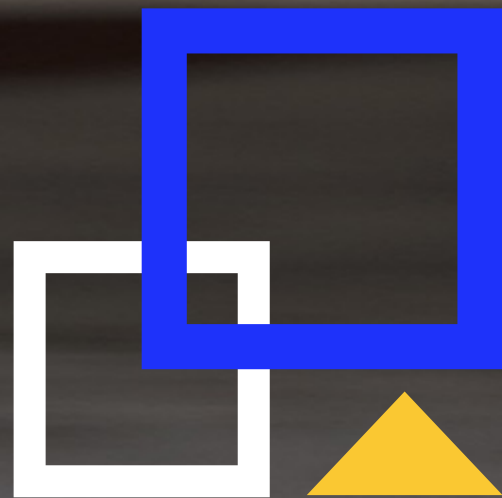


2023 Trends

Cargo operations



On a daily basis, IATA is working with its airline members and the air cargo supply chain to harmonize standards and drive industry initiatives.

The IATA Cargo Services Conference (CSC), the IATA ULD Board, the IATA Cargo Handling Consultative Council (IHC) as well as the Cargo Operations & Technology Board (COTB) bring together cargo handlers, airlines and other stakeholders involved in cargo operations. Overall, the groups' objective is to develop standards and procedures to address all aspects of cargo acceptance and handling.

The discussions held during the year highlight key topics of concern and emerging trends. In addition, the group helps drive the adoption of best-practice procedures, improvement of staff training covering the acceptance and handling of air cargo and mail as well as the review of cargo electronic messaging standards regarding cargo handling activities.



Trends in cargo operations for 2023

Cargo handling is performed at thousands of airports all over the world by hundreds of companies, posing a high potential risk for deviations in the quality of handling. Airlines transport over 52 million metric tons of goods a year, representing more than 35% of global trade by value but less than 1% of world trade by volume. That is equivalent to \$6.8 trillion worth of goods annually, or \$18.6 billion worth of goods every day.

To accommodate and adapt to these new demands and to ensure smooth, agile, and efficient operations, changes and enhancements to existing regulations and guidance is needed across all touchpoints of cargo operations. The industry, regulators and supply chain stakeholders have identified some key changes which include the increasing regulatory deployment of pre-loading cargo information requirements, the digitalization of the industry through data sharing and API, security enhancements for cargo and mail handling.

The whole air cargo supply chain is also pushing to become more sustainable. Efforts on transparency with the measurement of air cargo carbon footprint; concrete actions to reduce fuel consumption by reducing weight on board, going paperless through digitalization, investing in lightweight ULDs to make cargo operations safer and more efficient.



1 Unwrapping the packaging challenge as the world continues to shift online

The e-commerce packaging market was valued at \$43.1 billion in 2021 and is expected to reach \$75.1 billion by 2025. The rapid acceleration of e-commerce has led to a significant increase in packaging consumption amplifying the need for materials and production processes that minimize impact on the environment. If current plastic production and waste management trends continue, it is projected that there will be 12 billion metric tons of plastic covering the globe by 2050.

The time is now to shift to more sustainable packaging, but also shipping, to meet consumer demands, and care for the environment. For instance, China will implement a national ban on plastic packaging in the logistic industry by 2025. China deals with about 10 million tons of packaging waste every year, around 23% of which will end up being burned or buried in landfills as they can't be recycled or reused.

Companies such as logistics provider Cainiao continue to lead by example with almost [100% of the packaging shipped](#) on Singles day from their warehouse being biodegradable, and close to 50% of the paper packaging tape-free. With a smart packaging algorithm, Cainiao can assess items based on their category, volume, weight and area, and then match them to the most space-efficient form of packaging.

Sustainability is the aviation industry's license to grow and as result such efforts are expected to gain momentum from regulators and companies around the globe.

WANT TO LEARN MORE? [Read this article](#) to learn about:

- Top countries leading e-commerce sales
- E-commerce packaging marketing
- Airline sustainability commitments
- And much more...



2 Alignment of cargo standards with new regulatory requirements

Border delays are especially costly for air shipments and impede aviation's key advantage: speed. Electronic data interchange has played a significant role in allowing the air cargo industry to operate more efficiently and avoid such delays.

In addition, regulatory authorities are increasingly requiring the advance electronic transmission of air cargo data, with the primary objective to offset security risks by providing to Customs administrations sufficient time to undertake an adequate risk assessment of cargo prior to the arrival of the carrying aircraft in their territory.

Customs authorities are increasingly enforcing such regulatory requirements imposing on air carriers to provide a limited set of air cargo data before loading onto the aircraft ([Pre-Loading Advance Cargo Information-PLACI](#)) and a more comprehensive set of air cargo data before arrival.

The air cargo data mandated by Customs authorities is extracted from the current business documents used in the air cargo industry.

The implementation of new PLACI requirements is changing the way we operate in the air cargo industry. The impact of these new requirements should not be underestimated.

Most notably, effective March 2023, the European Union (EU) will implement the Release 2 of its new "Import Control System" (EU-ICS2) regulations. As a result, all air cargo and mail shipments carried to or via EU Member States will need to comply with EU-ICS2. Non-compliance could result in penalties and even sanctions on carriers and global traders.

WANT TO LEARN MORE? [View this On-Demand webinar](#) to learn about:

- What are the current PLACI regulatory developments?
- How will the implementation EU-ICS2 effective March 2023 impact the air cargo industry?
- What are the consequences of non-compliance?
- And much more...



2 Alignment of cargo standards with new regulatory requirements (continued)

Air carriers and their supply chain partners will have to submit a specific set of data elements for all goods transported to or via the EU before the goods are loaded onto the aircraft in the country of departure outside the EU. They will have to put-in-place adequate risk management protocols across the air cargo supply chain to mitigate any security threat. Non-compliance with the new EU requirements may have following impacts:

- Sanctions on carriers
- Cargo or mail may be stopped at the border
- No customs clearance of goods
- Unnecessary interventions slowing down the cargo or mail flow
- Rejection of poor-quality declarations.

As a result, 2023 will be a milestone for [PLACI](#) deployment, as the above PLACI program will be enforced during the course of the year. In addition countries such as the United Arab Emirates (UAE), United Kingdom (UK) and Canada are also establishing such programs during the course of year. There are also signs that more countries will be implementing similar requirements in the coming years.

From a digitalization point of view, IATA is developing a new data sharing standard - [ONE Record](#), addressing the regulatory requirements and enabling the air cargo stakeholders such as shippers, freight forwarders, airlines, ground-handling agents to share the relevant data elements with the customs and security agencies.

IATA also keeps on maintaining the existing industry messaging standard ([Cargo-XML](#)) and is ensuring compliance with the regulatory changes resulting from customs authorities' objectives.

These multimodal and cross border digital standards aim to:

- Facilitate cargo business processes through seamless data exchange
- Fulfill regulatory requirements for data
- Comply with security regulations like [e-CSD](#)

WANT TO LEARN MORE? [Visit this webpage](#) to learn about:

- Data sharing standards
- Air cargo digital connectivity
- And much more...



3 Increase in demand of more end-to-end visibility and real-time information about shipments

Air cargo customers demand more end-to-end visibility and real-time information about their shipments. The demand for these capabilities is exploding with the growth of e-commerce and increased quantities of special cargo flown. Online retailers and shoppers want to know where their shipments are at any time. Producers of fresh food, perishable items and pharmaceuticals want to know in which conditions their shipments are moving.

Equipping the industry with this capability is imperative to improve the value proposition of air cargo and capitalize on e-commerce and special cargo growth. Air cargo suppliers need that information at an individual piece level to take proactive actions to ensure compliance with customers' and regulators' demands. This is valid for all types of products but is becoming a critical requirement for Special Cargoes (pharma, perishables, live animals, vulnerable, high value, etc.).

More specifically, it means to equip the air cargo supply chain with responsive air cargo services based on intelligent systems able to self-monitor, send real-time alerts, respond to deviations to meet customers' expectations, and report on the cargo journey. This could include:

- Implementing the use of tracking devices in shipments flying in an airline's network and tracking their location, temperature, and other attributes of the shipments real time.
- Installing readers and tags on their aircraft and facilities to monitor temperature and use this data to track aircraft ULDs and ground support equipment, etc.
- Implementing a mobile application to collect data on shipments, including the driver, the truck, the trailer and about the cargo ID. This information is then shared with the customs and is used to speed up border crossing of the truck by automated crossing.

Airlines, forwarders, GHAs and technology solutions providers are leveraging such technology as part of their operations already. However, we expect the development and improvement of such air cargo industry standards to become more common place in order to enhance the use of data sharing to improve visibility and efficiency.

WANT TO LEARN MORE? [Visit this webpage](#) to learn about:

- Real-time cargo tracking
- Achieving excellence through the use of data
- Regulations on device approval
- And much more...



4 ULDs: Move towards standardization

In an increasingly complex and competitive air transport cargo and ground handling market environment, standardization could unlock your business' full potential. Industry standards simplify common processes and reduce cost and complexity. 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 amongst others.

Standards provide a better experience for everyone involved in the air transport supply chain. However, we still see opportunities for standardization in different areas of air transport operations such as cargo and ground handling procedures.

With the increase in cargo, there are many ULD types handled by various parties on the ground and then flying aboard various aircraft in the air, the safety of which during all phases of flight is paramount. For decades, companies have been using a multitude of operational procedures and individual airlines each have their own unique procedures, which adds substantial complexity for the ULD handling staff. In addition, similar to any other aircraft parts or equipment, ULDs must meet defined airworthiness requirements. As a result, this necessitates appropriate training of all persons concerned in the handling of ULDs. 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 should plan and maintain initial as well as recurrent training programs in line with regulatory requirements and operator's requirements to ensure personnel can perform their duties in a competent, confident and safe manner.

Such training requirements have been reflected in the IOSA, ISAGO, IATA ULD Regulations (ULDR), 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 (FAA, EASA, UK CAA, Australian CASA, etc.), and for example, the FAA in the revision of its Advisory Circular (AC) 120-85 on 'Carriage of Cargo' emphasizes the importance of training requirements for personnel including non-airline parties ('vendors' such as freight forwarders, shippers, service providers, etc.) involved in ULD operations.

The aim of both is to reduce risk, avoid ground damage and enable standardized, sustainable operations. Being properly trained allows for fewer mistakes and smoother transitions in air cargo logistics. Ensuring industry-wide safety regulations are being strictly followed could reduce ULD-related costs by [\\$475 million](#).

WANT TO LEARN MORE? [Read this article](#) to learn about:

- What Is an aircraft ULD in air transport?
- What are ULD Regulations?
- Why Is ULD training necessary?
- And much more...



About IATA

The International Air Transport Association (IATA) is the trade association for the world's airlines, representing some 290 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, ULD Regulations, PLACI Manual and Cargo XML Message Manual and Toolkit every day. to make sure special 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: [Smart Facility Operational Capacity](#) | [CEIV Lithium Batteries](#) | [CBTA Center](#)

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](#)

