# **Understanding Air Freight**





### Advantages of Air Freight

#### Speed

Customer Service Increased Production Accuracy Easy Track and Trace Loss Prevention

#### Reliability

Security Against Theft Less Damage

#### Control

Reduce Storage Costs Manage Perishability

#### **Scheduling** Direct Shipping Indirect Shipping





# Air Cargo Security

### TSA – Transportation Security Administration

The TSA protects the Nation's transportation systems to ensure freedom of movement for people and commerce. The TSA will continuously set the standard for excellence in transportation security through its people, processes and technology.

The TSA is responsible for –

- Law Enforcement Programs
- Detection Teams
- Crew Member Self-Defense
- Federal Air Marshals
- Air Cargo Security Programs







# **TSA Compliance**

TSA's security regime for air cargo is divided into two distinctive divisions

- The Transportation Sector Network Management (TSNM) Air Cargo Division In charge of the strategic development of TSA programs
  - Office of Security Operations (OSO) Air Cargo Division
     In charge of program compliance

These Air Cargo Division are responsible for working across TSA, Department of Homeland Security, and other Governmental Agencies (Domestic and International) to develop air cargo regulations, technological solutions, and policies that continuously enhance the security of the air cargo supply chain.

#### To handle Air Freight in the United States, you must be TSA Certified







## International Air Transport Association

IATA provides a wide range of services and programs to the aviation community. IATA sets standards in many areas of the business making it possible for cargo to travel from one place to another seamlessly using two or more airlines. It also leads a number of industry initiatives involving safety, security, environment and the quality of air travel.

IATA has a network of over 230 member airlines serving over 130 countries around the world. IATA carriers account for 93% of all international air traffic.



# Known Shipper Program

In response to the September 11<sup>th</sup> attacks on the United States, the Department of Homeland Security implemented new rules to ensure the safety of domestic and international air travel in the United States.

Shippers must be properly vetted by a TSA Air Carrier or Freight Forwarder

Known shippers can tender their freight on both passenger and cargo aircraft, with some restrictions.

# Indirect Air Carrier (IAC)

IAC, also known as a freight forwarder, is a person or entity within the United States not in possession of an Federal Aviation Administration air carrier operating certificate that undertakes to engage indirectly in air transportation of property and uses for all or any part of such transportation the services of a passenger air carrier.

Each IAC must adopt and carry out a security program that meets TSA requirements.







# Air Traffic Control

- Direct Routing
- Indirect Routing
- Airport Terminals

- Freighter Service
- Passenger Service
- Specialized Service



### **Direct Routing**



- Fastest Mode of Transit
- Terminal to Terminal
- Major HUB to Major HUB
- More Frequent Routing
- Consistent Scheduling

Direct routing gives the shipper more supply chain flexibility. The additional speed to market can benefit both production and distribution.

For specialized commodities, temperature controlled items and cargo with a short shelf life, direct shipping is often the best option.





### **Indirect Routing**

Indirect routing is the most cost effective method of air freight and in many cases, it is the only method. Indirect routing combines IATA carriers at their strengths. This allows customers to send freight to some of the most remote areas of the world.

- Major HUB to Intermediate HUB
  - Less Frequent Routing
  - Inconsistent Scheduling





### **Airport Terminals**

Airport Terminals are used for storing, trans-loading and cross-docking air freight. These bonded facilities will store freight during indirect shipping and will warehouse the cargo until customs are cleared.

Facility Information Resource Management System (FIRMS) is a program for U.S. Customs & Border Protection to manage customs bonded facilities. A specific code is assigned to each bonded facility and it is called the FIRMS code.

Airport Code – A three-letter code designating the specific terminal



# **Airway Bills**

An Airway Bill (AWB) is the document that covers all transport by air. It is issued by the carrier as a non-negotiable document serving as a receipt to the consignee for the goods. The AWB contains all the conditions of transport.

House Airway Bill (HAWB) HAWB issued by a TSA freight handler who is acting as a carrier.

Master Airway Bill (MAWB) MAWB is issued on airline's stationery to the TSA freight handler for all of the goods covered by one or more House AWBs.

Direct Airway Bill (DAWB) A DAWB is a service where freight is transported on the airline DAWB without a HAWB. Direct shipments are generally used when freight and service needs are immediate. Freight is not consolidated with other cargo.



					TFC2	20246899
Shipper's Name and Address ABC EXPORTER SND BND KWANG 264, PADUNGAN ROAD, KUCHING MALAYSIA T: 46465 F:12346 THE DIRECTOR			Not Negotiable HODERA AIR WAYBILL Issued By MY FREIGHT FORWARDING COMPANY LTD 30, DEMO FREIGHT BUILDING KUALA LUMPUR Malaysia T-A00000 F-4000000 Copies 1, 2 and 3 of this Air waybill are originals and have the same validity			
Consignee's Name and Address AYZ IMPORTER GMBH RIEMER STRASSE 350, D - 81829 MUNICH GERMANY T:123987 F:654123 PURCHASING OFFICER			It is agreed that the goods described herein are accepted in apparent good order and condition (except as noted) for carriage SUBJECT TO THE CONDITIONS OF CONTRACT ON THE REVERSE HEREOF ALL GOODS MAY BE CARRIED BY ANY OTHER MARSI INCLUDING ROAD OR ANY OTHER CARRIER UNLESS SPECIFIC CONTRAFY INSTRUCTIONS ARE GIVEN HEREON OF THE SUBJECT AND WHICH THE CARRIED BY ANY OTHER MARSI INCLUDING ARE GIVEN HEREON OF THE SUBJECT AND WHICH THE CARRIED BY ANY OTHER MARSI INCLUDING ARE GIVEN HEREON OF THE SUBJECT AND WHICH THE CARRIER DE BENAPROPRIATE. THE SUBJECTS ANT TETTION IN SORAW TO THE NOTICE CONCERNING CARRIER LIMITATION OF LIABILITY. Shipper may increase such limitation of liability by declaring a higher value for carriage and paying a supplemental charge if required.			
Issuing Carmer's Agent Name and City MY FREIGHT FORWARDING COMPA MALAYSIA Agent IATA Code Account No	NY LI	ID	Account Information			
Airport of Departure (Addr of First Carrier) and Requested Routing						
To By First Carrier Routing and Destination Io	by	to by	CUR CHGS WT/VAL	Other	Declared Value for Carriage	Declared Value for Customs
FRA					NVD	NCV
FRANKFURT INTERNATIO	Requested I	Flight/Terms	Amount of Insurance	accordance	E - If carrier offers insurance ar with the conditions hereof, indicate ount of Insurance'	Id such insurance is requested in amount to be insure in figures in box
Handling information						
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13 147			AS AGREED	-		
Prepaid Weight Charge Collec				-11		
Total Other Charges Due Agent						
Total Other Charges Due Carrier						
Valuation Charges	Shipper certifies that the particulars on the face hereof are correct and that insofar as any part of the consignment contains dangerous goods, such part is properly described by name and is in proper condition for carriage by air according to applicable Dangerous Goods Regulations.					
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Total Prepaid Total Collect					•	
Currency conversion Rates Collect Charges in Destination Cu			10 KUALA LU ate) at	MPUR	INTERNATIONAL (Place) Signa	ture of Issuing Carrier or his agent
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adalo ck					(	FOR CARRIER)





### Consolidation

Air Freight consolidation is combining multiple shipments into one. This can be an efficient and cost effective way to move your shipments. During consolidation, multiple shipments are moving under one AWB.



# Advantages of Consolidation

Freight consolidation service is an extremely efficient logistics strategy

- More Cost Effective
- Reduces Delivery Costs
- Improved Inventory Control
  - Less Transit Time
    - Less Handling
  - Lower Chance of Damage
- Increases Shipping Options

Many businesses, large and small, depend on freight consolidation services to streamline their logistics, maximize efficiency and minimize transport times.







### **Carrier Selection**



#### **Freight Aircraft**

Freighter – Air Lifter – Cargo Jet Designed exclusively for cargo with no passenger amenities

- Wide Body
- Cargo Doors
- High Wings
- High Tails

### **Specialized Aircraft**

Charter Aircraft Military Aircraft Small Package - Courier Expedite (Over-Night/2-Day/Express/Standard)

#### **Passenger Aircraft**

Airliner – Airbus Designed to transport both cargo and passengers

- Wide Body and Narrow Body (Distance)
- Limited Commodities
- Less Cargo Space
   Create Additional Options





# Unit Load Device (ULD)



A specialized ULD can also be used for temperature controlled cargo. These ULD's will protect cargo from the elements and will also allow different temperature settings within the aircraft. A Unit Load Device (ULD) is a pallet or container used to load luggage, freight, and mail on both wide-body and narrow-body aircrafts. ULD's allow a large quantity of cargo to be bundled into a single unit.





# **Airfreight Packaging**

Cargo is typically containerized for flights. Cargo will be tendered to the carrier either loose or containerized. Once the loose freight is checked in, it is loaded into a ULD.

There are approximately 20 different types of ULD's

The type of ULD or pallet used will depend upon the cargo configuration of the aircraft and whether or not the ULD is designed for use on the main or lower deck of the aircraft.

Main Deck ULD's *Carried in the cabin section of a cargo aircraft, or on the passenger level of passenger aircraft* 

Lower Deck ULD's Designed to be carried below the main deck



# **Chargeable Weight**

The Chargeable Weight of an Air Shipment is the Actual Gross Weight or the Volumetric Weight of the shipment – whichever is the greater. Chargeable Weight is used when determining air freight charges.

The Importance of Chargeable Weight

Dave ships marshmallows. The weight of the marshmallows is probably very low but the packaging could occupy a good amount of space on the aircraft. In this case, if Dave is charged strictly on weight, he would pay a very nominal amount compared to a shipper who exports a more dense commodity.

Chargeable Weight considers the actual volume of the cargo and how that cargo will occupy space on the aircraft.





# Pricing

The categories for pricing air freight are

ULD Pricing Tariff Pricing Contract Pricing Spot Bid Pricing

Air freight pricing is very fluid and is quickly affected by capacity and market conditions.

ULD pricing is based on the type of ULD. Each device will have a flat rate for use and a pivot rate for weight.

 The tare weight is the weight of the ULD when it is empty.
 The pivot weight is weight over the allowable weight for the ULD.

Each specific ULD will have their set allowable weights





Carrier specific tariff rates apply for:

Dangerous Goods Oversize Cargo Perishable Goods Valuable Goods Live Animals

Tariff rates may vary by carrier. No carrier is permitted to charge more than the rates stipulated by IATA. Rates regulated by IATA are called Tact Rates. Contract Rates are provided by carriers for specific flights or commodities. As the weight increases, the rates decrease.

Minimum \$50.00 -45 kgs = \$2.00 kg +45 kgs = \$1.75 kg +100 kgs = \$1.50 kg +150 kgs = \$1.25 kg



Spot rates are daily rates made available by the carrier. These rates are offered for a discount because an airline might not be filled to capacity. Another type of spot bid is "promotional rates" offered by the carrier to build up specific traffic on certain routes.





