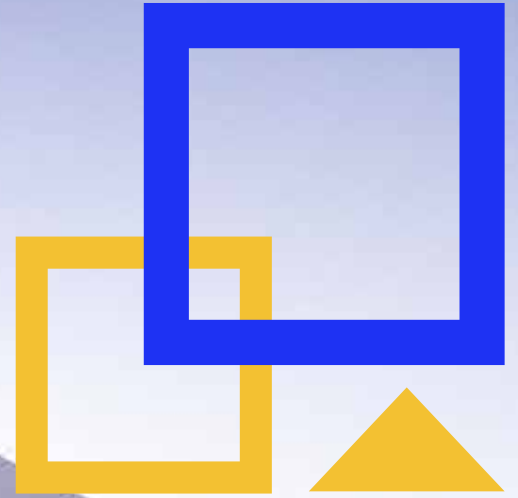


2024 Trends

# Cargo Operations Trend Report



In 2022, air cargo safely transported some 60 million tons of goods, including time-sensitive medicines and equipment, humanitarian aid, and perishable products. Although this is 1% of world trade by volume, it represents more than a third of world trade by value, signifying the importance of air cargo shipments.

Global standards and constant innovation are essential to delivering an efficient air cargo service. Several bodies bring together expertise from across the air cargo value chain, including **the IATA Cargo Services Conference (CSC), the IATA ULD Board, the IATA Cargo Handling Consultative Council (IHC), and the Cargo Operations and Technology Board (COTB).**

These groups are tasked with developing standards, guidance, and procedures that address all aspects of cargo operations. They also drive best practices, enhancements in staff training, and the adoption of cargo electronic messaging standards.

This is vital work as all cargo touchpoints are undergoing significant change thanks to the sector's digitalization efforts. This can be seen most clearly in an emerging trend for new security regulations that require a risk assessment prior to a shipment's arrival. Data will also underpin efforts to improve operational risk assessments and the handling of special cargo.

Air cargo is also striving toward net zero carbon emissions by 2050 alongside the rest of commercial aviation. The move toward sustainable packaging will help reduce air cargo's carbon footprint. There are also projects to measure cargo's carbon output, minimize paperwork through digital processes, and utilize lightweight unit load devices (ULDs) to improve fuel burn.

**Air cargo must be safe, agile, and efficient and the following key trends highlight the challenges and opportunities in this crucial sector.**





# 1 Implementing an Operational Risk Assessment

Operational risk assessments (ORA) are becoming increasingly important following a November 2020 amendment to ICAO Annex 6, which deals with aircraft operations. The amendment established a requirement for operators to conduct a specific safety risk assessment on items carried in cargo compartments. It applies to all operators, even those that are not authorized to carry dangerous goods as cargo.

This ORA must include:

- Any hazards associated with handling.
- The capabilities of the operator.
- Operational considerations.
- Aircraft capabilities, including its systems.
- Relevant containment characteristics of unit load devices.
- Packaging details.
- Supply chain safety requirements.

An operational risk assessment is a sequential process that begins with the identification of potential hazards. This is followed by an assessment of the likelihood of an incident, its severity, and finally the appropriate risk management strategies to mitigate the risk as far as practically possible.

The IATA Cargo Handling Consultative Council (IHC) has developed recommendations and guidance in the [IATA Cargo Handling Manual \(ICHM\)](#) on how to develop an ORA and possible mitigation strategies.

The ICAO Safety Management Manual (Doc 9859) and ICAO Cargo Compartment Operational Safety Manual (Doc 10102) also contain comprehensive guidance for the industry and regulators on safety risk assessments.

## WANT TO LEARN MORE?

- [Learn more about the IATA Cargo Handling Manual \(ICHM\)](#)



## 2 Improving Special Loads Handling

Special loads are complex by nature, and their build-up and handling take advanced knowledge and skills. Innovation in this area continues, and further enhancements in safety and efficiency are expected in 2024 and beyond.

The IATA Cargo Handling Consultative Council (IHC) has developed guidance material in the [IATA Cargo Handling Manual \(ICHM\)](#) that provides cargo handlers and airlines with precise instructions and the standards to follow when building-up special loads.

Special Loads include but are not limited to:

- offsize / overhang / tall and long cargo.
- drums / barrels / jerricans.
- piercing cargo.
- crushable / frangible cargo.
- crated cargo.
- heavy cargo.
- engines.
- vehicles.

### WANT TO LEARN MORE?

- [Learn more about the IATA Cargo Handling Manual \(ICHM\)](#)





# 3 Moving Towards Sustainable Operations

As e-commerce continues to grow, it has led to a corresponding rise in the use of single-use plastics and other packaging in air cargo operations. Best practice in sustainability dictates that the lifecycle of these materials must be properly managed, with national legislation being developed all around the world with the objective of reducing waste. China – by far the world’s biggest plastic manufacturer – will ban certain packaging and mandate a reduction on other plastics used in the logistics industry by 2025. The country deals with more than 10 million tons of packaging waste every year, around 23% of which cannot be recycled or reused.

Some logistics providers are already adopting innovative solutions to reduce packaging waste, such as a smart packaging algorithm that assesses items based on their category, volume, weight, and area and then matches them to the most efficient form of packaging.

But more must be done throughout the air cargo value chain to ensure a sustainable future. If changes are not made, the sector will contribute to an estimated 12 billion metric tons of plastic waste across the world by 2050.

With the need to minimize environmental impact a top priority, the industry must move to more sustainable packaging and shipping practices as part of its license to grow.



## WANT TO LEARN MORE?

- [\[Report\] E-Commerce Monitor](#)
- [\[Press Release\] IATA and UNEP to address key environmental challenges in aviation including single-use plastics](#)
- [\[Article\] Asymmetric regulation hampers single-use plastic replacement](#)

# 4 New Cargo Regulations

Speed is air cargo's greatest advantage and so any delay is costly. Data sharing is a key factor in avoiding delays and regulatory authorities are increasingly requiring air cargo data to be transmitted in advance of the shipment.

The objective is to offset security risks and delays by providing Customs sufficient time to undertake an adequate risk assessment of cargo prior to the aircraft's arrival. To reach this objective, Customs are implementing regulatory changes whose impact on air carriers should not be underestimated.

In 2023, the European Union implemented new rules impacting all air cargo and mail shipments carried to or via EU Member States. To comply, airlines had to adapt new sets of procedures, upgrade their IT systems, take steps to ensure high-quality, precise data are provided and create support desks and training for their staff.

The United Arab Emirates are also deploying new rules for incoming air cargo and the United Kingdom and Canada are establishing similar programs, all of which are expected to be implemented before the end of 2024. Many other countries and relevant authorities are working on equivalent regulatory changes.



## WANT TO LEARN MORE?

- [Learn more about the IATA guidance to comply with these regulatory changes: PLACI Manual](#)
- [Learn more about IATA data sharing standards: Cargo-XML Toolkit and One Record](#)
- [Learn more about IATA global repository on digital connectivity: EPIC](#)
- [\[On-demand Webinar\] Getting ready for new air cargo PLACI regulatory requirements](#)

# 5 ULD Standardized Training Draws Closer

Global standards simplify complex air cargo processes and reduce cost. They allow airlines to work seamlessly with each other and with other stakeholders, such as airports, ground service providers, cargo agents, freight forwarders and governments.

There is a clear need for standardization in unit load device (ULDs) training. Each airline has a unique approach, meaning there are a multitude of ULD types and operational procedures. This makes loading and unloading – and the training involved – unnecessarily complicated for ground handling staff.

Establishing a common baseline for the minimum training requirements for each function in the ULD operational chain is of critical importance. Whether it's awareness, operations or management training, companies must plan and maintain initial and recurrent training programs in line with regulatory and operational requirements. Personnel must be able to perform their duties in a competent, confident, and safe manner.

Training requirements have been reflected in the [IATA Operational Safety Audit \(IOSA\)](#), the [IATA Safety Audit for Ground Operations \(ISAGO\)](#), the [Smart Facility Operational Capacity Audit \(SFOC\)](#), the [IATA ULD Regulations \(ULDR\)](#), the [IATA Airport Handling Manual \(AHM\)](#), and recently the [Cargo Agency Conference Resolutions Manual \(CACRM\)](#). Moreover, there has been increasing regulatory oversight on safe ULD operations from authorities around the world, including the US Federal Aviation Administration (FAA).

Ensuring standardized ULD training and that industry-wide safety regulations are being followed could reduce ULD-related costs by \$300 million annually.

## WANT TO LEARN MORE?

- [Unit Load Devices \(ULD\)](#)
- [Learn more about the ULD Regulations \(ULDR\)](#)





# About IATA

The International Air Transport Association (IATA) is the trade association for the world's airlines, representing some 300 airlines or 83% of total air traffic. We support many areas of aviation activity and help formulate industry policy on critical aviation issues.

For nearly 80 years, we have developed global commercial standards upon which the air transport industry is built. Our aim is to assist airlines by simplifying cargo processes and operations while reducing costs and improving efficiency. We help airlines to operate safely, securely, efficiently, and economically under clearly defined rules. Professional support is provided to all industry stakeholders with a wide range of products and expert services.

## Discover related IATA products and services

### IATA Manuals

Airlines, shippers, freight forwarders, ground handlers and other stakeholders in the air transport supply chain rely on the IATA Cargo Handling Manual (ICHM), ULD Regulations (ULDR), Standard Procedures for Preloading Advance Cargo Information (PLACI) Manual and Cargo-XML Toolkit (CXML) to make sure air cargo is transported safely and efficiently. [Learn more](#)

### IATA Training

IATA Training offers cargo and logistics training courses for every aspect of the supply chain, including strategy, business planning and development, management and optimization, business intelligence, operations and handling. [Learn more](#)

### IATA Consulting

IATA Consulting has comprehensive experience in the full array of business challenges facing the aviation sector. With our depth and breadth of aviation industry experience, we assist clients in maximizing the value of their operating model, realizing growth ambitions, and gaining insights that translate into sustainable competitive advantages. [Learn more](#)

### IATA Certifications

IATA certification is proof that your organization follows best practice in all relevant fields. Customers will want to do business with you, trusting in the commitment and transparency you provide throughout the supply chain. Your organization, in turn, is best placed to take advantage of numerous opportunities in critical and lucrative sectors. [Learn more](#)

### CargoIS

The air cargo industry's premier market intelligence tool, used by the full range of air cargo stakeholders: airlines, general sales agents, freight forwarders, ground handlers, airports and many others. [Learn more](#)

