



Introducing the IATA ULD Regulations



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Agenda Outline

- Background for the Creation of IATA ULD Regulations
- Purposes of IATA ULD Regulations
- Features of IATA ULD Regulations
- Putting IATA ULD Regulations to Work
- Continued Improving IATA ULD Regulations
- ULDCARE Feedback



Background for the Creation of ULDR

World Cargo Symposium (WCS) 2010

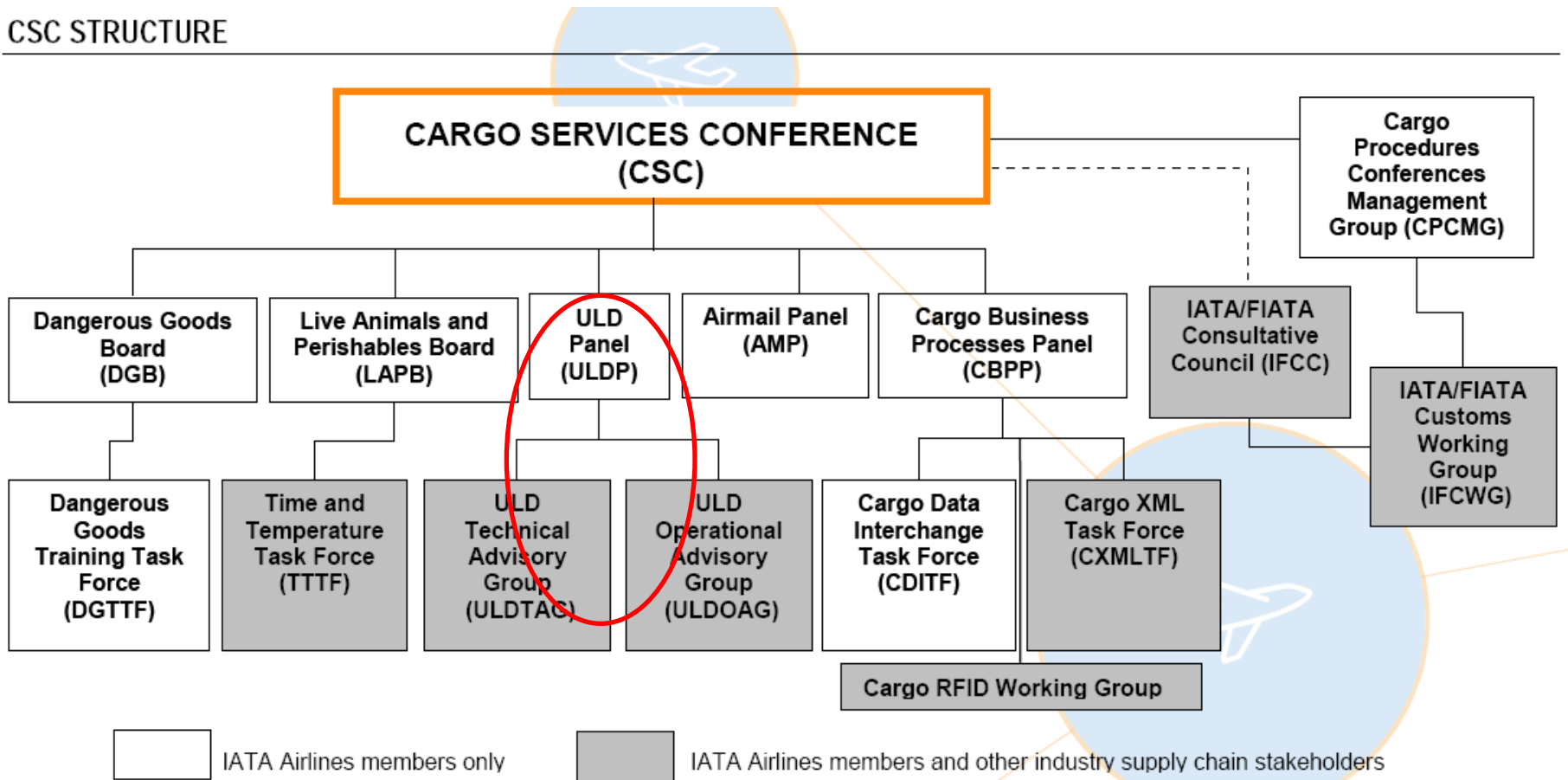
IATA announced an initiative to reposition ULD as a core cargo activity by:

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



Strengthen the ULD Governance Structure

CSC STRUCTURE



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



Purpose of ULDR

ULD = Aircraft Part

- ULDs are aircraft parts and subject to CAA's airworthiness requirements.
- Aircraft flight safety regulations also apply and are defined in:
 - ICAO Annex 6, Operation of Aircraft;
 - ICAO Annex 8, Airworthiness of Aircraft; and
 - The derived national CAA regulations

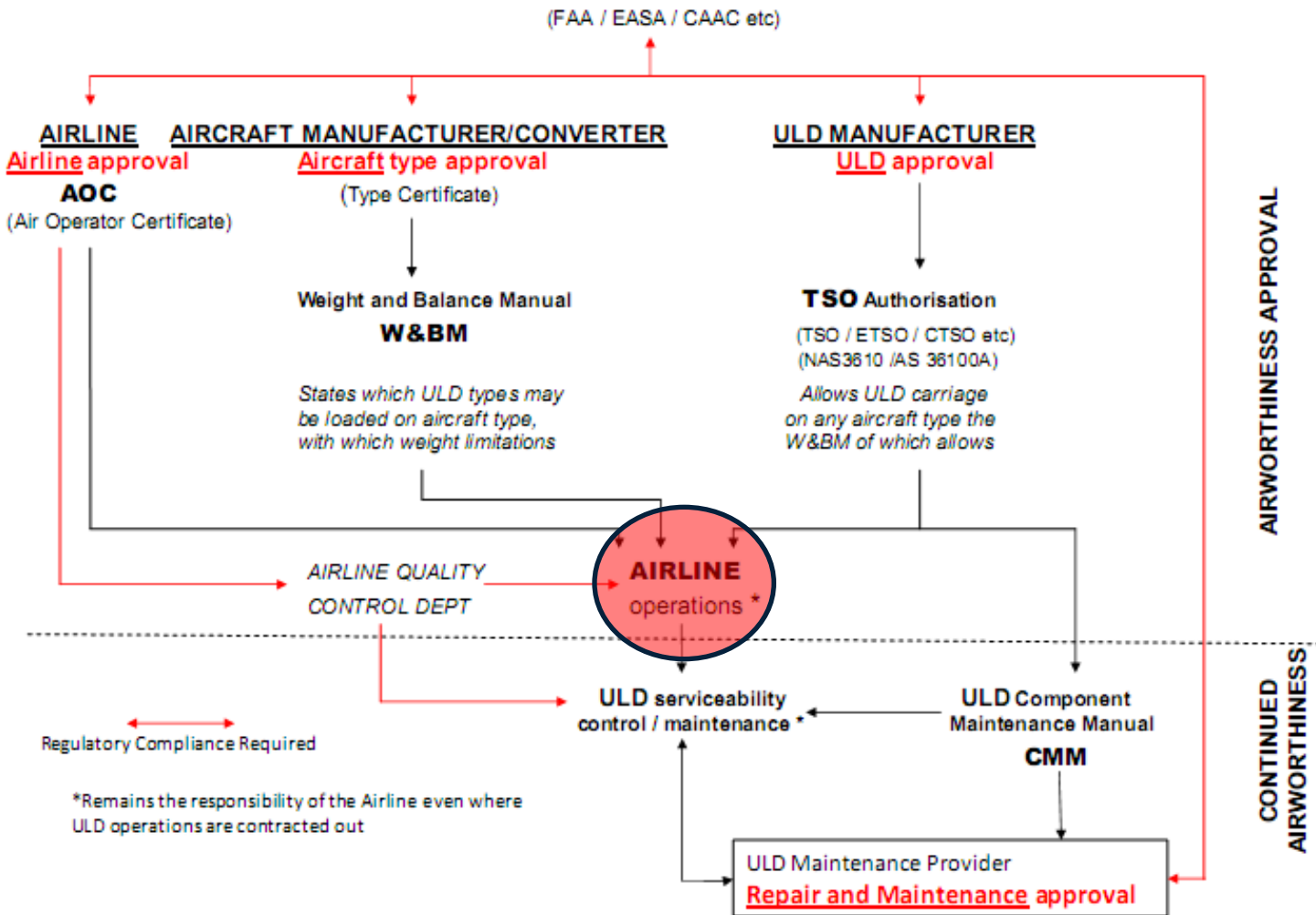
Examples of Applicable CAA Regulations

State / Authority	China CAAC	Europe EASA	Japan JCAB	USA FAA
Area concerned				
Aircraft airworthiness	CCAR-25	CS-25	Airworthiness Standard Part 3	14 CFR Part 25
ULD design / tests and approval	CTSO C90	ETSO C90	JTSO C90	TSO C90
Carrier certification and operations	CCAR-121	EU-OPS 1	Civil Aeronautics Act Chpt VI & VII	14 CFR Part 121
Maintenance of approved equipment	CCAR-43 CCAR-145	EASA Part M EASA Part 145	Civil Aeronautics Act Art 20	14 CFR Part 43 14 CFR Part 145

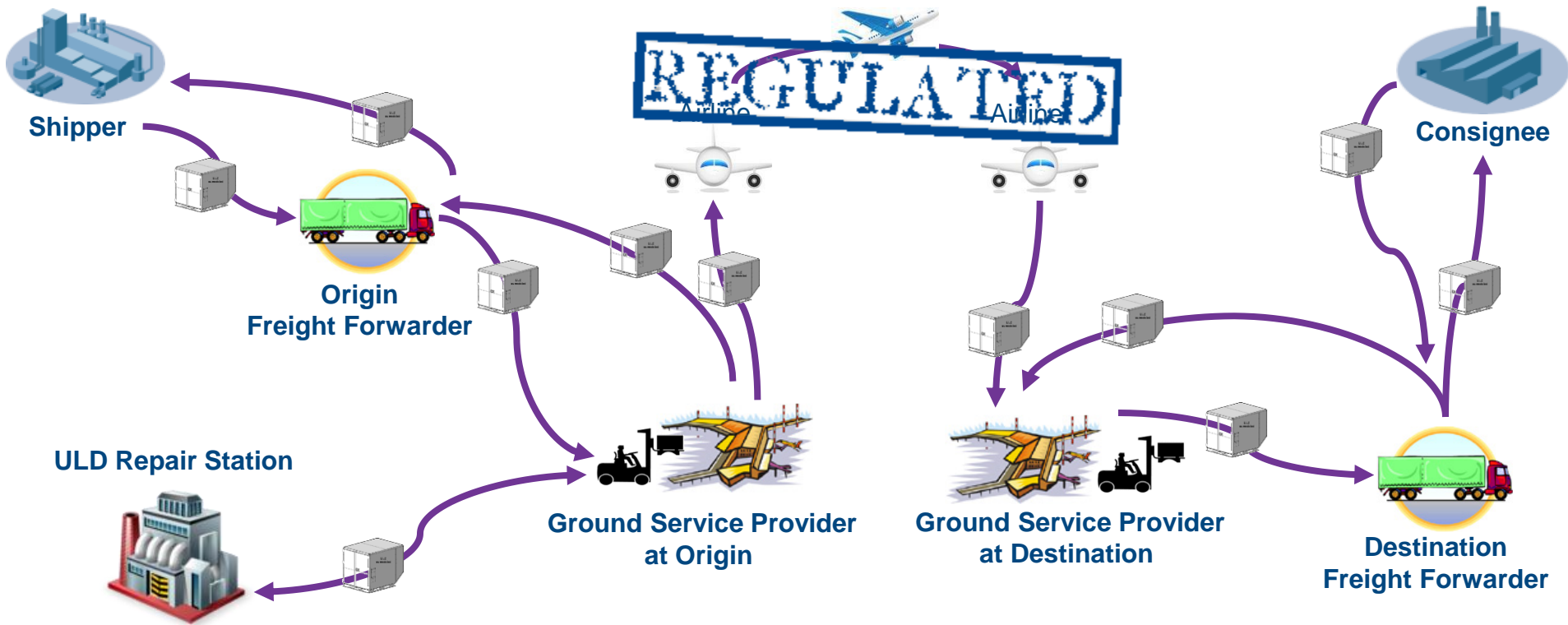
Four Main Regulated Fields

- **Aircraft:** type approval
(Type Certificate =TC, Weight & Balance Manual =WBM)
- **Airline:** airline approval
(Air Operator Certificate = AOC)
- **ULD:** design approval
(Minimum Performance Standard=Technical Standard Order authorization= TSO)
- **Continued Airworthiness:** (inspection, maintenance)

ULD Regulatory Framework



Typical ULD Operational Chain



Who is responsible / liable?

- The ULD OEM, for demonstrating to the CAA that the ULD meets the applicable requirements, and justifying the contents of the CMM, including damage limits
- The aircraft manufacturer for producing the Weight and Balance Manual

BUT

- The Airline, for ... **everything else!** CAA will hold the Airline responsible even the complete ULD management and operations are outsourced to a third party.

Industry's Problem

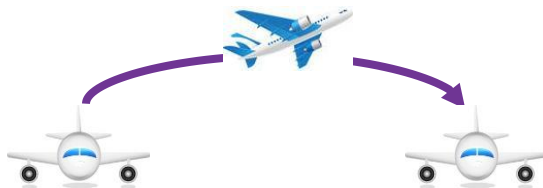
- In today's world, most ULD operations are performed by other parties: shippers, freight forwarders, ground service providers, brokers, sales agents, ground transportation providers
- All are supposed to work under the Airline's Operating Instructions.
- Are all Airlines making the Operating Instructions available to the rest of the ULD operational chain?
- Are non-Airline parties having to deal with various Operating Instructions from different Airlines?

ULDR – Industry’s Solution

“a single set of regulations for all parties involved conforming to all legally applicable regulations”

Airworthiness & Flight Safety Regulations

Airline Compliance



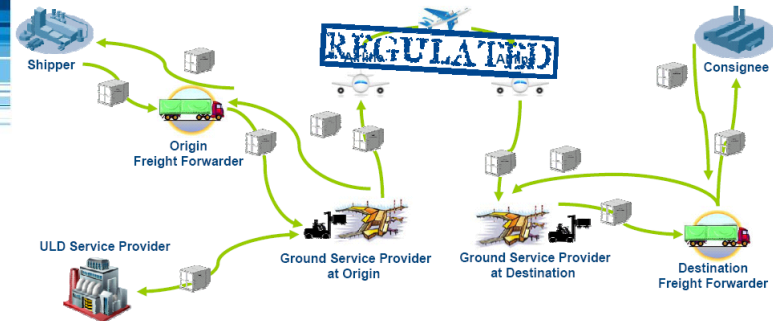
IATA ULDR Regulations

Effective 1 January 2013



1st Edition

Air Cargo Industry Compliance



Its ALL about safety

- Aviation regulations are there to deliver safe flight operations
- ULD Regulations are there to deliver consistently safe ULD and, therefore, consistently safe cargo restraint operations.

Basis for the ULDR

Aviation regulations are written in a “non item specific” manner

- The Federal Aviation Regulations (FARs) make no mention of ULD
- But neither do they mention other items such as wheels and brakes
- FARs are generic not product specific
- From a regulatory point of view a Certified ULD is simply another piece of aircraft equipment that must be operated according to the full spectrum of the aviation regulations



APU



**WHEEL
AND
BRAKES**



**ESCAPE
SLIDES**



**LIFE
JACKET**



**FLIGHT DATA
RECORDER**

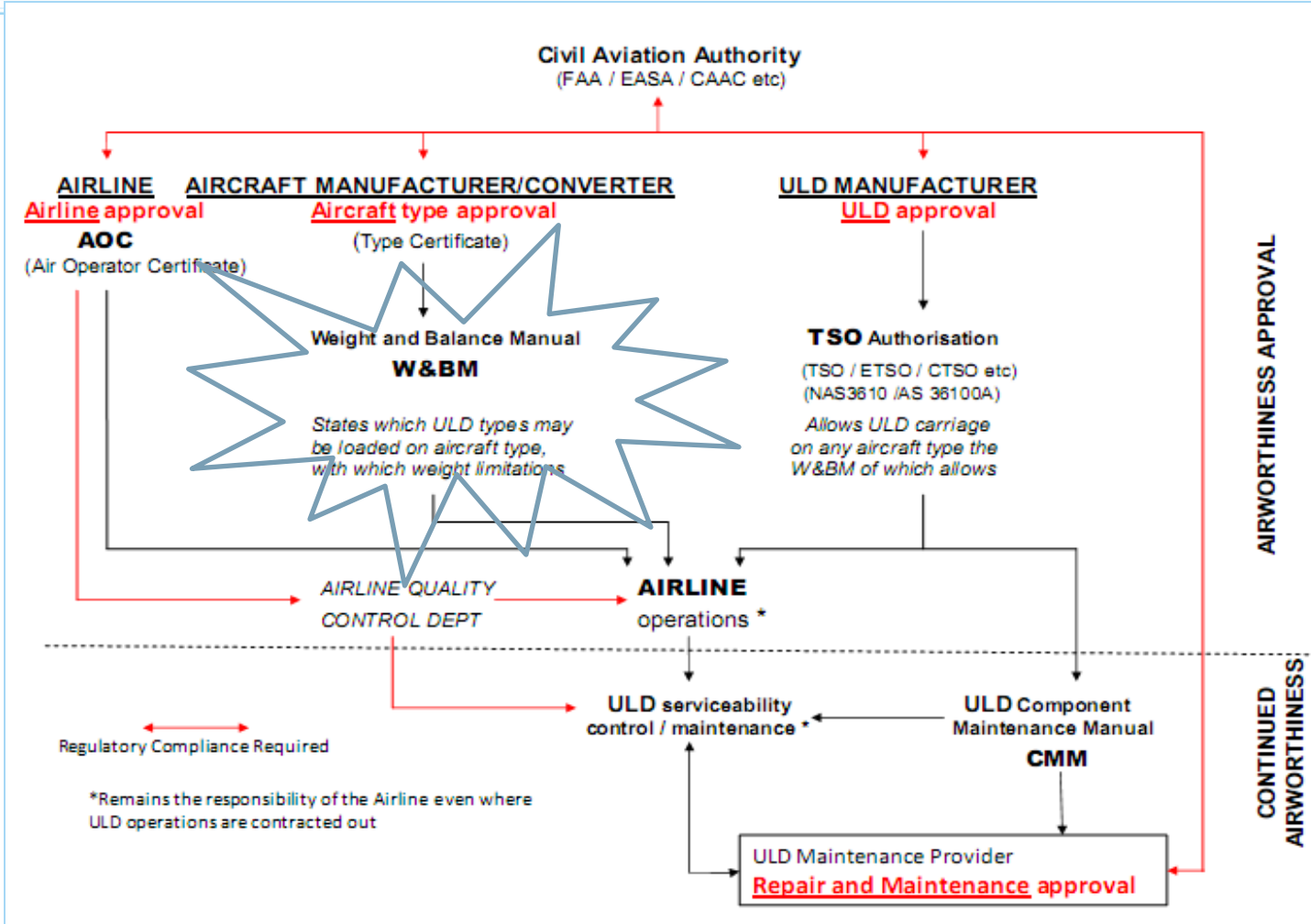


**SEAT
BELT**



ULD

**ULDs are NO
different from
any aircraft part**




Weight and Balance Manual

Manual, issued by the aircraft manufacturer and approved by airworthiness authorities, for each aircraft model, that provides the data, limitations and guidance necessary to load an airplane so that it is safe to operate.

Airbus WBM

(sample)

 AIRBUS A380 WEIGHT AND BALANCE MANUAL	1 WEIGHT AND BALANCE CONTROL 1.10 LIMITATIONS		1 - 10 - 50 - 40	
	1.10.50 LIMITATIONS FORWARD LOWER CARGO HOLD		10 JUL 08	P 3/5

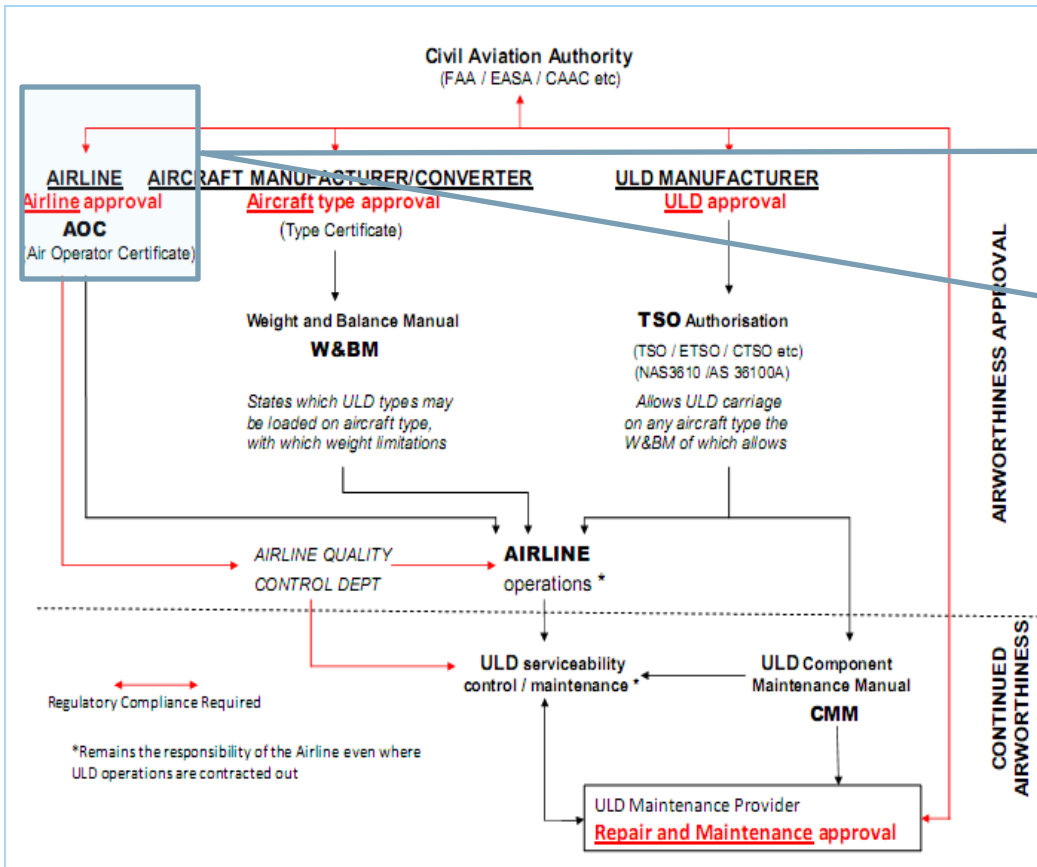
ULD CERTIFICATION

Ident.: 1-10-50-40-00003059.0001001 / 26 FEB 07
 Criteria: ST1
 Applicable to: ALL

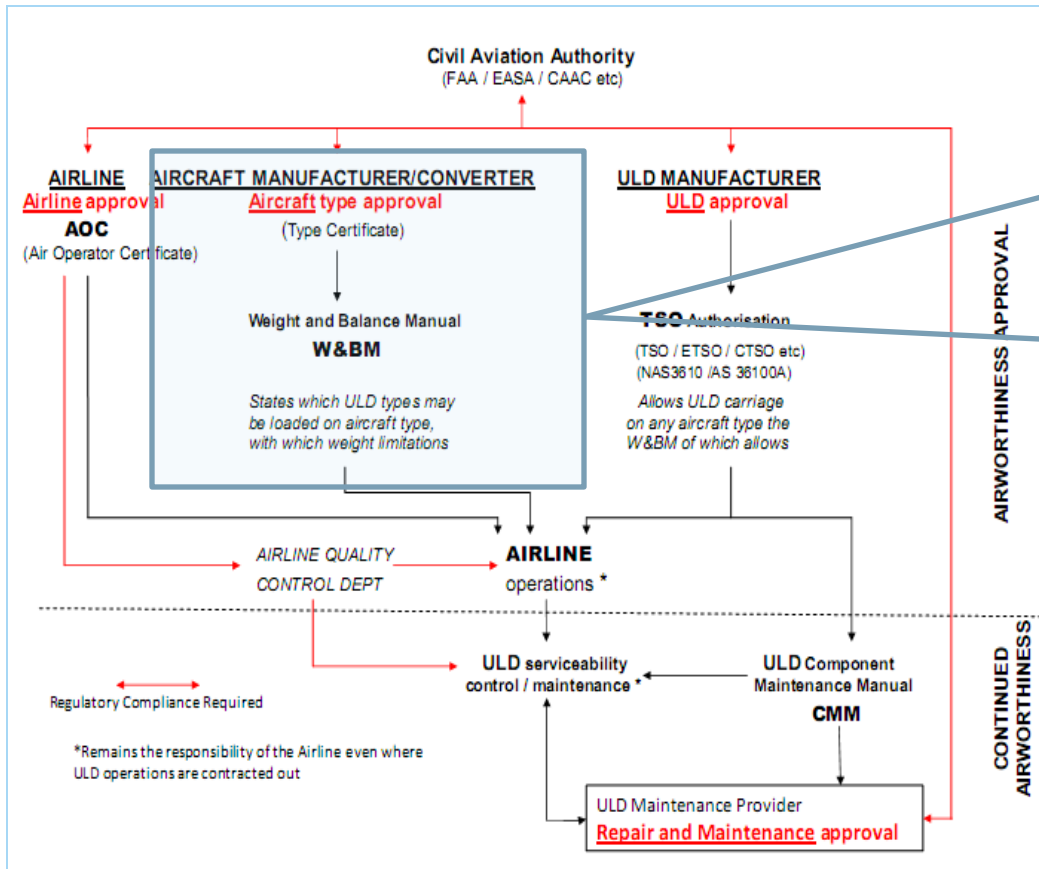
L1 Each single ULD (container, pallet/net) should be in accordance with the requirements of TSO-C90 (NAS 3610), latest issue.

If the ULD does not correspond to this requirements, it must be handled and loaded in such a manner, that neither the ULD nor the cargo contained therein will endanger the aircraft due to accelerations under flight, take-off and landing conditions.

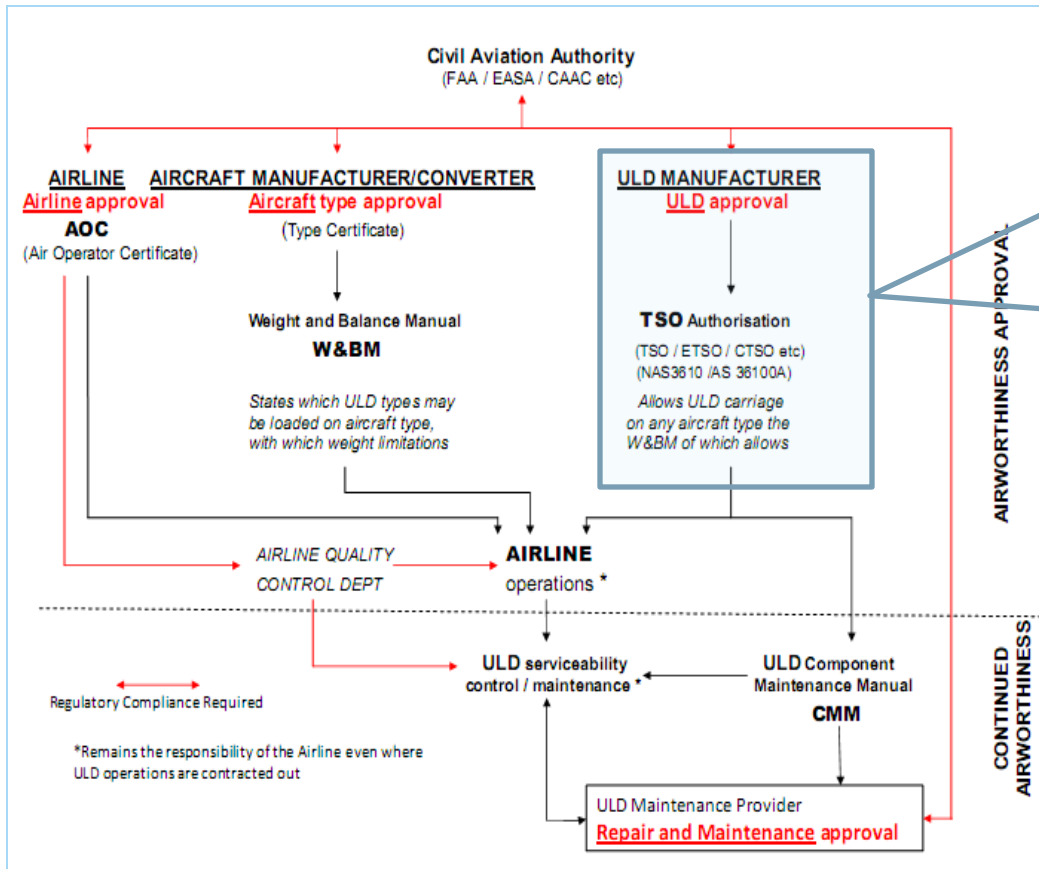
Sample Manual courtesy Airbus



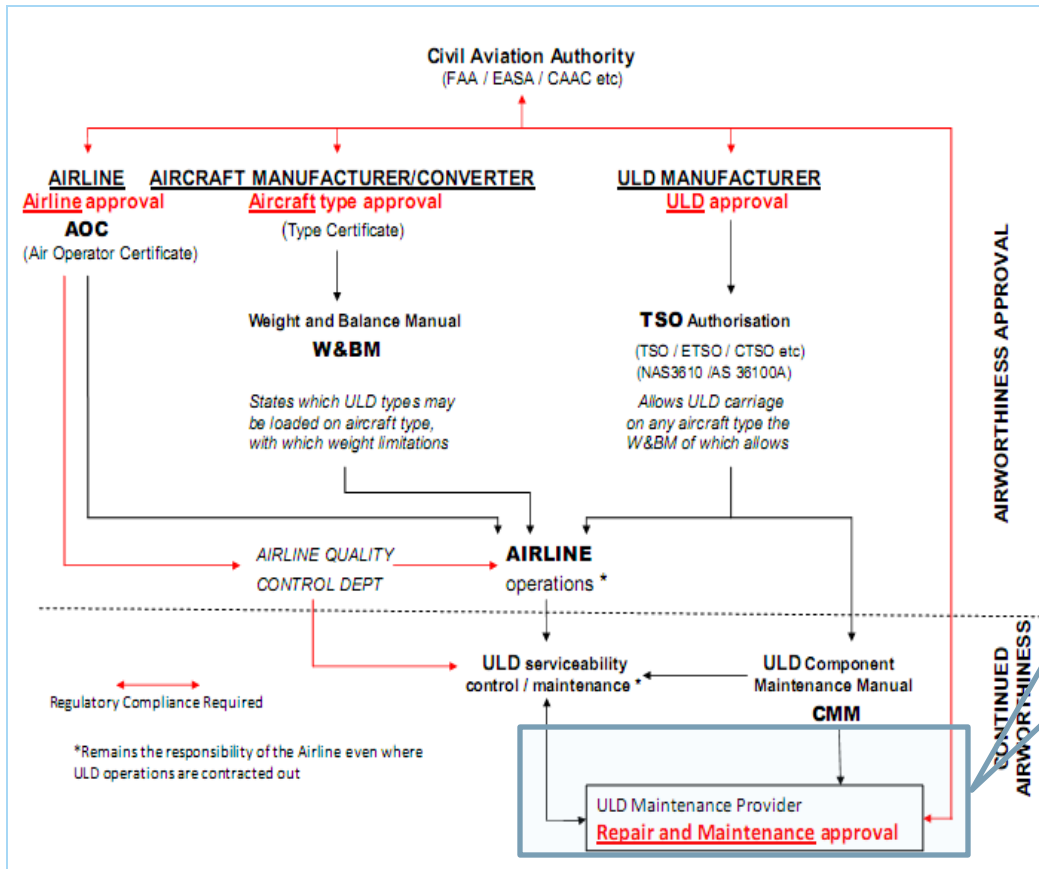
An airline must obtain an Air Operator Certificate in order to provide commercial air transportation services



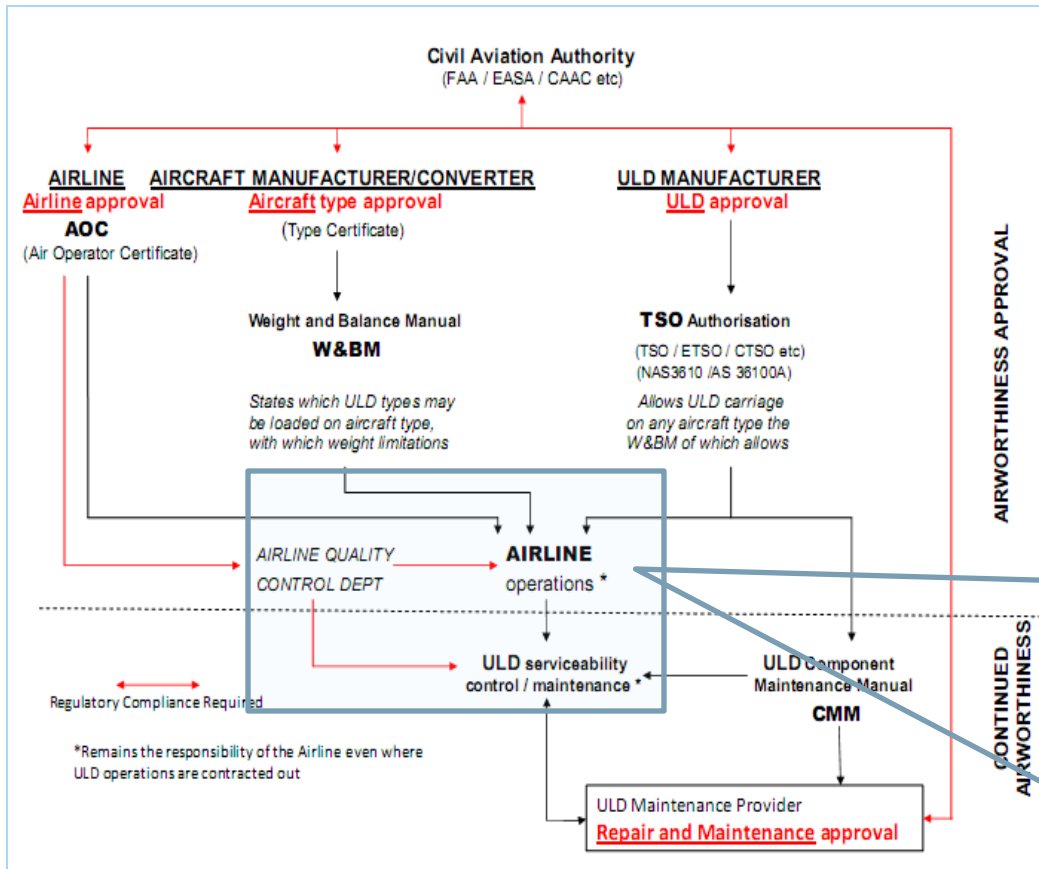
The aircraft manufacturer is required to provide operating instructions for the aircraft including the Weight and Balance Manual which contains ULD specific requirements such as certification, max gross weight and contour.



The ULD Manufacturer is required to design and test any certified ULD according to the minimum performance requirements defined in TSO/ ETSO C90 latest edition.



Any facility providing ULD repair services to an airline must operate under a license (approval) issued by a National Aviation Authority that is acceptable to that airline's Quality Control Dept.



To comply with its AOC the airline must at all times operate ULD in accordance with requirements of both:

Aircraft Weight and Balance Manual
&
ULD OEM's component maintenance manual

The airline's Quality Control Dept. is responsible for compliance.

Note: Responsibility remains with the airline regardless of whether ULD operations are sub contracted to 3rd parties.

Civil Aviation Authority Requirements making specific reference to cargo and ULD

➤ FAA

➤ 2005 AC 120-85 AIR CARGO
OPERATIONS

➤ CAAC

➤ AC 121 AIR CARGO
OPERATIONS (in drafting stage)



AC 120-85

Date: 6/20/05

ADVISORY CIRCULAR



AIR CARGO OPERATIONS

Flight Standards Service
Washington, D.C.

Initiated By: AFS-300

Airworthiness & Flight Safety Regulations

Air Operator Certificate

Airlines shall comply with civil aviation regulations to ensure safety of operations.



Any party involved in ULD operations shall comply with civil aviation regulations.

IATA ULD Regulations

Effective 1 January 2013



Bridging the Gap

CAAs ➡ **Airlines** ➡ **ULD Regulations** ➡ **The Air Cargo Industry***

* Shipper, Cargo Sales Agent, Freight Forwarder, Ground Transportation Service Provider, Ground Service Provider, Cargo Terminal Operator, Airport, Consignee, ULD OEMs, ULD Repair Station, ULD Pooling/ Leasing Provider, Post Office, CAA.

Features of ULDR

What's New in the ULDR?

- List of the applicable airworthiness regulations
- Operators & others regulatory responsibilities
- Training requirements for all parties concerned
- Aircraft limitations
- Procedures for repairs
- Revised ULD general technical requirements
- Revised and new Technical Specifications
- Operating Specifications (*intended to be used by Airlines to develop their own Operations Manual, or by handlers who do not have any*)
- Handling guidelines

ULDR Value Proposition

➤ Knowledge Based ULD operations

- Replace “tribal knowledge” with correctly trained work force

➤ Standardized Procedures

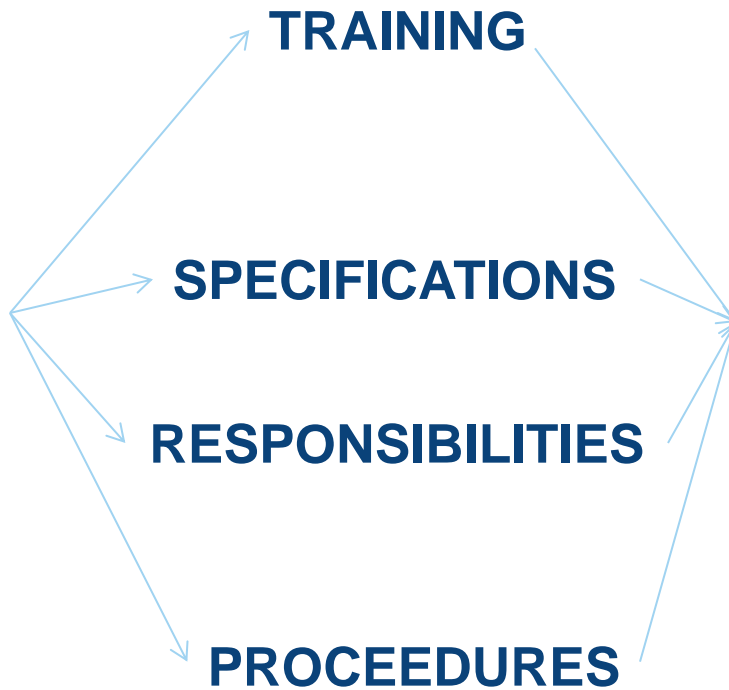
- Replace “make do” with predictability

➤ Comprehensive specifications

- Replace guesswork with fact based decisions

Global, Industry Wide, Consistent Airworthiness and Operational Serviceability

IATA ULD REGULATIONS



ULD Regulations Deliverables

BACK OFFICE BENEFITS

- ULD airworthiness compliance
- Ready made standard for reference in:
 - Procedures manuals
 - Handling and other contractual agreements
- Global training standard and content.
- ULD Regulations integrated into other IATA documents and processes
 - ISAGO
 - IGOM
 - IOSA

OPERATIONAL BENEFITS

- Control of damage/injury to
 - Personnel
 - ULD
 - Aircraft
 - Cargo
- Enhanced reliability in ULD operations
- Seamless asset control

New Material (compared to previous UTM)

- Sections 1-Applicability
 - Operator's Responsibilities
 - Other Parties' Responsibilities
 - Training Requirements
- Section 2-Limitations
 - Buildup and loading limitations
 - Other limitations
- Section 3-Classification
 - Certified ULD
 - Non-Certified ULD
 - ULD accessories
- Section 7-ULD Operating Specifications
 - ULD acceptance standards
 - Aircraft containers operation
 - ULD weighing
 - ULD C of G control
 - ULD protection wrapping
- Section 8-Documentation
 - Operational documentation (Transfer of ULD)
 - Documentation supplied with new ULD and Spare Parts
 - ULD Repair station documentation
 - Requirement for Operating Instructions to be contained in CMM
- Section 9- Handling
 - General
 - Continuing Airworthiness
 - Storage of ULD
 - Transport and Movement in ULD Operations area
 - Transport and Movement of ULD-On Airport
 - Transport and Movement of ULD-Off Airport
 - Transfer of ULD
 - Buildup and Breakdown of ULD
 - Requirements for special purpose ULD

User-friendly layout aligning with IATA Dangerous Goods Regulations

IATA ULD Regulations

- Section 1 – Applicability
- Section 2 – Limitations
- Section 3 – Classification
- Section 4 – ULD Identification
- Section 5 – Technical specifications
- Section 6 – ULD Operating specifications
- Section 7 – ULD Marking
- Section 8 – Documentation and Message specifications
- Section 9 – Handling
- Section 10 – Technical recommendations

IATA Dangerous Goods Regulations

- Section 1 – Applicability
- Section 2 – Limitations
- Section 3 – Classification
- Section 4 – Identification
- Section 5 – Packing
- Section 6 – Packaging specifications and performance tests
- Section 7 – Marking and labeling
- Section 8 – Documentation
- Section 9 – Handling
- Section 10 – Radioactive material

Putting ULDR to Work

Impact of ULDR on Air Cargo Operations

- 1. Training Requirements
- 2. Responsibilities
 - Operator (airline)
 - Other parties
- 3. Handling
 - Section 9

1. Training

Level	Description.	Staff category
ULD Awareness	Awareness training for persons working around ULD	1, 5
ULD Basic	Basic training for persons working with ULD	2
ULD Intermediate	Comprehensive training of all operational aspects of ULD	3
ULD Management	Complete training of all Regulations	4

ULD Regulations sections Applicability 1) 2) 3)	Organizations directly involved in ULD operations			Organizations owning ULD	Organizations indirectly involved in ULD operations
	1	2	3	4	5
See KEY					
1. Applicability of ULD Regulations	X	X	X	X	X
2..Limitations		X	X	X	X
3. Classification	X	X	X	X	X
4. Identification		X	X	X	X
5. Technical Specifications				X	X
6. Operating Specifications		X	X	X	X
7. Marking and labelling			X	X	X
8. Documentation			X	X	X
9. Handling	X	X	X	X	X
10. Unitization				X	X

KEY

1. Operating staff employed by such organizations but not directly involved in any ULD handling;
2. Operating staff involved in ULD handling;
3. Staff employed in a supervisory and/or administrative position;
4. Staff responsible for management of ULD operations;
5. As applicable to the responsibilities of the staff in accordance with 1.6.2.

Notes: 1) Training requirements apply to wholly employed or contracted personnel.

2) The organizations and categories of personnel identified in Table 1.6.A are not all encompassing. Personnel employed by or interacting with the aviation industry in areas such as General Sales Agent (GSA) and General Sales and Service Agent (GSSA), except when acting in a capacity identified in Table 1.6.A, should be provided with ULD training in accordance with 1.6.2.

3) See hereafter for training levels required and summarized description of contents of the ULD Regulations Sections.

4) A subjects based minimum training syllabus is provided in Table 1.6.B for application.

2. Responsibilities

Operators (Airlines)

➤ 1.4.2 Specific Responsibilities

➤ STATE VARIATIONS: none.

➤ OPERATOR VARIATIONS: none.

➤ As specifically regards Unit Load Devices, carriers (operators) responsibilities include ensuring that:

- (a) all Unit Load Devices to be loaded aboard aircraft are Authority approved or conform to alternate specific rules stated in the aircraft's Weight & Balance Manual;
- (b) new units are subjected to a First Article Inspection (FAI) prior to being put in service in order to verify their conformity with airworthiness approval and industry specifications;
- (c) where a pallet and net are used, they are compatible with each other;
- (d) each Unit Load Device is inspected prior to and after build-up, and a Unit Load Device in a non-airworthy condition is not loaded aboard an aircraft;
- (e) all applicable limitations and restrictions are met, including nature of contents, weight and load distribution, maximum allowable damage, and any aircraft specific rules;
- (f) any special load items are identified and dealt with in accordance with the Rules. Any dangerous goods shall be accepted and loaded in full compliance with the IATA Dangerous Goods Regulations;
- (g) the maximum Unit Load Device centre of gravity offset limits are not exceeded;
- (h) all items of load are adequately restrained inside / on the Unit Load Device;
- (i) the applicable Security and Customs control requirements are met;
- (j) the Unit Load Device is weighed with the required accuracy prior to being loaded on an aircraft, and the weight is transmitted to Load Control in order to be taken into account in the flight's loading documents;
- (k) the Unit Load Device tag is signed after closure and weighing by a qualified responsible agent;
- (l) the Unit Load Device is handled and stored during ground handling and transportation on appropriate equipment and with appropriate methods so that no damage occurs;
- (m) the Unit Load Device is loaded on a compatible aircraft position and meets all limitations and restrictions applicable to that position;
- (n) Unit Load Device repairs are performed by qualified staff in accordance with applicable general civil aviation rules and repair procedures defined through its Authority approval, and a release certificate is delivered and filed to confirm the unit is airworthy again;
- (o) all personnel and supervising personnel in charge of any of the above receives appropriate training;
- (p) the necessary instructions are provided to all sub-contractors or other parties that either handle, transport or build-up the Unit Load Devices of the carrier (operator);
- (q) an operational Quality Control system is maintained by the carrier (operator) to monitor the effectiveness of the above, and performs regular audits at the locations concerned.

Other Parties' Responsibilities

A. Top Level Authorities

- Civil Aviation Authorities
- Airports
- Customs

Responsible for providing an operating environment for ULD that recognizes and supports compliance and best operating practices for ULD across the entire airline and air cargo industry

Airports

1.5.14 Airports

Airport Authorities/Airport operators must ensure that:

- management and supervisory staff are familiar with the contents of the ULD Regulations and all operations involving Unit Load Devices are carried out in accordance with them;
- all areas where Unit Load Devices activity takes place be constructed and maintained such that their operation can be performed without damage to the Unit Load Devices and in accordance with the Regulations;
- sufficient space sheltered from jet blast is provided in the vicinity of aircraft parking stands to accommodate interim storage of Unit Load Devices offloaded or to be loaded from/onto a flight;
- sufficient space is made available in and adjacent to cargo terminals to enable the installation by carriers or the terminal's handling agency of appropriate roller equipment for Unit Load Devices storage;
- any common user storage areas are equipped by the airport authority or designated ramp handlers with appropriate Unit Load Devices storage roller equipment meeting the requirements of these Regulations.

B. Manufacturers and Support Providers

- Aircraft/Cargo Loading System Manufacturers
- Unit Load Devices Manufacturers
- Unit Load Devices Repair Stations
- Unit Load Devices Services Providers

Responsible for providing products and services for ULD that enable compliance and best operating practices for ULD across the entire airline and air cargo industry

C. Participants in Air Cargo Operations

- Cargo Terminal Providers
- Ground Service Providers
- Freight Forwarders/ Customs Brokers
- Cargo Sales Agents
- Post offices
- Shippers
- Consignees
- Ground Transportation Service Providers

Operational responsibilities for participants in Air Cargo Operations

- Fulfill specified operators responsibilities where contracted and required to do so by the operator
- Meet the training requirements of the ULD Regulations
- Meet the ULD storage requirements of the ULD Regulations
- Provide access to their operations for audit by operators.
- Additionally recommended to have ISO 9001 or equivalent

* *Do not apply to all functions, see ULD Regulations for specific requirements*

3. Handling

- **Poor handling of ULD will almost certainly lead to damage**
- **Damage to ULD will almost certainly lead to non airworthiness**
- **A Non airworthy ULD is not acceptable for flight**

➤ Section 9 Handling

- Continuing Airworthiness
- Storage
- Transport & Movement in ULD Operations Area
- Transport and Movement of ULD-On Airport
- Transport and Movement of ULD-Off Airport
- Transfer of ULD
- Buildup and Breakdown
- Requirements for Special Purpose ULD

Each Section split into subsections:

- General
- Training Requirements
- Facilities and Equipment
- Procedures and Practices
- Exceptions
- Others

**IATA has
delivered the
book.
What's next?**

5 easy steps that ULD owners can take to see immediate benefit from IATA ULD Regulations.

Buying the book is not enough, it needs to be put to use !!!

5 Steps to implement the IATA ULD Regulations in your organization

1. Start getting yourself informed..

- Buy the ULD Regs. !!!
- Read the ULD Regs.!!
- Start using the ULDCARE website as a resource

5 Steps to implement the IATA ULD Regulations in your organization

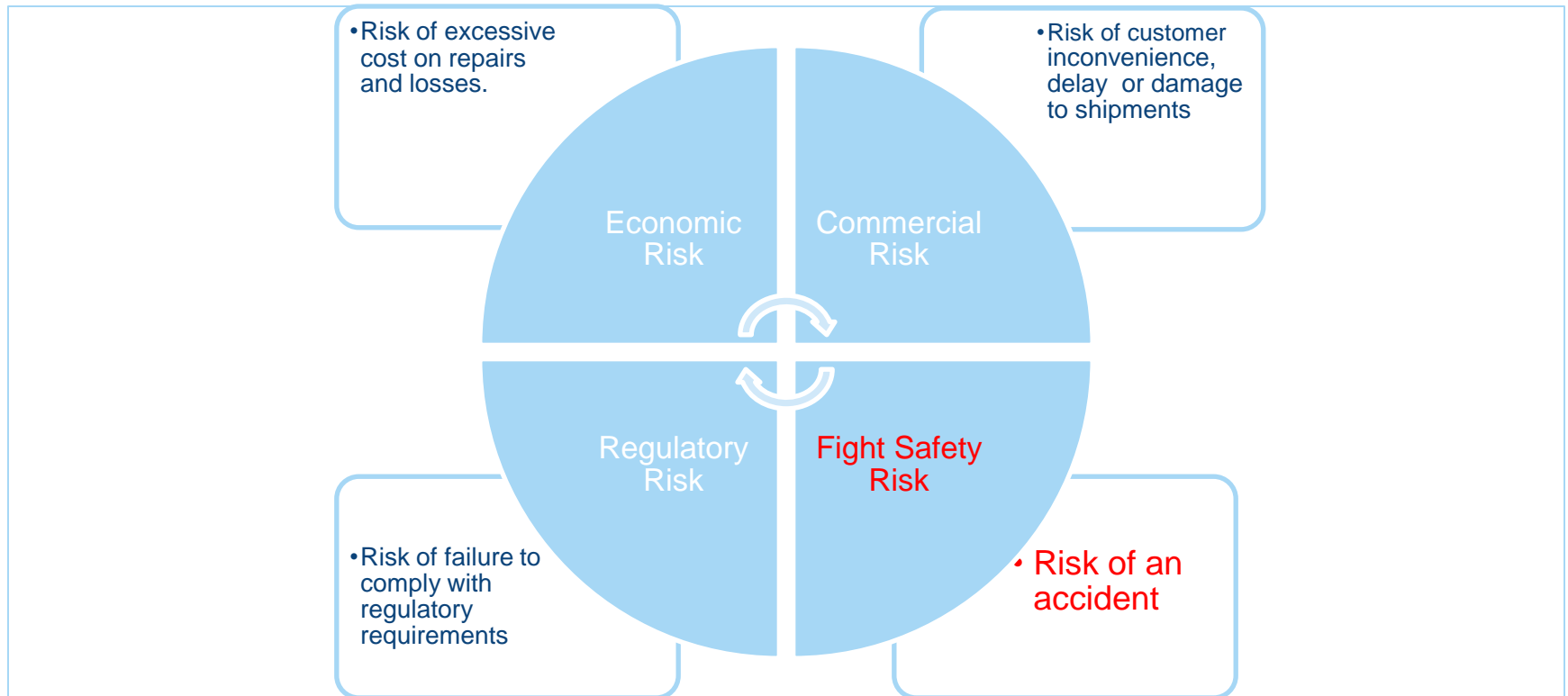
2. Enroll others

- Build internal awareness of the importance of ULD and the value delivered by the IATA ULD Regulations to your organization
- Communicate with anyone having even a small connection with ULD, in departments such as
 - Purchasing
 - Contracts
 - Safety
 - Training
- Use the ULDCARE web site and e-newsletter to widen awareness

5 Steps to implement the IATA ULD Regulations in your organization

3. Carry out an analysis how much difference the ULD Regulations can deliver to your organization.
 - Internal risk analysis, what risks do you face today
 - Flight Safety Risk?
 - Regulatory Risk?
 - Commercial Risk?
 - Budget Risk?
 - Determine how ULD Regulations will deliver safer operations for your airline
 - Estimate the \$ value that applying the ULD Regulations will deliver to your organization

Risk and ULD



5 Steps to implement the IATA ULD Regulations in your organization

4. Initiate internal and external activities

- Check internal manuals against ULD Regulations
- Amend contracts with ULD service providers to require compliance with ULD Regulations.

DO NOT do business with non compliant service providers

- Ensure own staff meet required training standards
- Communicate to all parties handling your ULD that you expect compliance with the ULD Regulations

5 Steps to implement the IATA ULD Regulations in your organization

5. Measure progress and make adjustments

- Establish targets
 - Compliance levels
 - \$ savings
- Track damage reduction
 - Repair quantity's/ costs
- Perform operational (ramp) audits of
 - ULD Condition
 - Handling process standards
 - Staff competence

Continued Improving ULDR



IATA

- ULD Regulations 2nd Edition
 - Data sheet for each ULD Type Code
 - Content of 'Registered Units (obsolete codes)' be deleted
 - ULD Movement Messages
 - Operational requirements for FCC/ FRC
 - Operational standard for Pallet Couplers
 - Explanation of Aircraft classes
- ULD Standard Training Programs
- Initiatives towards ICAO, CAAC, others

ULDCARE supporting widespread adoption of ULD Regulations

- Continuation of existing task forces and creation of new task forces
 - Electronic LUC
 - PRC activity
 - ULD CARE + ULD Regulations= SUCCESS !!!!!!!!!!!
- Awareness through newsletter and web site
- Electronic messaging platforms

Airlines

➤ Use it or loose it...

- The ULD Regulations are a reality, but without initiative they are just a book on a shelf.
- Airlines need to take the ULD Regulations and put them to work
- ULDCARE stands ready to support the industry

ULDCARE Feedback

Some Useful Information

- **ULD Panel**

<http://www.iata.org/whatwedo/workgroups/Pages/uldp.aspx>

- **ULD Regulations**

<http://www.iata.org/publications/Pages/uld-regulations.aspx>

<https://www.iataonline.com>

- **ULD e-learning course**

<http://www.iata.org/training/courses/Pages/tcgp60.aspx>

- **ULD classroom course**

<http://www.iata.org/training/courses/Pages/tcgp30.aspx>





Thank You!



-to represent, lead and serve the airline industry-