E-freight and e-AWB as a part of E-commerce
Is really E-freight a part of E-commerce ???

Freight is a barometer of state of the commerce

World trade in goods and air FTKs
Source: Netherlands CPB and IATA
Air cargo is only 0.5% in the global volume, but 35% in terms of its value.

**Kind of commodities:**
- perishables
- live stock
- valuable cargo
- electronics
- urgent
- just-in-time (for assembly lines)
- project cargo
- unique cargo

**Cargo volume**
- Global Cargo
- Air cargo

**Cargo value**
- Global cargo volume
- Air cargo volume

- 65%
- 35%
iPhone
Manufacturing & Distribution Process
Demonstrates importance of good logistics and the Utility of Air Cargo to World Economies

iPhone Components & Source Countries

- LCD Display
- Flash Memory Chip
- Applications Processor
- DRAM Memory
- Bluetooth, GPS Chips
- Radio Frequency Memory
- Touch Screen Control, Wi-Fi
- Receiver/Transceiver
- Power Management
- Accelerator/Gyroscope
- Compass

**iPhones are available in all blue countries**

Source: New York Times, 05 July 2010, "Supply Chain for iPhone Highlights Costs in China."
The industry is ready for “e”

WCO, FIATA, ICAO, TIACA, IATA, IT providers … worked together toward the same vision to ensure a paper-free infrastructure is available.

- 20 multimodal standard electronic messages available
- 300+ airports in 31 countries and 4 domestic markets ready
E-Freight fundamentals

- e-Dock standards used as part of e-freight rely on use of EDI (Cargo-IMP or XML) or scanned images (for some documents)
- e-freight uses the existing air cargo industry messaging infrastructure.
- Participants must acquire technology capabilities or use tools provided by 3rd party providers
- Acknowledgement of IATA’s role and data!
e-freight end-to-end data flow – for general cargo
E-freight: what happens with the documents

- Shippers
  - Origin Freight Forwarders
  - Export Customs
  - Removing Documents By Scanning. 26% volume
  - Removing Documents by Electronic Messages. 10% by volume

- Origin-Destination Airports
  - Origin-Destination Airports
  - Import Customs
  - Removing Documents by Electronic Messages 34% by volume
  - Removing Documents by Electronic Messages 30% by volume

- Destination Freight Forwarders
  - Consignees
Scope e-freight (12 core documents)

1. Invoice
2. Packing List
3. Master Air Waybill
4. House Air Waybill
5. Export Goods Declaration
6. Export Cargo Declaration
7. Customs release Export
8. House Manifest
9. Flight Manifest
10. Import Cargo Declaration
11. Import Goods Declaration
12. Customs release Import

The 12 Core documents are not transported in paper form between origin forwarder and destination forwarder (except where specifically allowed by the e-freight Operating Procedures – e-FOP).

Interface between Shipper and Forwarder (at origin and destination) can be paper or electronic.
The documents highlighted in red are also part of the e-freight vision and have electronic standards but can still be transported as paper originals in e-freight shipments today – they are optional.
e-freight: Why do it?

- **Cost:**
  Eliminate paper handling and processing cost (eliminates data re-capture)

- **Time:**
  Reduced freight “wait time”

- **Quality:**
  Unified Quality Management Standards

- **Visibility:**
  Quality electronic messaging for tracking status of freight

- **Sustainability:**
  Contribute to environment by reducing paper consumption
Improves logistics

World Bank
Logistics Performance Index 2010 - 2012

<table>
<thead>
<tr>
<th>State</th>
<th>2010 rank</th>
<th>2012 rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Singapore</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>South Africa</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>China</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Brazil</td>
<td>41</td>
<td>45</td>
</tr>
<tr>
<td>India</td>
<td>47</td>
<td>46</td>
</tr>
<tr>
<td>Russia</td>
<td>94</td>
<td>95</td>
</tr>
</tbody>
</table>
## Busiest Air Cargo Airports in the World

### USA
1. Memphis (1)    3,697,054
2. Anchorage (6)  1,994,629
3. Louisville (7) 1,949,528
4. Miami (12)     1,557,401
5. Los Angeles (13) 1,509,236
6. New York – JFK (18) 1,144,894
7. Chicago – O’Hare (19) 1,047,917
8. Indianapolis (22) 944,805
9. Newark (23)    779,642
10. Dallas – DFW (29) 578,906
11. Atlanta (31)  563,139
12. Oakland (36)  491,728
13. Philadelphia (42) 433,439
14. San Francisco (45) 408,102
15. Houston – IAH (51) 372,662

### Europe
1. Paris–CDG (5)  2,054,515
2. Frankfurt (9)  1,887,686
3. Heathrow (16) 1,349,571
4. Amsterdam (17) 1,317,120
5. Luxembourg (25) 628,667
6. Cologne (32)  552,363
7. Le Havre (33)  512,842
8. Youngro (34)  455,276
9. Paris–Orly (37) 425,392
10. Rome–Fiumicino (40) 412,250

### Asia
1. Hong Kong (2)  3,385,313
2. Shanghai (3)  2,543,394
3. Seoul–Incheon (4) 2,313,001
4. Tokyo–Narita (10) 1,851,972
5. Singapore (11)  1,660,724
6. Beijing (14)  1,475,649
7. Tokyo–Haneda (24) 955,270
8. Tokyo–Haneda (24) 955,270
9. Jakarta (39)  446,245
10. Shanghai–Pudong (41) 439,072

### Middle East
1. Dubai (8)            1,927,520
2. Doha (34)            511,983
3. Sharjah (43)         421,395
4. Abu Dhabi (48)       382,523
5. Bahrain (55)         342,734

### Latin America
1. Bogota (33)      512,842
2. Sao Paulo Guarulhos 382,722
3. Mexico City (57) 325,452
4. Santiago (69)    255,789
5. Lima (75)         232,374
6. Sao Paulo Viracopos 198,203
7. Buenos Aires (98) 162,745
8. Quito (105)       143,767
9. Manaus (106)      142,623
10. Rio De Janeiro (123) 110,853

### Africa
1. Cairo (62)     285,839
2. Nairobi (66)   263,070
3. Johannesburg (70) 252,063
4. Lagos (94)     175,828
5. Luxor (131)    103,541

### SW Asia
1. Mumbai (30)    566,368
2. Delhi (38)     473,218
3. Chennai (59)   306,508
4. Bangalore (96) 162,875
5. Dhaka (103)    147,239
6. Karachi (104)  146,674
7. Calcutta (133) 102,121
8. Lahore (163)   77,078
9. Hyderabad (183) 64,358

### CIS
1. Moscow Domodedova (115) 128,385
2. Moscow Sheremetyevo (119) 118,353
3. Tashkent (231) 35,791
4. Moscow Vnukovo (242) 32,427
5. Kiev Borispol (265) 27,164

### Source: Airports Council Int. 2009 traffic in tonnes
E-freight status 2012

44 Locations Live
104 Major Airports Live
20 Standards Developed

54% in volumes since June 2010
Still just the beginning: less than 1% global market
E-freight requires three components to work in the supply chain

1) Electronic customs environment
2) Electronic communication between forwarder, airline and ground handler
3) Electronic communication between forwarder at origin and forwarder/consignee at destination
1) Electronic customs environment

- Ability to make customs declarations electronically (export and import)
- No requirement to show original paper documents for invoice and packing lists during or post transit
- Electronic docs (invoice/packing list) must be accepted in electronic format, or printed copy
Получение разрешения таможни на выгрузку груза - эксперимент 2009

- Всего в ходе исследования были получены данные по 2057 рейсам
- Из них 1519 – с грузом (74%)
- На 700 рейсов было получено предварительное разрешение на выгрузку (46%)
- При получении предварительного разрешения на выгрузку значительно (в 3-7 раз) улучшаются временные показатели начала и окончания разгрузки воздушных судов

При получении предварительного разрешения на выгрузку значительно улучшаются временные показатели начала и окончания разгрузки ВС
2) Electronic communication between forwarder, airline and handler

- Ability to communicate FWB and FHL information between FF-Airline-GHA systems (or capture information on airline web portal)
- e-AWB agreements signed and implemented (currently optional for e-freight but mandatory as of Jan 2013)
- Procedures defined between FF-GHA-Airline to accept freight at acceptance counter (origin) and for freight delivery (destination) without original paper docs (may require use of a shippers delivery note or warehouse receipt)
3) Electronic communication between origin and destination forwarder/consignee

- Ability of origin forwarder to communicate key documents to destination forwarder, broker and shipper electronically (house air waybill, invoice, packing list)

- Ability to archive documents electronically (e-Archiving)

- Once the above are in place, the forwarder does not need to provide these documents to the airline for carriage to destination (Elimination of the document pouch for general cargo documents, reduced pouch for other cargo that needs special cargo docs in the pouch)
What are the key e-freight challenges?
Collaboration: Getting an entire supply chain to work together to change the way it operates
Business process: how can we operate without paper and still deliver to the end-customer?
e-freight - Key challenges

Security putting some new demands on the industry for data
e-freight - Key challenges

E-customs not in place in all locations
Examples of challenges already addressed

- Multilateral agreement
- Single Process "Warsaw Concept"
- MC99 Lobbying activities
- Training & Guidelines
- Campaigns & Workshops
- Cargo-XML Standards
- Legal
- Processes
- Regulatory
- Organizational
- Technical
Where is the industry?
The GACAG* vision for 2015

1 – Global e-freight Network
- Customs and Regulators

2 – Digitization Core Transport Docs
- Airline
- Handler
- Forwarder

3 – Digitization Commercial docs
- Shipper
- Forwarder
- Airline

2015 Goal
- 80% world trade lanes allow paperless air cargo transport
- 100% e-AWB,
- e-House Manifest & e-Flight Manifest capability on e-freight trade lanes
- Use of e-pouch for large set of cargo shipments

Lead
- IATA (GACAG support)
- IATA (FIATA support)
- FIATA & GSF

* GACAG - the Global Air Cargo Advisory Group, which comprises four global industry associations – IATA, FIATA, TIACA, and the Global Shipper's Forum
TIACA – the major partner of IATA in the implementation

Working to advance the world of air cargo

To find out more about TIACA, go to www.tiaca.org
Who are members of TIACA

- Airlines
- Freight Forwarders
- Shippers
- Logistics Service Providers
- Integrators
- Airports
- Ground Handling Agents
- General Sales Agents
- Aircraft Manufacturers
- Trucking Organizations
- Technology Providers
- Courier & Express Operators
- Industry Media
There is no alternative to E-freight in aviation

Thank you