Table of contents

Executive summary ........................................................................................................................................... 3

Why? Understanding our business environment ......................................................................................... 4
  Air cargo, crucial enabler of the global economy ......................................................................................... 5
  The air cargo outlook: demand for air cargo still strong, as yields continue to rise ......................... 6
  The SWOT analysis of the air cargo industry ............................................................................................ 7
    Speed, the first value proposition .............................................................................................................. 7
    e-Commerce growth, the not-to-be-missed opportunity ....................................................................... 8
    Over-capacity, the structural challenge ................................................................................................. 9
    Trade agreements and trade protectionism ............................................................................................. 9
    Competition with new players and other modes of transport ............................................................ 10
  Change is in the air: listening to customers ............................................................................................. 11

What? Setting the industry priorities ........................................................................................................... 12
  10 industry priorities ............................................................................................................................... 13
  4 areas of focus ........................................................................................................................................ 13
    Safety & Security .................................................................................................................................. 14
    Visibility & Digitization ......................................................................................................................... 14
    Industry Management & Business Transformation ............................................................................ 14
    IATA’s Value Proposition ..................................................................................................................... 14

AGM Resolution on Cargo: Airlines Commit to Air Cargo Modernization .............................................. 15

How? Delivering the agenda ....................................................................................................................... 16
  IATA Cargo services portfolio .................................................................................................................. 17
    Global standards & tools ....................................................................................................................... 17
    Financial services & industry solutions ................................................................................................. 18
    Transformation projects & industry mobilization ............................................................................. 19
    Partnerships & industry collaboration ................................................................................................. 20
    Advocacy & outreach ............................................................................................................................ 21

  IATA Cargo delivery team ...................................................................................................................... 22
    Safety & Dangerous Goods (DG) .......................................................................................................... 23
    Special Cargo ........................................................................................................................................ 23
    Cargo Border Management .................................................................................................................. 24
    Cargo Operations .................................................................................................................................. 25
    Digital Cargo ......................................................................................................................................... 26
    Cargo Transformation .......................................................................................................................... 27
    Cargo iQ .................................................................................................................................................. 28

Glossary & sources .................................................................................................................................... 29
  Glossary .................................................................................................................................................... 29
  Sources ..................................................................................................................................................... 30
Executive summary

IATA is the trade association representing approximately 275 commercial airlines worldwide, accounting for more than 83% of total air traffic. IATA’s mission is to represent, lead and serve the airline industry.

Air cargo represents more than 35% of global trade by value. When it comes to combined passenger and cargo airlines, the cargo business generates 9% of airline revenues on average, representing more than double the revenues from the first class segment.

To support this critical business, IATA is committed to: *deliver enhanced value for the industry by driving a safe, secure, profitable and sustainable air cargo supply chain.*

IATA develops global standards and tools, offers financial services and industry solutions, drives transformation projects, creates partnerships, and runs campaigns, advocacy and outreach activities.

The IATA Cargo agenda is shaped by the IATA Cargo Committee.

It addresses the 4 areas of focus and 10 industry key priorities:

- Safety & Security
- Visibility & Digitization
- Industry Management & Business Transformation
- IATA’s Value Proposition
- Enhancing safety
- Improving security
- Facilitating trade
- Strengthening air cargo’s value proposition
- Driving efficiency with global standards
- Modernizing air cargo
- Improving quality
- Protecting cash
- Strengthening partnerships
- Building sustainability
why?

Understanding our business environment
Air cargo, crucial enabler of the global economy

Air transport is vital for manufactures trade, particularly trade in components which is a major part of cross border trade today. IATA forecasts a rise in cargo carried to 62.5 million tonnes in 2018 (+4.5% on the 59.9 million tonnes in 2017) representing less than 1% of world trade by volume, but over 35% by value.

The value of goods carried by airlines is expected to exceed $6.2 trillion in 2018, representing 7.4% of world GDP. Air cargo is essential to many facets of modern life. Moving perishable goods from one side of the world to the other would not be possible without air transport.

The pharmaceutical industry relies on air transport for its speed and efficiency in transporting high-value, time and temperature sensitive cargo, particularly vaccines. USD13.4 billion is spent worldwide on temperature controlled biopharma logistics. By 2021, it is estimated that this will rise to USD16.6 billion.

In today’s world, carriage of live animals by air is considered the most humane and expedient method of transport over long distances.

Most people have personal electronic devices that were built using a global supply chain linked by air.

Amazon, Alibaba, eBay and other e-commerce companies rely on the express delivery services made possible by aviation to get those devices, and so much more, to their customers. Transport of letters decreased from 340 to 328 billion letters globally, whereas the number of postal parcels grew from 6.7 to 7.4 billion. The best example is China’s famous “Single’s day” where in just one day, online shoppers bought goods worth USD17.8 billion, representing 657 million packages, and air transport plays an essential role in their delivery. In 2016, online retail sales only represented 7.6% of global sales, which shows a huge potential for growth in the years to come.
The air cargo outlook: demand for air cargo still strong, as yields continue to rise

Volumes are expected to grow by 4.5% in 2018 (down from the 9.3% growth of 2017). The boost to cargo volumes in 2017 was a result of companies needing to restock inventories quickly to meet unexpectedly strong demand. This led cargo volumes to grow at twice the pace of the expansion in world trade (4.3%).

Cargo yields are expected to improve by 4.0% in 2018 (slower than the 5.0% in 2017). While restocking cycles are usually short-lived, the growth of e-commerce is expected to support continued momentum in the cargo business beyond the rate of expansion of world trade in 2018.

Cargo revenues will continue to do well in 2018, reaching $59.2 billion (up 8.6% from 2017 revenues of $54.5 billion).
The SWOT analysis of the air cargo industry

Air cargo SWOT highlights a number of very significant weaknesses and challenges which must be addressed in order to further leverage the industry’s strengths and successfully secure the opportunities that will arise.

Strengths

- Speed
- Reliability
- Security

Weaknesses

- Complexity
- Weak economics
- Over-capacity
- Slow adoption of new technologies
- Lack of transparency & communication between stakeholders
- Value not explained properly

Opportunities

- e-Commerce growth
- Bali Agreement
- Drones
- New logistics concept
- Market liberalization
- Urbanization (mega-cities)
- Capacity increase in extra-European airports
- New technologies: digital platforms, internet of things, big data, automation etc.
- Growth of economy & trade
- Alternative fuels, solar power, etc.
- Will to better collaborate as an industry

SWOT analysis for Air Cargo

Speed, the first value proposition

The last two IATA Global Shippers' Surveys conducted in 2015 and 2017 showed that the number one selling point of air cargo transport as seen by shippers is speed.

Air cargo is the fastest mode of transport, as illustrated by Cargo iQ data: on average air cargo shipments take under 140 hours¹ to get from shipper to consignee, including 44 hours under the care of airlines.

Whilst speed is the number one reason why shippers choose air; they are not necessarily expecting faster times, but greater reliability and predictability. This is why Cargo iQ has called on the air cargo industry to stop focusing on speeding up transport times and to instead concentrate on differentiating products based on the level of reliability on offer.

¹ In 2017, pick up to delivery (door to door) was 138 hours (source: Cargo iQ)
e-Commerce growth, the not-to-be-missed opportunity

The rapid development of connected technologies, including mobile devices in the past few decades has changed many aspects of consumers’ lives, including their purchasing process. Consumers are often turning to e-commerce: online shopping (B2C), where private customers can order various products which they then receive by courier or postal mail; online transactions from consumer to consumer (C2C), as in the example of eBay or other similar websites, and B2B e-commerce between companies.

The explosive growth of e-commerce has already had a profound effect on retailers and manufacturers as manufacturers seek to reach their customer as quickly and cost-effectively as possible. And this is just the beginning!

USD 3.5 trillion: the global e-commerce revenue forecast for 2019. 7.6%: the part of online retail compared to global retail sales. 66%: the growth of e-commerce from Asia Pacific to Europe between 2013 and 2015. Those figures show the huge potential of e-commerce in the near future.

Forecasting and quality data usage in e-commerce will become critical, not sure for retailers looking to capitalize on market trends, but also for logistics providers to ensure they are well placed in the delivery chain.

Changes are therefore needed in our industry to address the evolving expectations and to capitalize on e-commerce growth: end-to-end track & trace, reliability in delivery time, smooth cross-border operations; to mention just a few.

The e-commerce growth is starting to be subject to a growing call for cross-sector, integrated approach to transport planning and regulation at the international level. For example, in December 2017 the World Customs Organization adopted a resolution on the Guiding Principles for Cross-Border E-commerce. In the same month, 70 members of the World Trade Organization issued a joint statement pushing for future work on e-commerce.
Over-capacity, the structural challenge

Over-capacity is coming mainly from an expansion of the passenger business as well as an increase in the freighter fleet. Additional cargo capacity from wide-body belly passenger aircraft has continued to exceed that from freighter-only fleet.

Dedicated freighters remain an essential part of air cargo as certain factors, such as the departure and arrival times, type and size of cargo, and difference between cargo and passenger destinations limit the use of belly cargo.

Large wide-body freighter aircraft utilization is trending upwards and is now back to levels last seen in 2012. At the same time, airlines are managing to maintain the freight load factor at levels last seen in late 2014.

Trade agreements and trade protectionism

*Trade protectionism* has a damaging impact on world trade. Despite the 2017 overall increase of trade volumes, several administrations continue to express threats of increased protectionist measures and possible retaliation actions, which remains a concern for the air cargo industry. The rising protectionist rhetoric on trade is adding to an environment of policy uncertainty. Vigilance and close monitoring of the trade policy environment remains essential.

The dichotomy protectionism/trade facilitation is well present in trade’s policies: according to WTO, G20 economies applied 42 new trade restrictive measures between October 2016 and May 2017. At the same time period, G20 economies also applied 42 measures aimed at facilitating trade.

OECD estimates that the implementation of the WTO Trade Facilitation Agreement (TFA), which entered into force on 22 February 2017, is expected to generate reductions in trade costs of between 12% and 18% for countries and provide a much needed boost to global growth which should continue in 2018.

---

**12%-18%**

expected reduction in trade costs (OECD)
It is hoped that the implementation of the TFA will not only boost global trade but also make border procedures faster, particularly in developing countries where the TFA will enter into force only from 2018. This is expected to foster the participation of developing countries in the global market.

Greater transparency within governments and the resulting improved predictability, as well as harmonization and standardization of procedures will all have a positive impact for the air cargo industry. A recent IATA commissioned study showed that a 1% increase in air cargo connectivity was associated with a 6.3% increase in a country's total trade.

Competition with new players and other modes of transport

*Mode mix optimization and modal shift* from air to less-expensive or perceived more-environmental friendly maritime and rail transport has been occurring for some years. Freight forwarders offer more air/sea, air/road or air/rail products that combine to create price and total shipment time flexibility. Today, it is the new railway and road-based ‘Silk Road’ network that connects China with Europe that is capturing business from sea and air cargo. Tomorrow, it may be the Hyperloop One, currently being considered for application within the Gulf region.

“Amazon.com plans to schedule more than 200 flight departures and landings per day at a $1.49 billion cargo hub it is building near Cincinnati”, as mentioned in the news in February 2017. It seems that Amazon plans to supplement existing logistics services, cuts costs and speed up delivery. The scale of its air cargo deals (leasing 40 Boeing 767 planes, new cargo hub with more than 100 parking space for planes) indicates Amazon’s air cargo business is more than a trial service.

Customer expectations are also shifting. Business to Business transactions are starting to be expected to function more like Business to Consumer transactions. Gaining insight into the customer expectations, harnessing the data to manage it and offering compatible solutions are all in focus for the coming years.
Change is in the air: listening to customers

For the world, air cargo is a vital motor of the global economy. But to many airlines, the bottom-line value is falling, while shippers are saying that they don’t receive enough value for money. Last two Global Shipper’s Surveys, in 2015 and 2017, revealed that air cargo rated an average satisfaction score of 7 out of 10, a number that our industry should aim to drive upward.

The air cargo industry continues to face challenges of sustainability, profitability and customer satisfaction. It is far from being immune to global shocks such as Brexit. Competition is stronger than ever with other transport modes such as shipping and rail offering new products. Customers are also looking at mixing transport options to balance costs and speed.

In parallel, the industry has been slow to adapt to an increasingly electronic world that demands more transparency, speed and efficiency. Global implementation of electronic airway bill to date is just around 50%. Each day millions of pieces of paper airway bill are exchanged across the supply chain increasing the chance of error, reducing the efficiency of the process and causing customers and partners numerous pain points and poor quality of service.

Our challenge, therefore, is to increase the efficiency and service quality of air cargo. This is why in 2016 IATA launched the Simplifying the Business of Air Cargo program, StB Cargo, modelled on the successful Passenger program establish for some years. StB Cargo is a portfolio of transformational projects addressing existing issues and an innovation framework to foster long-term thinking.

At the heart of StB Cargo is the need to make air cargo easier, smarter and faster. The 6 goals of StB Cargo are the following:

- Capitalizing on e-commerce
- Moving to data on-demand
- Developing real-time interaction
- Making quality relevant
- Optimizing the end-to-end journey
- Modernizing cargo distribution

Making air cargo easier, smarter and faster
what?

Setting the industry priorities
# 10 Industry Priorities

<table>
<thead>
<tr>
<th>10 Industry Priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enhancing Safety</strong></td>
</tr>
<tr>
<td>Safety remains the top priority! Regulations, standards, training, workshops... are developed and maintained to ensure aircraft, passengers, crew are safe.</td>
</tr>
<tr>
<td><strong>Protecting Cash</strong></td>
</tr>
<tr>
<td>Commercial aviation is a highly integrated, global network of thousands of companies and organizations. That network depends on reliable, efficient, and secure systems to report, collect, and remit funds between the different parts of the value chain. IATA Settlement Systems are the backbone of the global air transport system.</td>
</tr>
<tr>
<td><strong>Facilitating Trade</strong></td>
</tr>
<tr>
<td>The air cargo industry needs smart regulations to facilitate trade, ensure safety and compliance. Continuous collaboration between industry and State regulators is key for any prevention action and response. This will make possible that regulations facilitate trade and won’t slow transit time at loading and transshipment.</td>
</tr>
<tr>
<td><strong>Improving Quality</strong></td>
</tr>
<tr>
<td>The air cargo industry needs to create and implement quality standards from end-to-end to improve the reliability and consistency of its services.</td>
</tr>
<tr>
<td><strong>Modernizing Air Cargo</strong></td>
</tr>
<tr>
<td>Modernizing air cargo and making digital the new business as usual is an imperative. Digitalization is a key enabler for the development of new innovative services and solutions, thus increasing the value of the air freight to shippers.</td>
</tr>
</tbody>
</table>
4 areas of focus

In October 2016, the Cargo Committee guided IATA to focus on the following 4 areas:

**Safety & Security**
- Lithium Batteries
- Airmail & e-commerce
- Data sharing & ACID
- ULD

**Visibility & Digitization**
- e-freight & e-AWB
- ONE Record
- Interactive Cargo
- Smart Facility
- Cargo iQ

**Industry Management & Business Transformation**
- Industry management
- Business transformation & innovation

**IATA’s Value Proposition**
- Advocacy & outreach
- Existing standards & associated industry solutions
- New financial services & industry solutions
AGM Resolution on Cargo: Airlines Commit to Air Cargo Modernization

On June 2017, the 73rd IATA Annual General Meeting (AGM), attended by over 150 Airline CEOs, adopted a resolution to accelerate the modernization and transformation of the air cargo industry.

INTRODUCTION

NOTING that air cargo provides critical connectivity for the global economy transporting 35% of global trade by value, equating to a value of goods in excess of US$ 5.5 trillion and generates annual revenues for IATA members in excess of US$ 50 billion.

ACKNOWLEDGING that safe and secure air cargo operations remain the industry’s primary objective and that efficient and optimized ground services support enhanced customer service and effective safety and security compliance.

RECOGNIZING that shifts in consumer behavior and the increased demand for on-time and temperature sensitive commodities require a high quality, predictable and transparent supply chain.

RECOGNIZING that the World Trade Organization (WTO) Trade Facilitation Agreement (TFA) is an instrument that promotes enhanced international trade through simplification of border management complexities whilst promoting the enhanced use of technology by customs administrations including the provision of advanced air cargo information to facilitate effective supply-chain security compliance.

RECOGNIZING that efficient modernized air cargo services are necessary to continue to contribute to industry profitability and sustainability and that enhanced standards will enable member airlines, their customers and supply-chain partners to benefit from efficient data management solutions derived from data-on-demand mechanisms.

RESOLUTION

The IATA 73rd Annual General Meeting:

1) AFFIRMS its support for smart regulation designed to enhance air cargo supply chain safety and security, and urges governments and other regulators to engage in early dialogue with industry to ensure effective and workable measures are developed and implemented;

2) CALLS on governments to implement, at the earliest opportunity, the provisions of the WTO TFA to facilitate a reduction in border transactional costs;

3) COMMITS to supporting the adoption of modern and harmonized standards addressing the evolving demands of shippers, while ensuring safe and secure operations, particularly in relation to the shipping of special and vulnerable cargo as well as dangerous goods;

4) STRONGLY URGES airlines, freight forwarders, ground handlers and shippers to embrace the use of enhanced technology to provide data-on-demand, real time tracking, and transparent information services to the ultimate user of air cargo transportation;

5) AFFIRMS that the removal of paper based transportation documents must be concluded urgently in order to digitalize transportation information and that IATA members commit to the implementation of effective quality management solutions designed to enhance the shipping experience; and

6) RECOMMENDS support of cargo industry transformation through the Simplifying the Business of Air Cargo program which includes embracing the Smart Facilities initiative designed to enhance ground handling service quality through self-assessment and independent verification audit programs, aligned with the enhanced ISAGO program.
how?

Delivering the agenda
IATA Cargo services portfolio

IATA develops global standards and tools, offers financial services and industry solutions, drives transformation projects, creates partnerships, and runs campaigns, advocacy and outreach activities.

Global standards & tools

IATA’s core business is to set standards for the airline industry. On the Cargo side, IATA establishes standards, rules, guidelines, recommendations and provides useful tools accompanying those standards in the areas of handling of mail and all types of cargo; security, customs, data exchange, etc.

Cargo Services Conference (CSC)

Cargo standards are developed and maintained by the CSC, a permanent and autonomous body consisting of representatives from IATA member airlines. CSC is supervised by the Cargo Procedures Conferences Management Group (CPCMG), which facilitates liaison between CSC, Cargo Agency Conference (CAC) and the Cargo Committee.

CSC is organized with 6 distinct Boards, each with relevant permanent Working Groups or temporary Task Forces and 1 Council when required:

- DGB: Dangerous Goods Board
- LAPB: Live Animals & Perishables Board
- ULDB: ULD Board
- AMB: Airmail Board
- CBMB: Cargo Border Management Board
The primary objectives of the CSC include:

- Adopting and maintaining Resolutions and Recommended Practices that establish the technical standards and procedures necessary to facilitate the proper handling and facilitation of multilateral cargo interlining
- Developing common industry positions on broad cargo services issues including cargo handling, documentation, procedures, rules and regulations, ULD control, ULD technical specifications, dangerous goods regulations, live animals and perishables regulations, and automation standards
- Exchange industry information

The CSC has two types of members: voting members and non-voting members. Each active member of IATA that operates a scheduled commercial international air transport service for the carriage of cargo is a voting member of the CSC. An associate member of IATA may elect to be a non-voting member of CSC.

IATA standards are distributed to the industry through specific manuals, training programs, certification programs (when relevant), local workshops (where needed), etc.

The main cargo services standards and their associated manuals are:

- DGR – Dangerous Goods Regulations
- LAR – Live Animals Regulations
- PCR – Perishable Cargo Regulations
- TCR – Temperature Controlled Regulations
- ULDR – Unit Load Devices Regulations
- CSCRM – CSC Resolutions Manual
- ICHM – IATA Cargo Handling Manual
- Cargo-XML Messaging Manual & Toolkit

**Financial services & industry solutions**

Commercial aviation is a highly integrated, global network of thousands of companies and organizations. That network depends on reliable, efficient, and secure systems to report, collect, and remit funds between the different parts of the value chain. IATA Settlement Systems are the backbone of the global air transport system.

**Cargo Account Settlement System (CASS)**

Governed by the CAC, CASS enables the swift, reliable, and cost-efficient movement of funds among airlines and their cargo partners. It provides agents with industry recognition of their financial and professional competence while airlines gain access to a worldwide distribution network of accredited cargo agents to sell their product. CASS operates through CASSLink, an advanced, global, web-enabled e-billing solution.
Industry solutions

Focusing on its relevance to its member airlines and the air cargo supply chain, IATA is looking at developing innovative industry solutions that support the industry to perform better. IATA’s portfolio includes publications, training, consulting services, business intelligence products, certification programs.

Transformation projects & industry mobilization

StB Cargo: strengthen today, build tomorrow

During 2016, IATA officially launched the Simplifying the Business of Air Cargo program, StB Cargo modelled on the successful Passenger program established for some years. StB Cargo is the umbrella for transformational initiatives in air cargo.

Projects under StB Cargo include technology-driven initiatives that address the necessity of embracing digitalization and providing customers with greater visibility:

Industry Mobilization

Our success will be dependent on the mobilization of all industry stakeholders – including airlines, freight forwarders, airports, governments and ground handlers – towards a common goal of making air cargo easier, smarter and faster. Using its regional and local representatives, IATA is committed to involving the entire supply chain to ensure that a set of common industry business and transformation objectives are developed. This will ensure the relevance of StB Cargo and secure the achievement of future goals.

Cargo Innovation

Our industry needs to embrace speed and innovation to meet the challenges and address customers’ expectations. Therefore StB Cargo aims to foster longer-term innovation for the benefit of the IATA member airlines and the air cargo industry as a whole.

Topics on IATA’s innovation radar include blockchain and smart contracts, internet of things applied to air cargo, automation in the warehouse, unmanned vehicles / drones for tomorrow’s air cargo, etc.
Partnerships & industry collaboration

The industry recognizes that transformation and industry success and sustainability can only be achieved through collaborative efforts. Therefore, it is focused on developing partnerships to strengthen air cargo.

Industry Collaboration

Close collaboration with ICAO and UPU, international organizations such as the CITES, WCO and WTO, global, regional and local regulators, and industry associations and individual stakeholders in the areas of safety, security, trade facilitation, environment, operations, airmail, etc.

GACAG – Global Air Cargo Advisory Group

Formed in 2010, GACAG is comprised of the International Federation of Freight Forwarders Associations (FIATA); The International Air Cargo Association (TIACA); the Global Shippers Forum (GSF); and IATA.

GACAG provides the air cargo industry with a strong, unified voice in its dealings with worldwide regulatory authorities and other bodies whose decisions directly impact on air cargo helping to make the industry more efficient, competitive, sustainable and profitable.

The five areas of focus for GACAG are:
- Safe transport of lithium batteries
- Effective border security and advance cargo information
- Efficient border management and trade facilitation
- Accelerating industry modernization
- Minimizing environmental impacts

IATA / FIATA Air Cargo Program (IFACP)

After four years of development, the IFACP launched a pilot program in September 2017 in Canada. The program reflects the business relationship that now exists between freight forwarders and airlines rather than the historic agency-based relationship that existed previously. Jointly managed by airlines and freight forwarders the IFACP should enhance the implementation of industry programs such as e-AWB and e-freight. The pilot program has identified that differing positions exist within the forwarding community and certain issues will need to be addressed before the pilot can lead to a global roll out.

Strategic Partnership Program (SPP)

The SPP is a platform for aviation solution providers to build as well as strengthen relationships with key industry stakeholders. Through their participation in various IATA work groups, Strategic Partners gain a unique insight into airlines’ priorities and can be recognized for working together with IATA in serving the air transport industry.

On the Cargo side, there are currently 6 areas of involvement:
- Cargo Operations and Technology
Advocacy & outreach

One of IATA’s key mission is to represent its member airlines and be their voice with other industry partners, with regulators, general public, etc. We do that through our communication channels, from press to social media, and through the IATA Cargo events we organize for the benefits of the industry.

IATA is also committed to raising the profile of air cargo through the development of outreach materials and action plans targeting governments, airports, customers, students and future employees and airlines’ CEOs. IATA Cargo’s advocacy and outreach activities focus on:

Safety campaigns
- Dangerous goods workshops in Asia and Africa
- DG in airmail campaign with UPU
- IATA outreach to Governments and e-commerce companies regarding DG / LB
- ULD safety awareness campaign
- Illicit wildlife trafficking

Value of Air Cargo
- Value of air cargo study
- “Air Cargo Makes It Happen” campaign
- Benefits of adoption of TFAs
- Global shipper surveys
- FACE program
- Air cargo carbon footprint

IATA Events

Organized every year in March, the World Cargo Symposium (WCS) has evolved to become a major industry decision-making platform. This event also serves to raise the profile of air cargo with governments as a strategic partner, helping to ensure cargo has the regulatory environment and infrastructure needed to successfully enable growth.

Other events are organized by IATA to raise awareness, educate stakeholders and foster collaboration on specific areas:

- Digital Cargo Conference
- Cargo Security & Facilitation Forum
- Lithium Battery Workshop
- AirPharma Conference
- DronesLAB
- Cargo Claims & Loss Prevention Conference
- CNS Partnership Conference
- CNS Cargo Industry Affairs
IATA Cargo delivery team

A guiding concept of IATA’s structure is “global development, regional delivery”, where the head office divisions drive the development of global standards, systems and advocacy positions, while the regional and country offices are responsible for implementation.

To deliver its cargo agenda, IATA relies on:

• A dedicated Cargo team of 26 people structured around six functional areas;
• An interest group, Cargo iQ with a team of 4;
• Cargo regional and local managers in five regions and a dedicated cargo structure in the US, Cargo Network Services (CNS), which handles every aspect of the agenda with a specific USA market focus and is governed by a dedicated CNS Board;
• Business partners in the Financial and Distribution Services division (handling CASS, Cargo Agency Program and the IFACP);
• Business partners and commercial experts managing the extensive cargo products portfolio (publications, training, business intelligence solutions, consulting);
• Business partners and commercial experts organizing the cargo events;
• Business partner expertise in advocacy to develop, conduct and support lobbying and outreach activities related to air cargo;
• Business partner expertise in economics to monitor and forecast the air cargo outlook; and
• Business partner expertise in legal to take a global view of the ever-changing legal environment in which we operate.
Safety & Dangerous Goods (DG)

Dangerous Goods (DG), including Lithium Batteries (LB)

Substances and articles that meet the classification criteria as DG may, if not shipped in accordance with the applicable regulations, endanger the safety of an aircraft, its passengers and/or crew. The air transport of these DG as cargo can either be restricted to carriage on cargo aircraft only, or permitted on passenger aircraft, subject to compliance with the regulatory requirements.

Safety depends on partnerships, information sharing, and global standards. IATA works closely with national governments, ICAO, aircraft manufacturers, and experts from industry to identify and implement changes to the regulations to enhance safety. IATA also works with airlines and other industry partners to identify mitigation measures, and produces effective and efficient guidance, standards and safety audits to reduce risks.

Special Cargo

Transport of special cargo such as live animals, perishables and pharmaceuticals, requires compliance with regulations, standards and training. The standards that built a global industry are applicable to criteria such as the shipping, acceptance, handling, loading, transport and documentation.

IATA takes a supply chain approach (including airlines, ground handlers, freight forwarders, shippers and industry experts) in its standards setting activities and works also closely with national governments and international organizations (such as the WHO, CITES and the OIE) with an aim to establish appropriate regulations that harmonize handling and transport procedures as well as promote best practices. IATA ensures that both safety and animal welfare are addressed in all regulatory provisions pertaining to the transport of live animals by air, and that the integrity of the pharmaceutical and perishables product are maintained throughout the journey.

Since 2014, IATA also developed the Center of Excellence for Independent Validators in Pharmaceutical Logistics (CEIV Pharma) aiming to ensure the transport and handling of pharmaceutical products is in accordance with regulatory and industry requirements.

In 2017, IATA explored industry support for collection of reports of discrepancies with the container requirements as well as any occurrences happening when handling and/or transporting live animals by air. The potential benefit of such reports is to help the industry identify trends, specific regions or issues and to then identify possible improvements to the regulations and develop actions to reduce the number of incidents. In 2018, there will be a pilot CEIV Live Animals certification program.
Cargo Border Management

Cargo Security

Despite enhancements to existing security measures, terrorists and criminals continue to develop new techniques and weapons with the objective to circumvent those security measures and to commit acts of unlawful interference against aviation entities. As a consequence, regulators and industry have increasingly turned their attention to the security measures governing air cargo and have been exploring and implementing a variety of options including enhancing cargo screening methods and the introduction of measures to secure cargo upstream in the supply chain.

The United Nations Security Council Resolution (UNSCR) 2309 adopted on 22 September 2016, highlighted the fact that all States have the responsibility to protect the security of citizens and nationals of all nations against terrorist attacks on air services operating with their territory, in a manner consistent with existing obligations under international laws, Conventions, and international standards in particular those contained in the Annex 17 to the Chicago Convention.

States and organizations are requested to assist each other in delivery of capacity building, strengthen security screening procedures and promote innovation in technologies and techniques to maximize the capability to detect security threats.

To support regulators and strengthen supply chain security, IATA and the industry are working on a multilayered approach that include: 1) the harmonized application of security measures at a minimum or baseline level prescribed by ICAO’s Annex 17; 2) the adoption of a culture of security to enhance risk awareness and response; 3) the transmission of standard data exchange messages to rely security information (e.g. XML); 4) the application of innovative technologies applied to cargo screening.

IATA also develops programs and tools to support airlines and their partners to understand, implement and comply with cargo security regulations. It includes 1/ CEIV-Security to improve air cargo security in compliance with regulation, particularly the EU ACC3 regulations, without disrupting the flow of cargo; and 2/ secure supply chain capacity building program to support regulators and air cargo industry stakeholders when designing and implementing effective security programs and processes in compliance with international requirements.

Customs & Trade Facilitation

IATA works to promote trade facilitation, in the context of international agreements and existing standards, with the aim to streamline border procedures, make the transport of air cargo faster and more predictable and contribute to increasing the global trade of goods, without jeopardizing the security of the supply chain.

IATA works with the industry, WCO and national Customs authorities to encourage 1/ governments to ratify necessary legislative priorities to enhance the movement of trade such as MC99, the revised Kyoto Convention and the WTO Trade Facilitation Agreement; 2/ the adoption of the WCO SAFE framework, and e-customs programs.
IATA also engages with international organizations to exchange best practices and share expertise with a view to decrease border times in accordance with the WTO Trade Facilitation and the Annex 9 of the Chicago Convention.

As a partner of the initiative United for Wildlife and the ROUTES partnership, IATA collaborates with governments and international organizations in order to identify gaps and vulnerabilities in border procedures related to the use of air transport for illegal wildlife trade.

IATA also assists airlines in their management of cargo claims in order to secure the integrity and obligation of all parties within the supply chain, not on a case specific basis, but in terms of policy and procedures.

## Cargo Operations

### Cargo Operations

Cargo operations are performed at thousands of airports all over the world by hundreds of handlers, big and small. This poses a high potential risk for deviations in quality and consistency of handling. IATA actively drives the development of ground handling operations standards, best-practice processes and procedures, and promotes global consistency and harmonization. IATA works with the industry to modernize cargo ground operations.

The **IATA Cargo Handling Manual (ICHM)** addresses the complexity of cargo operations. Describing industry best-practices, aligned to the Industry Master Operating Plan (MOP) and international regulations and standards, the ICHM is the first complete set of standards covering the operational activities of all stakeholders in the cargo handling supply chain. In addition, IATA maintains the Industry MOP together with Cargo iQ, an end to end description of the air cargo industry business processes.

As part of StB Cargo, the **Smart Facility** project focuses on developing an audit and accreditation scheme in cargo handling, for ground handlers, airlines and other cargo facility operators. They will be encouraged to improve the quality of their services through the adoption of known best practices as well as reduce their audit complexity and drive operational efficiency.

### Airmail & e-Commerce

To support cargo & airmail critical business and capitalize on e-commerce growth, IATA is working with postal authorities and operators, especially with UPU and IPC, to simplify, modernize and harmonize standards, procedures and regulations concerning the handling of mail.

**DG in airmail** pose a significant threat for the safety of passengers, aircrafts, crew and other cargo. Airlines need to understand and implement training and awareness regarding the risks generated by such items, especially when looking at the rising volumes of e-commerce items shipped through the postal organizations. On that side, IATA and UPU developed the **Alarm Resolutions** concept and amended the Airport Handling Manual
(AHM) to reflect the latest requirements regarding DG/LB and wrongly admitted items in airmail.

After the “Yemen incidents” in 2010, where explosives declared as ink cartridges were placed into airmail to the US, the European Commission (Customs and National Security Agencies) requested that security data elements for airmail consignments be transmitted to the appropriate authority for threat assessment. IATA is therefore working on e-CSD and ACI for airmail to address regulators’ requirements.

Postal operators and carriers do not use the same systems and electronic messages. Now that regulators need to receive data elements electronically, it is essential for postal systems to communicate with cargo systems. IATA and UPU are therefore working on the technical alignment of cargo & mail systems.

Lastly on the operations side, UPU and IATA collaborate and maintain a relevant and modern framework document to ensure standard services are offered and applied globally.

Unit Load Devices (ULDs)

Every year, the total cost of both repair and loss of aircraft ULDs is estimated to be about USD330 million, excluding flight delays and cancelations due to their unavailability, and aircraft damages caused by improper ULD handling. With the increasing number of wide-bodied aircraft now in operation, ULD management is a key element of high efficiency in air transport. Making sure the right ULD is available in the right place at the right time in the right condition is critical for airline operations and revenue management.

IATA develops and maintains standards and procedures concerning the specifications, handling, restraint and maintenance of ULDs. IATA also helps its members to comply with ULD Regulations (ULDR) in place.

On the safety side, IATA promotes global standards for the design and use of ULDs (fire resistant container) and accessories (fire containment cover), which can significantly contribute to cargo compartment fire protection.

IATA is also looking at the ACID concept for ULD to integrate ULD incidents and include ULD performance monitoring into the existing Ground Damage Data Base (GDDB), part of the Global Aviation Data Management (GADM), analyzing in order to effectively reduce aircraft damage caused by ULD operations.

Digital Cargo

Transporting cargo by air is information intensive. Large quantities of information are exchanged between many actors of a complex supply chain. The industry still relies largely on paper to transport that information and where electronic processes are already in place, they suffer from many limitations, including poor data quality, incomplete coverage, lack of common data standards, use of legacy technology and standards. IATA’s vision to achieve a fully digitally connected and integrated air cargo supply chain built on innovative technology, high quality and available data, streamlined processes, and global standards
To achieve it, IATA works with the Cargo Operations & Technology Board (COTB) and its sub-groups to modernize air cargo standards, drive change with industry projects and explore new technologies to assess their potential impacts on and use within the air cargo supply chain.

Started in 2006 and now part of StB Cargo program, **e-freight & e-AWB** project consists of the development and implementation of end-to-end paperless transport processes for air cargo. There are many areas of focus: from engaging regulators and governments worldwide with improved customs and regulatory frameworks, to modern electronic messaging, as well as focusing on having high quality data, beneficial to all those within the process of air cargo. To drive adoption of e-AWB, IATA provides a series of supporting tools such as eAWBLink, eAWB360, Message Improvement Program (MIP2.0) and Cargo XML.

**ONE Record**, another StB Cargo project, goes beyond e-freight and proposes standards for end-to-end supply chain data connectivity. It defines common data dictionaries and connectivity standards using API technology. These APIs will allow any air cargo system to interact with other systems.

**Cargo Connect**, also part of the StB Cargo portfolio, aims at simplifying, standardizing and modernizing air cargo digital connectivity with and between the CCSs as well as creating a directory of forwarders and other airfreight participants’ identities which are currently private.

The digital transformation of air cargo includes disruptive technologies that are changing the global business landscape. Examples are IoT including wireless technologies (sensors & data loggers), blockchain and artificial intelligence, etc. Therefore IATA is also working with the industry and its strategic partners to explore these new technologies, develop appropriate guidelines and standards when required.

## Cargo Transformation

### StB Cargo

IATA has launched an industry Simplifying the Business (StB) Cargo Transformation program in 2016. StB Cargo is the umbrella for transformational initiatives in air cargo.

The 6 projects under StB Cargo are:
- e-freight & e-AWB, led by the Digital Cargo team
- ONE Record, led by the Digital Cargo team
- Interactive Cargo
- Smart Facility, led by the Cargo Operations team
- ACID – Air Cargo Incident Database
- Cargo Connect, led by the Digital Cargo team

The **Interactive Cargo** project aims at developing responsive air cargo services based on intelligent systems that are able to self-monitor, send real-time alerts, respond to deviation
to meet customers' expectations and report on the cargo journey to allow data-driven improvements.

On information sharing, IATA is developing an **ACID (Air Cargo Incident Database)**, as part of StB Cargo program. This database of de-identified airline incident reports will offer a secure environment for airlines and ground handlers to pool their safety and operations information, supporting a proactive data-driven approach for advanced trend analysis, predictive risk mitigation and improvement programs.

StB Cargo also focuses on fostering long-term **innovation** within the air cargo industry. It includes the exploration of new areas, development of new partnerships, and organization of innovation events.

**Drones / Unmanned Aerial Vehicles (UAVs)**

IATA is actively engaged within industry to help facilitate the safe and efficient introduction and operation of UAV. This is a joint effort between SFO, MER and APCS divisions, led by SFO and the Operations Committee (OPC).

On the Cargo side, IATA explore the business opportunities of the use of drones for the transport of goods (parcels, general and special cargo in urban space as well as rural and remote locations).

**Industry Engagement**

Our success depends on regular engagement and mobilization of all industry stakeholders – including airlines, freight forwarders, airports, governments and ground handlers – towards a common goal of making air cargo easier, smarter and faster.

**Sustainability**

On the environment side, IATA has developed an industry standard to measure the air cargo carbon footprint (ACCF) and collaborates with other modes of transport for global harmonization.

**Cargo iQ**

Cargo iQ is an IATA interest group of around 80 members with the mission of creating and implementing quality standards to improve shipment control and processes for the air cargo industry, worldwide. Cargo iQ is open to members from all sectors in the air cargo industry and currently consists of: airlines, forwarders, ground-handling agents, airports and IT solution providers globally.

Cargo iQ developed a system of shipment planning and performance monitoring based on common business processes and milestones. As part of that system, Cargo iQ's MOP maps the process in the planning and movement of air cargo consignments from shipper to final consignee. It is a unique route map for each shipment.

Today, Cargo iQ members measure their Airport-to-Airport performance according to a standard methodology for over 1 million shipments, per month.
Glossary & sources

Glossary

Organizations

- ACI – Airport Council International
- CITES – Convention on International Trade in Endangered Species of Wild Fauna and Flora
- CNS – Cargo Network Services
- FIATA – International Federation of Freight Forwarders Associations
- GACAG – Global Air Cargo Advisory Group
- GLEC – Global Logistics Emission Council
- GSF – Global Shippers Forum
- ICAO – International Civil Aviation Organization
- IPC – International Post Corporation
- OECD – Organization for Economic Co-operation and Development
- OIE – World Organization for Animal Health
- PUCA – Platform for Unmanned Cargo Aircraft
- TIACA – The International Air Cargo Association
- UPU – Universal Postal Union
- WCO – World Customs Organization
- WHO – World Health Organization
- WTO – World Trade Organization

Groups

- AMB – Airmail Board
- CAC – Cargo Agency Conference
- CBMB – Cargo Border Management Board
- COTB – Cargo Operations & Technology Board
- CPCMG – Cargo Procedures Conferences Management Group
- CSC – Cargo Services Conference
- DGB – Dangerous Goods Board
- ICHC – IATA / Cargo Handling consultative Council
- IFGB – IATA-FIATA Governance Board
- IGHC – IATA Ground Handling Conference
- LAPB – Live Animals & Perishables Board
- OPC – Operations Committee
- ULDB – ULD Board

Other acronyms

- ACAS – Air Cargo Advance Screening
- ACC3 – Air Cargo or Mail Carrier operating into the Union from a Third Country Airport
- ACCF – Air Cargo Carbon Footprint
- ACI – Advance Cargo Information
- ACID – Air Cargo Incident Database
- ADRM – Airport Development Reference Manual
- AFTKs – Available Freight Tonne Kilometers
• AHM – Airport Handling Manual
• AI – Artificial Intelligence
• AWB – Air Waybill
• CASS – Cargo Accounts Settlement System
• CEIV – Center of Excellence for Independent Validators
• CSD – Consignment Security Declaration
• DG – Dangerous Goods
• FACE – Future Air Cargo Executives
• FTKs – Freight Tonne Kilometers
• GADM – Global Aviation Data Management
• GASeP – Global Aviation Security Plan
• GDBB – Ground Damage Data Base
• GHA – Ground Handling Agent
• GSSA – General Sales & Service Agent
• IFACP – IATA / FIATA Air Cargo Program
• IoT – Internet of Things
• ISAGO – IATA Safety Audit for Ground Operations
• ITA – Information Technology Agreement
• LB – Lithium Battery
• MC99 – ICAO Montreal Convention 1999
• MOP – Master Operating Plan
• MP4 – the Montreal Protocol 4 to the Warsaw Convention
• PACT – Pre-Load Air Cargo Targeting
• PASS – Postal Account Settlement System
• PLACI – Pre-Loading Advance Cargo Information
• PRECISE – PRE-loading Consignment Information for Secure Entry
• SDDG – Shipper’s Declaration for Dangerous Goods
• SDRs – Special Drawing Rights
• SFO – Safety & Flight Operations
• SWOT analysis – Strengths, Weaknesses, Opportunities & Threats
• TFA – Trade Facilitation Agreement
• UAV – Unmanned Aerial Vehicle
• ULD – Unit Load Device
• WCS – World Cargo Symposium
• XML – Extensible Markup Language

Sources

IATA Economics: [www.iata.org/economics](http://www.iata.org/economics)
Supporting the industry in delivering a safe, secure, profitable and sustainable air cargo supply chain