper’s Right to Alter Transport

Bank → L/C → AWB ← AWB ← Shipper

Airlines → AWB ← Airlines

Bank

Another Consignee

physical delivery

AWB
(a) The person entitled to delivery must make a complaint to the carrier in writing in the case:
   (i) of visible damage to the goods, immediately after discovery of the damage and at the latest within 14 days from receipt of the goods;
   (ii) of other damage to the goods, within 14 days from the date of receipt of the goods;
   (iii) of delay, within 21 days of the date the goods are placed at the disposal; and
   (iv) of non-delivery of the goods within 120 days from the date of the issue of the air waybill.

(b) For purpose of Subparagraph (a), complaint in writing may be made to the carrier whose air waybill was used, or the first carrier or to the last carrier or to the carrier who performed the transportation during which the loss, damage or delay took place.

(c) Any rights to damages against carrier shall be extinguished unless an action is brought within two years from the date of arrival at the destination, or from the date on which the aircraft ought to have arrived, or from the date on which the transportation stopped.
Claim and Legal Action for Loss

- **Loss**
  - Actual total loss
  - Constructive total loss
  - 120 days

- **Damage**
  - Partial loss
  - 14 days

- **Delay**
  - Economic loss
  - 21 days

- 2 years
Overview

- Setting the scene
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- Main features
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- Transpacific service contract & US trade lane
- Case study: APL guaranteed service
US Trade Lane

- **West coast**
  - Long Beach, CA; Los Angeles, CA; Oakland, CA; Seattle, WA; Tacoma, WA; Portland, OR; San Francisco, CA; etc.

- **East coast**
  - New York, NY; Norfolk, VA; Miami, FL / Port Everglades, FL; Savannah, GA; Baltimore, MD; Charleston, SC; Houston, TX; Jacksonville, FL; New Orleans, LA; Newark, NJ; MOBILE, AL; TAMPA, FL; etc.

- **IPI (inland points)**
  - **Group 1**: incl. IPI points of 3 states, W/C
  - **Group 2**: IPI points of central USA
  - **Group 3**: incl. IPI points of E/C and G/P
  - **Group 4**: smaller points near W/C
Transpacific Service Contract

- **TP S/C**
  - Freight rates of US trade lane different according to different value of goods
  - NVOCC/Forwarder should confirm with exporter name, usage ingredient etc. of goods before quotation

- **TP S/C rates**
  - FAK (Freight All Kinds)
  - Bullet Rate
    - e.g. Tire / Toy / Furniture / Auto Parts etc.
  - Named a/c’ rate
    - e.g. Changhong / Walmart etc.
Freight structure

- BAF/FAF Bunker Adjustment Factor / Fuel Adjustment Factor
- DDC: Destination Delivery Charge
  - USD535/20' DC, USD1070/40' DC, USD1205/40' HQ
- Weight Surcharge
- ACS: Alameda Corridor
  - USD19/38/38/42 FOR 20' DC/40' DC/40' HQ/45
- GRI: General Rate Increase
  - twice a year, subject to market situation
- PSS: Peak Season Surcharge
  - 01/Jun~30/Nov
  - esp. May~Oct
PCC/PCS: Panama Canal Charge
AMS: Automated Manifest System
  • USD25 / shipment, USD40 / shipment for alteration
IPI and RIPI Rate
  • IPI Rate – from W/C to eastbound IPI points (MLB)
  • RIPI Rate – from E/C to westbound IPI points (ALL WATER)
IFS: Inland Fuel Surcharge
China / USA TP trade Lane: World Biggest Trade Lane

- High Mkt Potential / Big Mkt Capacity
  - both Outbound/Inbound
  - e.g. Qingdao as POL
    - USWC: 7500-8000 teus/week
    - USEC: 6000-6500 teus/week

USA Market – FOB dominated Market

- FOB: 80% around
- CIF: 20% around
Leading USA FFW

- Strong network at USA + Professional sales team + OP team and OP system
- Auto – NVOCC to provide AMS/ISF service direct to customer
- Providing experienced customer broker service at POD (DDU/DDP)
- Having good trucking network established to provide right standard of service, throughout USA
- Good S/C + relationship with main shipping line – TP player Maersk / Cosco / Hanjin / EMC / CMA etc.
  - Peak season, Space= Profit.
- More FOB Nomination + Sales lead fm USA network + Push/Pull communication to work out more target a/c’ / sales lead to expanding traffic. Esp small to medium a/c’.
Overview

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- Case study: APL guaranteed service
APL and APL Logistics have combined to create a highly reliable, guaranteed FCL/FTL service that offers:

- The industry’s fastest port-to-door transits with day-definite, appointment-confirmed delivery

- Expedited truck transport inland via dedicated team driver service

- Integrated, Web-based shipment tracking from origin port all the way to destination

- Simplified pricing with a single invoice

- Single-carrier convenience, accountability and service

- Money-backed service guarantee
<table>
<thead>
<tr>
<th></th>
<th>The Problem with Traditional Full Container-Load (FCL) Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inconsistent transit times prevent accurate inventory planning, especially during peak</td>
</tr>
<tr>
<td>2</td>
<td>Multiple handoffs between transportation providers increase risk and can compromise chain of custody</td>
</tr>
<tr>
<td>3</td>
<td>Port and rail congestion creates unanticipated delays and few re-routing options</td>
</tr>
<tr>
<td>4</td>
<td>Lack of visibility, especially during “last mile” of transit, makes inventory and yard management more difficult to plan</td>
</tr>
</tbody>
</table>
FCL Guaranteed Delivery Using an Optimized Network

- Minimal cargo hand-offs
- Priority vessel stow in Asia
- Guaranteed vessel space, even during peak season
- Priority vessel discharge and handling on U.S. West Coast
- Pre-clearance at arrival port ensures quick deliveries
- Expedited truck transport inland avoids rail-related congestion and delays
- Service Guarantee: 20% refund if shipment delivered after the guaranteed delivery date*
Two service options for inland delivery: Intact Service and Transload Service

**Intact:** Container picked up at L.A. port by team-driver truck and driven nonstop to consignee door in 5 initial major metropolitan areas. More destinations to be added shortly.

**Transload:** Container drayed from L.A. port to local APL Logistics facility where shipment is transloaded 1:1 into a domestic trailer. Onward transport via team truck to anywhere in 48 states.
## Intact Option – Shipment Flow

<table>
<thead>
<tr>
<th>Transit Stage</th>
<th>VENDOR</th>
<th>CY ARRIVAL</th>
<th>HONG KONG PORT</th>
<th>OCEAN TRANSIT</th>
<th>U.S. PORT</th>
<th>CONTAINER TRANSFER</th>
<th>DELIVERY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo loaded into containers at vendor’s facility and transported to CY.</td>
<td>Container arrives at CY before published cut-off time.</td>
<td>Container drayed to port and given priority stowage on vessel. Vessel departs origin port.</td>
<td>Direct Trans-Pacific voyage from origin port to Los Angeles. No relays or container rework.</td>
<td>Vessel arrives at Los Angeles port. Container receives priority discharge. Shipment must be Customs cleared prior to vessel arrival.</td>
<td>Container transferred to longhaul chassis and team drivers haul directly to one of five metropolitan regions. Delivery appointment made with consignee.</td>
<td>Shipment delivered to consignee door on promised day—guaranteed.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shipment Visibility</th>
<th>Day</th>
<th>Cut-off SAT 1500</th>
<th>SUN, Day 0</th>
<th>Day 0–13</th>
<th>SAT, Day 13</th>
<th>SUN, Day 14</th>
<th>TUE, Day 16 (Dallas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Booked on either APL or APL Logistics Bill of Lading</td>
<td>SUN, Day 0</td>
<td>Container # Assigned</td>
<td>Vessel Depart</td>
<td>SAT, Day 13</td>
<td>Delivery Appointment Depart</td>
<td>En Route Status</td>
<td>Shipment Delivered</td>
</tr>
<tr>
<td>Vessel Depart</td>
<td></td>
<td></td>
<td>Day 0–13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vessel Arrive, Customs Cleared, Container Discharge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery Appointment Depart Port</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Transload Option – Shipment Flow

<table>
<thead>
<tr>
<th>VENDOR</th>
<th>CY ARRIVAL</th>
<th>SHANGHAI PORT</th>
<th>OCEAN TRANSIT</th>
<th>U.S. PORT</th>
<th>TRANSLOAD FACILITY</th>
<th>DELIVERY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit Stage</td>
<td>Cargo loaded into containers at vendor’s facility and sent to CY.</td>
<td>Container arrives at CY before published cut-off time.</td>
<td>Container drayed to port and given priority stowage on vessel. Vessel departs origin port.</td>
<td>Direct Trans-Pacific voyage from origin port to Los Angeles. No relays or container rework.</td>
<td>Vessel arrives at Los Angeles port. Container receives priority discharge. Shipment must be Customs cleared prior to vessel arrival.</td>
<td>Shipment is devanned and transloaded into domestic trailers. Delivery appointment made with consignee.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day</th>
<th>Cut-off TUE 1600</th>
<th>FRI, Day 0</th>
<th>Day 0–10</th>
<th>MON, Day 10</th>
<th>TUE, Day 11</th>
<th>FRI, Day 14 (Memphis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipment Visibility</td>
<td>Booked on APL Logistics Bill of Lading ONLY</td>
<td>Container # Assigned</td>
<td>Vessel Depart</td>
<td>Vessel Arrive, Customs Cleared, Container Discharge</td>
<td>Delivery Appointment, Shipment Transloaded, Depart Facility</td>
<td>En Route Status</td>
</tr>
</tbody>
</table>

95
The Problem with Traditional LCL Services

1. Highly variable transit times prevent accurate inventory planning, especially during peak.

2. Co-loading at origin and destination adds further unpredictability and delays.

3. Limited options for transit consistency – endure delays or use expensive airfreight.

4. Cost savings eroded by “hidden costs” -- unanticipated delays and constant management.
From Asia to any Address in the U.S.

Asia Highlights

- Facilities close to major intermodal links and ports
- Comprehensive coverage of South China and the Pearl River Delta
- Optional door pick-up
- Late CFS closings to match early week production schedules
- Special cargo handling for C-TPAT-certified shippers
- First company to obtain China WFOE license; 40 years of logistics experience in Asia; 140 years of shipping experience in Asia

U.S. Highlights

- Uses power and reach of Con-way network across entire 48 states
- Delivery to any ZIP code within 5 business days of arrival at Los Angeles port
- West Coast super terminals with priority handling
- Shipment visibility from origin CFS to destination door
Transit Example – Hong Kong to Columbus, Ohio

Vendor

Cargo tendered to APL Logistics origin CFS (Container Freight Station). Optional door pickup available.

Containers

Transported to APL Logistics

Containers loaded onto vessel. APL Logistics monitors and enhances the vessel’s departure and arrival times. Container in transit vessels. Container cleared at Columbus

Con-way

Terminal.

Shipment cleared prior to arrival.

Booking Receipt

Shipment Receipt
## Transit Example – Hong Kong to Columbus, Ohio

<table>
<thead>
<tr>
<th>VENDOR</th>
<th>HONG KONG CFS</th>
<th>ORIGIN PORT</th>
<th>OCEAN TRANSIT</th>
<th>LAX PORT</th>
<th>L.A. TRANSFER FACILITY</th>
<th>DELIVERY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit Stage</td>
<td>Cargo tendered to APL Logistics origin CFS (Container Freight Station). Optional door pickup available.</td>
<td>Shipment loaded into containers according to C-TPAT status. APL Logistics only loads with other APL Logistics shipments—no coloading.</td>
<td>Containerized shipment drayed to port and given priority stowage on vessel. Container is shipped regardless of utilization. Vessel departs Hong Kong.</td>
<td>Direct Trans-Pacific voyage from Hong Kong to L.A. No relays or container rework.</td>
<td>Vessel arrives Los Angeles. Container receives priority discharge and is drayed to transfer facility in L.A.</td>
<td>Shipment is devanned and loaded into a Con-way LTL truck. Truck departs for Columbus OH. Shipment must be Customs cleared prior to departure from LA Transfer Facility. Con-way delivers shipment to customer door in Columbus on 18th day—guaranteed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day</th>
<th>Cutoff THU 1200</th>
<th>SUN, Day 0</th>
<th>Day 0–13</th>
<th>SAT, Day 13</th>
<th>MON, Day 15</th>
<th>THU, Day 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipment Visibility</td>
<td>Booking Receipt</td>
<td>Shipment Receipt</td>
<td>Vessel Depart</td>
<td>Vessel Arrive</td>
<td>Container Discharge</td>
<td>Devanned Shipment Load to Truck</td>
</tr>
</tbody>
</table>
Web-based Tracking delivers end-to-end shipment visibility

![Web-based Tracking Interface](image_url)

<table>
<thead>
<tr>
<th>Shipment Tracking</th>
<th>Shipment Tracking Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shipment #</strong></td>
<td><strong>Forwards Cargo Receipt</strong></td>
</tr>
<tr>
<td>SIN716274</td>
<td></td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td><strong>Volume</strong></td>
</tr>
<tr>
<td>108.13 kg</td>
<td>8.60 CBM</td>
</tr>
<tr>
<td><strong>Routing:</strong> APL SCOTLAND 155</td>
<td></td>
</tr>
<tr>
<td><strong>Place of Receipt</strong></td>
<td><strong>Location</strong></td>
</tr>
<tr>
<td></td>
<td>Singapore, Singapore</td>
</tr>
<tr>
<td><strong>Departure</strong></td>
<td>Singapore, Singapore</td>
</tr>
<tr>
<td><strong>Arrival</strong></td>
<td>San Pedro, CA, USA</td>
</tr>
<tr>
<td><strong>Destination</strong></td>
<td>Carters, NJ, USA</td>
</tr>
<tr>
<td><strong>Status</strong></td>
<td><strong>Location</strong></td>
</tr>
<tr>
<td>Booking Received [ SIN716274 ]</td>
<td>Singapore, Singapore</td>
</tr>
<tr>
<td>Cargo Received [ SIN716274 ]</td>
<td>Singapore, Singapore</td>
</tr>
<tr>
<td>Vessel Departed</td>
<td>Singapore, Singapore</td>
</tr>
<tr>
<td>Vessel Arrived</td>
<td>San Pedro, CA, USA</td>
</tr>
<tr>
<td>Delivered</td>
<td>Carters, NJ, USA</td>
</tr>
</tbody>
</table>
Simplified All-In Pricing

- All-in price (per kilogram) from any of 7 Asia origins to 11 delivery zones covering the continental United States
- Door delivery by Con-way Freight in the U.S.; optional door pickup by APL Logistics in Asia
- A single invoice, covering all ocean and destination transportation services
Single Invoice

One Port-to-Door rate, inclusive of:

- Ocean Freight
- Destination Terminal Charges
- Peak Season Surcharge
- Door Delivery
- Documentation Surcharges

Additional surcharges:

- Bunker/Fuel Surcharge
- PierPASS (as applicable)
- Trucker Accessorials
# Features Matrix

<table>
<thead>
<tr>
<th>Features</th>
<th>Intact</th>
<th>Transload</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day-definite Service Guarantee</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Mode(s)</td>
<td>Ocean / Truck</td>
<td>Ocean / Truck</td>
</tr>
<tr>
<td>Bill of Lading</td>
<td>APL Logistics</td>
<td>APL Logistics</td>
</tr>
<tr>
<td>Guaranteed Vessel Load (no roll)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Priority Vessel Stowage</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Priority Discharge / Expedited Handling</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Customs Clearance at Discharge Port</td>
<td>Required</td>
<td>Required</td>
</tr>
<tr>
<td>Team Driver Truck Service to Door</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Confirmed Delivery Appointment</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Web-based Shipment Tracking</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Simplified Pricing/Single Invoice</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Credit Terms</td>
<td>Available</td>
<td>Available</td>
</tr>
</tbody>
</table>
Benefits to the customer

• **Reliability of air freight…at a fraction of the cost**
  • Priority vessel service + dedicated team truck transport

• **Guaranteed day-definite service**
  • Enables reliable inventory, production and sales planning

• **Speed and visibility to critical shipments**
  • Prevents costly inventory stock-outs and retail charge backs/penalties

• **Optimized transportation network using asset-owned providers**
  • Fewer delays and handoffs resulting in reduced risk

• **Lower inventory costs and working capital**
  • Reduces need for safety stock
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Thank You for Your Attention
Questions Please