IATA vision on e-freight

Andrea Graf-Gruber
IATA

Bordeaux, 19 January 2011
About IATA
About IATA

- The International Air Transport Association is the industry’s global trade association
- Founded in 1945 with 230 members in 130 countries, IATA represents 93% of international scheduled traffic
- IATA’s mission is to represent, lead and serve the air transport industry
- IATA delivers Standards and Solutions to ensure a successful air transport
About Air Cargo

- Scheduled air cargo started 90 years ago with mail

- Essential engine of today’s global economy and airlines business

- Consists of general & special cargo e.g. perishables

- 30% of worldwide value of Cargo transported and 3% in volume

- Speed and on time delivery are the competitive advantages
Cargo Standards - Ensuring safety & efficiency

Simplifying Air Cargo

3 Distinct Initiatives
- e-Freight
- Cargo 2000
- Security

4 Common Foundations
- Facilitation
- Business Process
- Standards
- Electronic Messages
e-freight – Modernizing airfreight

- Built by and for the supply chain and facilitated by IATA:
  - a joint air cargo industry programme of shippers, forwarders, GHA, airlines, customs & brokers
  - Eliminates the need to transport paper documents for air cargo shipments

IATA Cargo
IATA Cargo 2000 – Improving Quality

- Quality Management System for the worldwide air cargo industry

- Objectives:
  - Implement a program of agreed business processes and automation industry standards that are measurable
  - Quality supported by data
  - Improve the efficiency of air cargo industry
  - Enhancing customer service levels
  - Reduce operational costs & increase revenue
IATA Secure Freight – Keep Cargo Secure

What?
- An air cargo supply chain security solution involving all stakeholders
- One security standards & ops process manual to certify ‘secure’ operators, recognised by states
- Securing freight upstream in the air cargo supply chain

Why?
- Secure air cargo network where vulnerabilities exist
- Qualitative benefits (e.g. reduced customs inspections, transit times, theft in inventory management)

How?
- Shipper secures cargo, all operators protect it
- Stakeholders are “Secure Operators” compliant with the Secure Freight Standards Manual
- “Secure Operators” follow the Secure Freight Standards Operating Process to transfer “Secure Freight”
e-freight to e-cargo
Air cargo’s modernization challenge

Today the air cargo industry still relies on paper & human intervention

Airfreight shipment generates up to 30 different paper documents!

Behaviors have not changed yet: bookings, track & trace still predominantly based-on human intervention
The industry is ready for “e”

WCO, FIATA, ICAO, CITES, 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 – **Scope of Documents**

1. Invoice
2. Packing List
3. Certificate of Origin
4. Letter of Instruction
5. Dangerous Goods Declaration
6. CITES Certificate
7. Air Waybill & Status Message
8. House Waybill
9. House Manifest
10. Flight Manifest
11. Transfer Manifest
12. Freight Booked List
13. Export Goods Declaration
14. Customs Release Export
15. Export Cargo Declaration
16. Import Cargo Declaration
17. Import Goods Declaration
18. Customs Release Import
19. Transit Declaration
20. Security Declaration

**Standards defined are multimodal and interoperable – 20 documents - 64% of the paper in volume**
IATA – Recommendation on electronic standards

- IATA recommends the use of electronic standards to reduce the cost of managing diversity in systems integration

- IATA publishes electronic standards:
  - Cargo Interchange Message Procedures, i.e. CIMP focused on transportation messages
  - Cargo XML Messages focused on trade & transportation messages

- IATA recommends the use of WCO electronic standards for Customs interface
  - WCO is developing XML equivalents of their existing EDIFACT standards
IATA – Approach to XML standards

UNECE
United Nations Economic Commission for Europe

ISO
International Organisation for Standardisation / Technical Committee

UNTDED
United Nation Trade Data Element Directory

WCO Revised Kyoto Convention & WCO Data Model

CCTS
UN/CEFACT Core Component Technical Specification

Cross Border Supply Chain Data Model
UN Layout Key (Recommendation n°1)

UN/CEFACT CCL
UN/CEFACT Core Component Library

UN/EDIFACT
UN/CEFACT List of Trade Facilitation Recommendations

IATA Data Model

XML Invoice
XML Packing List
XML Dangerous Goods
XML House Waybill
XML Waybill
XML...

Task Force & Vendors Input

Cooperation with Standardization bodies TBG1, 2, 3, 4, 17

UN/CEFACT NDRs
XML Naming and Design Rules
<table>
<thead>
<tr>
<th>DOCUMENT TYPE</th>
<th>ORGANISATION</th>
<th>STANDARD (2010)</th>
<th>MESSAGE</th>
</tr>
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<tbody>
<tr>
<td>1 - Invoice</td>
<td>IATA</td>
<td>UN/CEFACT XML</td>
<td>Invoice</td>
</tr>
<tr>
<td>2 - Packing List</td>
<td>IATA</td>
<td>UN/CEFACT XML</td>
<td>Packing List</td>
</tr>
<tr>
<td>3 - Certificate of Origin</td>
<td>IATA</td>
<td>UN/CEFACT XML</td>
<td>Certificate of Origin</td>
</tr>
<tr>
<td>4 - Dangerous Goods Decl.</td>
<td>IATA</td>
<td>CIMP &amp; UN/CEFACT XML</td>
<td>FDD &amp; SDDG</td>
</tr>
<tr>
<td>5 - Letter of Instruction</td>
<td>IATA</td>
<td>UN/CEFACT XML</td>
<td>Shippers Letter of Inst. (SLI)</td>
</tr>
<tr>
<td>6 - CITES Certificate</td>
<td>CITES</td>
<td>UN/CEFACT XML</td>
<td>e-CITES</td>
</tr>
<tr>
<td>7 - House Waybill</td>
<td>IATA</td>
<td>CIMP &amp; UN/CEFACT XML</td>
<td>FZB &amp; XZB</td>
</tr>
<tr>
<td>8 - House Manifest</td>
<td>IATA</td>
<td>CIMP &amp; UN/CEFACT XML</td>
<td>FHL &amp; XZB</td>
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<tr>
<td>9 - Air Waybill Status Update</td>
<td>IATA</td>
<td>CIMP &amp; UN/CEFACT XML</td>
<td>FWB &amp; XWB</td>
</tr>
<tr>
<td></td>
<td>IATA</td>
<td>CIMP &amp; UN/CEFACT XML</td>
<td>FSU &amp; XSU</td>
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<td>10 - Flight Manifest</td>
<td>IATA</td>
<td>CIMP &amp; UN/CEFACT XML</td>
<td>FFM &amp; XFM</td>
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<td>11 - Transfer Manifest</td>
<td>IATA</td>
<td>CIMP</td>
<td>FSU (TFD &amp; RCT Codes)</td>
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<tr>
<td>12 - Freight Booked List</td>
<td>IATA</td>
<td>UN/CEFACT XML</td>
<td>FBL &amp; XBL</td>
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<td>13 - Export Goods Declaration</td>
<td>WCO</td>
<td>EDIFACT &amp; UN/CEFACT XML</td>
<td>WCODEC</td>
</tr>
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<td>14 - Customs Release Export</td>
<td>WCO</td>
<td>EDIFACT &amp; UN/CEFACT XML</td>
<td>CUSRES</td>
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<td>15 - Export Cargo Declaration</td>
<td>WCO</td>
<td>EDIFACT &amp; UN/CEFACT XML</td>
<td>WCOCAR</td>
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<td>EDIFACT &amp; UN/CEFACT XML</td>
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<td>WCODEC</td>
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<td>18 - Customs Release Import</td>
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<td>EDIFACT &amp; UN/CEFACT XML</td>
<td>CUSRES</td>
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<td>19 - Transit Declaration</td>
<td>IATA</td>
<td>EDIFACT &amp; UN/CEFACT XML</td>
<td>Transit Declaration</td>
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<td>20 - Security Declaration</td>
<td>IATA</td>
<td>CIMP &amp; UN/CEFACT XML</td>
<td>Security Declaration</td>
</tr>
</tbody>
</table>
e-freight – Geographic network today

- **31 live countries**
  - USA, Canada, Chile
  - Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Hungary, Iceland, Luxembourg, Netherlands, Norway, Spain, Sweden, Switzerland, UK
  - Egypt, Mauritius, Dubai
  - China, Chinese Taipei, Hong Kong
  - Australia, Japan, South Korea, Malaysia, New Zealand, Singapore

- **11 countries under implementation**
  - Colombia, Mexico
  - Ireland, Israel, Italy, Malta, Romania, Slovakia, Slovenia
  - Pakistan, Thailand

- **4 domestic markets**
  - Germany, Spain, USA, South Korea
e-freight - Benefits

- Reduced supply chain costs
- Faster supply chain transit times
- Greater data accuracy
- Improved shipment tracking
- Regulatory compliance
- Increased security
- Better for the environment
Shipper’s Declaration for Dangerous Goods (SDDG)
SDDG Task Force Members

**Shippers**
- Ciba AG
- Syngenta Crop Protection AG
- VOHMA

**Freight Forwarders**
- DGF (DHL)
- KUEHNE + NAGEL

**Carriers**
- SWISS International Air Lines Ltd
- Lufthansa Cargo AG
- Air Canada Cargo
- Cathay Pacific
- Singapore Airlines

**Ground Handling Agents**
- Fraport Cargo Services
- Swissport International Ltd

**Organizations**
- SITPRO / TNL
- UNECE Transport Division
- UN/CEFACT TBG3 Secretary
- FIATA
- Davies Turer & Co Ltd (FIATA)

**IT Service Provider**
- Cargonaut B.V.
- GLSHK
- DGM Support B.V.
The opportunity – ICAO technical instructions

- Clearly permits removal of paper and use of electronic exchange of data instead
- Provides basic, simple rule: name in capitals of authorised signatory
- Not prescriptive type of electronic data: could be EDI (XML/Cargo-IMP, could be pdf, others!)
- Process adopted by industry need to be validated with national authorities.
- Many authorities explicitly refer to ICAO instructions in their legislation, some do not (Canada/US).

Proof of Concept – Goals

- Prove it is possible and viable to eliminate paper SDDG and replace it with electronic exchange of information
- Define and implement the business process (or business process options) to do that
- Validate with civil aviation authorities concerned, and test on a number of trade lanes with live cargo shipments
- Prove the newly developed XML standard is a viable option for data exchange
- Validate the newly developed XML standard and integrate changes if needed in the specs
Proof of Concept - Participants

- **Airlines**
  - Air Canada, Cathay Pacific, Lufthansa, Singapore Airlines, Swiss World Cargo

- **Freight Forwarder**
  - Ritschard

- **Ground Handler**
  - Swissport

- **Technology Supplier**
  - DGM

- **Shipper**
  - Company based in Switzerland
SDDG – To-Be business Process

1. SDDG XML

2. SDDG PDF created from XML

3. FF checks info

4. Freight Forwarder completes data in DGM platform

5a. Freight Forwarder makes booking with Airline

5b. Freight Forwarder paper ADR docs printout for road transportation

6a. FDD to Swissport

6b. FDD or PDF (e-mail) to Airline

7. Perform Check

8. Create NOTOC

9. SDDG (pdf) + Checklist (paper)

10. SDDG Paper printout (with the cargo) or pdf + Checklist paper
### Shippers Declaration for Dangerous Goods

#### Warning
- Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.

#### Transport Details
- This shipment is subject to the provisions of the applicable Dangerous Goods Regulations.

#### Nature and Quantity of Dangerous Goods

<table>
<thead>
<tr>
<th>UN No.</th>
<th>Proper Shipping Name</th>
<th>Class</th>
<th>Quantity and Type of Packing</th>
<th>Packaging</th>
<th>Authentication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

#### Additional Handling Information

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and all other relevant details.

Name/Title of Signatory

Place and Date

Signature

Date and Serial Number

Note: This declaration is valid for a period of 30 days from the date of issue and is subject to annual renewal.

### Multi Modal Dangerous Goods Form

#### Annex II

<table>
<thead>
<tr>
<th>Page</th>
<th>Multi Modal Dangerous Goods Form</th>
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<tbody>
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### Annex I

<table>
<thead>
<tr>
<th>Page</th>
<th>Annex I</th>
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<td>2</td>
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</tr>
</tbody>
</table>

The forms are available in various languages and can be used for air, sea, and land transportation.

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What is EasyDGR?

- Easy-to-use web tool assisting to ensure that dangerous goods shipments are properly prepared in accordance with the most current DGR
- Online solution taking the guesswork out of shipping dangerous goods (DG) right through the entire supply chain

Who is EasyDGR for?

- Supply chain stakeholders participating in the transport of DG by air
- Primarily geared towards the shippers of DG
- Other target audiences include Airlines (Operators), Ground Handlers, Freight Forwarders, Cargo Agents
Features of the Product

- Creates **compliant** and **valid** dangerous goods declarations for all shipments including radioactive, all-packed-in-one and overpacks
- Includes the entire DGR manual in an easy-to-use electronic format and always accessible online
- Highly customizable through custom reports, creating custom substances, address book, and pre-populated forms
- Is e-Freight compatible and can sent shipment data in an e-freight XML schema
- Easy and enhanced search capabilities
- Shipment creation and reporting capabilities - Can create specific shipment preparation instructions
- Developed and supported by the industry’s top subject matter experts and authors of the IATA DGR
- Intuitive layout and design
References

IATA Cargo Website
⇒ www.iata.org/cargo

IATA EasyDGR
⇒ www.easydgr.com
⇒ Free 10-day trial available by registering at
  http://www.iata.org/html_email/car1002275/car1002275-form.html

IATA World Cargo Symposium, March 2011, Istanbul
⇒ http://www.iata.org/events/wcs2011/Pages/default.aspx
Thank You

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