IATA ULD Updates

LIAO, Zhi Yong
Manager, Business Process & Standards
IATA Cargo
ULD Governance Structure

CARGO SERVICES CONFERENCE (CSC)

- Dangerous Goods Board (DGB)
  - Dangerous Goods Training Task Force (DGTTF)
- Live Animals and Perishables Board (LAPB)
  - Time and Temperature Task Force (TTTF)
- ULD Panel (ULDP)
- Airmail Panel (AMP)
- Cargo Business Processes Panel (CBPP)

- ULD Technical Advisory Group (ULDTAG)
- ULD Operational Advisory Group (ULDOAG)
- Cargo Data Interchange Task Force (CDITF)
- Cargo XML Task Force (CXMLTF)

- Cargo Procedures Conferences Management Group (CPCMG)
- IATA/FIATA Consultative Council (IFCC)
- IATA/FIATA Customs Working Group (IFCWG)

IATA Airlines members only
IATA Airlines members and other industry supply chain stakeholders
ULD Panel (ULDP)

<table>
<thead>
<tr>
<th>No.</th>
<th>ULDP Members</th>
<th>Terms of Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sean Oxley (UA)</td>
<td>2014 2015 2016 2017</td>
</tr>
<tr>
<td>2</td>
<td>Karen Wan (CX)</td>
<td>2014 2015 2016 2017</td>
</tr>
<tr>
<td>3</td>
<td>Jimmy Gaylor (DL)</td>
<td>2014 2015 2016 2017</td>
</tr>
<tr>
<td>4</td>
<td>Urs Wiesendanger (AC)</td>
<td>2014 2015 2016</td>
</tr>
<tr>
<td></td>
<td>CHAIR</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Regis Bouffanais (AF)</td>
<td>2014 2015 2016</td>
</tr>
<tr>
<td>6</td>
<td>Randolph Chappell (5X)</td>
<td>2014 2015 2016</td>
</tr>
<tr>
<td>7</td>
<td>Alexander Bayer (LH)</td>
<td>2014 2015</td>
</tr>
<tr>
<td>8</td>
<td>David Dubois (CV)</td>
<td>2014 2015</td>
</tr>
<tr>
<td>9</td>
<td>Victor Gasior (FX)</td>
<td>2014 2015</td>
</tr>
<tr>
<td>10</td>
<td>Manoj Menon (EK)</td>
<td>2014</td>
</tr>
<tr>
<td>11</td>
<td>Frits Roukens (KL)</td>
<td>2014</td>
</tr>
<tr>
<td></td>
<td>VICE CHAIR</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Ruilin Li (CA)</td>
<td>2014</td>
</tr>
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</table>
ULD Regulations Update
## ULD Publications Distribution

<table>
<thead>
<tr>
<th>Title</th>
<th>Edition</th>
<th>Effective Year</th>
<th>Units Sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>ULD Technical Manual</td>
<td>24\textsuperscript{th}</td>
<td>2010</td>
<td>542</td>
</tr>
<tr>
<td>ULD Technical Manual</td>
<td>25\textsuperscript{th}</td>
<td>2011</td>
<td>546</td>
</tr>
<tr>
<td>ULD Technical Manual</td>
<td>26\textsuperscript{th}</td>
<td>2012</td>
<td>599</td>
</tr>
<tr>
<td>ULD Regulations</td>
<td>1\textsuperscript{st}</td>
<td>2013</td>
<td>558</td>
</tr>
<tr>
<td>ULD Regulations</td>
<td>2\textsuperscript{nd}</td>
<td>2014</td>
<td>596</td>
</tr>
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</table>

As of August 31, 2014
## ULDR Sales by Customer Type

<table>
<thead>
<tr>
<th>Customer Type</th>
<th>Units Purchased</th>
</tr>
</thead>
<tbody>
<tr>
<td>IATA Accredited Training School</td>
<td>18</td>
</tr>
<tr>
<td>IATA Member Airline</td>
<td>367</td>
</tr>
<tr>
<td>IATA Publication Resellers</td>
<td>29</td>
</tr>
<tr>
<td>IATA Strategic Partners</td>
<td>15</td>
</tr>
<tr>
<td>*Other</td>
<td>167</td>
</tr>
</tbody>
</table>

*Includes: freight forwarders, ULD manufacturers, system providers, non-IATA member airlines, gov’t agencies, ground handling agents.
# Users of the ULD Regulations

<table>
<thead>
<tr>
<th>Customer Type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airlines</td>
<td>(Etihad, FedEx)</td>
</tr>
<tr>
<td>GHA</td>
<td>(Swissport)</td>
</tr>
<tr>
<td>ULD Manufacturers</td>
<td>(Nordisk, Envirotainer)</td>
</tr>
<tr>
<td>Aircraft Manufacturers</td>
<td>(Boeing)</td>
</tr>
<tr>
<td>System/IT Provider</td>
<td>(CHAMP CargoSystems)</td>
</tr>
<tr>
<td>CAA</td>
<td>(FAA, Qatar CAA)</td>
</tr>
<tr>
<td>Freight Forwarders</td>
<td>(Kuhne + Nagel)</td>
</tr>
</tbody>
</table>
What’s New for 2015

- Updated content for the 3rd Edition (2015)
- Web download version of eULDR (rather than CD-ROM)
Proposed Amendments to ULDR 3rd Edition
(1 of 3)

**Section 1 – Applicability**
- introduce the ‘Cargo Operations Engineering Function’ for ‘special cargo loads’
- incorporate safe ULD operations into ‘Quality Control and Safety Management System’

**Section 2 – Limitations**
- include compressible/fragile cargo requirements based on Aircraft Weight & Balance Manuals
- include limitations for active containers
Section 5 – Technical Specifications

- include performance requirements for straps primary restraint in Standard Specification 50/1
- include performance requirements for straps primary restraint in Standard Specification 50/9
- introduce the new Standard Specification 60/4 for Tie-down Fittings
- clarify definitions and types of various thermal containers including Temperature Controlled Container (TCC) in Standard Specification 80/1
- include notes in Standard Specifications 90/1 for aircraft engine transport devices, 90/2 for horse stall, and 90/3 for automobile transport devices to clarify the certification status of such ULD accessories
Proposed Amendments to ULDR 3\textsuperscript{rd} Edition

(3 of 3)

\begin{itemize}
\item Section 6 – ULD Operating Specifications
  \begin{itemize}
  \item introduce the new Operating Specification 6/12 for aircraft engines carriage
  \item Introduce the new Operating Specification 6/13 for overhanging cargo
  \item introduce the new Operating Specification 6/14 for rigid cargo
  \end{itemize}
\end{itemize}
ULD Requirements for Ground Service Providers
Proposed Amendments to Standard Ground Handling Agreement (SGHA)

- Update the definition of ULD
- Include ULD handling as an example of service having safety aspect
- Require ULD handling to be carried out in accordance with ULDR
- Include ULDR as the regulations to comply with when accepting ULD in cargo acceptance
Proposed Amendments to IATA Ground Operations Manual (IGOM)

Chapter 2 – Baggage Handling Procedures: include detailed instructions on determination of ULD airworthiness

Chapter 3 – Cargo/Mail Handling Procedures: include detailed practices in ULD handling, airworthiness inspection, ULD limitation parameters checking, ULD buildup, ULD close out, transfer of shipper-built ULD as well as ULD breakdown

Chapter 4 – Aircraft Handling Procedures: include additional precautions when using ULD loaders, detailed ULD airworthiness inspection instructions including prior to loading inspection, IATA ULD ID Code standard format, and delete the required warning marking on ULD
Alignment with other IATA Programs and Publications

- Airports Development Reference Manual (ADRM)
- IATA Operational Safety Audit (IOSA) Standards Manual
- Airport Handling Manual (AHM)
- IATA Ground Operations Manual (IGOM)
ULDP Position on ULDR/ AHM/ IGOM Strategy

- ULDP ownership of agreed AHM chapters
- Minimum duplication of AHM chapters in ULDR
- Difference between ULDR and ULD chapter in IGOM be clarified, ULDP agreed that:
  - ULDR remains Regulations and IGOM detailed Work Instructions
  - All the ULD handling procedures and work instructions be consolidated in one ULD chapter in IGOM
  - ULDP be the owner of IGOM ULD chapter
  - To be determined whether the IGOM ULD chapter should be duplicated in ULDR once the chapter is available
  - ULDP liaison and coordination with IGOM Task Force be set up
- IGOM refers to DGR and LAR, and recommend similar approach to ULDR when it comes to regulations and standards
ULDP Position on ULDR/ AHM/ IGOM Strategy

<table>
<thead>
<tr>
<th>DGR</th>
<th>LAR</th>
<th>PCR</th>
<th>ULDR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regulations</td>
<td>Operating Specifications &amp; Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHM</td>
<td>Handling Policies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IGOM</td>
<td>Handling Procedures and Work Instructions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ULD Requirements for Cargo Agents & Freight Forwarders
Proposed Amendments to CAC

- Resolution 801—Cargo Agency Rules
  Include appropriate ULD training requirements for IATA Cargo Agents who handle ULDs

- Resolution 833—Ready for Carriage Consignments
  Ensure the ULD tendered in an airworthy condition be part of the Ready for Carriage requirements

- Regular review of The Air Cargo Tariff (TACT) Rules ULD content
Facilitating ULD Asset Control
CSC Recommended Practice 1640 – Use of RF Technology for the Automatic Identification of ULDs)
Enhancing CSC Recommended Practice 1654 – ULD Control Receipt

The following wording shall be shown on the reverse of all parts of the ULD Control Receipt:

**LIABILITY FOR LOSS OR DAMAGE**

The use of a carrier-owned unit load device is subject to provisions in applicable tariffs in effect as of the date hereof including provisions which are filed in accordance with the law. In particular, the shipper or the consignee shall be liable for demurrage if the unit load device is held in excess of the time specified in the applicable tariff, the shipper or the consignee shall be liable for damage sustained by a unit load device while in the use and possession of the shipper or consignee, the shipper or the consignee shall be liable for a non-return penalty as specified in the applicable tariff.
Status Update

CBPP endorsed in general with two pending items for clarification:

- List of Demurrage Codes
  - BCC: ULD return delayed due to government regulations procedures
  - HHH: Lending of empty ULDs
  - ZZZ: ULD transferred as courtesy move
  - XXX: ULD transferred to the owner empty

- Liability for Loss or Damage clause

> Parties shall ensure that the unit load device (ULD) be handled in accordance with IATA ULD Regulations (ULDR)/ carrier’s instructions/ owner’s instructions. The use of a ULD is subject to provisions in applicable tariffs in effect as of the date hereof including provisions which are filed in accordance with the law. In particular, the Receiving Party shall be liable for demurrage if the ULD is held in excess of the time specified in the applicable tariff, the Receiving Party shall be liable for damage sustained by a ULD while in the use and possession of the Receiving Party; the Receiving Party shall be liable for a non-return penalty as specified in the applicable tariff. THE PARTY IN POSSESSION OF THE ULD SHALL ASSUME RESPONSIBILITY TO THE ULD OWNER FOR THE AIRWORTHINESS OF THE ULD.
Next Steps

- ULD CARE Consultation
- ULDP approval
- CBPP approval
- CSC Notice of Amendment
- CSC Resolutions Manual and ULDR
- e-UCR development
- Industry-wide promotion and implementation
## Promoting IATA ULD ID Code Standard Format

<table>
<thead>
<tr>
<th>ULD ID Code Positions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ULD ID Code Format</strong></td>
<td>a</td>
<td>m</td>
<td>m</td>
<td>m</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>(n)</td>
<td>m</td>
</tr>
</tbody>
</table>

**Meaning of colors and symbols:**

- **ULD Type Code**
- **ULD Serial Number**
- **ULD Owner Code**

- a represents a single alphabetic character (characters A through Z)
- n represents a single numeric character (numerals 0 through 9)
- m represents a single character of mixed alpha-numeric
Enhancing the ULD ID Code – Proposed Amendment to 1\textsuperscript{st} Character of ULD Serial Number

**Purpose**

Differentiate between ULDs of the same Type Code but with different functionalities or special characteristics to facilitate operational efficiency

<table>
<thead>
<tr>
<th>Code Letter (1\textsuperscript{st} Character of ULD Serial Number)</th>
<th>ULD Special Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Collapsible</td>
</tr>
<tr>
<td>F</td>
<td>Fly-Away Kit (FKT)</td>
</tr>
<tr>
<td>G</td>
<td>Garment on Hanger (GOH)</td>
</tr>
<tr>
<td>K</td>
<td>Light weight</td>
</tr>
<tr>
<td>L</td>
<td>Light weight</td>
</tr>
<tr>
<td>N</td>
<td>Forkliftable</td>
</tr>
<tr>
<td>R</td>
<td>Temperature Controlled Container (TCC) with dry ice</td>
</tr>
<tr>
<td>S</td>
<td>Solid/ rigid door</td>
</tr>
<tr>
<td>T</td>
<td>Temperature Controlled Container (TCC) without dry ice</td>
</tr>
<tr>
<td>X</td>
<td>Reserved for airline internal use</td>
</tr>
<tr>
<td>Y</td>
<td>Reserved for airline internal use</td>
</tr>
<tr>
<td>Z</td>
<td>Reserved for airline internal use</td>
</tr>
</tbody>
</table>
Enhancing the ULD ID Code –
Proposed Amendment to 1st Character of ULD Serial Number

Clarifications

- No change to ULD ID Code format
- No consideration of the loaded content
- ULD Type Code determines aircraft/cargo loading system compatibility, no impact on Type Code
- No impact on interlining
- Allocation of code letter and description determined by ULDP
- No intention to define light weight ULD
Enhancing the ULD ID Code – Proposed Amendment to 1st Character of ULD Serial Number

Status Update

- Objected by one member and requested for further review
- Identified that the source of ULD ID Code format (CSC Resolution 686) required complete review
- Proposed amendment to Reso. 686 will be on ULDP/38 Agenda for ULDP endorsement
- CBPP approval
- CSC approval
Cost Efficiency
## Key Performance Indicators

**ULD* Fleet Size**
- ULD refers to:
  - aircraft container
  - aircraft pallet and pallet net

  - **Total Estimated Value** of ULDs in Inventory** (in US$)
  - **Total number** of ULDs in Inventory**

**ULD Repair Costs**
- Annual expenditure for ULD repairs (in US$)
- Total ULD repairs***

**Percentage of ULD fleet unaccountable and scrapped**
- Total number of ULDs unaccountable (lost or could not be located for at least 1 year, or scrapped)

**Annual expenditure on repairs of aircraft damaged by ULD operations**
- Examples of aircraft damages include cargo loading system, hydraulic piping, electrical cables, smoke detection system, door actuation, ventilation ducting, door frame, crossbeams, aircraft skin, engine nacelles, cargo hold floor, etc. damaged by ULD operations (in US$)

**Flight delays caused by ULD operations**
- (total minutes and number of flight delays due to delay code ‘GU–ULD, lack of or serviceability’ in accordance with AHM 730 Section 1.6)

  - **Total minutes** of flight delays attributable to ULD operations
  - **Total number** of flight delays attributable to ULD operations

**Use of Lighter Weight ULDs**
- Percentage of AKEs at less than 66 kgs (146 lbs) in the complete AKE fleet (in %)
## Value Proposition of ULD Best Practices

<table>
<thead>
<tr>
<th>Total Number of ULDs: 800,000</th>
<th>Total Replacement Value: USD$ 1 Billion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual Costs Related to ULD</strong></td>
<td><strong>Annual Savings by Implementing ULD Best Practices</strong></td>
</tr>
<tr>
<td>Total ULD Repair Costs: USD$ 300 Million</td>
<td>USD$ 240 Million</td>
</tr>
<tr>
<td>Total Costs of Unaccountable ULDs: USD$ 23.8 Million</td>
<td>USD$ 23.8 Million</td>
</tr>
<tr>
<td>Expenditure on Repairs of Aircraft Holds and Cargo Loading Systems¹: USD$ 100 Million</td>
<td>USD$ 75 Million</td>
</tr>
<tr>
<td>Estimated Costs due to Flight Delay: USD$ 103 Million</td>
<td>USD$ 103 Million</td>
</tr>
<tr>
<td>Estimated Training &amp; Documentation Costs: USD$ 12 Million²</td>
<td></td>
</tr>
<tr>
<td>Additional cost of lightweight ULD: USD$ 20 Million</td>
<td>The use of lightweight ULD will reduce at least 20% of the tare weight and save the industry USD$ 300 Million in fuel cost and 1 Million tons in CO₂</td>
</tr>
</tbody>
</table>

**Total Actual Costs of Implementing ULD Best Practices:** USD$ 32 Million (addition of training/documentation + cost of lightweight ULDs)  
**Total Annual Savings by Implementing ULD Best Practices:** USD$ 741.8 Million + 1 Million tons in CO₂

- IATA ULDR contains industry best practices
- Proper ULD facilities and equipment in compliance with ULDR shall NOT be considered as costs of implementing best practices, but the costs of doing business.
Safe ULD Operations & Flight Safety
1st IATA ULD Regulatory Forum

- 11-12 February 2014: the 1st IATA ULD Regulatory Forum was held at IATA GVA bringing together the regulators and the industry.

- Participants recognized the complexity of today’s ULD operations and jointly agreed that:
  - The priority of safe ULD operations should be emphasized and raised to meet flight safety requirements
  - Safe ULD in the air can only be achieved with safe operations on the ground
  - The industry needs harmonized regulatory requirements and global standards
  - The implementation of IATA ULD Regulations is one acceptable means of compliance
2nd IATA ULD Regulatory Forum

21-22 October 2014: the 2nd IATA ULD Regulatory Forum will be held at IATA YMQ.

Program highlights:

- IATA ULDR as an Application of ICAO Annexes
- Introduction to ICAO Operations Panel
- FAA ULD Oversight
- IATA Ground Damage Data Base on ULD
- Introduction to ISAGO
- Ground Service Provider’s Responsibility and Challenges for Safe ULD Operations
- Comprehensive Update on FAA AC 120-85 Revision
- IATA ULDR and FAA AC 120-85 Alignment
- ULD Contribution to Cargo Compartments Fire Protection
FAA AC 120-85 Revision Update

- Expected to be published by December 2014
- ULDP has been consulted and would like to draw the attention to the following highlights:
  - Increased operator responsibility for Vendors and detailed requirements for Vendors
  - Specified training requirements (e.g. operator and vendor, 24 months recurrent training interval)
  - New requirements for transporting ‘special cargo loads’ (e.g. Special Cargo Analysis Function – SCAF)
2.9.4 VENDORS. As previously mentioned, the operator is ultimately responsible for the security of the cargo and safety of flight. There are multiple entities involved in the movement of cargo. Examples of these entities include shippers, vendors, freight forwarders, contractors and service providers. All play a role in the air transportation of cargo, and these roles may include cargo build-up, freight staging, cargo loading and tie down. Freight forwarders or customs brokers performing ULD handling or build-up must ensure that:

a. Requirements are met in accordance with the instructions of the operator;

b. Sufficient and proper ULD storage capacity is available for all units handled;

c. All staff and supervising staff receive training appropriate to the tasks performed; and

d. Full access is guaranteed to enquiries or audits from the operator’s quality control departments.
Planning for 2015

- Develop Electronic ULD Control Receipt with CBPP/CXMLTF
- Amend CSC Resolution 686 – IATA ID Code for ULDs
- Review ULDR training requirements (Section 1.6)
- Develop interactive tool consolidating all ULD Type Codes and their respective information
- Clarify AHM/ IGOM/ ULDR strategy and establish closer coordination with Ground Ops team
- Review specifications for Temperature Controlled Container (TCC), Fire Resistant Container (FRC), restraint slings, flight loads on non-certified containers, 20-foot net for laterally overhanging loads
- Review testing specifications and procedures for straps for primary restraint
- Review business requirement for OHG orientation information in UWS message initiated by Load Control & Messaging Task Force (LCAM)
LIAO, Zhi Yong
Manager, Business Process & Standards
Tel: + 41 (0) 22 770 2637
liaozy@iata.org | www.iata.org
Cargo

World Cargo Symposium (WCS) 2010

IATA announced an initiative to reposition ULD as a core cargo activity by:

- Increasing ULD profile
- Integrating ULD standards with all other cargo standards
- Improving IATA manuals relating to ULDs
- Interacting with key ULD stakeholders
IATA ULDR – Industry Demand

ULD Management

- CAAC and IATA signed MoU on ULD airworthiness
- Enhancing consistent and simple standards
- Awareness of accountability and consequence
- Industry wide standard benchmarking
Now is my turn to ask …

- Have you raised the ULD awareness and profile within your organization?
- Have you organized at least one session with senior management to promote the value proposition of ULD best practices?
- Have you started to measure your ULD performance by using the ULD scorecard?
- Has ULDR been implemented within your organization?
- Has ULDR required training been provided to staff?
- What have you done so far to promote ULDR?
- Do you think ULD industry-wide recognition has been improved comparing with 4 years ago?
IATA Cargo Conferences

- 2nd ULD Regulatory Forum/ ULDP: 21-23 October 2014, Montreal, Canada
- 4th Lithium Battery Workshop: 4-5 November 2014, Guangzhou, P. R. China
- 4th Cargo & Mail Security Forum: 4-5 November 2014, Geneva, Switzerland
- 10th Cargo Claims & Loss Prevention Conference, 4-6 November 2014, Singapore
- World Cargo Symposium 2015: 10-12 March 2015, Shanghai, P. R. China
Thank you