Freight Forwarding Management
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CHAPTER 1

Introduction to Freight Forwarding

What is common among the following companies?

1. DHL (2011 Gross Revenue USD 31.160 Billion)
3. DB Shankar (2011 Gross Revenue USD 20.704 Billion)

They are the top 3 Global Freight Forwarding Companies with annual revenues in Billions of Dollars in the year 2011 as per the data compiled by Armstrong & Associates, Inc., a recognized leader in supply chain market research and consulting based in USA. The complete list of top 25 Freight Forwarding Companies and the salient features of the business traffic generated by these companies is presented in Appendix 1 at the end of this chapter. It would not take much time to reach the conclusion that Freight Forwarding is a big business with many multinational companies operating successfully. One of the Freight Forwarding companies, Kuehne & Nagel is the majority shareholder of World’s No. 6 ranking Container Liner shipping co., Hapag Lloyd. A look at the column titled “Traffic Handled & Remarks” will enable you to know that Freight Forwarders are performing the range of activities listed below:

What does a Freight Forwarder do?:

1. **Carriage of Ocean Freight** (represented by number of TEUs – Twenty Foot Equivalent Units of Containers). 29,810,841 TEUs are estimated to be the traffic controlled by the top 25 Freight Forwarders globally. An estimate from Clarkson Research Services puts the global container trade in 2011 as 150.6 million TEUs. Hence, the share of the business placed by top 25 global freight forwarders alone is approximately, 20%. If you consider all the freight forwarders in the world, the business controlled by them will be around 50%. This includes the containers booked by Freight Forwarders on behalf of their customers as well as the containers carried by Freight Forwarders as NVOCCs (Non Vessel Operating Common Carriers - This concept will be discussed in detail in Chapter 3).

2. **Carriage of Airfreight** (represented by MTs – Metric Tonnes of Air cargo). 13,350,394 MT is the aircargo traffic controlled by the top 25 Freight Forwarders globally. An estimate from Boeing Company issued biennial World Air Cargo Forecast (WACF), 43 million tonnes is the air cargo
carried in 2011. Hence, the share of the business placed by top 25 global freight forwarders alone is approximately, 30%. If you consider all the freight forwarders in the world, the business placed by them will be around 60%.

Besides the above two core functions, there are many other functions that a Freight Forwarder performs. We will be discussing them in detail in the next chapter.

**Definition of Freight Forwarder:**

The term freight forwarder originated from “forwarding” (moving from one place to another) of “freight” (goods or cargo). Basically, a freight forwarder is a person or company involved in the processing and/or movement of goods on behalf of another company or person which crosses international boundaries. The freight forwarder provides services in the following two main fields:

1. The movement of goods out of a country on behalf of exporters or shippers, in which case the forwarder would be termed an export freight agent;
2. The bringing of goods into the country on behalf of importers, in which situation the forwarder is called an import freight agent, customs house agent (CHA), customs clearance agent, clearing and forwarding (C&F) agent or customs broker.

**Historical Perspective:**

Transportation is vital for the development of human civilization. When transportation is within a community, it is simple. As the civilization develops, people began exploring trading opportunities, from one country to another and that has led to the birth of transportation by sea. The Industrial Revolution of the eighteenth and nineteenth centuries applied steam power to transport and later the development of marine engines ultimately facilitating even faster movement of goods. Along with the development of global trade, the trade support mechanism also developed. One of the important trade support mechanisms is the development of transport intermediaries.

At the beginning of the thirteenth century, Venice had a trade route via the Alps to Germany and other European Countries. The merchants of Venice used to employ the services of a middleman, the so-called “Fracture" who was a combination of carrier and forwarding agent. His wagon transported the merchant and his goods and he was escorted by a troop of armed guards to protect life and property against highway robberies. He also arranged for the payment of local dues / tolls on the many border crossings and attended to the change of horses on the stations. The merchandise was conveyed under a consignment note and was sold personally by the merchant at destination.
Three hundred years later around 1600, the "Fracture" had become an independent operator who knew his way over the lands. He was familiar with the various trade routes and merchandise centers, had organized wagon trains, had set up transportation agencies and transit storage places, had issued bills of lading and collected duties, merchandise values from the consignees. He was the international forwarding agent for the rich merchant princes.

At the close of the 18th century the forwarding agent started assisting the merchants in finding new markets and supplies, thus, he contributed in great measure to the extension of trade. In the middle and towards the end of nineteenth century, when the codification of the law of commerce developed, the forwarding agent was called upon to render counsel. Thus, the freight forwarding business developed through an evolutionary process up to the present stage. The evolution can be summarized in to 3 phases as follows:

**Phase 1:** The transport intermediary is simply known as **Customs Broker**. Levying customs duties by government agencies has been a basic part of trade throughout history. Customs Brokers did the job of collection of customs duties from the traders and facilitate the movement of goods. They handled the preparation of inward entry (clearance) documents and filed the export declarations (shipping bills) on behalf of importers and exporters.

**Phase 2:** The Customs Brokers who were essentially middlemen and agents of the traders were asked by shippers or consignees to identify ships for moving their cargo. The transport intermediary in this phase is known as **Freight Forwarder**. Customs brokers and agents who acted on behalf of shippers to arrange freight transport and buy space on ships evolved into freight forwarders. These freight forwarders also arranged warehousing either from their own warehouses or hired from other warehouse providers. The freight forwarders were also required by their customers to facilitate road haulage or rail haulage for transportation of the cargo to or from the port. Hence, freight forwarders added transport assets or entered into contracts with hauliers.

**Phase 3:** Today, a modern freight forwarder likes to be called as a **Freight Logistics Provider (FLP)**. Freight Forwarders have also evolved as Third Party Logistics (3PL) Providers doing a range of services in addition to the functions performed by freight forwarders in Phases 1 and 2. Today’s freight forwarders are no longer mere custom house agents. The details of the functions will be discussed in the next chapter.

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### Appendix 1: Top 25 Global Freight Forwarders (2011)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name of the Freight Forwarder</th>
<th>Gross Revenue ($ Millions)</th>
<th>Traffic Handled &amp; Remarks</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>DHL Supply Chain &amp; Global Forwarding</td>
<td>32,160</td>
<td>Ocean Freight carried: 2,724,000 TEUs including over 2,000,000 cubic meters of LCL cargo. Airfreight carried: 2,447,000 MT Contract logistics revenue is 51% of total logistics revenue for DHL. Exel (DHL Supply Chain - Americas) operates 95 Million SFT of warehouse space in USA. DHL Global Forwarding (DGF) grew through the acquisition of highly respected companies like Danzas in Europe. There are more than 45,000 weekly point pairs for LCL globally. DGF handles over 2,200,000 shipments annually. DHL's scope allows its customers to more easily adjust vendor supply chains.</td>
</tr>
<tr>
<td>2</td>
<td>Kuehne&amp; Nagel</td>
<td>22,181</td>
<td>Ocean Freight carried: 3,274,000 TEUs. Airfreight carried: 1,073,000 MT Kuehne&amp; Nagel is the world’s largest ocean freight forwarder providing logistics services from over 1000 locations in 100 countries. Kuehne + Nagel has developed its own land transport management and trucking network for Europe.</td>
</tr>
<tr>
<td>3</td>
<td>DB</td>
<td>20,704</td>
<td>Ocean Freight carried: 1,763,000 TEUs.</td>
</tr>
<tr>
<td>Rank</td>
<td>Name of the Freight Forwarder</td>
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<td>Traffic Handled &amp; Remarks</td>
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| 5    | CEVA Logistics                 | 9,602                       | Ocean Freight carried : 783,378 TEUs  
|      |                                |                             | Airfreight carried : 550,000 MT  
|      |                                |                             | Private equity owner, Apollo Management, acquired EGL (Eagle Global Logistics) which was rebranded as CEVA Freight Management in 2007. EGL added global freight forwarding to match CEVA’s high quality value-added warehousing, materials management and other contract logistics capabilities.  
|      |                                |                             | CEVA Logistics is the world’s largest automotive 3PL. It has a heavy emphasis on manufacturing. CEVA operates in over 170 countries and is very good at value-added support activities. Its Matrix™ software suite reflects its range of logistics capabilities, including materials |
management. CEVA’s core services include fulfillment centers, high-velocity cross-docks, sub-assembly, sequencing, dedicated contract transportation, and network designs/redesigns.

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<thead>
<tr>
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<th>Airfreight carried</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Nippon Express</td>
<td>20,313</td>
<td>706,441 TEUs</td>
<td>656,797 MT</td>
</tr>
<tr>
<td></td>
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<td>Nippon Express is Japan’s largest domestic transportation company and its Pelican Express operation is the largest package operation in Japan. About 90% of Nippon revenues are from domestic Japanese operations. Its international operations in forwarding and contract logistics are tied to its Japanese base. In addition to truck-based operations, Nippon provides harbor and ship transportation, air freight forwarding and warehousing. Its warehousing is tied to its freight forwarding operations.</td>
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</tr>
<tr>
<td>7</td>
<td>Sinotrans</td>
<td>6,769</td>
<td>7,979,000 TEUs</td>
<td>397,200 MT</td>
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<td>About 81% revenues are derived from freight forwarding by this Government owned co. which until recently was enjoying protection by People’s Republic of China law from direct foreign competition.</td>
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<tr>
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</thead>
<tbody>
<tr>
<td>8</td>
<td>Expeditors International of Washington</td>
<td>6,150</td>
<td>892,682 TEUs</td>
<td>786,620 MT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Expeditors is the largest, best run North American-based freight forwarder. Net revenues are 37% air freight forwarding, 40% customs brokerage and 23% ocean freight forwarding. U.S. and Asia business account for over 80% of</td>
<td></td>
</tr>
<tr>
<td>Rank</td>
<td>Name of the Freight Forwarder</td>
<td>Gross Revenue ($ Millions)</td>
<td>Traffic Handled &amp; Remarks</td>
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<tr>
<td>9</td>
<td>Bolloré/SDV Logistics</td>
<td>6,785</td>
<td>Ocean Freight carried : 750,000 TEUs. Airfreight carried : 520,000 MT Bolloré Logistics is made up of Bolloré Africa Logistics, a major stevedoring company in Africa which generates 43% of revenue, and SDV a quintessentially French transportation and freight forwarding company, which generates the remainder of logistics revenue. Bolloré Africa Logistics, which has been in Africa for over 50 years, has 250 subsidiaries, about 20,000 employees and operates in 43 countries. SDV is ranked No. 1 in France by the IATA and No. 5 in Europe. It operates in 92 countries with a large footprint in Europe, Africa, Asia and USA.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>UPS Supply Chain Solutions</td>
<td>8,923</td>
<td>Ocean Freight carried : 500,000 TEUs Airfreight carried : 862,000 MT 12 % of containers handled by UPS SCS are LCL consolidations. UPS SCS contributes $2 billion+ per year in package business to its parent co. UPS.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>DSV</td>
<td>8,170</td>
<td>Ocean Freight carried : 726,861 TEUs Airfreight carried : 262,362 MT The DSV Group is Denmark’s second largest supplier of transport and logistics services. The Group originates in the Nordic countries but has established its own operations in more than 60 countries in Europe, the Far East and the Americas. DSV is primarily a non-asset operation. EBITS are 5.2%. Nearly half of its operations are European over-the-road, its Air &amp; Sea division makes up about 43% and Solutions (logistics) accounts for the rest.</td>
<td></td>
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</tbody>
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<thead>
<tr>
<th></th>
<th>Company</th>
<th>Ocean Freight carried</th>
<th>Airfreight carried</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Kintetsu World Express</td>
<td>3,321</td>
<td>550,377 TEUs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1,131,444 MT</td>
</tr>
<tr>
<td></td>
<td>Kintetsu’s largest operations within its global network are in Japan and China, with over 100 offices located in each of those countries. Nearly 50 percent of its business is airfreight based. Ocean and logistics business accounts for 41%.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Agility</td>
<td>4,410</td>
<td>550,000 TEUs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>490,000 MT</td>
</tr>
<tr>
<td></td>
<td>Agility has expanded its business dramatically from its warehousing base in Kuwait. It is a Middle Eastern leader in integrated supply chain solutions and is organized into three major business groups. Global Integrated Logistics (GIL) is the largest generating approximately 65% of Agility’s revenues and having more than 14,000 employees. It has core competencies in freight forwarding, contract logistics/warehousing, project logistics, fairs &amp; events, and supply chain management 3PL services.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Hellmann Worldwide Logistics</td>
<td>3,593</td>
<td>672,569 TEUs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>439,720 MT</td>
</tr>
<tr>
<td></td>
<td>Hellmann is a privately held German company. It has good freight forwarding and contract logistics operations. Coverage in Asia and China is extensive.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Pantos Logistics</td>
<td>2,412</td>
<td>1,625,098 TEUs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>216,653 MT</td>
</tr>
<tr>
<td></td>
<td>Pantos Logistics has a full set of tools including air and ocean freight forwarding, rail and road transportation in Korea, warehousing, customs, and express transportation. (DCC assets in South Korea only.). Pantos is a good international supply chain manager with a large freight forwarding base. Customers include Korean based companies like LG and internationals like Philips.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>UTi Worldwide</td>
<td>4,914</td>
<td>484,000 TEUs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>410,000 MT</td>
</tr>
<tr>
<td></td>
<td>UTi’s roots are in South Africa. It has strong forwarding operations in Asia with an emphasis on airfreight and a major drug distribution operation in South Africa and it does very well in British Commonwealth countries.</td>
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</tr>
</tbody>
</table>
### Appendix 1: Top 25 Global Freight Forwarders (2011) - contd.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name of the Freight Forwarder</th>
<th>Gross Revenue ($ Millions)</th>
<th>Traffic Handled &amp; Remarks</th>
</tr>
</thead>
</table>
| 17   | Toll Logistics                | 6,432                       | Ocean Freight carried : 520,000 TEUs.  
|      |                               |                             | Airfreight carried : 145,000 MT  
|      |                               |                             | Seventy-five percent of Toll’s revenues are Australian based where Toll has one of everything in logistics. Toll’s mission is to be the most successful provider of integrated solutions to the Asian region providing customers with global reach. Its largest vertical industry is Retail/FMCG, which accounts for 33% of its revenues. Sixty percent of SembCorp was acquired in 2006 by Toll Holdings which owns Australia’s largest trucking and distribution operations. |
| 18   | Damco                         | 2,752                       | Ocean Freight carried : 750,000 TEUs.  
|      |                               |                             | Airfreight carried : 110,000 MT  
|      |                               |                             | Damco is part of A.P. Moller Maersk (World’s largest container line). Damco which is a NVOCC and 3PL, has been reporting its separate financial results since 2009. Over half of its business is warehousing and distribution; about one-fifth of the net revenue is forwarding and consolidation. Supply chain management, airfreight forwarding and customs brokerage account for the rest. The majority of revenues are between Asia and North America. About one-third is in Asia-European traffic. Damco has marketed its new brand aggressively. |
| 19   | Yusen Logistics               | 3,881                       | Ocean Freight carried :450,000 TEUs.   
|      |                               |                             | Airfreight carried : 337,130 MT  
|      |                               |                             | Part of NYK Group, Yusen (started in 2001) has aggressively in international markets and expanded through organic growth and acquisitions. Contract logistics and distribution are strong in Europe. Automotive, industrial and retail/consumer goods verticals are emphasized. Its automotive logistics includes roll-on/roll-off, JIT and parts distribution. Nippon Cargo Air is now an |
NYK owned entity and Americas has its own airfreight forwarding capability. Sister company, Yusen Air & Sea, is a major airfreight operation, particularly within Asia and has set up a strategic agreement with Panalpina. Japan accounts for nearly 50% of the business. Revenues for Yusen are split between air and ocean freight forwarding, warehousing, and domestic U.S. transportation management.

### Appendix 1: Top 25 Global Freight Forwarders (2011) - contd.

<table>
<thead>
<tr>
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<th>Gross Revenue ($ Millions)</th>
<th>Traffic Handled &amp; Remarks</th>
</tr>
</thead>
</table>
| 20   | Geodis                        | 5,890                       | Ocean Freight carried: 420,000 TEUs.  
                                             Airfreight carried: 210,000 MT  
                                             Geodis is France's largest provider of transportation and logistics services and is one of the top European 3PLs. With over 12,000 employees, Geodis Group covers more than 120 countries worldwide through its subsidiaries including Geodis Logistics, Geodis Wilson, and Geodis Supply Chain Optimisation (which grew out of its December 2008 acquisition of IBM’s internal global logistics operations). |
                                             Airfreight carried: 50,000 MT  
                                             75% of Robinson’s net revenues are truck transportation related and the balance is from domestic intermodal, international air and ocean, food sourcing, fuel card services and fuel management, and supply chain management. |
| 22   | Hyundai GLOVIS                 | 8,588                       | Ocean Freight carried: 466,318 TEUs.  
                                             Airfreight carried: 17,408 MT  
                                             Hyundai GLOVIS, formerly known as Hankook Logitech, is part of the Hyundai Kia Automotive Group under its parent company Hyundai Motor Co., Ltd. It specializes in the automotive, industrial and chemicals vertical industries. Over three-quarters of its revenue is Korea-based. The rest is generated by its 13 branch offices. |
Kerry Logistics’ business portfolio encompasses contract logistics, international freight forwarding, warehousing, transportation, distribution, trading, merchandising and a wide variety of value-added services and is now managing over 26 million square feet of warehouse space, logistics centers and port facilities globally. Its Integrated Logistics division, mainly value-added warehousing and distribution, generates 44% of revenue and its International Freight Forwarding division generates 56%.

### Appendix 1: Top 25 Global Freight Forwarders (2011) - contd.

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<tr>
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</thead>
<tbody>
<tr>
<td>24</td>
<td>Sankyu</td>
<td>2,689</td>
<td>Ocean Freight carried : 710,000 TEUs. Airfreight carried : 18,060 MT Sankyu is an asset based, Japanese 3PL with a strong presence in the Asian market as well as operations in Europe, USA and Brazil. Although Sankyu still does a significant amount of project logistics, the main revenue from its logistics division is from the automotive, chemicals, consumer goods and retailing verticals. Logistics generates over half (55%) of Sankyu's total company revenue.</td>
</tr>
<tr>
<td>25</td>
<td>DACHSER</td>
<td>5,925</td>
<td>Ocean Freight carried : 321,000 TEUs. Airfreight carried : 50,000 MT DACHSER European Logistics Accounts for over 60 % of the Revenues. DACHSER is a specialist in handlingsmall shipments (Less than Container Loads and aircargo consolidation).</td>
</tr>
</tbody>
</table>
Note: Revenues are company reported or Armstrong & Associates, Inc. estimates and have been converted to US$ using the average exchange rate in order to make non-currency related growth comparisons. Freight forwarders are ranked using a combined overall average based on their individual rankings for gross revenue, ocean TEUs and airfreight metric tons.

** *
CHAPTER 2

Functions of a Freight Forwarder.

The freight forwarder’s functions can be classified as follows:

Primary activities:

1. To act as shipper’s agent procuring shipping space on behalf of his principal/shipper and executing his instructions.

2. To provide a range of independent services such as
   a. Customs Documentation (Filing Shipping Bill / Export Declaration in case of Export shipments and Filing Import Declaration / Bill of Entry in case of Import shipments
   b. Packing
   c. Warehousing
   d. Port agency while doing the freight forwarding for bulk cargoes involving tramp vessels.

3. To provide a range of advice on all the areas related to international consignment distribution viz.
   a. Choosing the right mode of transport (viz. air transport / sea transport / sea-air transport)
   b. Choosing the right service provider (shipping line / airline / road operator / rail operator)
   c. Choosing the right type of container / equipment
   d. Choosing the right port
   e. Suggesting the right type of packing required keeping in mind the cargo, mode of transportation and the distance involved.
   f. Suggesting on the statutory requirement to be complied with by the shipper. Example: Fumigation for the shipments to Australia, Use of pallets in case of shipments to Saudi Arabia, etc.
   g. In case of dangerous cargo, regulations pertaining to packaging, stowage, and mixture with other cargoes during stowage.

4. To act as a principal, usually as a multi-modal transport operator conveying goods from Point A to Point B across international frontiers and involving usually several carriers, often as an NVOCC (Non Vessel Operating Common Carrier) (or) an MTO (Multimodal Transport Operator).

Today, virtually all large freight forwarders (please see Appendix 1 at the end of Chapter 1) are logistics operators in a computerized environment with the focus on supply chain management. They have on-line access to carriers
(shipping lines, airlines), customs authorities, port authorities / terminal operating companies, shippers, consigneers, etc.

INCOTERMS (International Commercial Terms) between the seller and buyer will determine the services required to be rendered by seller’s freight forwarder and buyer’s freight forwarder. INCOTERMS 2010, the current version of INCOTERMS is given in Appendix 2 at the end of this chapter. The functions normally performed by exporter’s / importer’s freight forwarder is presented in the following pages.

Functions of Export Freight Forwarder

1. **Examination of options available to the Shipper to distribute the goods:** Freight Forwarder should be an expert in analyzing the options available for transportation of the cargo from the point of origin to the place of final delivery. Forwarders work closely with Seaports / Airports / Railways / Canals and facilitate trade development.

   Examples: A shipment of Garments from Chennai to New York can be sent in any of the following options:
   
   a. Direct Seafreight Service from Chennai to New York
   b. Transhipment Seafreight Service from Chennai to New York with Transhipment at Dubai
   c. Transhipment Seafreight Service from Chennai to New York with Transhipment at Singapore and sea/rail land bridge. (The concept of land bridge, Sea-Air and other multimodal transportations are explained in Chapter 5)
   d. Sea - Air service through Dubai
   e. Sea - Air service through Hamburg

   Each of the above options will be having a different cost structure and different transit times. The cost will be proportional to the transit time. If the transit time is more, cost will be less. The forwarder will help the shipper to make the decision depending on the urgency of the shipment.

2. **Making Transportation arrangements:** This is a major function involving the booking and despatch of the goods between the consignor’s and consignee’s premises or other specified points. The freight forwarder has to make the booking with the Carrier by giving the carrier information about the shipment. The procedure followed in seafreight is to enter into a contract with the Carrier (Shipping Line) by signing a BOOKING NOTE which contains the following information. The procedure for airfreight is given in Chapter 4.

   a. Name of Merchant effecting the booking (The Freight forwarder is referred as “Merchant” by the Shipping Line)
   b. Name of the Shipper
c. Name of the Consignee
d. Place of receipt by pre-carrier
e. Port of loading
f. Vessel Name
g. Port of discharge
h. Place of delivery by on-carrier
i. Description of goods
j. Marks and Nos.
k. Gross weight
l. Net weight
m. Measurement
n. No. of Containers (20' / 40')
o. Freight details, other charges viz. (Terminal Handling Charges), etc.
p. Special terms, if agreed
q. Daily demurrage rate (applicable for cargo booked on chartering terms)
r. Deadfreight payable (applicable for cargo booked on chartering terms)
s. Freight payment status (prepaid at loadport / payable at destination)
t. Number of original Bs/L required

The booking note will have the following clause:

It is hereby agreed that this Contract shall be performed subject to the terms contained in this Booking Note and in the Carrier's Standard Conditions of Carriage, which shall prevail over any previous arrangements and which shall in turn be superseded (except as to deadfreight and demurrage) by the terms of the Bill of Lading. Copies of Carrier's Standard Conditions of Carriage, if any can be obtained upon request from the Carrier or his agents.

From the above, it can be seen that Booking Note is a contract entered into between the Freight Forwarder and the Carrier. The Freight Forwarder is entering into the contract on behalf of the shipper (or) in other words, “as agents of the shipper”.

3. **Documentation:** The freight forwarder has to make a provision of all the prescribed documentation for the goods having regard to all the statutory requirements and terms of the export sales contract (INCOTERMS).

4. **Customs Formalities:** The freight forwarder has to do all the customs clearance arrangements pertaining to the exportation of cargo of the cargo viz. filing the shipping bill / export declaration.

5. **Payment of freight and other charges:** The freight forwarder has to arrange for payment of freight to the prescribed carrier including any handling charges raised by the airport, seaport, container freight station, bonded warehouse or elsewhere during the transit.

6. **Packing and warehousing:** If the cargo requires any special packing of goods or warehousing while the cargo is in transit, the freight forwarder has to make suitable arrangements for them. Some of the cargoes may
need temperature controlled warehousing and special types of packing / carriage. A Freight forwarder entrusted with the job of transportation of Race horses has prepared a special box with ventilation and booked the horse in a freighter aircraft with special cooling arrangements enroute. Carriage of luxury boats by seatransport will require the forwarder to make a cradle (V shaped wooden structure) for keeping the boat on the deck of the ship.

7. **Cargo insurance:** The INCOTERM governing the export sale contract between the seller and the buyer may require Seller’s (Exporter’s) freight forwarder to arrange for the insurance till the point where buyer’s insurance coverage will commence. The freight forwarder has to arrange for the insurance accordingly.

8. **Consolidation, groupage and special services:** Many forwarders specialize in providing sophisticated services viz. Buyer’s consolidation (Consolidating Less Container Load cargoes from many small exporters into Full Container Loads for a Buyer) and Groupage Services (aggregating cargoes from various shippers to one consignee). Some forwarders also offer co-packing service depending on the needs of their customers.

9. **Other services for Exporters:** Freight forwarders will be required by some of the exporters to do specific services viz. Fumigation of containers and/or cargo, arranging for survey of cargo while stuffing the container / loading the cargo on board, analytical testing of samples, etc.

**Functions of Import Freight Forwarder**

1. **Examination of options available to the Importer to receive the goods:** Importers using INCOTERMs viz. EXW (Ex Works) will ask their Freight Forwarders to analyze the options available for transportation of the cargo from the point of origin to the place of final delivery. This is similar to the discussion on the subject given under the heading of Functions of Export Freight Forwarder.

2. **Making Transportation arrangements:** This is similar to the discussion on the subject given under the heading of Functions of Export Freight Forwarder.

3. **Documentation:** This is similar to the discussion on the subject given under the heading of Functions of Export Freight Forwarder.

4. **Notification of cargo arrival:** The freight forwarder representing an Importer will be required to inform the importer of the date and location of the goods’ arrival and the requisite documents required for customs clearance. The freight forwarder has to liaise with the Carrier / Carrier’s
agents to ascertain the arrival date and take all the precautions to ensure that goods are taken delivery within the free period permitted by the carrier. If there is delay, the carrier as well as the seaport / airport will levy demurrage charges.

5. **Payment of freight and other charges:** The freight forwarder will coordinate and effect the payment of freight (in cases of “Freight Payable at Destination” shipments) and other charges viz. Terminal Handling Charges, Delivery order fee, etc.

6. **Customs clearance:** Similar to the discussion on the subject given under the heading of Functions of Export Freight Forwarder, the Import Freight Forwarder has to present the cargo before the Customs Examiners and clear the same. This closely involves submission of all the requisite documents viz. Bill of Lading / Airway Bill, Commercial Invoice, Packing List, Certificate of Origin, etc. Many major seaports and airports now operate a computerized customs clearance system thereby speeding up the process and eliminating the risk of errors. Electronic customs clearance is also quite common. The freight forwarder will also coordinate the payment of Customs Duty and any other charges applicable for the clearance of cargo through Customs.

7. **Delivery to the importer:** The freight forwarder has to arrange for delivering the goods to the importer’s premises following customs clearance. This will involve arranging for transportation of cargo / containers inland (referred as Merchant Haulage), arranging for destuffing the cargo and returning the container to the carrier. The freight forwarder will be required to furnish a guarantee to the carrier while taking delivery to ensure that the empty container is returned in the same condition in which it was taken.

8. **Breaking bulk and distribution:** In cases where, the freight forwarder is an umbrella agent whereby he consolidates not only his own client’s merchandise, but also those of other forwarders with whom he has a contractual arrangement. On arrival of the goods in the destination country, the cargo is handed over to the respective forwarders to process through customs and distribute. The freight forwarder will despatch cargo by air or surface transport modes.

9. **Other functions:** Similar to the discussion under the heading of Functions of Export Freight Forwarder, Import Freight Forwarders also arrange for Warehousing, Insurance, arranging for survey of cargo while destuffing the container / unloading the cargo on board, analytical testing of samples, etc.
Appendix 2: INCOTERMS 2010

The Functions performed by a Freight Forwarder depends on what the Exporter (or) Importer requires the Freight Forwarder to do. This in turn depends on the Contract of Sale between the Seller and the Buyer. The INCOTERMS (International Commercial Terms) are published by the ICC (International Chamber of Commerce) since 1936 to be used in International Trade transactions. The INCOTERMS are reviewed every 10 years to ensure that they are kept up to date with current trade practices. The current version of Incoterms 2010 are effective from January 2011.

Currently there are 11 Incoterms divided in to the following 2 categories.

a. Terms applicable for any mode or modes of transport
b. Terms applicable for sea transport (or) inland waterway transport.

In the earlier version (Incoterms 2000), there were 13 Incoterms divided into 4 categories. As the new versions of Incoterms have already come into effect, we don’t have to worry about the earlier categories. However, we must know the current status of the 13 terms (especially which ones are retained and which ones are no longer valid). The following table will give a glimpse of the Incoterms 2010 in comparison with the Incoterms 2000.

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<thead>
<tr>
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<td>Retained</td>
<td>FCA (named place) Incoterms 2010</td>
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<td>Free Alongside Ship (FAS)</td>
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</table>
Responsibilities of Sellers and Buyers for INCOTERMS 2010:

### Section 1: Incoterms applicable for any mode or modes of transport

1. **EX WORKS - EXW (named place) Incoterms 2010:**

   a. EXW represents the minimum obligation for the seller.

   b. EXW may be used irrespective of the mode of transport selected and may also be used where more than one mode of transport is employed.

   c. “EXW” means that the seller delivers when it places the goods at the disposal of the buyer at the seller’s premises or at another named place (i.e., works, factory, warehouse, etc.). The seller does not need to load the goods on any collecting vehicle, nor does it need to clear the goods for export, where such clearance is applicable.

   d. The parties are well advised to specify as clearly as possible the point within the named place of delivery, as the costs and risks to that point are for the account of the seller. The buyer bears all costs and risks involved in taking the goods from the agreed point, if any, at the named place of delivery.

   e. A buyer who buys from a seller on an EXW basis for export needs to be aware that the seller has an obligation to provide only such assistance as the buyer may require to effect that export: the seller is not bound to organize the export clearance. Buyers are therefore well advised not to use EXW if they cannot directly or indirectly obtain export clearance.

   f. Buyer has to arrange for Contracts of carriage and insurance.
g. The buyer bears all risks of loss of or damage to the goods from the time the seller delivers the goods by placing them at the disposal of the buyer at the agreed point, if any, at the named place of delivery, not loaded on any collecting vehicle. If no specific point has been agreed within the named place of delivery, and if there are several points available, the seller may select the point that best suits its purpose. The seller must deliver the goods on the agreed date or within the agreed period.

2. **Free Carrier - FCA (named place of delivery) Incoterms 2010.**

   a. FCA may be used irrespective of the mode of transport selected and may also be used where more than one mode of transport is employed.

   b. “FCA” means that the seller delivers the goods to the carrier or another person nominated by the buyer at the seller’s premises or another named place. The parties are well advised to specify as clearly as possible the point within the named place of delivery, as the risk passes to the buyer at that point.

   c. If the named place is the seller’s premises, then Delivery is completed when the goods have been loaded on the means of transport provided by the buyer. In any other case, Delivery is completed, when the goods are placed at the disposal of the carrier or another person nominated by the buyer on the seller’s means of transport ready for unloading. (unloading charges are to buyer’s account).

   d. “FCA” requires the seller to clear the goods for export and requires the Buyer to arrange for Contracts of carriage and insurance.

   e. The buyer bears all risks of loss of or damage to the goods from the time the seller delivers the goods to the carrier or another person nominated by the buyer at the agreed point, if any, at the named place on the agreed date or within the agreed period.

3. **CARRIAGE PAID TO - CPT (named place of destination) Incoterms 2010**

   a. CPT may be used irrespective of the mode of transport selected and may also be used where more than one mode of transport is employed.
b. CPT requires the seller to clear the goods for export.

c. “Carriage Paid To” means that the seller delivers the goods to the carrier or another person nominated by the seller at an agreed place (if any such place is agreed between the parties).

d. Seller must contract for and pay the costs of carriage necessary to bring the goods to the named place of destination.

e. The seller fulfills its obligation to deliver when it hands the goods over to the carrier and not when the goods reach the place of destination.

f. The parties are well advised to identify as precisely as possible in the contract both the place of delivery, where the risk passes to the buyer, and the named place of destination to which the seller must contract for the carriage. Should the parties wish the risk to pass at a later stage (e.g., at an ocean port or airport), they need to specify this in their contract of sale. The parties are also well advised to identify as precisely as possible the point within the agreed place of destination, as the costs to that point are for the account of the seller.

g. The buyer bears all risks of loss of or damage to the goods from the time the seller delivers the goods by handing them over to the carrier after contracting for the carriage of the goods from the agreed point of delivery, if any, at the place of delivery to the named place of destination or, if agreed, any point at that place. The contract of carriage must be made on usual terms at the seller’s expense and provide for carriage by the usual route and in a customary manner. If a specific point is not agreed or is not determined by practice, the seller may select the point of delivery and the point at the named place of destination that best suit its purpose.

h. If customary or at the buyer’s request, the seller must provide the buyer, at the seller’s expense, with the usual transport document[s] for the transport contracted by the seller. This transport document must cover the contract goods and be dated within the period agreed for shipment. If agreed or customary, the document must also enable the buyer to claim the goods from the
carrier at the named place of destination and enable the buyer to sell the goods in transit by the transfer of the document to a subsequent buyer or by notification to the carrier. When such a transport document is issued in negotiable form and in several originals, a full set of originals must be presented to the buyer.

4. CARRIAGE AND INSURANCE PAID TO - CIP (named place of destination) Incoterms 2010

a. CIP may be used irrespective of the mode of transport selected and may also be used where more than one mode of transport is employed.

b. CIP means that the seller delivers the goods to the carrier or another person nominated by the seller at an agreed place (if any such place is agreed between the parties) and that the seller must contract for and pay the costs of carriage necessary to bring the goods to the named place of destination.

c. The seller also contracts for insurance cover against the buyer’s risk of loss of or damage to the goods during the carriage. The buyer should note that under CIP the seller is required to obtain insurance only on minimum cover. Should the buyer wish to have more insurance protection, it will need either to agree as much expressly with the seller or to make its own extra insurance arrangements.

d. The seller fulfills its obligation to deliver when it hands the goods over to the carrier and not when the goods reach the place of destination.

e. The parties are also well advised to identify as precisely as possible the point within the agreed place of destination, as the costs to that point are for the account of the seller. The seller is advised to procure contracts of carriage that match this choice precisely. If the seller incurs costs under its contract of carriage related to unloading at the named place of destination, the seller is not entitled to recover such costs from the buyer unless otherwise agreed between the parties.

5. DELIVERED AT TERMINAL - DAT (named place of destination) Incoterms 2010
1. DAT may be used irrespective of the mode of transport selected and may also be used where more than one mode of transport is employed.

2. DAT requires the seller to clear the goods for export.

3. “Delivered at Terminal” means that the seller delivers when the goods, once unloaded from the arriving means of transport, are placed at the disposal of the buyer at a named terminal at the named port or place of destination. “Terminal” includes any place, whether covered or not, such as a quay, warehouse, container yard or road, rail or air cargo terminal.

4. The seller bears all risks involved in bringing the goods to and unloading them at the terminal at the named port or place of destination. The parties are well advised to specify as clearly as possible the terminal and, if possible, a specific point within the terminal at the agreed port or place of destination, as the risks to that point are for the account of the seller. The seller is advised to procure a contract of carriage that matches this choice precisely.

6. DELIVERED AT PLACE - DAP (named place of destination)  
Incoterms 2010

a. DAP may be used irrespective of the mode of transport selected and may also be used where more than one mode of transport is employed.

b. DAP requires the seller to clear the goods for export.

c. “Delivered at Place” means that the seller delivers when the goods are placed at the disposal of the buyer on the arriving means of transport ready for unloading at the named place of destination. The seller bears all risks involved in bringing the goods to the named place.

d. The parties are well advised to specify as clearly as possible the point within the agreed place of destination, as the risks to that point are for the account of the seller. The seller is advised to procure contracts of carriage that match this choice precisely. If the seller incurs costs under its contract of carriage related to
unloading at the place of destination, the seller is not entitled to recover such costs from the buyer unless otherwise agreed between the parties.

7. DELIVERED DUTY PAID - DDP (named place of destination)  
**Incoterms 2010**

a. DDP may be used irrespective of the mode of transport selected and may also be used where more than one mode of transport is employed.

b. “Delivered Duty Paid” means that the seller delivers the goods when the goods are placed at the disposal of the buyer, cleared for import on the arriving means of transport ready for unloading at the named place of destination.

c. The seller bears all the costs and risks involved in bringing the goods to the place of destination and has an obligation to clear the goods not only for export but also for import, to pay any duty for both export and import and to carry out all customs formalities.

d. DDP represents the maximum obligation for the seller. The parties are well advised to specify as clearly as possible the point within the agreed place of destination, as the costs and risks to that point are for the account of the seller. The seller is advised to procure contracts of carriage that match this choice precisely. If the seller incurs costs under its contract of carriage related to unloading at the place of destination, the seller is not entitled to recover such costs from the buyer unless otherwise agreed between the parties. The parties are well advised not to use DDP if the seller is unable directly or indirectly to obtain import clearance.

Section 2: Incoterms applicable for SEA AND INLAND WATERWAY mode of transport

8. FREE ALONGSIDE SHIP - FAS (named port of shipment)  
**Incoterms 2010**

a. FAS is to be used only for sea or inland waterway transport.
b. “Free Alongside Ship” means that the seller delivers when the goods are placed alongside the vessel (e.g., on a quay or a barge) nominated by the buyer at the named port of shipment.

c. The risk of loss of or damage to the goods passes when the goods are alongside the ship, and the buyer bears all costs from that moment onwards.

d. The parties are well advised to specify as clearly as possible the loading point at the named port of shipment, as the costs and risks to that point are for the account of the seller and these costs and associated handling charges may vary according to the practice of the port.

e. FAS requires the seller to clear the goods for export, where applicable.

f. The seller is required either to deliver the goods alongside the ship or to procure goods already so delivered for shipment. The reference to “procure” here caters for multiple sales down a chain (‘string sales’), particularly common in the commodity trades.

g. Where the goods are in containers, it is typical for the seller to hand the goods over to the carrier at a terminal and not alongside the vessel. In such situations, the FAS term would be inappropriate, and the FCA term should be used.

9. FREE ON BOARD - FOB (named port of shipment) Incoterms 2010

a. FOB is to be used only for sea or inland waterway transport.

b. “Free on Board” means that the seller delivers the goods on board the vessel nominated by the buyer at the named port of shipment or procures the goods already so delivered.

c. The risk of loss of or damage to the goods passes when the goods are on board the vessel, and the buyer bears all costs from that moment onwards.

d. FOB requires the seller to clear the goods for export, where applicable.
The seller is required either to deliver the goods on board the vessel or to procure goods already so delivered for shipment. The reference to “procure” here caters for multiple sales down a chain (‘string sales’), particularly common in the commodity trades.

FOB may not be appropriate where goods are handed over to the carrier before they are on board the vessel, for example goods in containers, which are typically delivered at a terminal. In such situations, the FCA term should be used.

10. COST AND FREIGHT - CFR (named port of destination) Incoterms 2010

a. CFR is to be used only for sea or inland waterway transport.

b. “Cost and Freight” means that the seller delivers the goods on board the vessel or procures the goods already so delivered. The risk of loss of or damage to the goods passes when the goods are on board the vessel.

c. CFR requires the seller to clear the goods for export, where applicable.

d. The seller fulfills its obligation to deliver when it hands the goods over to the carrier and not when the goods reach the place of destination.

e. This rule has two critical points, because risk passes and costs are transferred at different places. While the contract will always specify a destination port, it might not specify the port of shipment, which is where risk passes to the buyer. If the shipment port is of particular interest to the buyer, the parties are well advised to identify it as precisely as possible in the contract. The parties are well advised to identify as precisely as possible the point at the agreed port of destination, as the costs to that point are for the account of the seller. The seller is advised to procure contracts of carriage that match this choice precisely. If the seller incurs costs under its contract of carriage related to unloading at the specified point at the port of destination, the seller is not entitled to recover such costs from the buyer unless otherwise agreed between the parties.
f. The seller is required either to deliver the goods on board the vessel or to procure goods already so delivered for shipment to the destination. In addition, the seller is required either to make a contract of carriage or to procure such a contract. The reference to “procure” here caters for multiple sales down a chain (‘string sales’), particularly common in the commodity trades.

g. CFR may not be appropriate where goods are handed over to the carrier before they are on board the vessel, for example goods in containers, which are typically delivered at a terminal. In such circumstances, the CPT rule should be used.

11. **COST INSURANCE AND FREIGHT - CIF (named port of destination) Incoterms 2010**

a. CFR is to be used only for sea or inland waterway transport.

b. “Cost, Insurance and Freight” means that the seller delivers the goods on board the vessel or procures the goods already so delivered. The risk of loss of or damage to the goods passes when the goods are on board the vessel.

c. The seller must contract for and pay the costs and freight necessary to bring the goods to the named port of destination.

d. The seller also contracts for insurance cover against the buyer’s risk of loss of or damage to the goods during the carriage. The buyer should note that under CIF the seller is required to obtain insurance only on minimum cover. Should the buyer wish to have more insurance protection, it will need either to agree as much expressly with the seller or to make its own extra insurance arrangements.

e. The seller fulfills its obligation to deliver when it hands the goods over to the carrier and not when the goods reach the place of destination.

f. CIF may not be appropriate where goods are handed over to the carrier before they are on board the vessel, for example goods in
containers, which are typically delivered at a terminal. In such circumstances, the CIP term should be used.

g. CIF requires the seller to clear the goods for export, where applicable. However, the seller has no obligation to clear the goods for import, pay any import duty or carry out any import customs formalities.

***
## Incoterms - 2010

A quick glance at the distribution of Costs between Buyer and Seller

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CHAPTER 3

Seafreight Forwarding

The freight forwarder will be predominantly using the following types of ships for carrying the cargo through sea transport.

1. Container ship
2. Roll on roll of ships
3. Break Bulk (General cargo vessels)

Container Ships
The above diagram depicts a container ship.

The principal dimensions of the ship are explained below:

TEU - Container ships are usually described in terms of the number of containers they can carry. The abbreviation 'TEU' stands for Twenty-foot Equivalent Unit and is the customary way of referring to a container ship's size.
The Container ship’s hull is divided at intervals into compartments that are separated by watertight bulkheads. Excluding the first of these in the bow of the ship (because it is not a convenient shape for carrying cargo) the next compartments are the cargo holds which may number from two to eight, ten or more depending on the size and type of ship. Holds are traditionally numbered for reference from bow to stern. Each hold is accessed through a hatch which is an opening in the main or weather deck. On deck there may be cranes or gantries for cargo handling.

The smallest container ships may carry less than 100 TEU in short sea, coastal or river and canal operations. While in deep sea trades the largest possible will be used governed not just by the volume of trade but by the ability of the ports served to handle them. However the search for economies of scale have meant that container ship sizes have continued to increase to a capacity well in excess of 10,000 TEU.

In the beginning of 2013, The ship, CMA CGM Marco Polo held the title of largest container ship in the world, measuring in at just under 1,300-feet long, and the first of three similarly sized ships ordered by French shipping line CMA CGM. It is capable of holding 16,000 TEUs. That means 2.1 million refrigerators or 13.4 million 42” televisions. If the Marco Polo were an apartment building, it would have about 2,300 one-bedroom units. Later this year, the Marco Polo will be joined in CMA CGM’s fleet by two other 16,000 TEU vessels, the Jacques Cartier and the Alexander von Humboldt. No surprise why these are called “Explorer Class” vessels.

Just as in the age of discovery, however, every great achievement must be superseded. In this case, rival Maersk is planning to launch the first of 20 Triple-E class ships in June of 2013. The Triple-E — so named for “energy, efficiency and economy of scale,” according to Maersk — will be able to fit 18,000 TEU. The Danish shipping group says that the Triple-E vessels will cut in half CO₂ emissions per container delivered from Asia to Europe. That doesn’t mean it won’t be massive: It’s nearly a quarter mile long, and just one of its two propellers alone weighs 70 tons.

**Feeder vessels**
It is uneconomic for large deep sea container ships to call at multiple small berths/ports to load/discharge a very small number of containers and it is also possible that such a port would be unable to cope with the size of the vessel. So as to deal with these difficulties, smaller Feeder Container Ships were introduced to run between main terminal and local berths or smaller ports, moving incoming boxes to their eventual destination and fetching back outbound containers. Currently, Feeder ships are in various sizes from 100 TEU to 2000 TEU depending upon the trade lane in which they are deployed. Feeder trade lanes are also referred as “short sea routes” as against the main haul vessels which are plying in the “deep sea routes”.
**The maritime container**

The concept of stowing small items in a large re-useable ‘container’ dates back to the first quarter of the 20th century when ‘Lift vans’ were used both in Europe and the USA for the removal of household goods in a unit that could be carried on road or rail vehicles. It was American operators led by Malcolm McLean the creator of Sealand, and Matson Line who, in the early 1960s, developed the concept into the use of a standard size unit that could be carried on a road trailer or in a ship. Surprisingly it was the European and Japanese lines that took the lead in transferring the concept to mainstream deep sea trades and developing purpose built container ships. By packing goods in a standard container, protection is afforded and the use of the container makes rapid intermodal transfers and mechanical handling possible.

**RO-RO Ships**

![Diagram of a RO-RO ship](image)

There are a number of different types of Roll on/Roll off (Ro-Ro) ships. Most are also capable of carrying containers as well as vehicles, unit loads, and other cargoes that can be wheeled on board.

Loading and discharging the cargoes from a Ro-Ro vessel is usually via a ramp, which in modern ships is capable both of sustaining very heavy loads of up to several hundred tonnes, and sometimes of being rotated in an arc. Other ramps inside the ship and sometimes lifts are provided for distributing the cargo over various decks including the weather deck which provides large open spaces on which containers and/or vehicles can be stowed. Ro-Ro vessels' ramps can be at the stern, side or bow of the vessel. Some ships can operate stern and bow ramps together so as cargo is discharged via one ramp the other ramp is employed for loading.

**Lane Metres** – Roll on-Roll off (Ro-Ro) ships have their cargo spaces divided into lanes running from stern to bow, in which vehicles will be stowed one behind the other. The total length of all the lanes in metres is used to describe the cargo capacity of the ship.
Passenger and Freight Ferries
The most common use of Ro-Ro ships today is for ferry services, these may be primarily for passengers accompanied by cars, they may operate for the carriage of freight only or most usually a combination of the two. There is little difference between the operation of the two types of ferry. A passenger ferry will of course have substantial accommodation and public areas for the passengers carried which will not be required on a cargo ferry. The design of the two ships is essentially the same below the accommodation deck.

A conventional or container ship is divided in into watertight compartments but a ferry cannot have this safety element in its construction because there must be a large open garage space in which the vehicles can be stowed. This makes a ferry vulnerable if water enters the open car decks, the free surface effect leads to rapid instability and was the cause of serious losses in the last quarter of the 20th century. This has caused considerable rethinking in recent years and particularly the use of a bow doors has been largely discontinued in passenger ferries. However the relatively high cubic measurement to weight ratio of cars and lorries does assist ferry design as the bulk of the vessel makes it easier to achieve buoyancy.

Ferries may have more than one deck in which case the other decks are accessed by ramps within the vessel which can be secured away during the sea passage.

General Cargo Ships
An example of a multi-purpose general cargo ship is shown above. It has four holds and a deadweight tonnage of 21,500 with a draught of 10.75 m. The vessel’s overall length is 155.5 m and the service speed is 15.3 knots. The cargo hold grain capacity is 30,340 m$^3$ and bale capacity 27,950 m$^3$. The container capacity is 746 TEU, of which some 408 TEU are above deck. The crew complement is 25, nine of whom are officers. The vessel has two single 25 tonnes and one twin 25 tonnes electro-hydraulic deck cranes. The vessel is suitable for worldwide trading in general cargoes, dry bulk, long steel products, grain cargoes and containers. The vessel is called the Multi King 22 multi-purpose general cargo ship.

The general cargo ship represents 11% of the world fleet size and is designed with a single deck hull which includes a single holder arrangement of holds and ‘tween decks, specially for the carriage of diverse forms of dry cargo.

The cargo handling mode is lift on/lift off to and from the holds (and ‘tween decks) by way of weather deck (and ‘tween deck) hatches.

Various features of General cargo vessels may include
i. A single deck, double skin sides and wide deck openings (box shape holds). Vessels of this type may be intended specifically for the carriage of forest products cargo handling of which may be by use of a gantry crane
ii. Strengthening for the carriage of heavy cargoes (viz. Granite blocks, steel coils, etc.)
iii. Certain holds equipped with container securing arrangements, hoistable or movable vehicle decks, or other facilities pertaining to the carriage of a particular type of cargo
iv. The weather deck equipped with container securing arrangements, or arrangements for the shipment of timber
v. Carriage of liquid cargo specially designed tanks
vi. A refrigerated cargo space for the carriage of perishable cargoes
vii. Additional cargo handling to and from the cargo spaces by way of a slide-loading/unloading system (for the carriage of cargo in pallet form and other unitized cargo)
viii. Additional cargo handling to and from a ‘tween deck by way of a stern side or bow door/ramp situated below the weather deck, or where additional cargo segregation is provided by hinged ‘tween-deck openings or a hinged movable bulk head.

The average age of the world general cargo fleet in 2012 was 16 years. This type of tonnage is being displaced by container vessels as port modernization, development of more container berths and its related infrastructure.

**Service Options and Prominent Sea Routes:**
The freight forwarder should be aware of the prominent sea routes and the ports served by various liner shipping companies. The service options in sea transport are as follows:

1. **End to end service**

The traditional way of serving a liner sea trade route was to cover a range of loading ports at one end of the route and a range of discharging ports at the other. The vessel sailed from the loading ports to the discharging ports and then returned over the same route to its starting point. There might be slight differences as to the individual ports called at on the outbound and return legs mainly because of the availability of export cargo from a particular port which had no demand for imports or vice-versa. Such a route might be from Hamburg, London, Rotterdam and Antwerp to Sharjah, Mumbai, Colombo and Chennai. The return route might add an Indian export port such as Visakapatnam but omit the Arabian Gulf port. Modern shipping services require new concepts to maximise the anticipated economies of scale.

2. **Round the world (RTW)**

This is the ultimate alternative to the end to end service. The ship never turns round, it just keeps sailing until it completes a circumnavigation and returns to its starting port. The following three largest trade lanes in the world are following this concept:

- **Transatlantic**: This route is between the Eastern seaboard of North America and North West Europe (The Baltic Sea to France).
- **Transpacific**: The route is between North America (West coast USA and Canada) and the Far East/South East Asia (Japan to Singapore).
- **Far East to Europe**: North West Europe with the Far East and South East Asia.

The expected economy of this operation is that the vessel will have the opportunity to carry cargo on every leg of the voyage including ports that are intermediary to the main voyage legs. Ideally the service operates both west about and east about the world. One obvious limitation is that such a service is restricted to using Panamax tonnage (the largest size of vessel that can transit the Panama Canal). RTW services have recently declined in importance as lines have chosen to concentrate on specific service sectors for which schedule reliability is important. RTW services find it difficult to make up any lost time without the omission of a port, which is unpopular with customers and expensive for the line if it has to feeder containers to/from another port.

3. **Pendulum Service**

In its most ambitious form a pendulum service is a RTW service that omits the Panama Canal allowing the largest size of vessel to be used. It would operate from the Eastern Seaboard of USA (ECUS – East Coast of USA) via Europe to
the Far East and on to the US West Coast and vice versa. Compared with a RTW service it loses the ability to carry cargo between, for example, ECUS and the Far East because its transit time is too long. Pendulum differs from End to End in that it combines two or more main trade routes.

**Classification of Cargoes carried by Sea:**

**General Cargo**

The type of cargo moved by Freight Forwarders comprises what in the shipping world has traditionally been known as “liner cargo” or more correctly “general cargo” because of the mixture of very different commodities and the methods of packing used. General cargo is thus distinguished from ‘bulk’ or homogeneous cargo comprising large movements of single commodities. General cargoes range from small consignments of just a few hundred kilos to very large shipments of hundreds of tonnes as well as indivisible loads such as railway locomotives. While many cargoes are harmless, special attention is required for those which are dangerous.

Cargoes are often grouped for convenience by the type of packaging used. Some examples of important classes of cargo are listed below, there are many others. In most cases the packages of cargo described below will be consolidated onto pallets for ease of handling in factories and warehouses. Because general cargo can comprise anything in the world these lists are only examples and are by no means definitive.

Cases, Cartons and Crates: In many of these examples the case or carton will contain items that are already individually packed for reselling.

‘**Consumer Goods’**

‘White’ goods : Washing machines, Refrigerators, Freezers

Electrical & Electronics : Computers, Camcorders, TV, Hi-fi

Clothing: Items that are usually sold folded such as Jeans, T Shirts, Shirts, etc.

Footwear.

Textiles : Bed linen, towels, fabrics.

**Pharmaceuticals**

Toiletries: Soaps, Cosmetics, Creams and lotions, Patent medicines.

Drugs : Prescription medicines for humans and animals

**Oils and Chemicals**

Harmless Chemicals: Dry chemicals for all sorts of purpose
Fertilisers: Mainly smaller packs for gardeners or smallholders
Paints: Retail packs of small tins in cartons or cases
Lubricating oils: Retail packs in cartons

Foodstuffs
Canned foods: - For humans and pets
Non-perishable dry goods: - Tea, biscuits, confectionery
Food in bottles and jars: - Sauces, instant coffee, mayonnaise
Consumable liquids: - Alcoholic and non-alcoholic drinks, fruit juices

Machinery and parts
Factory machinery: - Machine tools, production machinery, food processing, refining, milling, etc.
Electrical machinery: - Generating equipment, switchboards

Automobile parts
Spare parts for machines: - Spares for all and any types of machine

High value Cargo
- Precious metals, jewels, antiques and works of art, currency

Loose & bundled cargo
This may comprise large single indivisible pieces such as large machines or it may be a number of smaller pieces bundled together. It is often awkward cargo to handle.

Manufactured Steel
Long pieces: - Railway lines, Reinforcing rods, lamp posts
Steel plate & Tinplate: - In ‘envelopes’, a bundle in a steel wrapper
Constructional steel: - Frames for buildings
Rubber tyres - Car truck and large ‘earthmover’ tyres – on pallets
Vehicles - Cars, vans, trucks
Agricultural machinery - Tractors, harvesters
Earthmoving machines

**Reels and Coils**
- Wire and cable - often on a wood or metal core
- Cardboard - liner board
- Paper - newsprint in rolls

**Loose cargo on pallets**
- Building materials - Bricks, blocks, tiles
- Metal ingots - Aluminium, copper
- Sanitary earthenware - Sinks, basins, lavatories, pipes

**Drums & barrels**
- While these packages are most often associated with liquids they are often also used for the convenient and secure shipment of dry goods especially powders. Barrels are not often used today.
- Oils and paints - Frequently dangerous cargo
- Chemicals - Many dry powders as well as liquids

**Beverages**
- Fruit juices - Also syrups and concentrates used in softdrinks
- Whisky - Shipped in barrels for local blending

**Bales and bundles**
- These goods do not need any rigid protection from knocks and bumps. They only need minimal protection from wetness or dirt.

**Textiles Fibres**
- Raw textile fibres - Cotton, wool, coir, sisal
- Textile waste - Rags
- Hides - Unprocessed hides and skins, leather

**Forest products**
- Woodpulp - Bales
- Timber - Sawn, in bundles
Bags and sacks - Like bales the goods do not need protection from knocks but they do need to be prevented from tearing and leakage. The bags may be textile, plastic or paper.

Foodstuffs
Grains - Rice, wheat, barley, maize
Sugar - Refined, white or brown
Beans - Including Coffee and Cocoa beans
Animal feeds - Oils cake, fish meal
Building materials - Cement, plaster, sand
Chemicals - Fertilizer, Harmless dry chemicals

UNPACKED MOTOR VEHICLES
Cars are carried on the major sea trade routes (e.g. from Japan) in pure car carriers (PCCs) which carry only cars, while on some routes there are vessels carrying cars and trucks (PCTCs). However there are still large numbers of cars and other vehicles (trucks, buses, earthmovers) carried on liner trades worldwide either in containers or on Ro-Ro services. Within continents there is significant use of rail transport for the main haul from the assembly plant with road car transporters used for final distribution to dealers.

DANGEROUS GOODS
One of the most sensitive issues in transport today is the carriage of dangerous cargoes and potentially polluting cargoes. For many years the international community has required specific action by all those concerned with the movement of dangerous goods. The whole question of handling dangerous and polluting cargo is covered by international conventions viz. MARPOL. Everyone involved in the booking and movement of dangerous goods must be aware of the rules.

SPECIAL GOODS
There are several classes of cargo that need special security. These include valuable items, e.g. Currency, jewellery, bullion, works of art, Registered mail, Small consignments of dangerous goods, Medicines and drugs, Firearms and military equipment.

While shipping in containers, the units should be locked, and sealed with high security seals, and placed in stows where the container doors are inaccessible (door to door stowage). On conventional vessels these goods should be given lockable stowage, ideally in a fireproof compartment.
In all cases but especially when carried by road, security also means secrecy, restricted circulation of information and documentation relating to the movement. Road transport is much more vulnerable to theft during the actual transport that the other modes because the vehicle is accessible.

**Main categories of sea transport services**

**FCL and LCL Container Shipments**

**FCL (full container load)** means that the customer has the exclusive use of the container concerned (and will be charged accordingly).

**LCL (less than container load)** service means that the customer’s cargo will be moved to a packing depot where it will be packed in a container with other LCL cargo from other customers for the same destination. At destination, the cargo will be unpacked at the operator’s depot, and delivered loose to the various receivers.

**Door to Door (or House to House)**
This is a complete through transport service where the operator takes the cargo from the customer’s (shipper’s) premises right through to its ultimate delivery point.

With FCL cargo, the container will be taken to the shipper’s premises for packing, so that the complete journey is undertaken in the container.

With LCL cargo, the operator will collect the cargo and take it to the nearest packing point for making up to a full load together with other LCL cargo.

**Depot to Depot (Container Yard to Container Yard)**
The through transport operator takes responsibility from an intermediate point, his container yard (CY) or packing/unpacking depot.

For a FCL load, the customer would pick up an empty container on his own transport and take it to his premises for packing, returning it to the operator’s depot within an agreed time. (The reverse operation would take place at destination).

For a LCL load, the customer would deliver the cargo loose to the operator’s packing depot, the operator’s responsibility commencing from that point

**Care required for LCL & BREAKBULK CARGO**
LCL and breakbulk cargoes need to be properly packed to protect the cargo during additional handling and also to protect it from other commodities that may be sharing the same cargo hold or container. Proper attention must be given to arranging suitable packing taking into account the vulnerability of the particular type of cargo.
Two of the most vulnerable and inadequate forms of packing are the use of cardboard cartons or flimsy plywood cases.

**Containers**

**Container sizes**

Freight forwarders will be using various types of containers according to the cargo.

There are five common standard lengths. Internationally, Shipping lines’ containers are of the following lengths.

1. 20-ft (6.1 m)
2. 40-ft (12.2 m)
3. 45-ft (13.7 m)

United States domestic standard containers are generally 48 ft (14.6 m) and 53-ft (16.2 m.) used in the inland rail and truck movements.

When the industry needed some form of rationalisation of container sizes it turned to the International Standards Organisation (ISO) and the agreement reached was to base the length on multiples or fractions of 20 feet, the width 8 feet and (at the start) a height of 8 feet. Quite quickly it was agreed that there should be an optional height of 8 feet 6 inches (which is the most common size now) and later the “hi-cube” or “super-cube” container of 9 feet 6 inches high emerged. A TEU is a twenty feet equivalent unit, a term used for convenience in describing the number of container spaces or slots required or used for any purpose.

Initially there were containers of 10, 20, 30 and 40 feet in length; but the sizes now in general use are 20 and 40 feet with some 45 feet units. The latter are predominantly and increasingly used in the American trades where their extra carrying capacity can be effectively used on the long inland legs. Because of the steady increase in the use of 40 foot 'boxes' (as containers are often called) and the equally steady increase in ship sizes, reference is sometimes made to **FEUs** (Forty feet equivalent units) as well as TEUs. An FEU obviously use two twenty feet slots. The term 'slot' will often crop up. Any ship with some degree of dedication to the container trade will have a predetermined plan of how containers may be loaded and the total number; each space for one TEU is colloquially referred to as a slot.

Container capacity is often expressed in twenty-foot equivalent units (TEU, or sometimes teu). An equivalent unit is a measure of containerized cargo capacity equal to one standard 20 ft (length) × 8 ft (width) container. As this is an approximate measure, the height of the box is not considered, for instance the 9 ft 6 in (2.9 m) High cube and the 4-ft 3-in (1.3 m) half height 20 ft (6.1 m) containers are also called one TEU. Similarly, the 45-ft (13.7 m) containers are also...
commonly designated as two TEU, although they are 45 and not 40 feet (12 m) long.

Two TEU are equivalent to one forty-foot equivalent unit (FEU). The use of Imperial measurements to describe container size (TEU, FEU) reflects the fact that US Department of Defence played a major part in the development of containers. The overwhelming need to have a standard size for containers, in order that they fit all ships, cranes, and trucks, and the length of time that the current container sizes have been in use, makes changing to an even metric size impractical.

The maximum gross mass for a 20 ft (6.1 m) dry cargo container is 24,000 kg (today 30,480 kg), and for a 40-ft (including the 2.87 m (9 ft 6 in) high cube container), it is 30,480 kg. Allowing for the tare mass of the container, the maximum payload mass is therefore reduced to approximately 21,600 kg (today 28,310 kg) for 20 ft (6.1 m), and 26,500 kg for 40 ft (12 m) containers.

Since November 2007 48-ft and 53 ft (16 m) containers are used also for international ocean shipments by American President Lines (APL). 20-ft, "heavy duty" containers are available for heavy goods. These containers allow a maximum weight of 67,200 lb (30,480 kg), an empty weight of 5,290 lb (2,400 kg), and a net load of 61,910 lb (28,080 kg). The following table shows the weights and dimensions of the three most common types of containers worldwide. The weights and dimensions quoted below are averages, different manufacture series of the same type of container may vary slightly in actual size and weight.

Every container will have a unique identification number as given below:

**CSQU3054383**

- **Owner code:** Contship
- **Serial number**
- **Category identifier:** U = freight container
- **Check digit**

The normal specifications of ISO containers is as follows:
The images of various types of containers are given below:

a. **General Purpose (GP) or Closed Container:**

<table>
<thead>
<tr>
<th></th>
<th>20’ container (imperial)</th>
<th>20’ container (metric)</th>
<th>40’ container (imperial)</th>
<th>40’ container (metric)</th>
<th>45’ high-cube container (imperial)</th>
<th>45’ high-cube container (metric)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>length</td>
<td>20’ 0”</td>
<td>6.096 m</td>
<td>40’ 0”</td>
<td>12.192 m</td>
<td>45’ 0”</td>
</tr>
<tr>
<td></td>
<td>width</td>
<td>8’ 0”</td>
<td>2.438 m</td>
<td>8’ 0”</td>
<td>2.438 m</td>
<td>8’ 0”</td>
</tr>
<tr>
<td></td>
<td>height</td>
<td>8’ 6”</td>
<td>2.591 m</td>
<td>8’ 6”</td>
<td>2.591 m</td>
<td>9’ 6”</td>
</tr>
<tr>
<td></td>
<td><strong>internal dimensions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>length</td>
<td>18’ 10 5/16”</td>
<td>5.758 m</td>
<td>39’ 5 45/64”</td>
<td>12.032 m</td>
<td>44’ 4”</td>
</tr>
<tr>
<td></td>
<td>width</td>
<td>7’ 8 19/32”</td>
<td>2.352 m</td>
<td>7’ 8 19/32”</td>
<td>2.352 m</td>
<td>7’ 8 19/32”</td>
</tr>
<tr>
<td></td>
<td>height</td>
<td>7’ 9 57/64”</td>
<td>2.385 m</td>
<td>7’ 9 57/64”</td>
<td>2.385 m</td>
<td>8’ 9 15/16”</td>
</tr>
<tr>
<td></td>
<td><strong>door aperture</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>width</td>
<td>7’ 8 3/8”</td>
<td>2.343 m</td>
<td>7’ 8 3/8”</td>
<td>2.343 m</td>
<td>7’ 8 3/8”</td>
</tr>
<tr>
<td></td>
<td>height</td>
<td>7’ 5 3/4”</td>
<td>2.280 m</td>
<td>7’ 5 3/4”</td>
<td>2.280 m</td>
<td>8’ 5 49/64”</td>
</tr>
<tr>
<td></td>
<td><strong>volume</strong></td>
<td>1,169 ft³</td>
<td>33.1 m³</td>
<td>2,385 ft³</td>
<td>67.5 m³</td>
<td>3,040 ft³</td>
</tr>
<tr>
<td></td>
<td><strong>maximum gross mass</strong></td>
<td>66,139 lb</td>
<td>30,400 kg</td>
<td>66,139 lb</td>
<td>30,400 kg</td>
<td>66,139 lb</td>
</tr>
<tr>
<td></td>
<td><strong>empty weight</strong></td>
<td>4,850 lb</td>
<td>2,200 kg</td>
<td>8,380 lb</td>
<td>3,800 kg</td>
<td>10,580 lb</td>
</tr>
<tr>
<td></td>
<td><strong>net load</strong></td>
<td>61,289 lb</td>
<td>28,200 kg</td>
<td>57,759 lb</td>
<td>26,600 kg</td>
<td>55,559 lb</td>
</tr>
</tbody>
</table>
b. Open Top Container

c. Refrigerated Container (Reefer)

d. Flat Rack Container
e. **Tank Container**  

![](image1.png)

f. **Side Open Containers**  

![](image2.png)

**Types of Seafreight operators**

**Vessel operators**

One basic feature of a vessel operator which may influence the type of service provided and often the price (freight charged), is whether it is a member of a shipping conference or not. (Operators outside a conference are referred to as non-conference, or “independents”).

Briefly, a shipping conference is a group of ship owners:

(a) Operating ships on a particular trade route.
(b) Operating a liner service to a regular schedule (as distinct from bulk or tramp operations);
(c) Covering an agreed range of ports at both ends of the route;
(d) Offering standard terms and conditions;
(e) Historically, charging the same rate to all shippers of the same good. However most conferences now recognise the need to provide special
rates and/or discounts to shippers of large volumes of goods and charge FAK (freight all kinds) rates per container shipped as well as permitting lines to take independent rate action.

(f) Undertaking an obligation to service the normal requirement of the trade (i.e. to provide sufficient ships to cover all the liner cargo, and not to pick and choose what they will carry).

Shipping Conferences have their origins many decades ago and were designed by members to:

(a) Protect the return on their investment in the trade by removing competition on price;
(b) By designating a share of the trade to each member, avoiding wasteful competition arising from the provision of excess capacity;
(c) Eliminate competition from shipping lines outside the conference, by tying shippers into “loyalty contracts” (providing a discount to shippers who exclusively used conference vessels), and by jointly taking commercial measures where necessary to deny business to a non-conference line.

Conference services brought (and bring) benefits to the exporter and importer through the provision of a regular service, without violent swings in rates of freight according to market conditions. On the other hand it is also true that conferences have been able in the past to enjoy monopolistic benefits and have also been less sensitive than they might have been to the commercial requirements of all their customers. Nevertheless their strength in most deep sea routes at the time that containerisation took place was very important in the development of through transport services.

It is worth noting that because of the determination of conferences to avoid price related competition between their members, they sought at the outset to agree among themselves exactly what services they would offer to customers in addition to the basic sea transport and under what rates and terms. This included very expensive inland CY and ICD operations as well as comprehensive LCL services over all traditional conference destinations. Non-conference lines were not so constrained, and the development of containerisation and other cost efficient forms of intermodal transport encouraged a growth in independent services.

Non-conference lines would initially set themselves up relatively cheaply, and look to capture a small market segment from the conference. They would not seek to cater for the whole market, and therefore the range of liner services which they provided might be less comprehensive. For example they might serve a limited range of inland destinations, and concentrate on FCL cargo, rather than the more administratively costly LCL traffic.
Independent lines now have a significant, if not major, market share on most deep sea routes, thus effectively removing the ‘conferences’ monopoly position. Many such operators are strong financially and have developed extensive services. At the same time the anti trust ‘regulators’ especially in Europe and the USA have imposed controls on conferences especially in respect of ‘rate fixing’.

Conference membership is no longer the only means of categorising a liner vessel operator. Other important factors are:
- Whether a member of a consortia or alliance or fully independent.
- Employment of owned tonnage, chartered tonnage or slot exchange.
- Investment in the port and inland infrastructure of the countries they serve.
- Establishment of own offices in the countries in which they operate or use of agency networks.

These factors will have a bearing on the type, extent and quality of the through transport services offered.

Non-Vessel Operating Carrier (NVOC)

Until the 1980s there was a fairly clear division between the roles of liner operators as the carriers and forwarders who acted as agents on behalf of the merchant. Many forwarding agents already acted as consolidators combining small lots of cargo into larger parcels, truck or container loads, while others put together through transport packages for their customers. In most cases they would then issue a ‘forwarders’ bill of lading, sometimes called a ‘house bill’ under which they only accepted responsibility as the agent of the merchant. When things went wrong any action had to be taken by the holder of that bill of lading against the actual carrier of the goods at the time of the incident.

The increasing sophistication of containerised services has blurred this separation of activities with the forwarders becoming carriers in their own right. Such a forwarder is acting as a Non Vessel Operating Carrier (NVOC) because his role is that of a principal who contracts to arrange the movement of the cargo with the shipper and accepts the carriers responsibilities, but as the name implies, the NVOC is not the actual ship operator. (There is frequently a second letter ‘C’ in this abbreviation – NVOCC, this is because the concept originated in USA where there are rules concerning the way in which ‘common carriers’ operate and they included those words in their title. In other parts of the world this is irrelevant but that second ‘C’ is still used as a matter of custom and taken to indicate ‘Container’. So NVOCC = ‘Non Vessel Operating Common Carrier’ or ‘Non Vessel Operating Container Carrier’.)

The governments of some countries have given encouragement to NVOCs or as they might more accurately be called, Multi-modal Transport Operators (MTO), as a way of achieving greater national involvement in international
transportation without the huge cost of direct participation as a vessel operating carrier.

As NVOCs have developed their services they have become important customers of the lines in respect of FCL traffic. They have used their buying power to secure special rates for volume enabling them to ‘retail’ FCLs to shippers. The usual method of operation is for the NVOC to negotiate a 'Box Rate' with a container line, that is a straight price for carrying the container on a port to port basis regardless of the contents. The NVOC's profit is the difference between the box rate from the line and the amount of freight charged to the individual shippers plus a margin from arranging pre and on-carriage, documentation and other value added services.

In other respects, NVOC is likely to perform all the functions necessary to make up a liner:

- It may provide the containers.
- It books the cargo and carries out necessary documentation.
- It organises collection and delivery of cargo, road transport, etc.

The NVOC's success lies in combining a variety of transport and related services into a “package” which is more valuable to the end user.

He will also be able to achieve economies of scale through using his buying power to gain rate reductions from shipping lines, which would not be available to a small customer who dealt with them direct. This provides an opportunity to undercut the shipping line’s own through transport service, as well as giving the NVOC his profit margin.

NVOC’s may use the cheaper ship operators, as they will be seeking to sell their own service standards rather than those of the ship operator. Moreover non-conference lines whose own range of services and agencies/offices may be less extensive may see considerable benefits from selling space “in bulk” to an NVOC, who performs all the non-ship related services.

Some conference lines have seen the NVOC as a direct competitor to its own services and have been unwilling to sell space to an operator who will be selling against it. However the growing strength of this market sector has reduced this attitude.

Another important activity of NVOCs is the consolidation of LCL cargo. In the early days of containerization, when LCL shipments were a major percentage of cargo movement, the lines provided LCL consolidation services at their CFS. However, as containerization has developed, the volume of LCL cargo has declined and lines have largely withdrawn from the provision of, to them, costly LCL services for which the service charge may not have been fully cost recovery. While some liner operators do still provide LCL facilities to shippers
there are many lines that only wish to carry FCL cargo. This has enabled the NVOC to offer LCL services by operating an LCL stuffing depot and presenting the cargo to the line as an FCL. Because the line accepts the container from the NVOC as an FCL there is only one bill of lading issued by the line to the NVOC as the shipper.

The NVOC has to issue each shipper with an individual ‘house’ bill of lading or waybill. The NVOC will have an agent at the discharging end to whom the container is consigned and that agent is responsible for delivering the individual consignments to the consignees against presentation of the NVOC house bills.

NVOCs may also operate on routes or in specific markets in which no single transport operator has the necessary facilities by linking together the services offered by two different shipping lines to constitute a through service. For example, offering a service from Europe to Australia via Singapore by buying space Europe to Singapore from one line, and Singapore to Australia from another. If the NVOC can find an operator on the indirect route with surplus capacity, which he is prepared to sell at a marginal rate, the NVOC may well be able to undercut a direct operator who has to pitch his rates to cover his full costs.

Many NVOC’s now prefer to be called ‘logistics providers’ as they see their role as supply chain managers and not just a through transport provider.

**Groupage Operators & Consolidators**

A groupage operator works exclusively in the market for small consignments of cargo which are received into a depot, and grouped or consolidated into full loads. This service is provided for road, sea or air transportation although individual companies will usually specialise in one particular mode; although road and sea destinations may be handled together, air is almost invariably separate. Larger companies will usually operate separate divisions handling the different modes. The service will include the collection and delivery of cargo to/from the customer, and the necessary associated documentation.

Like the NVOC, the groupage operator makes its money on the business by buying space from the carrier at a lower rate than that charged to the customers. Full load rates are generally cheaper than small consignment or LCL rates for the same total amount of cargo whatever the mode. A groupage operator controlling a large volume of cargo may additionally be able to obtain a “quantity discount”.

Dealing with a groupage operator may well be of benefit to a carrier since:
- The groupage operator is effectively marketing the service.
- Selling to the small customer is expensive.
• Documentation and control for a lot of small consignments carries a high administrative overhead.
• The groupage operator may cover a wider range of loading points and destinations than the carrier.
• Many ship operators in particular have withdrawn from the LCL market.

On the other hand, if the carrier has his own extensive LCL facilities, he may view the groupage operator as a competitor. He is undermining the carrier's own service and, by abstracting business, is reducing the carriers own economies of scale on his business, as well as probably having a downward effect on prices.

It will be appreciated that in respect of the handling of small consignments that are consolidated for shipment, there may be little difference in the service provided by a groupage operator and an NVOC; in fact a groupage operator is an NVOC by definition. However it must be remembered that the real NVOC will handle much more than just the grouping of small consignments.

**Seafreight Documentation**

The Freight Forwarder has the following 2 roles

1. As Agent of the Shipper (When using Line’s Services)
2. As a Carrier of the Shipper’s cargo (When offering NVOC Services)

In both the above situations, after the cargo is loaded, documentation (Bill of Lading) has to be issued. In Chapter 2, we have discussed INCOTERMS, which is the basis for identifying the responsibilities of seller and buyer. Getting the shipping documents issued is one of the important responsibilities as only with the documents, the seller will get payment from the buyer’s bank, if the the seller had stipulated that payment shall be via a “confirmed, irrevocable documentary credit”. Documentary credit, which is loosely referred as “Letter of Credit” is a set of instructions from the buyer to the seller stipulating the conditions to be complied with while doing the export shipment and the set of documents to be produced as a proof of confirming to the instructions.

There is a close liaison between the major banks and the International Chamber of Commerce (based in Paris) and it is the latter body which publishes, in several languages, the invaluable booklet entitled *Uniform Customs and Practices for Documentary Credits*. This document is revised from time to time; the current edition is number 6 so the abbreviated title is **UCP 600**. UCP 600 stipulates the types of shipping documents recognised in handling documentary credits which include Bills of Lading, Sea
Waybills and Multimodal Transport Documents as well as Air and Road transport documents.

Article 19 of UCP 600 states the following rules for acceptability for Transport Document Covering at Least Two Different Modes of Transport:

b. A transport document covering at least two different modes of transport (multimodal or combined transport document), however named, must appear to:

(a) Indicate the name of the carrier and be signed by
- The carrier or a named agent for or on behalf of the carrier,
  or
- The master or a named agent for or on behalf of the master.
Any signature by the carrier, master or agent must be identified as that of the carrier, master or agent. Any signature by an agent must indicate whether the agent has signed for or on behalf of the carrier or for or on behalf of the master.

(b) Indicate that the goods have been dispatched, taken in charge or shipped on board at the place stated in the credit, by
- Pre-printed wording, or
- a stamp or notation indicating the date on which the goods have been dispatched, taken in charge or shipped on board. The date of issuance of the transport document will be deemed to be the date of dispatch, taking in charge or shipped on board, and the date of shipment. However, if the transport document indicates, by stamp or notation, a date of dispatch, taking in charge or shipped on board, this date will be deemed to be the date of shipment.

(c) Indicate the place of dispatch, taking in charge or shipment and the place of final destination stated in the credit, even if:
(a) The transport document states, in addition, a different place of dispatch, taking in charge or shipment or place of final destination
(or)
(b) The transport document contains the indication "intended" or similar qualification in relation to the vessel, port of loading or port of discharge.
(d) Be the sole original transport document or, if issued in more than one original, be the full set as indicated on the transport document.
(e) Contains terms and conditions of carriage or make reference to another source containing the terms and conditions of carriage (short form or blank back transport document). Contents of terms and conditions of carriage will not be examined.

(f) Contains no indication that it is subject to a charter party.

b. For the purpose of this article, transhipment means unloading from one means of conveyance and reloading to another means of conveyance (whether or not in different modes of transport) during the carriage from the place of dispatch, taking in charge or shipment to the place of final destination stated in the credit.

c. 
   i. A transport document may indicate that the goods will or may be transhipped provided that the entire carriage is covered by one and the same transport document.

   ii. A transport document indicating that transhipment will or may take place is acceptable, even if the credit prohibits transhipment.

Similarly

Article 20 of UCP 600 is about Bills of Lading.

Article 21 of UCP 600 is about Non Negotiable Sea way Bills.

Article 22 of UCP 600 is about Charter Party Bill of Lading.

Article 23 of UCP 600 is about Air Way Bills.

Article 24 of UCP 600 is about Road, Rail or Inland Waterway Transport Documents.

Article 25 of UCP 600 is about Courier Receipt, Post Receipt or Certificate of Posting.

THE BILL OF LADING

The movement of goods from one country to another has always involved the problem of ownership. Who owns the goods as they move from the place of production to the customer on the other side of the world? In the early days of
trading, a ship’s Master would buy goods at a foreign port, knowing that he would be able to sell them at a profit elsewhere. Thus the ownership, or ‘title’, to the goods obviously transferred from the original owner to the Master, and thence to another purchaser later in the voyage.

As trading patterns developed, and communications improved, ships were used merely to move goods from one country to another, the Master no longer bought the goods as before. The problem of who actually owned the goods during the intervening voyage therefore came into being. In addition, once the goods were no longer owned by the Master, and the ship became the carrier, the shipowner naturally charged for his services, the charge being called ‘freight’. A document was therefore needed to provide evidence of the two items, a) that of title, and b) proof of carriage so that freight could be charged.

A typical liner bill of lading is shown in Appendix 4. This example is the ‘Conlinebill’ a simple form of ‘port to port’ bill of Lading. A port to port bill of lading is the basic type of liner contract. The carrier takes responsibility for the cargo when it is loaded onto the vessel and completes the contract when the cargo is delivered from the vessel at the named port of discharge. Traditionally under Liner terms the responsibility transfers to or from the ship owner when the cargo ‘passes over the ship’s rail’. This is one of a series of standard forms of bills of lading which are issued by the ship owners organisation BIMCO (The Baltic and International Maritime Council) and which are reproduced with their permission. This is a bill of lading for general use but most lines produce their own form bearing their corporate identity and because particular trades need special clauses.

There is ample historical evidence, as far back as the latter half of the 16th century, of documents fulfilling the role of a bill of lading. By the 18th century there was reference to bills of lading in legal disputes and the negotiability of a bill of lading was judicially recognised as long ago as 1794 (Lickbarrow v Mason). It was not, however, until the mid 19th century that any statute law relating to bills of lading emerged. On the 14th August 1855 the British Parliament passed the Bill of Lading Act.

The UK Bill of Lading Act 1855 and UK Carriage of Goods by Sea Act 1992

This Act was principally concerned with regularizing the transferability of a bill of lading. The situation was unsatisfactory because under English Common Law a contract cannot be assigned to a third party. The contract of carriage is between the shipper and the carrier so that although a shipper could pass title to the goods to the consignee via a bill of lading, the rights and liabilities under the contract of carriage could not be transferred.

The Bill of Lading Act made it possible for the rights and liabilities relating to the contract of carriage and evidenced in the bill of lading to be transferred
with the title to the goods. In the process of clarifying this crucial point the Act also clearly established the threefold function of a bill of lading:

a) **Receipt for Goods.** It is a receipt for goods which is self-evident from the wording of the Incorporation Clause on the face of the bill. The carrier acknowledges receipt (or shipment, in the case of a 'shipped' bill) of the goods. The receipt covers the quantity and the 'apparent' quality, the latter usually being described as "in apparent good order and condition".

b) **Evidence of Contract of Carriage.** On the reverse is incorporated the evidence of a 'contract of carriage' and in the case of Liner Trades the terms and conditions on the back of the bill are the whole contract. The expression 'evidence of a contract' cannot, however, be over-stressed. The bill of lading does not come into being until the goods pass into the custody of the carrier but the agreement to carry the goods would have been made, perhaps only by a telephone call, sometime beforehand and that is the moment when the contract is established.

A verbal agreement at the time of booking the cargo can actually vary the terms from those on the reverse of the bill of lading. A well-known case is that dealing with a consignment of oranges in the "Ardennes" (1951) when the agent for the line assured the shipper that the vessel would sail direct to London but it actually went via Antwerp. The delay meant that the goods arrived after rather than before an increase in import duty. The judge found the line in breach of contract and liable for the extra costs the shippers had to bear.

c) **Document of Title.** This is probably the most crucial function of the bill of lading and it is almost impossible to visualise how international trade could take place without it.

The moment the bill of lading has been signed by (or for) the Master of the ship, whoever is shown as the consignee can claim the goods when they arrive at discharging port. Furthermore, the first consignee can, by endorsing the bill of lading, transfer that right - the title to the goods - to another person. That transfer by endorsement may take place any number of times. As a result of the Bill of Lading Act, this transfer of title also transfers the rights and liabilities under the original contract of carriage to the new owner of the goods.

Important though this transferability is, the bill of lading's other value as a document of title is perhaps even greater in that it becomes a security for payment. This permits it to be the vital element among the documents required under a letter of credit. This procedure has yet to be superseded as the most widely used method of payment in the import/export business.
In 1992 the UK Bill of Lading Act 1855 was repealed and replaced by the Carriage of Goods by Sea Act (COGSA) 1992. (Care must be taken not to confuse this Act with COGSA 1971 which brought the Hague/Visby Rules onto the British statute book.) Most other major trading nations have some similar statute to the Bill of Lading Act 1855 or COGSA 1992. The 1992 Act extended the provisions to include sea waybills, and delivery orders but the most important change was is to provide any lawful holder of a bill of lading with the entitlement to the rights under the contract of carriage.

**The use of the Bill of Lading in container trades**

In the case of bulk cargoes under a charter party, one bill of lading may well cover the entire shipment, but in container trades, where a ship may carry many hundreds of different commodities and individual shipments, there may be one bill of lading for each. The actual role of the bill of lading, however, remains the same. It is quite usual for bills of lading to be issued in 'sets' of two or three originals. The wording above the space for the signature in Appendix 3 states "....one of which being accomplished the others to stand void."

The reason for more than one original dates back to the era of sail and the early days of steam when one original was sent by fast mail ship to the consignee, another would be addressed to the consignee and placed in a sealed envelope in the care of the Captain of the ship in which the cargo was being carried and the third would be retained by the shipper against unforeseen eventualities. Today there is often no reason other than ‘tradition’ for Bills of Lading to be issued as sets of two or three. In most cases a single original would suffice.

**The bill of lading as a ‘Receipt for Goods Shipped’**

**Marks and numbers**

The first requirement is the need to identify the goods under the heading in the bill of lading "Marks and Nos." With container movements the container number and the container seal number appears here. In the case of break-bulk or LCL cargo the 'marks' are indeed just what appears on the outside of the packages. Frequently just an abbreviated name or address these sometimes include patterns or symbols as a pattern is more easily recognised than a word. The numbers (Nos.) could be anything from a complete serial number to simply something like "1 of 6" , "2 of 6" etc. Any number in this column, however, is only concerned with identification not with quantity.

"Number and kind of packages: Description of goods."
The first part speaks for itself as the principal way of expressing quantity. (Two cases, three bales, 1 Container, etc.) The Description of Goods can, however, be a little more involved than it appears at first. If the cargo is a ‘second-hand double-decker red London bus’ then there is no problem about description. More often than not, however, the cargo could best be described as 'one wooden box with a number on the side'. But that will not do because of the crucial role the bill of lading plays in payment via a letter of credit. The banks involved will want more reassurance about the actual cargo. In any case, the line itself may want to know what is in the box in order to establish the correct freight rate if a commodity tariff is used.

This is overcome by the application of Article III, rule 5 of the Hague/Visby Rules which states that the shipper is ‘deemed to have guaranteed’ to the carrier the accuracy of any information supplied by the shipper for inclusion in the bill of lading. Thus a description of the contents of the box will appear in the bill of lading in wording which will satisfy the letter of credit but care must be taken to avoid wording which may extend the liability of the carrier such as a value.

**Weight and measurement**

Freight charged for some types of cargo may be based on its weight, some on its measurement while some will be charged on its weight or measurement (W/M) whichever yields the highest amount of freight. The weight and measurement are declared by the shipper and it is rare for the carrier to verify these. Some ports as a result of local regulations or employment rules still weigh and measure to check the accuracy of shippers' declarations.

"In apparent good order and condition"

The final and all-important element of the bill of lading as a receipt is the words in the printed clause above the space where the bill of lading is signed. The description and quantity is not only a receipt as between shipper and carrier but commits the carrier to deliver accordingly to the consignee whether he is the actual consignee shown in the bill of lading or a party at the end of a string of endorsees. Whoever has the right to claim the cargo has the right to proceed against the carrier if the entire consignment is not delivered exactly in accordance with the bill of lading.

‘Said to contain’

When FCL containers are shipped the number and description of the goods will be prefaced by these words; for example “1 x 20’ container said to contain 25 cases machinery spares”. The bill of lading might also be endorsed ‘shippers load, stow and count.’ In the case of an FCL container the cargo has been loaded by the shipper and presented to the carrier in a sealed condition. These clauses re-confirm that the carrier is relying on the shipper in respect of the
accuracy of the description and the number of packages loaded. The shipper is also responsible for the proper stowage of the contents.

'Clean' and 'Dirty' (claued) Bills of Lading

It is important that when the cargo is loaded into the ship or stuffed into the container it is in good condition. If cargo arrives at the depot or dockside and is seen to be faulty it should not be loaded. The reasons for this are straightforward. There is no point in carrying a cargo which may be rejected by the purchaser. Furthermore, the shipowner, Master and crew do not wish to be accused of damaging the cargo whilst it is being loaded, carried or discharged. However the faults may cover matters that do not actually prevent shipment, the shipper may prefer the goods to be loaded rather than ship an incomplete consignment or have the problem of replacement when the ‘damage’ is only superficial. If the goods are loaded in a damaged condition the bill of lading must show the nature of the damage or such other comment as may be appropriate; such a clause means that the bill of lading is now no longer a ‘clean’ bill.

Such clauses may cover missing, broken, wet or stained cartons, insufficient strength to crates, unprotected machinery, second-hand cases, rusty steel, dented drums etc. However, the matter is more crucial if the shipper’s bank has to present the bill of lading to the buyer to obtain payment for the goods by documentary credit. The ‘dirty’ bill of lading no longer evidences shipment in “apparent good order and condition”.

This creates a very difficult situation because the seller will have incurred all the costs of producing the goods but will be unable to obtain payment even though the goods have gone on their way to the consignee. A further paradox is that, unless the shipper can arrange a modification to his contract of sale which will enable him to transmit the bill of lading to the buyer to obtain payment for the goods by documentary credit. The ‘dirty’ bill of lading no longer evidences shipment in “apparent good order and condition”.

On the face of things that may seem a reasonable outcome. The consignee has, admittedly, suffered some delay while the goods are repaired up to the original standard but it has cost him nothing in cash. However the facts are that the carrier conspired with the shipper to make a false statement on the bill of lading (apparent good order and condition) and that, very simply, is fraud, in this case against the insurance companies.
Another shipper threatened with his bill of lading being 'claused' may offer a Letter of Indemnity undertaking to reimburse the carrier for any claim made against him. But this is still fraud because the shipper and carrier are still conspiring to tell the consignee that the goods were in apparent good order when they were shipped. Furthermore because of the bill of lading's role as a document of title the piece of cargo may be sold and resold several times while the goods are in transit and each buyer is paying for what he has a right to believe are sound goods. Such a letter of indemnity is totally unenforceable because it has been issued in pursuit of an illegal act.

As Evidence of a Contract

When one studies the mass of wording on the back of a liner bill of lading it may be difficult to believe that it is only evidence of a contract and not the contract itself. However, the contract itself will almost invariably have been made well before a bill of lading is signed. Indeed if the carrier damages the cargo, say, during the course of stowing it in the ship, the fact that no bill of lading has been signed in no way invalidates the shipper's claim against the line.

In any case, only the Carrier, the Master or his agent signs the bill of lading; a true contract would require both parties to sign. But contracts do not have to be in writing and most liner shipments are the results of a verbal contract when a telephone booking is taken by the line. The line usually confirms telephone bookings but again such a confirmation is only evidence of the contract that has already been made.

There is nothing novel about the only piece of paper being just evidence of a contract. On a train a contract exists between the railway company and the passenger, the ticket is not the contract, simply evidence of having paid the 'consideration' necessary to bring a contract into being. Occasionally there is a written contract between the freight forwarder and the line which can be an exchange of e-mail, fax or letter but possibly in a formal Booking Note.

So far as the shipper and the line are concerned, if the booking varies the terms as printed on the back of the bill of lading, the booking - because it is taken to contain the express intentions of the parties - takes precedence. In theory, this can cause problems should the bill of lading be transferred as indeed it will be unless the consignee and the shipper are one and the same. Such problems would be even more apparent if the first consignee sells the bill of lading to a third party. Most countries have something similar to England's Bills of Lading Act 1855 or Carriage of Goods by Sea Act 1992, which passes all the rights and liabilities to such third parties (the courts refer to them as 'indorsees for value').

The courts look upon the bill of lading in the hands of an indorsee for value as conclusive evidence of a contract (sometimes called the best evidence of a contract). They will ignore anything agreed between the line and the original
shipper on the basis that he has now 'dropped out of the picture.' Fortunately, in practice, bookings or booking notes which vary the bill of lading terms in the liner trade are very rare and usually only concerned with matters which affect the loading end of the voyage. Those rare exceptions make minimal impact on the liner operator or agent.

The development of sophisticated data handling in the Liner business has tended to improve the availability of evidence of bookings and hence the contract being created. While the actual contract is still most usually made during a telephone call making the booking, it is now usual that the lines agent will enter that information into a computer which will generate a ‘booking confirmation’ message sent back to the customer by computer fax or E-mail.

**As a Document of Title**

Any document of title can be defined as a piece of writing which confirms the right to ownership of property with or without possession.

In the case of a bill of lading this means that it can serve three purposes:

a) It enables the holder to claim delivery of the goods at the port of discharge.

b) It permits the holder to transfer ownership of the goods during transit by means of an endorsement.

c) It can be used (e.g. by a bank) as security for payment.

Presentation at port of discharge in order to claim delivery is perhaps the simplest of a bill of lading's function in its document of title role. So simple indeed that if neither (b) nor (c) above is likely to be involved then there is a strong case for a **Sea Waybill** to be used instead of a bill of lading.

Many commodities, however, are 'traded' while the ship is on passage and in order to transfer ownership, the first consignee simply has to endorse the bill of lading and hand it (or them if there are more than one original) over to the new consignee in exchange for payment. Endorsement usually involves imprinting the firm or company's rubber stamp and an executive's signature on the back of the bill. There is no limit to the number of times this may take place so long as the goods are still in transit when it is done.

In some cases a ‘break bulk’ consignment may be sold to more than one endorsee which will necessitate the bill of lading to be 'split'. This will require Delivery Orders to be issued for the separate parcels. When the bill of lading is being used as security for payment it becomes the key document when
settlement is being effected via a Documentary Credit, or a ‘letter of credit’ as they are more commonly known.

**BILL OF LADING CLAUSES**

The following are the usual items of information appearing on the face of standard bills of lading

The name of the Shipper – **This is the first party to the contract of carriage and for this reason it should be the name of the cargo owner and not that of its agent.**

**Name of consignee or 'order' & Notify party**– It is possible to simply insert the words "to Order" in the consignee box and then complete the name of a "Notify Party" below it.

This is almost invariably done when the bill of lading is to be negotiated through a documentary credit. If the bill is drawn to **Order**, the shipper (consignor) must endorse the bill on the back and this 'opens' it. This is how the bill of lading takes on its role as security for payment because an 'order' bill properly endorsed becomes like a cheque drawn to 'cash' or to 'bearer' in that title to the goods belongs to whoever holds the bill. This enables all the parties in the documentary chain to exchange the bill for cash.

Theoretically, such an order bill endorsed by the shipper could confer title to anyone picking up such a bill of lading in the street if the line had no reason to suspect any irregularity. In fact although so apparently insecure in theory, there are very few actual problems in practice.

Even so one may ask why should one take even this small risk, why not put the name of the bank in the consignee box? Very simply because the banks in the chain only want the bill as security for payment. If they are named as consignees they would have to accept the **liabilities** as well as the benefits which flow from title to the goods. Unless, therefore, one of the parties is unable to meet its commitment then the bank would have to claim the goods themselves, they prefer a simple security for payment.

What happens in practice is that the carrier advises the 'notify party', who is usually the buyer or his agent, of the arrival of the goods just as if he is the consignee although there is no legal obligation for the carrier to do so.

**Ship's name** – This is the name of the carrying vessel. If a transhipment is involved in the voyage it is customary for the deep sea or main leg carrying vessel’s name to appear in this space. There will be a separate bill of lading issued with the deep sea line as shipper and the feeder operator as carrier issued for all the deep sea lines cargo on that particular feeder vessel.
**Place of receipt/port of loading** - In the case of Combined transport bills or through bills the place of receipt will be shown. In all cases the port of loading will be shown.

**Port of discharge** - The port of discharge is shown and in the case of Combined transport or through bills, the place of delivery.

**When and where freight to be paid** - “freight paid”, or “payable at destination” often called “collect”. Generally, liner operators prefer freight being 'prepaid'. In many cases this also suits the shipper because a bill of lading is not a clear document of title until the freight has been paid and the bill of lading is endorsed by the carrier to that effect with the words “Freight Paid”.

If, however, the sale of the goods is on an FOB basis, it could well suit the consignee to pay the freight at destination. There is provision, in the box in the bottom left hand corner for the line to show how the freight is calculated with the total amount due. It is rare for this facility to be used except in some trades where the importing country insists on it appearing as part of their exchange control rules. It also enables the consignee to present the correct payment with the original bill of lading at discharging port so as to convert the bill into a clear document of title. Incidentally the freight box is only used when freight is to be paid at destination, if the freight is prepaid it would be quite wrong to show the consignee how the freight is calculated on the bill of lading; how the shipper arrives at his total CIF price is his affair.

**Number of ‘original’ bills of lading** - Usually two or three although only one original is actually needed.

**Full description of the cargo** - Marks, numbers, weight, cubic have been dealt earlier.

**The place and date of issue of the bill of lading** – In the case of a 'received' bill, it is date the goods were received for shipment; on a 'shipped' bill, the date the goods were loaded. It is usually the case that this is not known for the individual consignments so the sailing date of the vessel is given. Almost all documentary credits demand a 'shipped on board' bill of lading and it is now very rare for break-bulk cargo (ie not in a container) to be other than 'shipped on board'. With containers the goods may pass into the custody of the carrier well before actual shipment and so all container bills are printed as 'received for shipment'. In those cases where the shipper requires a 'shipped on board' bill, the carrier has to add an endorsement stating when the goods were actually shipped with a second signature validating that endorsement.

**Signed “for the carrier”** - Traditionally the Master of the ship signed the bills of lading but this is not practical for the large volumes of consignments on liner vessels. The modern form of signature must identify the carrier and whether the bills are signed by an agent on its behalf.

e.g.
It is that signature which converts an innocuous looking piece of paper to a document of title to goods which may be worth many thousands of dollars. People working in a freight department, possibly handling many hundreds of bills of lading should always remember the adage "familiarity breeds contempt". One should never lose sight of how important a document a bill of lading becomes once that signature is added.

The Printed Clauses - ‘The evidence of the contract’

On the reverse of the Conlinebill is the small print which spells out the terms of the contract of which the bill of lading is the evidence. (Appendix 3)

The one thing that such clauising cannot affect (assuming the country concerned has ratified one of the international conventions) is the minimum liability of the carrier.

Almost all countries have now adopted into their own laws one of the international conventions which deal with the liability of the parties under a bill of lading. The conventions will be examined in more detail later (See Chapter 8) but on the Conlinebill, immediately after a short clause dealing with definitions, there is the Paramount clause which incorporates the Hague/Hague-Visby Rules.

Clause 4 makes it clear that this is a port to port bill of lading.

Under clause 14 another international agreement is incorporated, this time it is the York-Antwerp Rules 2004 (Revised as York-Antwerp Rules 2012) which deal with General Average.

USA law differs from most of the rest of the world in regard to collisions between two ships and clause 15, the Both to Blame Collision Clause, is incorporated to ensure that if a collision case is brought under USA jurisdiction, the outcome will be the same as elsewhere in the world.

Clause 18 is of especial interest to agents as it is the "Himalaya" clause and is included because a clause protecting servants of the carrier is not included in the Hague Rules although it does appear in the Hague/Visby Rules. (Article IV bis).

The "Himalaya" (Adler v Dickson 1954) was a passenger ship and the ticket exempted the carrier from liability for personal injury. A lady passenger was injured descending a gangway and finding that she could not sue the shipowner under the contract evidenced by her ticket, successfully sued the ship’s captain in tort. The "Himalaya" clause extends the limitation of liability
in the bill of lading (or passenger ticket) to servants of the shipowner which, includes its employees and its agents.

**Forwarder’s Bill of Lading**

When a Freight Forwarder accepts the cargo from the Shipper and issues the Bill of Lading, he performs the functions of a Carrier (or) a Line. All NVOCs are Freight Forwarders functioning as Carriers. Appendix 4 contains FIATA Bill of Lading which is used by Freight Forwarders who are members of Freight Forwarders’ Associations which are members of FIATA, The Federation of Freight Forwarders Associations, based in Zurich, Switzerland. The Forwarders Bill of Lading (FBL) is quite similar to the Liner Bill of Lading both in structure and functions.

***
Appendix 3- Liner Bill of Lading
## BIMCO LINER BILL OF LADING
### CODE NAME: "CONLINEBILL 2000"
Amended January 1956; August 1952; January 1973;

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipper (full style and address)</td>
<td></td>
</tr>
<tr>
<td>Consignee (full style and address) or Order</td>
<td></td>
</tr>
<tr>
<td>B/L No.</td>
<td>Reference No.</td>
</tr>
<tr>
<td>Vessel</td>
<td></td>
</tr>
<tr>
<td>Notify Party (full style and address)</td>
<td></td>
</tr>
<tr>
<td>Port of loading</td>
<td>Port of discharge</td>
</tr>
<tr>
<td>Container No./Seal No./Marks and Numbers</td>
<td>Number and kind of packages; description of cargo</td>
</tr>
<tr>
<td>Gross weight, kg</td>
<td>Measurement, m³</td>
</tr>
<tr>
<td>SHIPPED on board in apparent good order and condition (unless otherwise stated herein) the total number of Containers/Packages or Units indicated in the Box opposite entitled &quot;Total number of Containers/Packages or Units received by the Carrier&quot; and the cargo as specified above, weight, measure, marks, numbers, quality, contents and value unknown, for carriage to the Port of discharge or so near thereunto as the vessel may safely get and lie always afloat, to be delivered in the like good order and condition at the Port of discharge unto the lawful holder of the Bill of Lading, on payment of freight as indicated to the right plus other charges incurred in accordance with the provisions contained in this Bill of Lading. In accepting this Bill of Lading the Merchant expressly accepts and agrees to all its stipulations on both Page 1 and Page 2, whether written, printed, stamped or otherwise incorporated, as fully as if they were all signed by the Merchant. One original Bill of Lading must be surrendered duly endorsed in exchange for the cargo or delivery order, whereupon all other Bills of Lading to be void. IN WITNESS whereof the Carrier, Master or their Agent has signed the number of original Bills of Lading stated below right, all of this tenor and date.</td>
<td></td>
</tr>
<tr>
<td>Carrier's name/principal place of business</td>
<td></td>
</tr>
<tr>
<td>Date shipped on board</td>
<td>Place and date of issue</td>
</tr>
<tr>
<td>Number of original Bills of Lading</td>
<td></td>
</tr>
<tr>
<td>Pre-carriage by**</td>
<td></td>
</tr>
<tr>
<td>Signature</td>
<td>Place of receipt by pre-carrier**</td>
</tr>
<tr>
<td>or, for the Carrier</td>
<td>Place of delivery by on-carrier**</td>
</tr>
<tr>
<td>(Master's name/signature) as Master</td>
<td></td>
</tr>
<tr>
<td>(Agent's name/signature) as Agents</td>
<td></td>
</tr>
</tbody>
</table>
Consignor

Consigned to order of

Notify address

Place of receipt

Ocean vessel  Port of loading

Port of discharge  Place of delivery

Marks and numbers  Number and kind of packages  Description of goods  Gross weight  Measurement

according to the declaration of the consignor

Declaration of interest of the consignor in timely delivery (Clause 6.2.)  Declared value for ad valorem rate according to the declaration of the consignor (Clauses 7 and 8).

The goods and instructions are accepted and dealt with subject to the Standard Conditions printed overleaf.

Taken in charge in apparent good order and condition, unless otherwise noted herein, at the place of receipt for transport and delivery as mentioned above.

One of these Multimodal Transport Bills of Lading must be surrendered duly endorsed in exchange for the goods. In Witness whereof the original Multimodal Transport Bills of Lading all of this tenor and date have been signed in the number stated below, one of which being accomplished the other(s) to be void.

Freight amount  Freight payable at  Place and date of issue

Cargo Insurance through the undersigned  Number of Original FBL’s

☐ not covered  ☐ Covered according to attached Policy

For delivery of goods please apply to:

Stamp and Signature
Freight Forwarders use Airfreight also quite extensively. In Chapter 1, we have seen the volumes of cargo moved by air by leading global freight forwarders. The airfreight industry had also seen the benefit of goods being prestowed into containers designed to fit snugly into the aircraft hull. There was a difference because air cargo moves mainly in very much smaller lots than sea freight and this was especially so at that stage of the air cargo industry development in the 1960s and 1970s. Additionally many airlines were less interested in cargo and wished to concentrate their efforts on passenger business. This led to an early development of air consolidation where third party forwarders received the small parcels of cargo from individual shippers and made up aircraft container loads.

Air cargo has been expanding steadily since the mid-1960s, initially with the modification of airliners into dual role passenger/freight aircraft. Later came the development and production of specialised freighters ranging in size from small twin-engined package carriers uplifting two to three tonnes to large four-jet intercontinental cargo aircraft accommodating well over 100 tonnes; the planned Airbus A380 will carry up to 150 tonnes.

Air freight expanded rapidly through the 1980s and 1990s as companies such as FedEx, DHL and UPS moved increasingly into aviation, buying aircraft to fly often time-sensitive cargo over continental and inter-continental distances. Freight forwarders faced greater pressure to switch items from sea to air and scheduled passenger airlines began to expand their often modest dedicated cargo divisions into self-financing segments. Larger aircraft, usually specially-developed variants of airliners such as the Boeing 747 Jumbo and widebody Airbus A300 were produced with fuselage cross-sections big enough to accommodate larger containers.

However, in 2000/2001 the air cargo industry experienced a major downturn in its fortunes due to the recession in the USA and also due to the September 11, 2001, terrorist actions. After rebounding nearly 18.5% in 2010 over the depressed levels of 2009, world air cargo traffic slowed again in early 2011, eventually finishing down 1% relative to year 2010. Since 2001, world air cargo traffic has only grown 3.7% per year. The global economic downturn, rising fuel prices, and improving surface transport mode options have dampened air cargo growth. On the other hand, long-term projected economic and international trade growth, the continuing globalization of industry, increasing adoption of inventory reduction strategies, and ongoing renewal of the world freighter fleet with more efficient capacity should help world air cargo traffic growth return to a rate closer to historic norms.
However, according to the analysts, despite the near-term slowdown, world air cargo traffic will more than double over the next 20 years, compared to 2011 levels, for an average 5.2% annual growth rate. The number of airplanes in the freighter fleet will increase by more than 80% over the next two decades. The world freighter fleet is expected to increase from the present 1,738 aircrafts (in 2011) to 3,198 aircrafts (in 2038), with the greatest growth in Large widebody freighters (capable of carrying more than 80 tonnes).

While air cargo initially began with services in the USA and Europe, markets began to open in Asia and China is now becoming the fastest growing market in the world. The more mature markets of North America and intra-Europe and routes linking Europe to southwest Asia, the Middle East and Africa will have slower growth rates.

The top ten among the air freight companies and the airlines with major cargo arms are the following:

1. Federal Express (FedEx), United States of America
2. UPS Airlines, United States of America
3. DHL Aviation, Germany
4. Cathay Pacific Cargo, Hongkong
5. Korean Air Cargo, South Korea
6. Lufthansa Cargo, Germany
7. China Airlines, Taiwan
8. Singapore Airlines, Singapore
9. Emirates SkyCargo, United Arab Emirates
10. Cargolux, Luxembourg

When a demand on one place is supplied from another place with air transport as the main transport mode, an air cargo supply chain will be compiled. Air transport is relatively expensive, but often the fastest mode of transport available to cover medium to long distances. Therefore typical air cargo consists of goods with a high value and/or an operationally or commercially critical delivery time (high financial breakdown risk):

- Airmail, Diplomatic mail
- Live animals, hatching eggs, human organs, human remains, medical supplies
- Express parcels
- Perishables (food, flowers, dry-ice shipments)
- Pharmaceuticals
- Valuables & Luxury goods (money, gold bars, diamonds, electronics, fashion goods)
• Technical supplies (high tech, oil & gas, aerospace, automotive, ship spares)

**Service options - air**

The main trade routes for air freight are the same as those for sea freight and to a limited extent sea and air are competing for the same traffic. However the significantly higher cost of airfreight means that it is restricted to the movement of high value, perishable or urgent cargoes.

Air cargo is carried either in the cargo compartments of passenger aircraft operating scheduled services or in dedicated freighter aircraft. Freighter airplanes are crucial to the overall health of the air cargo industry. Dedicated freighters provide reliable capacity to shippers of general cargo, mail and express packages, and cargo that cannot be accommodated in passenger airplane lower holds. Since 2001, freighter airplanes have carried on average just over 60% of the world’s total air cargo traffic each year. Freight aircraft do not need the highly complex facilities at airports that passengers need and as there is ever greater pressure on the main international airports these aircraft will be able to compete even more efficiently by using smaller regional airports which are in turn cheaper.

Air cargo traffic can be split into three main sectors:

a) **Charter cargo** - The volume of cargo to be moved on one flight justifies the charter of an entire aircraft for the movement, this will also apply to large indivisible items requiring specialist aircraft.

b) **Express and parcel cargo** - This is the fastest growing sector of the air cargo market with forecasts that it may account for 50% of the total airfreight market by 2020. It is dominated by a small number of very powerful operators including market leaders DHL, Fedex, TNT and UPS. These operators have substantial owned freighter fleets as well as using charter, and scheduled carriers. The emphasis is on very fast door to door delivery.

c) **General air cargo** - This is the mainstream of conventional air cargo and comprises any traffic for which there is an economic advantage to be gained by the relative speed of air transport. Much of this cargo will be consolidated loads.

**Route structures**

The favoured route structure for air cargo operations is hub and spoke which is the strategy adopted by the passenger airlines to maximise their service potential. Because of inter-governmental regulation of air traffic, the structure of the hub and spoke operation is different from that used by container ship operators. Hub airports of scheduled passenger operators will not just depend on that carrier’s commercial choice. The nationality of the airline and its
government’s bilateral or multilateral access agreements and landing slot arrangements will play a major role in determining its ability to operate on a particular route. However the effect is that the number of hubs used in a particular region may be artificially limited and that not all the spokes required can be operated by the main carrier. This will lead to many operating arrangements being needed with other operators to create the full network.

**Air cargo Containers:**

International Air Transport Association (IATA), air cargo carriers and container manufacturers have standardized the air freight containers. It should be noted that there are many aircraft types and many more aircraft cargo configurations. Each aircraft and configuration may require customized containers. Here, we have given illustrations and specifications of the most common containers in use today. Many of these containers can be used in multiple aircraft.

**ULD (Unit Load Devices)**

While in the ocean freight cargo business the word "container" is widely accepted, in the air freight cargo business the proper term is "unit load device", or more commonly ULD. However, both terms are used.

**ULD Markings**

According to IATA all ULDs must carry the following marking information: 1) ULD Type Code, 2) Maximum Gross Weight (MGW) in kilograms and pounds and 3) The actual Tare Weight (TARE) in kilograms and pounds. Example:

<table>
<thead>
<tr>
<th>UAK</th>
<th>1 2 3 4</th>
<th>XB</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGW</td>
<td>6,033 kg</td>
<td>13,300 lb</td>
</tr>
<tr>
<td>TARE</td>
<td>216 kg</td>
<td>476 lb</td>
</tr>
</tbody>
</table>

For marking non-structural aircraft containers MGW is optional. The actual TARE shall be the sum of the components aircraft pallet, net and container.

Different versions of the 2 main types of ULDs viz. Pallets & Containers are given below:

1. **Main Deck Pallet with Net-IATA Type 1/1S-IATA Prefix:** PG
<table>
<thead>
<tr>
<th>Maximum Gross Weight</th>
<th>External Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>13,608 kg / 30,000 lb</td>
<td>(L x W x H) 6,058 mm x 2,438 mm x 2,438 mm (238.5 in x 96 in x 96 in)</td>
</tr>
<tr>
<td><strong>Volume</strong></td>
<td>Aircraft Accepted For</td>
</tr>
<tr>
<td>33.25 m³ / 1,174 ft³</td>
<td>DC10-30 Freighter, 747F</td>
</tr>
<tr>
<td><strong>Tare</strong></td>
<td></td>
</tr>
<tr>
<td>400 kg / 882 lb</td>
<td></td>
</tr>
</tbody>
</table>

2. Container-IATA Type 5-IATA Prefix: AAP-ATA: LD-9

<table>
<thead>
<tr>
<th>Maximum Gross Weight</th>
<th>External Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,033 kg / 13,300 lb</td>
<td>(L x W x H) 3,175 mm x 2,235 mm x 1,626 mm (125 in x 88 in x 64 in)</td>
</tr>
<tr>
<td><strong>Volume</strong></td>
<td>Aircraft Accepted For</td>
</tr>
<tr>
<td>9.91 m³ / 350 ft³</td>
<td>747, 747F, L1011</td>
</tr>
<tr>
<td><strong>Tare</strong> : 200 kg / 440 lb</td>
<td></td>
</tr>
</tbody>
</table>

3. Lower Deck Container-IATA Type 6B-IATA Prefix: AQ-ATA: LD-8
### Upper Deck Container - IATA Type 5 - IATA Prefix: AAK-ATA: LD-7

<table>
<thead>
<tr>
<th>Maximum Gross Weight</th>
<th>External Dimensions (L x W x H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,449 kg / 5,400 lb</td>
<td>2,438 mm x 1,534 mm x 1,626 mm (96 in x 60.4 in x 64 in)</td>
</tr>
<tr>
<td>Volume</td>
<td>Aircraft Accepted For</td>
</tr>
<tr>
<td>6.94 m³ / 245 ft³</td>
<td>777, 767</td>
</tr>
<tr>
<td>Tare</td>
<td></td>
</tr>
<tr>
<td>120 kg / 264 lb</td>
<td></td>
</tr>
</tbody>
</table>

### Lower Deck Container - IATA Type 5 - IATA Prefix: AAK-ATA: LD-7

<table>
<thead>
<tr>
<th>Maximum Gross Weight</th>
<th>External Dimensions (L x W x H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,033 kg / 13,300 lb</td>
<td>3,175 mm x 2,235 mm x 1,626 mm (125 in x 88 in x 64 in)</td>
</tr>
<tr>
<td>Volume</td>
<td>Aircraft Accepted For</td>
</tr>
<tr>
<td>9.91 m³ / 350 ft³</td>
<td>N/A</td>
</tr>
<tr>
<td>Tare</td>
<td></td>
</tr>
<tr>
<td>200 kg / 440 lb</td>
<td></td>
</tr>
</tbody>
</table>

**The Air Cargo supply chain.**

A typical air cargo supply chain consists of the following steps:

- Shipping
Aircargo forwarding process mapping:

The shipping process

The door-to-door air cargo process starts with the shipper. A shipper is the person or company that is physically and administratively responsible for shipping the goods. Although in a lot of cases the shipper is also the customer of the forwarder, this is not necessarily so. The customer can just as well be the consignee, or a third party that has ordered the goods stored at the shipper’s location to be shipped from Point A to Point B. For this same reason, the shipper also does not need to be the owner of the goods. This all depends on the delivery terms (or: Incoterms) that are agreed between the parties involved, e.g. a buyer, owner of the goods, a seller, a maintenance company, a distributor, a transport company, a forwarder, etc. For security reasons these days the shipper must be a known shipper for the forwarder and thus also for the next steps in the process. Often there is a steady relationship and a financial / credit arrangement between a shipper / customer and one or more forwarders that take care of the worldwide transport of the shipped goods. The shipper / customer will generally request a freight quote from one or more forwarders, and then select the forwarder that will become responsible for the shipment(s). It ensures that the forwarder provides a good service.

The shipper is responsible for efficient assembly of the shipment in terms of volume, weight and packaging in order to

1. Get the best price / volume utilization of the aircraft pallet or container
2. Avoid damage to goods, people and aircraft.

When the goods are ready for transport (RFT = correctly packed, labelled and with the right documents for forwarding as well as road transport as the next steps), the shipper orders transport of the goods. Depending on the transport
agreement with the forwarder, this road transport can be organised by either the forwarder or the shipper.

The goods are picked up at the shipper’s warehouse for delivery by road transport at the warehouse of the forwarder who organizes the further air cargo process. Depending on the internal organisation of the forwarder’s or shipper’s processes, the road transport can be executed either with in-house operated trucks, vans or personnel or by a third party. The transport company (or the forwarder) will give the shipper a proof of acceptance (POA).

**The outgoing or export forwarding process**

The goods are delivered at the forwarder’s warehouse. The forwarder, sometimes also called expeditor is the ‘architect’ of the air cargo supply chain. A forwarder or expeditor can be IATA certified; in that case he is referred to as IATA agent. An agent is an IATA certified expeditor or forwarder means that

1. The forwarder has been thoroughly checked for financial status
2. The forwarder has enough air cargo potential
3. The forwarder has the right facilities for handling air cargo
4. The forwarder has trained personnel for handling air cargo and dangerous goods.
5. The forwarder receives commission from the IATA associated airlines
6. The forwarder may use the airline’s Air Waybills

Depending on the agreement with the forwarder’s customer, the forwarder organizes the following:

a. Outgoing handling or export handling
b. Customs clearance of the customer’s shipment
c. Air transport from a nearby airport to an airport near destination
d. (Optionally) Further incoming handling or import handling & customs clearance near destination
e. (Optionally) Delivery at final destination (consignee)

The forwarder will buy space at the airline’s sales or customer service department, or in case of a foreign airline sometimes through the airline’s General Sales Agent, a GSA.

**(Airline) Pricing**
Air cargo is generally sold for a fixed price or a fixed rate per kilogram, often with a minimum charge to cover basic expenses of shipment handling. Customers (forwarders) with a continuous demand of space on one or more specific routes, or with a continuous turnover with the airline overall, will negotiate and contract their own space and pricing details with the airline. Sometimes also so-called 'spot rates' can be requested for ad-hoc shipments. And it is also possible the airline offers special rates to assure the aircraft's capacity will be filled. Basic air cargo rules and rates are laid down in IATA's TACT (The Air Cargo Tariff); rates are negotiable based on your shipped volumes and on capacity vs demand on the requested routes.

An important factor in air cargo pricing (with the airlines, but also with the large integrators DHL, FedEx, UPS and TNT) is the dimensional weight conversion. By charging only by weight, lightweight, low density packages become unprofitable for freight carriers due to the amount of space they take up in the (often very expensive) truck/aircraft/ship capacity in proportion to their actual weight. The concept of Dimensional Weight has therefore been adopted by the transportation industry worldwide as a uniform means of establishing a minimum charge for the cubic space a package occupies. Therefore the volume is converted into a (higher) weight / price class.

Dimensional Weight is also known as "chargeable weight". The chargeable weight of a shipment will be either the "actual gross mass" or the "volumetric weight", whichever is higher. The chargeable weight is calculated as follows:

1 metric ton = 6 cubic metres.
In order to establish if the cargo will be a weight or volumetric based shipment, we have to follow the below steps.

Step 1

Measure the parcel / cargo along the greatest length, width and height of that parcel.

For example; 100 cm (L) X 100 cm (W) X 100 cm (H) = 1 000 000 cm^3.

Next, weigh the parcel; assume it weighs 150 kg.

Step 2

Now divide the 1 000 000 cm^3 by 6 000 = 166.66 kg. You have now converted the centimeters (cm) into kilograms (kg)

Step 3
Now compare the weight to the volume. If the weight is 150 kg then the airline would base the freight on the higher amount being: 166.66 kg

Airlines quote freight rates based on the following rate structures:

- A basic minimum charge per shipment.
- General cargo rates quoted per kilogram. This rate applies without reference to the nature or description of the parcel, which is to be freighted.
- Specific commodity rates apply to certain goods of specific descriptions, such as fresh produce. These rates are lower than the general cargo rate, and they provide breakpoints at which the level of the rate reduces further.

Example:
0 - 50 Kg @ USD 2.34 / kg  
50 - 100 Kg @ USD 2.02 / kg  
100 - 150 Kg @ USD 1.81 / kg

**Unit Load Device (ULD) charges**

These rates are charged per container/ULD without reference to the commodity loaded therein. Calculation of freight rates:

Let us assume the following figures:
The freight rate is USD 1.92 / kg  
The weight of the parcel is 300 kg  
The dimensions are: 114.6 cm x 120.4 cm x 132.5 cm (It is customary to round the cm's up or down)

Therefore: 115 cm x 120 x 133 cm = 1 835 400 divide by 6 000 = 305.9 kg (having converted cm's to kg's now round up the kg's to the next half a kilogram = 306 kg.  
As the freight rate quoted by the airline is USD 1.92 / kg, we calculate the price as follows:  
306 kg x USD 1.92 / kg = USD 587.52

Another factor in air cargo pricing are the surcharges that can be added by the airline (and therefore also the forwarder). A fuel surcharge can be added to cover the additional costs of increasing fuel-prices; these will generally follow a certain index. A security surcharge can be added to cover the additional costs of the increasing number of security checks and related administration that are legally required by the authorities. There is a lot of discussion these days whether or not these costs should actually be a part of the overall air cargo rate, as these surcharges tend to be even higher than the actual air cargo rate sometimes. Of course the airline will try to optimize their expensive
cargo capacity on board of the aircraft, and try to sell this capacity at the highest revenues. This is called airline cargo revenue management;

**Booking**

First step after the pricing is obtained, is to make an airline booking for the shipment and get the airline's following confirmation in order to assure space on board of an aircraft:
- Airline (Master) Air Waybill number assigned
- Origin and (final) destination
- Type of goods / commodity (especially important for dangerous goods, perishables and valuables)
- Flight date
- Flight number
- Weight, volume and dimensions of shipment
- Number of colli (Packages)
- Issuing agent / contact details
- Eventual assignment to customer (agent's) allotment

The reservation will be validated against the airline's capacity, commodity and revenue management criteria, and will be officially confirmed as soon as the booking is accepted. Now the booking process is complete.

In case of a so-called blocked-space agreement in which the forwarding agent has a continuous reservation (allotment) for space at one or more flight / date combinations with an airline the booking process may sometimes go slightly different, but the basics are the same.

There are a few recommendations in order to assure a smooth process for the airline and the customer:

1. Make the booking at the earliest possible stage, and ask for (and meet) the latest possible delivery time of your goods (esp. in case of dangerous goods, live animals, perishables, valuables, etc.) at the airline's handling agent.
2. Check for specific commodity restrictions with the airline or the country of destination.
3. Do not make bookings for the same shipment at several agents or airlines; if you have to cancel do this timely, also in case you are not going to use (part of) your allocation. Aircraft space is very expensive!
4. Do not exceed allotments and/or shipment weights without consulting the airline first. If noticed your shipment will certainly be stopped, and if unexpectedly unnoticed this is a potential air safety threat!
5. Make sure the information on your shipment documents are exactly in line with the actual shipment details, dimensions and weight.
6. Make sure you have made all the necessary security arrangements. Cargo from 'unknown shippers' or with otherwise suspicious characteristics will certainly be stopped.

Preparing the shipment

In order to keep track of the different customers’ shipments from one exact address to another, the forwarder makes a House Air Waybill (HAWB) for each such shipment. The House Airwaybill is the shipment contract between the end-customer and the forwarder, so basically the forwarder acts a carrier towards the shipper. (Similar to a Non-Vessel Operating Common Carrier or NVOCC, which is a shipment consolidator or freight forwarder who does not own any vessel, but functions as a carrier by issuing its own bills of lading or air waybills and assuming responsibility for the shipments.)

Next step is to make the goods Ready For Carriage (RFC)
• Correctly packed, labelled and
• Customs cleared for Export (if applicable), and
• With the right documents and security checks for air transport as the next step, as well as for incoming or import handling and clearance (if applicable) at destination

Often the forwarder combines shipments of different shippers travelling the same airport-to-airport stretch into a consolidation, because ...

a. Consolidations are easier and faster to handle for the forwarders as well as the airline
b. Bigger volumes get better airline pricing (and also give more commercial freedom for the forwarder to play with cost-and selling prices)
c. Continuous bigger volumes facilitate blocked space agreements between the airlines and the forwarders to create guaranteed capacity and thus better reliability for the end-customer / shipper.

The Air Way Bill

Consolations or individual shipments get a Master Air Waybill (MAWB) from the airline. To start with, the Master Air Waybill is the shipment contract between the forwarder and the airline (which also means that towards the forwarder the airline is the carrier, and the airline considers the forwarder to be the shipper now). Other functions of the MAWB are:

1. Communication of the applicable contract terms, conditions and liability to all parties involved (general on the back, or specific)
2. Proof of delivery (POD) of the goods to the carrier
3. Acts as a key for other related documents as required for customs or other authorities
4. Provides handling instructions to all parties involved
5. Provides a basis for invoicing for the airline and/or the forwarder
6. Acts as an insurance certificate (if applicable and indicated on the AirWaybill)

The main contractual obligations of the carrier are to deliver a shipment:
• In the same state in which they were accepted, undamaged
• Complete: in terms of number of colli (packages), and in contents (contents only as far as checked and agreed)
• On time

The Airwaybills contain the following information:
• The exact shipper’s and consignee’s address
• The forwarder taking care of (c/o) the shipment at destination
• Carrier / agent
• Airports of departure and destination
• Flight date and -number
• The overall kinds and values of the goods
• Number of colli (packages), weights, volumes
• Customs status
• The agreed costs of transport and eventual other charges (also for customs purposes in order for them to see added value)
• Insurance information
• Signature (to validate contract)

The airline’s Air Waybill or MAWB is a so-called non-negotiable transport document, so it is not a proof of ownership of (or document of title to) the goods; the document + goods cannot be traded.

When the goods are ready for carriage, the forwarder orders transport of the goods. If needed the goods will betemporarily stored at the forwarder’s warehouse. In case of large volumes and blocked space agreements with the airline, the forwarder may already prepare aircraft pallets and keep them ready for carriage. This minimises the handling time for the airline, and so the overall throughput time of the shipments. The goods are picked up by road transport for delivery at the warehouse of the airline’s handling agent who takes care of further cargo handling for the airline. Depending on the internal organisation of the forwarder’s processes, this road transport can be executed either with in-house operated trucks, vans or personnel or by a third party.
Normally the shipping forwarder will now inform or pre-alert the receiving forwarder about the shipment and flight details. This enables the receiving forwarder to prepare receipt of the shipment, e.g. by making connecting road-transport arrangements and/or perform pre-clearance of the shipment to ensure a smooth and fast flow of the goods through all the next steps.

The receiving forwarder will often be a branch of the same forwarding company, but it can just as well be a partner forwarder from another company, in which case an ad-hoc or longer term commercial agreement will be made

- A network forwarder is a large company with worldwide branches
- A forwarder network though is a network existing of different smaller to medium sized companies all over the world working together (Discussed in detail in Chapter No. 10)

Besides this basic process, other important functions or side-processes of the forwarder are:

- To plan & control transport orders, airline slot-times, and the flows of goods, documents as well as information in all steps of the created supply chain in order to assure a smooth process and service as agreed with the end-customer.
- To repair or improvise immediately when something might go wrong in the often complex chain executed by many different parties, or in case of a sudden urgent or non-routine shipment
- Change transport or airline bookings
- (Part) charters of trucks or aircraft
- On-board couriers
- To continuously maintain a structured and standardized network of commercial and operational agreements where possible, in order to rely on these agreements and an operational routine for all parties involved
- To handle claims on behalf of the (end) customer in case goods are damaged or lost in the process

**The air transport process**

The goods (or consolidations) are received at the airline’s handling agent warehouse. The handling agent will often be a separate company contracted by the airline, but cargo handling can also be an in-house function of the airline, especially at a major hub.

Examples of separate handling agents are: Aviance, Aviapartner, Menzies Aviation, Servisair, Swissport Cargo Services, WFS - Worldwide Flight Services, etc.
Also the airlines often offer their in-house cargo handling as a commercial service to other airlines. The handling agent takes care of the air cargo handling at the airport, to and from the aircraft. Depending on the kind of goods, destination (flight number) and urgency, delivery at the handling agent has to be done within a certain norm-time before departure (TBD) of the aircraft, also called a slot or a slot-time.

The whole physical air transport process can be pictured by the following steps:

A variant in the air cargo process can be to get to the destination in two or more steps instead of one, then the shipment goes into a transit:

Whether a direct or a transit process should be used is up to the forwarder (where necessary in communication with the shipper) and depends on required price, throughputtime (also in relation to flight schedules of different airlines) or special cargo requirements (security, live animals, etc.)

In case of a transit shipment the process in between the flights will look like this:
Or in some special cases or high priority cargo services, if the connection time allows, the transit process can even look like this:

Besides the physical handling, other important functions of the handling agent are:

- To control the overall weight & balance of the airline’s aircraft on the cargo side, make a load sheet and assure flight safety
- To make a cargo manifest for all the goods on board, for the airline’s import and export declaration to customs
- This is a high level customs declaration as opposed to detailed customs declaration by the forwarder or customs agent
- To make a notification to the captain of the aircraft (NOTOC) to inform the crew about potential risks of the cargo on board in case of emergencies (dangerous goods, live animals, valuables, etc.), as well as for the right conditioning (temperature) of the cargo holds.

- To plan & control bookings, slot-times, goods flows in the warehouse, and ULD and flight bag flows from and to the aircraft in order to prevent delays and assure correct execution of the airline’s time-table
- To plan & control worldwide ULD stock

The incoming checks before loading and departure of the aircraft are of
vital importance for the airline as well as rest of the process:

- Commercial checks
- According to booking
- Correct weights, numbers and volumes of colli indicated
- Logistics checks
- Delivered RFC
- Flight safety checks
- Correct weights, numbers and volumes of colli (packages) indicated
- Correct and undamaged packaging
- Potentially hazardous materials declared and correctly labelled and visible
- Correct and complete documents and labels
- Security checks
- Known shipper and forwarder declared
- Correct and undamaged packaging
- Correct and complete documents and labels

Next the goods and documents are separately handled, sorted for destination and outgoing flight number.

- Goods and documents are administratively connected by means of labels
- Documents are administrated and temporarily stored
- Goods are handled and temporarily stored

At a certain TBD the building of the ULD’s for the flight will start, and the documents will be gathered in the flight bag.

- ULD = Unit Load Device = standardized air cargo loading equipment, e.g.
  - Main deck pallets
  - Lower deck pallets
  - Lower deck containers
  - Animal stables or containers
  - Security containers

**The incoming or import forwarding process**
The receiving forwarder picks up the shipment documents at the handling agent. This pick-up can be done by the forwarder himself, or can be outsourced to a local courier.

The forwarder prepares import documents (if necessary), performs customs clearance for import (electronically or manually) and awaits approval from customs. If the forwarder is also a certified customs agent, he will perform the clearance himself (forwarding agent); if not he can outsource these activities to a certified customs agent.

A certified customs agent will always have a financial / credit arrangement with customs to cover eventual import duties and/or VAT due, often by means of a deposit at customs. A customs agent knows how to exactly classify the goods for import according to regulations; this is done based on the packing list and (pro-forma) invoice, so the packages remain unopened.

Also a customs agent is trained and experienced in acquiring and applying special customs arrangements, licenses and exemptions in order to lower or avoid import duties or to speed up the customs process where possible. Customs clearance is never the end-responsibility of the customs agent though, this responsibility remains at the principal and depends on the agreed delivery terms.

At this stage customs can decide to release or hold the shipment for inspection, whereby the packages are opened, and can demand payment of import duties or even fines depending on the customs regulations and judging the type of information given by the customs agent against these regulations and the actual commodity of the goods to be imported. After approval by customs (which must be proven to the handling agent, because the goods are stored under supervision of customs), the pick-up of the goods at the handling agent is ordered, and the goods are delivered at the forwarder’s warehouse. Again, depending on the internal organisation of the forwarder’s processes, this road transport can be executed either with in-house operated trucks, vans or personnel or by a third party.

The forwarder splits the shipments, makes them ready for transport again, and orders connecting transport to the consignee. The goods are picked up by road transport for delivery at the consignee, where the air cargo process
will finish. Again, depending on the transport agreement with the forwarder, this road transport can be organised by either the forwarder or the consignee. And again, depending on the internal organisation of the forwarder’s or consignee’s processes, the road transport can be executed either with in-house operated trucks, vans or personnel or by a third party.

**Delivery Process:**

The door-to-door air cargo process ends with the consignee. A consignee is the person or company that is physically and administratively responsible for accepting the goods at final delivery. Although in a lot of cases the consignee is also the customer of the forwarder, just as with the shipper, this is not necessarily so. Also here, the customer can just as well be the shipper, or a third party that has ordered the goods stored at the shipper’s location to be shipped from Point A to Point B. For this same reason, the consignee also does not need to be the owner of the goods. This all depends on the delivery terms that are agreed between the parties involved, e.g. a buyer, owner of the goods, a seller, a maintenance company, a distributor, a transport company, a forwarder, etc.

The consignee will give a proof of delivery (POD) to the forwarder’s transporter.

After receipt, the packages are opened and the contents are checked against the packing list and invoice. In case of payment at receipt, and if the goods are received in good order and the right quantities, the goods will be released for payment by the consignee. If the quantity received is not correct, the financial as well as the customs administration should be corrected afterward, which is the responsibility of the consignee.

**Transport Documentation Involving Air Movement**

Where international transport by air is involved, the Warsaw Convention of 1929 is normally applicable. There is an amending protocol of the convention at The Hague in 1955 but while this is ratified in many countries it is by no means universal and a supplementary Convention was agreed in Guadalajara in 1961 which has only been ratified by a very few states. In the UK for example it does apply as a result of the Carriage of Goods by Air Act, 1961. There are various other protocols that have since been agreed but which are not yet in force. This leads to a somewhat confused situation, varying according to the routing of goods. However this course only needs to deal with
the main provisions which are set out below.

The convention applies to international carriage of goods by air where the places of departure and destination are parties to it. It does not apply to any part carriage by other modes except where this arises from loading, delivery or transhipment. It does not apply to post mail.

An air waybill must be issued in accordance with the convention in three copies, one signed by the exporter is for the carrier, the second signed by exporter and carrier is for the consignee and travels with the goods. The third signed by the carrier is the exporters receipt. An air waybill is not a document of title and is not negotiable. It is a receipt for goods, evidence of contract and it is a freight bill.

All IATA carriers use a standard form of AWB (air waybill) that incorporates the terms of this convention. The waybill must contain the following:

1. Shippers name & address
2. Consignees name & address.
3. Customs status.
4. Agent’s IATA code
5. Airports of departure & destination.
6. Identity of first carrier.
7. Value of goods and currency.
8. Description of goods, commodity code, rate class, chargeable weight and freight rate.
9. Freight charges & ancillary prepaid or collect.

Notice of any partial loss or damage must be given within 14 days from receipt. There is no time limit for notifying a total loss although there is a two-year time bar for a legal claim.

The carrier is liable for loss or damage unless he can prove that all necessary steps were taken to prevent loss or damage. This is the most onerous of all the cargo conventions.

International air freight limitations of liability under the Montreal Convention increase, effective December 30, 2009. Liability of air carriers for cargo lost or damaged during transit has been limited since the dawn of air transportation. For instance, the original Warsaw Convention limited liability to 250 French gold Francs per kilogram. The Montreal Protocol to the Warsaw Convention set the limitation at 17 Special Drawing Rights (SDRs). However, on December 30, 2009, the limitation of liability for cargo that is lost or damaged during international air transportation between countries who are signatories to the Montreal Convention increased from 17 SDRs to 19 SDRs per kilogram, based on the weight of the package lost or damaged. As of May 17, 2013, the value
of one SDR was $ 1.4914, thus the limitation of liability is USD 28.3366 per kilogram.

Since the Guadalajara amendments logistics operators or forwarders issuing house bills are regarded as contracting carriers and therefore those house air waybills and any master bills must reflect the requirements of the convention.

Forwarding agencies act as intermediary in the air cargo chain buying air cargo space from airlines as a wholesaler and offering this space with additional services as a retailer to shippers. Forwarders partly make their business by consolidating individual shipments into bulk consignments and offer these consignments to airlines. The principle of consolidation has accelerated the importance of forwarders in the air cargo industry. Shippers have three main reasons to do business with forwarders for their transportation needs, namely cost, organization and know-how.

As forwarders have a so-called multi-product services portfolio, offering much more services than cargo space alone, their market has a heterogeneous character. Forwarders act as an ‘architect’ in international transport for shippers. Their added value is reflected by their extensive market knowledge, their ability to arrange pick-up in country of origin and delivery in country of destination, their ability to consolidate and de-consolidate shipments, their ability to deal with customs procedures and other administrative and financial tasks and increasingly, their global coverage. Forwarders also advise their customers about the most recommendable transport solution in a particular situation, about required packaging and may intermediate in recommended transport insurances. They negotiate on the terms of the contract of carriage and generally supervise the transportation process. Forwarders also offer value adding services to their customers in order to improve revenues and profitability, such as documents handling, picking and packing, sorting, kitting, labelling, minor product repair, warehousing, storing, inventory control, customs clearance, order processing, ground distribution and taking care of the compliance with foreign regulations on trade and financing instruments.

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CHAPTER 5
Multimodal Transport Operations

The Components of Multimodal Infrastructure

The multimodal transport operations, have the following components:

1. The main international carrying vehicle - ship, aircraft, train or truck
2. Port and terminal handling - straddle carriers, gantry cranes, fork lift trucks, tractor and trailer units;
3. The railway systems and in some countries, the inland waterway system.
4. Road haulage trailer and tractor units;
5. The Inland container depots / Inland clearance depots / Container Freight Stations
6. The container;
7. Through pricing.
8. Computer / Information and Communication technology

This is not an exhaustive list; however, for a complete operation most if not all of the above are required.

Multimodal Systems

Road/rail and Sea (Container)
This accounts for the largest international movements and comprises the transport by container with pre-carriage and on-carriage by road vehicle or rail wagon and sea carriage on a container ship. The advantage of this combination is the ability to handle almost any type of commodity, large indivisible loads as well as small packages; its total worldwide cover with reliable and frequent services.

Road/sea (Trailer & Ro-Ro)
This is the use of the through road trailer or truck, which may be accompanied by its tractor unit throughout its journey or unaccompanied for any ferry crossings that occur on its route. The principal advantages are flexibility and speed. It is best suited to routes involving minimal sea crossings. One
disadvantage is pressure from governments to move long haul road traffic to rail or sea on environmental and pollution grounds

**Road/rail**
One of the earliest forms of dedicated intermodal transport was the ‘lift van’, a concept used in both Europe and the USA in the 1920s of a small type of container that could be interchanged between road trailer and rail car. They were primarily used for household removals. The use of ‘piggyback’ trailers that can be loaded onto rail wagons for the long haul overcomes the environmental objection just mentioned. It achieves rail movement without the need to handle the goods at the road – rail interface.

**Road/air**
The combination of road/air movements is used both by air consolidators as well as by airlines themselves. In the case of a consolidator it will be the vanning of the goods at the consolidators own depot before moving the unit to the airport for airside loading and visa-versa. Many consolidation depots are off airport because of the availability and cost of land. However many of the scheduled service airfreight operators move a very large amount of airfreight by road from the point of initial receipt to their ‘hub’ airport. In North West Europe for example there are a number of major airlines using airports in separate countries who are competing for the same business. It will often be quicker and certainly cheaper to get the cargo to the ‘international’ hub airport by road than by feeder airfreight.

**Sea/air**
Sea/air combinations might not be considered to be fully multimodal to the extent that the units used are not fully compatible. The sea transport leg will involve the use of a maritime container loaded with pallets that will be discharged and handled individually on the air leg. In the 1970’s there were a number of attempts to produce hybrid through services where a fast sea passage could be combined with a long air carriage over land. For example a transatlantic service from Le Havre or Liverpool by sea to Halifax (Canada) reduces that crossing to only 2500 nautical miles or less than four days using the 28 knot ships that were then in service. Cargo was on-carried by air to the Western parts of Canada and USA with a total transit time of just over a week and a through cost lower than air all the way. These systems failed to produce sufficient traffic in the long term primarily because the availability of space on the air leg did not match the availability of cargo carried on the sea leg thus resulting in considerable delays in arrival at final destination, often resulting in a not much faster total transit time but at a much higher cost.

Sea/air services today are generally used in the following situations.
1. Where there is air cargo imbalance (Example: Air cargo freighter aircraft bring full load cargo in to the airports in Middle East Gulf region and return with less outbound cargo).
2. Where the ultimate destination is inadequately served by land surface transport
3. Very remote regions
4. Where there is a particular need for urgent delivery.

**Modal Interfaces**

This is the term used for ports, airports, depots, railheads and any other place where cargo is transferred from one type or mode of transport to another. In terms of a smooth and successful intermodal movement these are also the points at which an interruption to that through movement is most likely to happen.

When cargo is on a vehicle moving on its journey relatively few problems arise. There may be breakdown or accident, there may be delays caused by weather or congestion but these are small in number and have usually have limited consequences. It is when the vehicle has arrived at a modal interface that disruption might occur because a whole series of events have to take place at about the same time and in the right sequence. These will include:

- The physical transfer of the goods from one mode to another involving Terminal facilities for the transfer, Labour and handling equipment.
- The need to place goods into temporary storage awaiting the next mode requires suitable storage, labour, equipment and security.
- The need to comply with statutory requirements viz. customs, health, security etc. involving documentation, customs, health and other officials

The arrangement of the next modal leg needs the on-carrying vehicle, timetabling delivery and documentation. It should be clear therefore that the smooth operation and the provision of adequate facilities at modal interfaces are vital to meeting the supply chain requirements in the system.

**Through transport documentation**

Different through transport operators may issue different types of documents and in particular bills of lading covering the through operation.

A **Combined Transport Document** covers intermodal transport from point of origin to point of destination (if appropriate “door to door”) in a single contract of carriage. Moreover, the transport operator contracts as principal for the complete journey (even though he may have subcontracted some legs of the journey) and is therefore primarily liable for the performance of the contract throughout.

When a **Through Transport Document** is issued the operator only acts as principal for that part of the journey for which he is the carrier. For the remainder of the operation he acts as agent only in arranging the transport.
The result is that the legal responsibility for the through operation rests with several different operators at different stages, and the user may have to determine which operator to proceed against if something goes wrong in the course of the complete operation.

**Freight Forwarder as a Carrier**

The key to the operation of multi-modalism is the non-vessel operating carrier (NVOC) or non-vessel operating common carrier (NVOCC). This may result in a container (FCL or LCL) movement or trailer transit. In such a situation, carriers issue bills of lading for the carriage of goods on ships which they neither own nor operate. The carrier is usually a freight forwarder issuing a ‘house’ bill of lading for a container or trailer movement or, if the trailer movement is in the UK/Continental trade, a CMR consignment note. As an example a freight forwarder offers a groupage service using a nominated shipping line and infrastructure. The freight forwarder offers his own tariff for the service but buys from the shipping line at a box rate. NVOCC allows shipping companies to concentrate on ship management and the freight forwarder to use his expertise in marketing and cargo consolidation. This type of operation is particularly evident in the Far East, US, African and European trades. Overall there must exist a good infrastructure to enable it to operate effectively. All forms of multi-modalism involve a dedicated service usually under non-vessel operating common carrier (NVOCC) or non-vessel operating carrier (NVOC) arrangements.

The factors below outline why shippers are in favour of multi-modalism.

a) The service is reliable, frequent and competitively priced. Goods arrive within a scheduled programme involving various transport modes and carriers operating in different countries.
b) In many companies it features as a global network either as a supply or retail chain. The former may comprise an assembly/process plant serving a local market whilst the latter involves the retailer buying the product in an overseas market. The retailer may be a shop, manufacturer, consumer, etc.
c) Many companies operate their global schedules on the ‘just in time’ basis requiring dedicated and integrated schedules within the shipper’s warehouses and distribution arrangements. Multi-modalism is ideal for this system. Many companies regard it as a distribution arm of their business with on-line computer access. This frequently involves an EDI system which strongly favours multi-modalism as a global distribution system.
d) The service is tailor-made to the trade/commodities it serves involving high-tech purpose-built equipment. This provides adequate protection to the goods and arrival of the product in an excellent condition. The product may be refrigerated, fragile cargo or high-tech electrical goods.
e) It has a high profile which is a good marketing ploy in the promotion of a company’s business. The freight forwarder is very closely involved in the
customs clearance / processing arrangements, at the time of both
exportation and importation.

Today an increasing number of the major forwarders have now the facility to
undertake on their own premises the clearance of cargo at the time of
exportation and/or their importation. This speeds up the operation and avoids
delays at the sea or airports. It is a feature of multi-modalism. It is called
forwarders’ local export control (FLEC), and for importation, forwarders’ local
import control (FLIC). Under FLIC the examination of cargo takes place at the
forwarders’ premises, whilst the actual entry can be lodged at the seaport or
other entry processing unit (EPU) convenient to the forwarder. Today, major
forwarders have on-line access to customs permitting electronic customs
clearance. The system is called ‘designated export place’. Additionally it is
stressed that the modern freight forwarder is logistically focused and this is
generating a new breed of management computer literate in all areas of the
business with a strong interface between the shipper/agent/carer(s) and all
major parties in the supply chain, thereby permitting on-line consignment
tracking.

The British International Freight Association (BIFA) represents the freight
forwarding industry and incorporates the Institute of Freight Forwarders. Both
organizations are committed to developing the industry and the attainment of
quality control as through the application of the British Standards in Quality
Systems, BS 5750. BIFA has established a Quality Assurance Manual, and also
lays down trading conditions and companies which have been engaged in the
business of moving freight for a period of not less than three years can apply
for registered trading membership, provided they meet the criteria laid down
by the Association. Affiliated trading membership is also available to other
firms not directly involved in the freight moving industry yet having a working
relationship with the forwarder. Circumstances giving rise to the employment
of a freight forwarder by an exporter/importer include dealing with an
unfamiliar overseas market; endeavouring to sell under CIP, CPT or DDP
terms; complex shipping or customs arrangements; the workload of the
exporter subject to significant peaks and troughs; the exporter is a small firm
and needs to concentrate on the careful marketing of the product overseas;
the freight forwarder can obtain morefavourable freight rates especially for
groupage shipments; the freight forwarder has access to priority of booking
cargo space on transport modes, and the provision of specialist
services/resources including groupage / antiques / perishable cargo /
livestock / ‘out of gauge’ consignments, etc. The exporter examining the
merits of having an ‘in house’ shipping department in preference to employing
a freight forwarder must consider the capital and revenue expenditure in
office space and equipment; the volume of overseas business; the number of
markets and their degree of similarity; the availability of suitable qualified
staff; the pattern of the business and the degree of seasonal variation; and the
nature of the business including the degree of specialism. Overall, a financial
appraisal is required.
Monitoring the performance of a freight forwarder enables the exporter to ensure the situation remains competitive. It involves monitoring the budget against actual results in terms of price, transit time, etc.; seeking the buyer / consignee’s opinion; undertaking test transits; and the overall quality / reliability of the service and competence / calibre of the management. Shippers in their evaluation of possible freight forwarders, should check out the viability of the company; any legal disputes; the trading conditions; the calibre of the management and their qualifications; experiences of other customers; the degree of technology; quality of overall service; the competitiveness of the tariffs; nature of the business and suitability of the equipment / resources; the company position in the market place; the liability insurance maintained by the firm; and so on. Project forwarding is a growth area of freight forwarding. It is often allied to turnkey projects. Project forwarding involves the dispatch / conveyance arrangements which stem from a contract award. For example, a company in country A has a contract with a consortium in country B to build a factory which involves the importation of substantial quantities of merchandise, especially technical equipment. Thus much co-ordination, involving the buyer / seller in terms of despatch arrangements and the site construction programme, is required. To conclude, shippers wishing to use a freight forwarder must consider in selection and economic criteria the following:

a) Membership of a Freight Forwarders Association viz. FFFAI (India), NAFL (United Arab Emirates), BIFA (United Kingdom) is very desirable.
b) Profile of freight forwarder and nature of business.
c) Value added benefit emerging from employing the freight forwarder’s operations.
d) Alternative cost of the shipper doing the work and the requisite organization structure.
e) Volume of business and any seasonal variation.
f) Terms of export sales contract.
g) An increasing number of shippers entrust part of their business to the freight forwarder, especially spasmodic shipments to new markets, whilst the core of the business is undertaken ‘in house’ through their own shipping department direct with a carrier. Smaller companies with limited experience and resources use the freight forwarder. Finally, the role and image of the freight forwarder is changing. An increasing number operate as a NVOCC and thereby form part of the multi-modal network, especially through the European trucking system and global container network.

h) Today, most freight forwarders operate as NVOCC and form part of the multi-modal logistic network, especially through the European tracking systems and global container network. The future of freight forwarding rests with the fast growing development as a third party logistic provider.
Companies are looking for offshore manufacturing and sourcing outlets for their components and bulk cargo needs. Countries with an established multi-modal global network are especially well placed in such a selection process.

The documentation requirements are minimal with the combined transport bill of lading involving one through rate and a common code of conditions.

More and more companies are focusing on international distribution as an important element of their international business. Such companies identify two profit centres: the manufacture / supply of the product and the channel of distribution from the supply point to the overseas destination.

Companies using the multi-modal network as a supply chain are very conscious of transit times and the capital tied up in transit. Quicker transit times bring the sourcing and assembly plants situated in different countries closer together, thus reducing the amount of capital tied up in transport which in turn reduces the company’s requirements for working capital, a critical factor with the multinational enterprise.

A key factor is the level of facilities provided by the NVOCC at the terminal warehouse. Many are high-tech utilizing a bar code sorting system and have purpose-built facilities for specialist cargoes as found in Distriparks and Districentres. The ports of Singapore, Rotterdam and Dubai are very much in the lead with the trading port concept, offering Districentres, Distriparks and, in Rotterdam, European Distribution Centres linked to a range of multimodal outlets.

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CHAPTER 6

Customer Relationship Management in Freight Forwarding

Customer relationship management (CRM) is becoming an important issue in marketing in order to gain customer loyalty, improve customer retention rates as well as increase profits. CRM refers to a management approach that seeks to create, develop, and enhance relationships with carefully targeted customers in order to maximize customer value and corporate profitability. Freight forwarding is a particularly customer-intensive service sector and a Freight Forwarder links buyers and sellers, creating economic value by effectively delivering products to customers. It plays an important role in delivering a high quality customer service and its performance has linkage with manufacturers'/suppliers' performance. For achieving speed, frequency, and reliability in modern logistics services, freight forwarding firms require instant information and effective CRM for their customers.

The duties of a freight forwarder include booking space on a ship / aircraft, providing all the necessary documentation and arranging customs clearance. Not only are freight forwarders looking less and less different from one another, but a growing range of freight forwarders is providing the same of service. Hence, the freight forwarding industry, worldwide has become highly competitive. In each country, there are thousands of freight forwarders and the percentage of foreign firms in Freight Forwarding is on the increase in almost all countries.

To survive in this dynamic and competitive marketplace, the best way for freight forwarding companies to retain customer loyalty is to provide an environment where customer relationships are effectively managed. Thus, customer relationship management is a critical source of gaining competitive advantage and superior performance in the freight forwarder service sector.

**CRM attributes** relevant to Freight Forwarding:

As per the research conducted by Kuo-Chung Shang and Chin-Shan Lu reported in Journal of Marine Science and Technology (Vol. 20, No. 1, pp. 64-72 (2012)), following are the attributes of a Computerized Customer Relationship Management in Freight Forwarding Companies.

1. The freight Forwarding Company's computer system is capable of storing, searching, and analyzing customers' data.
2. The freight Forwarding Company is capable of using computer system to categorize targeted markets.
3. The freight Forwarding Company's computer system is capable of organizing and classifying interaction between sales personnel and customers.
4. The freight Forwarding Company has a computer system efficiently to handle customer's information.
5. The freight Forwarding Company uses phone calls, e-mails, and personnel visits to communicate with customers.
6. The freight Forwarding Company promptly responds to customers' problems, suggestions, and complaints.
7. The freight Forwarding Company actively provides transportation related information to customers.
8. The freight Forwarding Company actively understands customers' service requirements and expectations.
9. The freight Forwarding Company actively responds to customers' enquiries of its services.
10. The freight Forwarding Company's customers can easily find the company's services related information.
11. The freight Forwarding Company sends gifts to customers periodically.
12. The freight Forwarding Company actively provides price discount for loyal customers.
13. The freight Forwarding Company's customers often introduce other customers to use the Freight Forwarding Company's services.
14. The freight Forwarding Company analyzes individual customers' profit contribution.
15. The freight Forwarding Company has flexible measures for customers' urgent requirements.
16. The freight Forwarding Company has different marketing patterns for target customers.
17. The freight Forwarding Company uses customer information to develop a new market.
18. The freight Forwarding Company applies customer information to marketing planning.
19. The freight Forwarding Company provides a variety of service items and information.
20. The freight Forwarding Company provides price differentiation for customers.

Out of the above 20 attributes, 5 most important Factors have been identified as dimensions of CRM. They are as follows:

a. **Customer Response dimension:** This consisted of five items (Attribute No.s 6, 5, 9, 7, 8). Out of these 5 items, Attribute No. 6, “The freight Forwarding Company promptly responds to customers' problems, suggestions, and complaints” had the highest factor loading on this factor. Since all these 5 attributes are related to customer response, this factor was called 'customer response'.

b. **Knowledge management dimension:** This consisted of five items (Attribute No.s 16, 18, 17, 15, 19). Out of these 5 items, Attribute No. 16,
“The freight Forwarding Company has different marketing patterns for target customers” had the highest factor loading on this factor. Since all the attributes pertains to using the knowledge about customers, this factor was identified as 'knowledge management application'.

c. **Information technology dimension:** This comprised five items (Attribute No.s 2, 4, 3, 1, 14). Out of these 5 items, Attribute No. 2, “The freight Forwarding Company is capable of using computer system to categorize targeted markets” had the highest factor loading on this factor. All attributes are related to information technology and, hence, this factor was named 'information technology'.

d. **Benefit interaction dimension:** This consisted of five items (12, 11, 13, 20, 10). Out of these 5 items, Attribute No. 12, “The freight Forwarding Company actively provides price discount for loyal customers” had the highest factor loading on this factor. All attributes are related to benefit interaction and, therefore, this factor was named 'benefit interaction'.

To summarise, the five most important CRM attributes from the perception of the forwarder are

a. Use phone calls, e-mails, and personnel visits to communicate with customers
b. Promptly responds to customers' problems, suggestions, and complaints
c. Actively responds to customers' enquires of their services
d. Actively provides transportation related information to customers
e. Actively understands customers' service requirements and expectations.

**Next level to CRM - Integrated I.T. Based Sales System for Freight Forwarding Companies:**

In today's increasingly complex global business environment, the sales management process in the freight forwarding industry requires a vigorous new level of professionalism to be effective.

Unlike days gone past, the sales process within the freight forwarding industry today reflects the fact that purchasing decisions are being made increasingly at the C-level executive or board room echelon, as opposed to the old purchase department / export department personnel. This means that today's sales and marketing efforts require a greater degree of corporate participation, cross-departmental IT integration and advanced sales tools to support this new business model.

The key to a successful sales process today is the establishment of freight-specific sales and marketing tools within a comprehensive Customer Relationship Management (CRM) application. The forwarding and logistics market is evolving into an
increasingly competitive and tight margin industry that warrants a new level of professionalism well beyond that of what a single sales manager can deliver. Today, a robust, integrated CRM tool provides the best opportunity to execute the sales value proposition by communicating significant sales data to all pertinent personnel, including operations, finance and IT departments.

Since stand-alone CRM applications cannot offer the efficiencies and quality of an integrated sales process, the optimal solution is an ERP-like system that automates the sales process and creates management visibility throughout the supply chain, not horizontally, but vertically. This enables the sales process to flow in both directions between sales, operations and management.

**Steps to improve sales and operations through an integrated IT-based sales process:**

1. Develop a single point of contact with a customer for enhanced communications between sales and operations. If a single element of information is kept in redundant systems, it opens up quality issues and questions regarding the accuracy of sales information. Utilizing integrated information ensures cross-departmental precision and facilitates increased sales and customer service.

2. Operations should avoid having a single additional element of work to accommodate just the sales process. Rather, the information from operations should flow seamlessly to the sales department. Management is then able to utilize the same, uniform information for reporting and oversight without requiring additional data entry.

3. Automate the workflow with a single database. If all the intelligence that sales gather is available to operations, it not only reduces redundancy, but provides management with clear visibility across the sales team’s efforts. Data quality is even more of an issue for companies than efficiency. Changing customer organization details, contacts, and procedures is an administrative nightmare with multiple data systems within a company and should be avoided.

4. Provide a single CRM system for pipeline visibility. Customers and sales often dictate specialized reporting during the sales process that is required from operations. By automating your sales management system, the sales department can set up automated reporting and pull it seamlessly from operations for quality control and efficiencies. This can be better accomplished by a single solution that integrates information from both sales and operations. This also provides vastly improved customer service.

5. Set up controls for customer tariffs for freight and handling. By automating this functionality within a single sales platform, the ratings are automatically transmitted to operations and warn them to utilize customer tariffs at invoicing.

6. Establish a consistent, companywide system. By avoiding cross-departmental confusion, spot quotes can be entered and tracked
accurately and systematically throughout the system and warns operations at rating and invoicing. This avoids costly rework, and more importantly, helps create a more positive customer experience.

7. Maintain customer status awareness throughout the process. Operations should alert sales seamlessly out of the automated single system database. This improves overall communication and documents that each transaction was completed in a timely manner.

8. Utilize IT-based sales management communications. General sales call notes, proposals, emails and other sales documentation are more accessible to operations with a click of the mouse and provide increased data accuracy and total customer status.

9. Establish a CRM model that enables the sales team to see a dashboard synopsis of operational activity via automated document modules for real-time activity status without requiring operation resources to compile it for them.

10. Maintain transparency to the customer relationship. Operational quote activity should be transparent and visible to the sales department personnel who can properly follow up on a timely basis. The result will help identify shipment activity, lane segments, trade profiles, deliverables, financial data and call cycles, creating more efficiency and the ability to win more business.

The development of a more professional, robust IT-based sales management process is dependent upon building an integrated sales funnel through effective CRM tools to both existing customers and prospects via accurate data and effectual communications among trading partners. A properly automated and integrated freight sales process can greatly enhance target marketing efforts in today's global economy. This, in turn, optimizes management viability across a variety of industries, and manages it throughout the entire sales process.

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CHAPTER 7

Financial aspects of Freight Forwarding

Freight forwarding companies are probably not affected by fluctuating freight rates during the times of recession because of their business model which is, buy shipping space / space on aircraft from Shipping Lines / Airlines, add a markup and sell to customers.
However, freight and logistics companies will need to deal with numerous issues. For example, as trade routes become more competitive and as freight rates fall, the industry’s traditional bargaining power with its shippers—volume—will be challenged. One important strategy to counter this challenge is to use balance sheet strength to acquire niche players in important trade routes and geographies, especially in emerging markets.

Another key to growth and profitability will be the ability to analyze customers’ needs and then respond quickly with differentiated and advanced logistics solutions. That will require better IT tools to improve internal process efficiency and to generate analyses that result in deeper understanding of customers’ industries and business processes.

According to recent Accenture High Performance Business research, which analyzed corporate performance in the freight forwarding and contract logistics industry from 2008 to 2011, high performers owe their success to a combination of factors: dominance over profitable trade lanes; strategic growth in key emerging markets; and business models supported by operational excellence and designed to develop expertise in customers’ industries while empowering those customers with greater information and better service at the same time.

**Industry background**

As customers enter new markets, especially in emerging economies, they are demanding much more than traditional transportation and warehousing services from their freight forwarding and contract logistics providers. The ability to offer new, value-added services such as warranty processing, returns management and light manufacturing is now a differentiator, as is providing services such as customs and insurance brokerage, and trade and transportation management. In other words, the ability to become a “one-stop-shop provider” is emerging as a way to achieve differentiation and capitalize on cross-segment opportunities.

However, companies in the industry face multiple risks, particularly in light of continued global economic instability. Rising oil prices are a persistent threat. Industrial production slowed during 2011. Economic challenges in the European Union, political instability and unrest across multiple areas of the globe, and a series of natural disasters have highlighted the often fragile nature of the freight forwarding and logistics business and the industry’s customer environment.

**Industry imperatives: What the high performers know**
High-performance businesses in freight forwarding and logistics have maintained industry-leading operating profit margins and above-average capital efficiency ratios—a result of their tightly controlled operating expenses and strong working capital management.

Using the structure of the three building blocks of high performance, as defined by the Accenture High Performance Business research program, the following are some of the important lessons about high performance from which all players in the freight forwarding and contract logistics industry can benefit.

1. **Market focus and position**

Due to a mixture of organic growth and strategic acquisitions, high performers not only have a strong presence in emerging markets such as Brazil, Russia, India, China and Mexico, they also exert control over the most profitable trade lanes: Europe to Asia, for example, or North America to both South America and Asia. Moreover, by leveraging dominant positions in domestic freight (both air and road), they have managed to maintain volume growth without compromising their revenues.

2. **Distinctive capabilities**

According to Accenture analysis and scorecard of industry players, three business capabilities stand out in particular.

- **Flexible business model.** The high performers know that time to market is critical in their industry—and they have the flexibility to respond with speed and agility to their customers’ need for convenience. High performers have established new ocean freight links to growth geographies such as Africa. And they have opened multiple new service links that span the global trade routes over which they dominate.

- **Deep expertise in key customer industries.** Industry knowledge is growing in importance as customers extend their supply chains in response to globalization. High performers have been leaders in developing extensive expertise in the industries they serve, going well beyond traditional transportation and warehousing solutions. Increasingly, logistics companies are strengthening their ability to collaborate and are better aligning themselves with customers’ operations, processes, industry know-how and technology.
• **Using IT to maintain 360-degree control.** The high performers have moved well beyond using IT merely as an enabler of internal process management. Instead, they leverage their proprietary customer-facing technologies to empower their customers, offering them end-to-end visibility across the entire supply chain. Important to ongoing success will be the ability to develop more “intelligent” services, more dynamic planning and increased alignment with customers’ operations and processes.

Supply chain visibility remains a top operational priority for large customers. Customers generally struggle to achieve a unified picture of their supply chains because of the legacy information systems designed to operate within a single company, not across a network of companies. Thus, the ability to share real-time information with key customers, suppliers and partners has become critical in the freight forwarding industry.

### 3. Performance anatomy

With freight forwarding and contract logistics, performance anatomy relates not only to overall operational excellence but also to such procurement practices as the purchase of transportation capacity and the innovative use of shared services. Because of their relentless focus on productivity improvement, the high performers are masters of operational excellence, achieving significantly higher gross profit conversion.

These companies place much greater emphasis on process automation and on finding the right balance between volume commitments and spot buying—a strategy that enables them to achieve competitive rates in the most important trade lanes. And they have been enthusiastic adopters of shared services, not just for internal processes but also to improve customer services and supply chain management.

**Agreement among Freight Forwarders**

Freight forwarders become members of Networks and follow the bye-laws similar to the ones given below. The objectives are to establish responsibility, cost and liability of each party, in the mutual pursuit of developing International Freight Forwarding and Logistics Services.

1. The Members shall actively co-operative in International Freight Forwarding and Logistics services for shipments moving between their respective areas they represent within the Network. Each will provide or arrange full logistical services necessary for the movement of freight, via air or ocean or any other means, including ancillary support services and timely
preparation and transmission of related documentation and/or electronic data.

2. Each Network Member will name the other as Consignee on any Master Air Waybill, Master House Air Waybill, Master Ocean Bill of Lading or Master House Bill of Lading. Exception to be made if cargo is co-loaded and this co-load are agreed to between both parties prior to movement of cargo.

3. Each Network member above agrees to keep confidential all information relating to ALL shipments and/or Sales Leads provided between their companies. Back Solicitation or providing information to any other freight forwarder (non-member) will result in automatic termination from the Network.

4. The Members will provide total multimodal freight services, either independently or utilizing the services of Third Parties. Each Member assumes full responsibility for all Third Parties as selected by them.

5. The Members are to actively pursue, investigate and negotiate the best possible net freight rates for each service and to notify and offer these net rates to the other members.

6. The Members agree to receive/accept cargo from each other ensuring cargo is received clean and in good order. In the event of shortages and/or damages, notation will be made on the appropriate documentation. Claim actions shall commence immediately.

B. Profit Share Agreement

1. Freight will be transported at mutually agreed rates and the Members will share freight profit and/or losses equally.
2. Profit Share Agreement is normally 50/50 on routed cargo or “Other” if “Other”; it should be specified explicitly prior to accepting the shipment.
3. Other services not covered by the above agreement are to be negotiated at the time of shipment. These include FOB Charges, Free Domicile Charges, and any other costs that will be for the account of the Member being invoiced.

C. Account Payment Settlement

1. Bank Charges are to be paid by the Member issuing the payment, unless otherwise agreed.
2. Payment Terms preferred by member viz. advance payment / 30 days credit / etc. has to be informed in advance to enable the other members decide on doing business with them.
3. Currency Exchange Rate has to be agreed upon by both the Members prior to payment.

4. Preference is for Invoice for Shipment/Transaction to be Faxed/E-Mailed with Shipment Documentation. Invoice MUST be presented (Fax /E-Mail Copy is Acceptable) without fail not later than 5 days of shipment/date of invoice. Original Invoice is to be mailed or sent with Shipment Documentation.

Everyday hundreds of Freight Forwarders sign agency agreements with foreign agents based on a division of profits from each transaction.

Once the shipment is complete the foreign agent will document the revenue to be collected from the importer, and the disbursement of profits.

- Revenue - (Cost of Freight + Foreign Inland Costs) = Profits.

Example for FCL Sea freight Shipments:

Shipment is a 1 x 20’ (Door to Port shipment) from Chennai, India to Le Havre, France.

Selling Rate: USD 1500. (Referred as Revenue in the above formula)

Buying rate from the Shipping Line : USD 1000 (Referred as Cost of Freight in the above formula)

Cost for transportation from Shipper’s premises to the origin port : USD 200 (Referred as Cost of Foreign Inland Costs in the above formula)

Profit = Revenue (1500) – (Cost of Freight (1000) + Foreign Inland Costs (200))

Profit = 1500 – 1200

Profit = 300

If Profit share agreed is 50 : 50, then each forwarder will get a profit share of USD 150.

Example for LCL Sea freight Shipments consolidated to 1 x 40’:

The formula will be modified as follows:
Profit = Revenue - (Cost of Freight + Destuffing costs + Onforwarding costs + Foreign Inland Costs)

Origin of the container: Chennai

Destination: Singapore

The container has the following LCL cargoes

<table>
<thead>
<tr>
<th>Destination</th>
<th>Cargo Volume (CBM)</th>
<th>Freight (USD / CBM)</th>
<th>Total Freight (USD)</th>
<th>Destuffing cost in Singapore (USD/CBM)</th>
<th>Total destuffing cost (USD)</th>
<th>Onforwarding cost to Destination (USD/CBM)</th>
<th>Total onforwarding cost (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>15</td>
<td>40</td>
<td>600</td>
<td>10</td>
<td>150</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
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<td>10</td>
<td>50</td>
<td>500</td>
<td>10</td>
<td>100</td>
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<td>100</td>
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</tr>
<tr>
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<td>840</td>
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<td>540</td>
<td>10</td>
<td>60</td>
<td>25</td>
<td>150</td>
</tr>
<tr>
<td>Bangkok</td>
<td>10</td>
<td>60</td>
<td>600</td>
<td>10</td>
<td>100</td>
<td>12</td>
<td>120</td>
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<tr>
<td>Total</td>
<td>63</td>
<td>3680</td>
<td>630</td>
<td></td>
<td>780</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Selling Rate: USD 3680. (Referred as Revenue in the above formula)

Buying rate from the Shipping Line: USD 1200 for the 40’ contr. from Chennai to Singapore (Referred as Cost of Freight in the above formula)

Cost for LCL stuffing and Terminal Handling Charges at Chennai: USD 300 (Referred as Cost of Foreign Inland Costs in the above formula)

Destuffing cost at Destination = USD 630

Onforwarding costs at Destination = USD 780

Profit = Revenue (3680) - (Cost of Freight (1200) + Destuffing costs (630) + Onforwarding costs (780) + Foreign Inland Costs (300))

Profit = 3680 - 2910

Profit = 770
If Profit share agreed is 50 : 50, then each forwarder will get a profit share of USD 385.

**Airfreight**

In airfreight, forwarders will have a buying rate from Airline / Consolidator and they will have a selling rate to Customers. Difference between the selling and buying rates will be split between the origin and destination forwarders depending on who contributed to getting the business.

* * *
CHAPTER 8
Legal aspects of Freight Forwarding

International transport by its very nature always involves the movements of goods and equipment from one country to another, therefore it also involves movement between different legal jurisdictions. This may create problems in deciding which country’s laws should be applied under particular circumstances, while if the law in one country is more favourable to a party than another they may seek the one that suits them best (jurisdiction shopping). The international community tries to resolve this by agreeing international conventions which agree a common framework of law to be applied in some of these areas.

There are a very large number of International Laws, Conventions and Codes relating in some way to international transport. These are concerned with the construction and use of the vessels, vehicles and equipment used; the liability of operators to third parties; the safety of ships and aircraft, environmental protection of seas and airspace; in fact almost all aspects of moving freight around between countries.

CARGO LIABILITY CONVENTIONS

In this section, we will cover those conventions that have a direct impact on the movement of cargoes by freight forwarders. The most important of these are the Conventions concerned with the ‘limitation of the carriers liability’. These set out the respective responsibilities of the carrier and the merchant to one another, the circumstances under which the carrier is, or is not, responsible for loss or damage and the financial amount of that liability. Needless to say there are different rules for the different modes of transport.

International conventions relating to bills of lading

The Hague and Hague/Visby Rules

These rules are perhaps the most important in terms of the amount of cargo carried under the conditions. The full title of these rules is 'The International Convention for the unification of certain rules of law relating to bills of lading signed in Brussels on 25th August 1924.' (Hague Rules). Hague/Visby Rules pertain to the rules as amended by the protocols signed in Brussels in 1968 and 1979. Some countries that ratified the Hague Rules have not yet ratified Hague/Visby so the earlier rules still apply in those places.

Before the Rules were agreed, Carriers made up their own minds how much liability they would accept for loss or damage to merchants’ goods. There was
a very wide variation with some lines limiting their liability to a derisory level. The object of the Rules was to set a minimum standard so that merchants and their insurers would know where they stood.

Freight forwarders, in order to understand bills of lading and related documents, must have a working knowledge of the Rules, especially with regard to carrier’s liability and limitation (time barred) of claims.

In the Hague Rules the maximum liability was £100 per package or unit. This was so overtaken by inflation that insurers in the UK accepted a ‘Gold Clause Agreement’ drawn up by the British Maritime Law Association which raised the limit to £200 and later to £400. Following the UK and many other countries adopting Hague/Visby, the Gold Clause Agreement ceased to be valid in May 1988.

The most immediate problem to be addressed was the 'per package' limitation. Even with the Gold Clause Agreement, £400 maximum for a 40 foot container load was ridiculous. The new Rules endeavour to make it clear (Art. IV Clause 5.c) that if the bill of lading states that the container contains, for example, '20 Washing Machines' then each machine will be a unit rather than counting the container as one unit.

Any change in rules such as these can create problems as well as solve them. One particular advantage of containerisation is that the goods are so well protected by the actual container that they need no more packing than is required at the point of retail sale. A container carrying 2,500 cartons of canned baby food might make the new rules ridiculous in the other direction. Hague/Visby tried to avoid the need for future Gold Clause Agreements by adopting the gold 'Poincare Franc' as the unit of 'currency' but it had not reckoned with the price of gold itself fluctuating wildly. This was overcome in 1979 when the majority of maritime nations agreed to adopt the International Monetary Fund measure of a Special Drawing Right as a unit of 'currency' and so the prescribed limitations are now 666.67 SDRs per package or 2 SDRs per kilo whichever is the greater.

The initial advice of a cargo claim has to be made within three days of removing the goods and the claim will be time-barred 'unless suit is brought within one year'. That means unless the line agrees to an extension, the consignee has to have actually issued a writ within one year to prevent the time bar; simply exchanging letters is not enough.


The initiative behind Hague and Hague/Visby came mainly from maritime nations which tend to be the more industrially developed countries. The less
developed countries considered the Hague/Visby Rules far too lenient towards the carrier and therefore detrimental to the merchant.

Therefore in 1978 an international conference in Hamburg sponsored by the United Nations produced a proposed new convention known as the Hamburg Rules. These Rules have not achieved universal acceptance but enough countries have ratified the convention for it to come into force.

The main liabilities which the Hamburg Rules seek to impose, which are excluded from Hague Visby are: -

1. Live animals and deck cargo are included. (Article 1.5)
2. Almost any contract of carriage not just bills of lading and similar are brought in. (Article 1.6)
3. The Carrier is liable for loss due to errors in navigation.
4. The Carrier is liable to pay compensation for delay as well as for loss or damage. (Article 5)

Higher levels of compensation raised to 835 SDR or 2.5 SDR per kilo. (Article 6)

Carrier liability for delay is limited to 2.5 x freight paid by the shipper/consignee. The issue of delay is not addressed under the Hague-Visby regime.

Time bar extended to two years. (Article 20)

The scope of application is extended to include the port of discharge as well as the port of loading (Article 2). This can lead to jurisdiction shopping. If a cargo is loaded in UK (a Hague/Visby signatory) and discharged in Morocco (a Hamburg signatory) both sets of rules apply and a claimant can seek the jurisdiction that will favour him.

**Rotterdam Rules (The United Nations Convention on Contracts for the International Carriage of Goods wholly or partly by Sea 2012)**

The Rotterdam Rules, at 96 Articles, are much longer than either the Hague-Visby or Hamburg Rules, and address a wide variety of interests and objectives. In addition to increased limitation amounts and extended timelines, the following major changes should be noted:

1. Carrier liability for delay
2. Application beyond sea component to provide for 'door-to-door' coverage
3. Application beyond Bills of Lading to electronic and other forms of contract
4. Extension of carrier liability to “Maritime Performing Parties”
5. Shipper liability for failure to give instructions

The **Rotterdam Rules** represent a further increase over the higher limitation amounts proposed under Hamburg. The weight limitation, presently 2 SDR/kg in Hague-Visby and 2.5 in Hamburg, will rise to 3 SDR/kg under **Rotterdam**, a 50% increase over the Hague limits. The package limitation has increased more modestly, from 666.67 SDR under Hague to 835 SDR under Hamburg and now 875 SDR/package under **Rotterdam**. It should be noted that in all three Conventions it is the higher of the weight and package limitation that applies. These limitations apply unless damage can be proven to have been intentional or reckless, in which case liability is unlimited.

Similar to Hamburg Rules, Carrier liability for delay is limited to 2.5 x freight paid by the shipper/consignee. The Rotterdam provision requires the cargo interest to prove that the loss or delay occurred during the period of carrier responsibility, while under Hamburg this onus was not placed on the cargo claimant.

The scope of application is extended to include the place of receipt and place of delivery in addition to the port of discharge and the port of loading.

The three main thrusts of the Rotterdam Rules are:

1. Re-balancing the rights of cargo and carriers;
2. Modernizing the regime for intermodal transport;
3. Bringing uniformity to the international carriage regime.

Outside the three main thrusts of the new Rules, other areas of concern are

**Complexity**: The Rules were drafted by committee and are vastly longer and more complex than the regimes that will be replaced. Complexity and uncertainty both increase costs and give rise to litigation.

**Inconsistency**: The Rules import both common and civil law principles, which may cause confusion or conflict in application under different legal traditions.

**Incompleteness**: While striving for a more comprehensive regime, the Rules have extended their reach into documentation, warehousing, and other on-shore activities but without attempting to entirely regulate these areas of domestic law. This will lead to potential conflict with national and regional regimes.
CHAPTER 9
Insurance aspects of Freight Forwarding

Liability of the Freight Forwarder for Loss or Damage to Cargo

As with most forms of contract the terms of liability between the parties are set out within the contract. In order therefore to determine the liability of the freight forwarder for loss or damage in the course of a through transport operation, it is necessary to refer to the terms laid down in the bill of lading or other contract document.

There are instances however when the freight forwarder will have a greater liability than set out in the contract:

(i) When through some act, for example of negligence, the freight forwarder cannot rely on the limitations in the contract;
(ii) Where some international convention applies, according to the law governing the contract, which sets out minimum terms of liability which the freight forwarder must abide by (although it is up to the freight forwarder if he offers better terms than required by the convention).

Cargo Insurance

It might be expected that an operator would accept liability for loss or damage according to the value of the goods. This however, is very rarely the case; Freight forwarder normally limit their liability according to a monetary amount. A freight forwarder would argue that this is entirely reasonable since he is not necessarily aware of the value of goods and, in any case, freight charges are not normally directly related to the value of the goods.

Users of transport services therefore procure a separate insurance policy to cover their goods during transit. It is to that insurer that the shipper/consignee would turn in the event of loss or damage, with the insurance company subsequently seeking recovery from the transport operator to the extent which had can do so under the bill of lading.

Subsequently many through transport operators have offered their customers the facility of cargo insurance as an optional extra; however this is normally offered separately from the bill of lading contract, and it is often done though an arrangement with an established insurance company, for whom the operator acts as broker. In the case of supply chain logistics contracts the
insurance element is often included as the logistic provider is also responsible for the risk management.

Liability Insurance for Freight Forwarders:

Prudent freight forwarders will appreciate the importance of purchasing liability insurance for their business. They are aware of the financial strain they could face if they are liable for another party's loss. What that freight forwarder might not be aware of is how inadequate their liability insurance is, until it is too late.

Tips to make Freight Forwarders liability insurance protect them when they need it:

Freight Forwarders should ensure that they purchase marine liability insurance. It should be noted that general non-marine liability insurance does not provide cover for international forwarders, but is often purchased in the mistaken belief that it does.

Freight Forwarders should ensure that they have full liability protection to cover all of their forwarding operations. Some forwarders only request cover for their house bills of lading, but if they work in customs broking, warehousing or distribution, then the liability exposures for these needs to be covered as well.

Freight Forwarders should check that their insurance covers them for Errors & Omissions and Legal Liability – all freight forwarders have a contractual liability for a loss, regardless of who is responsible.

If the freight forwarder trades internationally, they should check that they have adequate limits of liability, particularly for Errors & Omissions claims. Being sued and found liable in a foreign court can be expensive.

Freight Forwarders should understand that defending an action brought against them, even if they were not at fault, can be time consuming and costly. So they should ensure that their cover includes Defence, either “ground-up” or “first dollar” if possible (so that they do not have to pay a deductible or excess).

Freight Forwarders should make sure that General Average and Salvage Charges are included as these types of claims can fall back onto the forwarder.
Freight Forwarders should utilise their own “Conditions of Trade” to limit their company’s liability in their day-to-day business where no standard limitations of liability are employed (such as Carriage of Goods by Sea Act limitations), and make sure that they refer to them on their company website, letterhead paper and invoices. Freight Forwarders should get their insurer to view and approve these “Conditions of Trade”, which are also known as “Standard Trading Conditions” before the inception of their liability insurance contract. If the Freight Forwarders make any changes to the trading conditions or their limits of liability, they must get prior approval from their insurer.

Freight Forwarders should never accept liability without first speaking to their insurer.

Freight Forwarders should use the following ways to avoid losses:

a. They should never agree to release containers or cargo without the production of the original Bill of Lading, no matter how well they know their customer.

b. They should keep original Bills of Lading in a secure place and ideally in 2 separate locations so that if there is a fire, for example, they will not lose all of the originals.

c. In order to lower the chances of a customer seeking compensation from them for loss or damage to their cargo, always encourage the customers to purchase cargo insurance.

The freight forwarders should use the services of a specialist marine insurance broker. They will be able to find the freight forwarder, most competitive deal available, whilst ensuring that the cover is tailored according to the freight forwarding company’s needs. An experienced marine insurance broker can make sure that the insuring conditions under the freight services liability insurance are wide enough to protect the freight forwarding company against the liabilities they face and that the insurance premium is competitive for that level of cover.

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CHAPTER 10

Global networking of Freight Forwarders

Freight Forwarding Networks are organizations which have Freight Forwarders from various countries as members. These types of organizations have started getting established during the 1990s and later. Rapid developments in Containerization, Multimodal Transportation and Communication Technology have fostered the development of Freight Forwarding Networks.

Advantages of Freight Forwarding Networks:

1. **Improve the Portfolio of Services offered:** A Freight Forwarding Company will be able to enhance the quality of its product offering to the customers by being a part of an international network of Freight Forwarders. *For Example:* A Freight Forwarder can bid for a Buyer’s consolidation only if they have partners in the countries where suppliers are located.

2. **Improve the success of Business Development:** A network also enables a member to seek the network partner’s help in clinching the business where the decision maker is based in the other country. *For example,* in case of an export shipment which is moving on the INCOTERM EXWORKS, the importer is the decision maker. The freight forwarder’s Sales Executive will be told that the choice of the Service provider will be made by the importer. The best thing the sales executive can do is to collect the contact details of the importer and sent them to their network partner as sales lead requesting them to get the nomination.

3. **Share Bill(s) of Lading:** Freight Forwarders usually have House Bill of Lading (HBL) or House Air Way Bills (HAWB) and issue them to Customers. Each of these documents used involve an Insurance cost (Normally payable upfront at the time of taking the Liability insurance cover). Hence only big Freight Forwarding companies can afford to have their own document. Some of the Freight Forwarding networks will maintain a Bill of Lading and will permit their members to use it and pay in proportion to their usage.
Another method is the bilateral use of partner’s Bill of Lading where 2 Freight Forwarders will use each other’s document for shipments pertaining to their countries.

The website addresses of some of the freight forwarding networks is given below to enable you access them and understand their features and see the profiles of their members.

http://www.worldcargoalliance.com
http://www.wwpcnetwork.com
http://www.wlnetwork.com
http://www.htfn.com
http://www.freightforwardersfamily.com
http://www.multinationalforwarders.com
http://www.wcafamily.com
http://www.cargoagents.net
http://www.worldfreightnetwork.com
http://www.go2gln.com

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