2023 Trends

Transport of special cargo by air

IATA

On a daily basis IATA is working with its member airlines and representatives from entire air cargo supply chain on harmonizing standards and furthering industry initiatives.

The Live Animals and Perishables Board (LAPB) develops criteria for the acceptance, handling and loading of live animals, perishables and healthcare products in air transportation. The group consists of IATA airline members who are experts in the industry's handling, procedural, operational and safety requirements for the air transportation of live animals, perishables, and healthcare products. They work closely with organizations such as Convention on International Trade in Endangered Species (CITES), World Organisation for Animal Health (WOAH), European Union (EU) and national legislative authorities, as well as other interested parties.

Discussions held in the biannual board meetings highlight key topics of concern and emerging trends. In addition, the group help drive the adoption of uniform and intermodal standards and requirements for the transport safety and welfare of live animals, perishables, and healthcare products.

Top special cargo trends for 2023

Despite the turbulent economic times, there is a genuine desire throughout the air cargo supply chain for increased sustainability. It not only includes efforts on transparency with the measurement of air cargo carbon footprint but also alignment with the 17 UN SDGs; concrete actions to reduce fuel consumption by reducing weight on board, going paperless with e-freight, investing in lightweight ULDs and larger strategies to modernize their fleet, use sustainable aviation fuels (SAF), and make all cargo operations more efficient.

1 Continued emphasis on sustainable operations

Sustainability is the aviation industry's license to grow. Shippers are becoming more environmentally conscious and are being held accountable for their emissions by their customers. Many are now reporting how much their supply chains produce in emissions, and they are looking for carbon-neutral transportation options. In order to meet customer expectations for the highest standards of sustainability, it will require a collective effort to find a path from stabilizing to reducing net emissions.

With shippers demanding more transparency on the environmental impact of their logistics providers, many air cargo stakeholders use the Recommended Practice 1678 on CO2 Emissions Measurement Methodology to calculate their emissions. The RP1678 is the global standard to measure air cargo carbon footprint at the shipment level; also recognized as the reference methodology for air cargo by the Global Logistics Emissions Council (GLEC). IATA is currently reviewing RP1678 to incorporate changes brought by recent developments and to adapt to the reality of the industry in 2022.

In addition, airlines are committed to achieve net-zero carbon emissions by 2050. This commitment will align with the Paris Agreement goal for global warming not to exceed 1.5°C. The strategy is to abate as much CO2 as possible from in-sector solutions such as sustainable aviation fuels, new aircraft technology, more efficient operations and infrastructure, and the development of new zero-emissions energy sources such as electric and hydrogen power. Any emissions that cannot be eliminated at source will be eliminated through out-of-sector options such as carbon capture and storage and credible offsetting schemes.

WANT TO LEARN MORE? View this webpage to learn about:
- Air cargo carbon footprint
- How cargo executives can help the sustainability effort
- The Fly Net Zero Resolution
- And much more…

2 Reduction of perishable product waste and spoilage

Fruits, flowers, and vegetables have long been carried by air, the speed of transportation being a crucial factor for delivering a quality product. Perishables must be handled with particular care given their propensity to deteriorate over time.

Growing consumer demand for healthy products all year round and increased concern about sustainability have put additional pressure on this sector. The United Nations Sustainable Development Goals (UN SDGs) include ambitious objectives to "ensure sustainable consumption and production patterns", including a target to reduce food loss along production and supply chains. As a result, new initiatives are emerging to put the focus on preventing food loss and reducing waste along the supply chain through appropriate quality and risk management procedures, standardized processes, and best practices.

Although there are many critical points where temperature deviations can occur, it is commonly known that such deviations rarely occur during transport. They occur more frequently in transit areas where containers need to be moved for instance. Leveraging new technology with real-time data can help avoid such issues as automated notifications could alleviate these breaches by immediately informing staff who can then quickly address any issues. The increased use of specialized storage rooms also helps guarantee the freshness of vegetables, fruits, fish, meat, and flower products while sensitive frozen cargoes, such as seafood or processed food, can be preserved in deep freezers within warehouses.

WANT TO LEARN MORE? Read this article to learn about:
- How to ship perishable foods?
- How to pack for perishable air freight?
- Proper documentation for shipping perishable goods
- And much more…

3 Digital transformation

The air cargo industry has been lacking true digital integration for too long. This situation prevents stakeholders from truly efficient collaboration, creates reliance on manual processes, and lack of door-to-door visibility and transparency from a customer point of view.

E-freight is an industry-wide initiative involving carriers, freight forwarders, ground handlers, shippers, customs brokers and customs authorities trying to address this issue. It aims to build an end-to-end paperless transportation process for air cargo through a regulatory framework, electronic messages, and high data quality. This initiative also includes the e-AWB project, the electronic version of the paper Air Waybill (AWB).

The Air Waybill (AWB) is a critical air cargo document that constitutes the contract of carriage between the "shipper" and the "carrier" (airline). By implementing the Electronic Air Waybill Resolution 672 (MeA), it removes the requirement for a paper AWB. There is therefore no longer a need to print, handle or archive the paper, largely simplifying the air cargo process.

The e-AWB is now used for more than 2 out of 3 shipments. This is a signal that the industry is ready to take digitalization to the next level and go beyond EDI and messaging technologies. However, the AWB is not the only document we need to consider when it comes to special cargo shipments, others need now to be considered and digitized.New standards are being developed for data sharing in hopes of creating a single record view of shipments. This could unlock the possibilities of a full digital air cargo industry and create opportunities for new value-added services and business models with the following benefits:

- **Data quality and control:**
  Data is shared by a data owner who is in full control of data quality. Data stays at the source and the owner determines who may or may not access their data;

- **Visibility and transparency:**
  Cover the end-to-end transportation chain, from the shipper to the consignee. Each party is able to share data of the shipment with relevant parties, ensuring enhanced visibility and transparency;

- **Plug & Play connectivity:**
  Facilitates the direct connectivity between all the industry stakeholders through the use of web API. This will lead to new cooperative IT solutions and innovation;

WANT TO LEARN MORE? Visit this webpage to learn about:
- End-to-end paperless air cargo transportation
- Modernizing air cargo standards
- Implementing e-AWB
- And much more…

4 Growing demand for healthcare

As the world's population grows, becomes wealthier and ages, the demand for treatment of chronic diseases is rising, resulting in an increase in healthcare products transports. With the pharmaceutical industry moving over one trillion dollars worth of cargo every year, upholding a shipment's quality requires specific equipment, storage facilities, harmonized handling procedures and, above all, strong cooperation among the cold chain partners. If mishandled, the integrity of these products can be compromised by temperature changes during transportation.

As a result, pharmaceutical manufacturers are looking for more transporters who can deliver their products quickly and safely with little or no incidents that would result in the loss of their product directly or which would affect their efficacy once in use.

To meet this increased demand and additional requirements transporters are relying more on than ever on digitalization and cybersecurity to drive the end-to-end visibility and security of the healthcare supply chain. New technology is also improving the temperature monitoring as sensors included with the packaging or other dataloggers are more commonly used to provide real-time data which provide better visibility of shipments and possibility of intervention in case of process deviations.

Industry-recognized certification programs are also becoming more common place. This allows stakeholders in the supply chain to better comply with the required regulations impacting the transport of pharmaceuticals. Ensuring the highest quality of operations and staff handling allows for the high-level of care is met during the temperature-controlled shipping of pharmaceuticals.

WANT TO LEARN MORE? Read this article to learn about:
- What a pharma manufacturer looks for in a transporter?
- What are critical control points?
- How can a Quality Management System help improve your handling of time and temperature sensitive shipments?
- And much more…

5 Continue efforts to reduce illegal trade in wildlife

Transnational criminal groups are exploiting the interconnected air transport system to trade wildlife illegally. Although the duty for apprehending and prosecuting these offenders rests with national enforcement authorities, airline staff can be an important source of intelligence and contribute to halting this illegal trade.

The international illegal wildlife trade (excluding timber and fisheries) is estimated to be worth between $7 billion and $23 billion a year, making it the fourth largest illegal global trade (after drugs, counterfeiting and human trafficking) and covers a broad range of endangered species.

This trade poses a significant threat for many endangered animals, with the latest data from conservation organizations revealing the critical status of many iconic species. Tigers, elephants, rhinoceros, some of the other big cats and pangolins are of particular concern. This illegal trade in wildlife and wildlife products not only threatens the survival of many endangered species but also strengthens criminal networks, poses risks to global health, and threatens nature-based tourism and the communities which depend on it.

COVID-19 has demonstrated aviation's extreme vulnerability to pandemics. The trafficking of wildlife by-passes health checks at borders and presents a threat of disease transmission to both animals and humans. The nature and scale of wild caught animal product (bushmeat) smuggling by passengers is not well known. However, surveys at four airports in Europe and seizures in the US indicate that hundreds of tonnes are illegally imported in baggage each year. Although not all concealed bushmeat is sourced from protected species, it is often poorly preserved and avoids sanitary checks.

Wildlife trafficking is dependent on an interconnected logistics and transport network, involving air, land and seaports, passenger and cargo airlines, shipping companies, express couriers, postal companies, and freight forwarders. Its high value has a potential corrupting influence on officials and aviation employees and hence may represent a secondary threat to aviation security.

To further help reduce trade in wildlife, in June 2020, IATA signed a Memorandum of Understanding (MoU) with the World Association of Zoos and Aquariums (WAZA). The two organizations agreed to strengthen their collaboration in order to enhance the high standards of transportation for live animals. Therefore, this will facilitate the use of the expertise available in the WAZA network in order to benefit the conservation of species of wild fauna, as well as recommend mutually relevant standards, guidelines, and recommendations. The organizations will exchange information and publications relevant to the fields of animal health and welfare in both air and non-air transportation.

WANT TO LEARN MORE? Read this article to learn about:
- What documents should the shipper provide for international transportation of animal shipping?
- What are the shipper's and carrier's responsibilities?
- Animal behaviour during air transport
- 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 Temperature Control Regulations, Perishable Cargo Regulations, Live Animal Regulations and Compassionate Transportation Manual 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 Certification

CEIV 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: CEIV Pharma | CEIV Live Animals | CEIV Fresh

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