CLIENT ALERTS & INSIGHTS

Cargo Loss and Damage Liability in eVTOL and UAV Transportation

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Electric vertical takeoff and landing aircraft (eVTOLs) and Unmanned Aerial Vehicles (UAVs or, colloquially, drones) are increasingly being integrated into supply chains. The potential advantages are numerous. Widespread adoption of eVTOLs and UAVs (collectively, Advanced Air Mobility) would significantly transform air cargo logistics, providing faster, more efficient, and significantly more flexible delivery options for certain use cases than traditional aircraft.

Traditional air cargo shipping has a different risk character compared to this new method of transportation. The potential risk gap between current air cargo liability laws and commercial standards on the one hand and Advanced Air Mobility on the other leaves many unique risks for both users and providers of Advanced Air Mobility to consider when negotiating commercial agreements. This means that shippers, carriers, logistics services providers, and technology services providers must navigate a relatively new contracting landscape. One critical feature of those contracts is the need for risk-appropriate cargo loss and damage liability standards reflective of what is new, but also what is old, for this means of air transportation.

This article presents an overview of the existing air carriage liability regime established by the Montreal Convention of 1999, followed by a review of emerging considerations for cargo loss and damage liability when buying or selling Advanced Air Mobility carriage.

The International Montreal Convention and Primarily Urban Air Carriage

Applicability of the Montreal Convention

The Montreal Convention of 1999 (Montreal Convention) governs the international transportation of air cargo shipments via aircraft between the U.S. and international signatory countries. Montreal Convention's standards are so common across the globe that they are also often adopted for domestic air transportation generally, including intrastate movements. An air cargo carrier's limitation of liability under the Montreal Convention is set at 26 Special Drawing Rights (SDRs) per kilo (which as of the publication date of this article converts to approximately $35.39 USD) and serves as both the industry standard as well as the metric against which air cargo shipping rates are established. However, the Montreal Convention's liability regime as written was not intended to govern domestic air transportation and was adopted long before Advanced Air Mobility was envisaged. Given the ever-increasing usage and application of Advanced Air Mobility, now is the time for Advanced Air Mobility stakeholders to consider developing and implementing new cargo loss and damage liability standards that are tailored specifically to Advanced Air Mobility.

Operational and Service Differences between Advanced Air Mobility and Traditional Aircraft

The key difference from a cargo liability perspective is how Advanced Air Mobility offers a qualitatively different service capability from crewed aircraft. Advanced Air Mobility mechanisms are designed to carry substantially less weights for shorter distances. Although Advanced Air Mobility manufacturers are continuously developing their offerings, the strongest use cases for Advance Air Mobility currently are almost exclusively domestic in nature.

Another qualitative difference is how Advanced Air Mobility will very likely play a critical role in expediting high-value mission-critical freight. The largest cargo UAVs and eVOTLs currently on the market have a maximum payload of 1000 -1500 lbs. and a range of up to 500 nautical miles. The emerging utility of Advanced Air Mobility is therefore short-range, domestic, urban and regional cargo flights. The very nature of this equipment permits new and novel operating strategies, such as landing on top of buildings, as they cover shorter routes between distribution centers, warehouses, hospitals, manufacturing sites, and even customer doorsteps. The nature of those routes yields a far higher volume of trips (with fewer volumes) relative to traditional aircraft.

At present there is no universal commercial or legal standard for loss or damage by Advanced Air Mobility beyond the traditional air cargo practices under the Montreal Convention. This is an opportunity for knowledgeable purchasers and service providers to utilize the very broad freedom as a weapon to mitigate cargo loss and liability-related risks. Navigating this new legal landscape allows for creativity but requires consideration of the circumstances and risks that are unique to Advanced Air Mobility.

Liability Considerations in Advanced Air Mobility Contracting

Urban Air Mobility

Shippers and carriers in Advanced Air Mobility transportation contracts are planning for short-range point-to-point cargo flights that do not use major airports. Instead, these operations must navigate localized and much more congested environments rife with increased risks from weather, theft, and even misconduct of the general public. It is not difficult to visualize a generic Advanced Air Mobility operation. Equipment will operate between nontraditional hubs, such as logistics centers, medical facilities, and rooftop landing zones in urban areas. They will fly at low altitudes and interact with ground-based infrastructure (for example, in automated warehouses and with local delivery networks). Localized weather and airspace congestion will be greater challenges than traditional air cargo. UAVs will need to adequately navigate an even more aggressive combination of low altitude and ground-based infrastructure, landing on streets, sidewalks or doorsteps, and may face interference by the general public beyond cargo theft. These operating fact patterns may very well increase the risk and character of cargo loss over time. Shippers and carriers must consider the unique liability risks associated with shorter-distance but more sensitive Advanced Air Mobility transportation when drafting and negotiating cargo loss and damage provisions. As one example, shippers and carriers may wish to review their force majeure clauses, since those typically include “Acts of God,” including weather events. This may be the bargained exchange between the parties, since it is consistent with the legacy air cargo industry. Still, if shippers have concerns about the potentially more frequent impact of weather-related claims (including rain or certain atmospheric conditions) then careful consideration of available claims and carrier defenses will be essential to expectation setting.

Unique Cargo Value and Related Risks

The Montreal Convention limits a carrier's liability to 26 SDR per kilogram (approximately $34 per kilogram). This liability model works for bulk cargo transported in large freighters or arranged by indirect air carriers. Domestically it may not apply, allowing carriers to limit liability to any metric. Even if 26 SDR is accepted between the parties, it may not adequately address the loss of high-value cargo shipments for which Advanced Air Mobility is useful. Even small shipments of urgent medical supplies, just-in-time manufacturing parts, and high-value e-commerce goods may significantly exceed that value. Additionally, a weight-based compensation model may not appropriately measure loss for the urgent, time-sensitive nature of potential Advanced Air Mobility deliveries where even minor delays can result in appreciable losses.

The good news is that there is no rate regulation for Advanced Air Mobility services. Shippers and carriers are free to develop higher liability levels, or even approaches to liability or service, against which commensurate rates will be charged. One option is for shippers to negotiate liability based on the value of the goods or resale potential. That could amount to an agreed-upon recovery per shipment, similar to parcel carrier contracts today. Another option is to contract for time-sensitive service levels and commensurate rates. A third option is to potentially procure shipper's interest cargo insurance so that the insurance carrier receives and pays out on a claim rather than the carrier, thereby reducing pressure on service rates. These approaches (or a combination of these approaches), could address particular risks in the Advanced Air Mobility space.

Risk factors such as weather, atmospheric conditions, or interference from others pose more difficult challenges to contract parties. Advanced Air Mobility carriers will sometimes negotiate for flexibility to manage delays due to weather or airspace events. This operational need may impact other contractual provisions. For example, in an Air Cargo Services Agreement that incorporates Key Performance Indicators (KPIs), the Advanced Air Mobility carrier may wish to lower on-time delivery KPIs. Express waivers of liability for Acts of God or Acts of Public Enemy may be included regardless of whether those defenses are already available under the law. For time-sensitive freight, a shipper may wish to include specific alternative transportation to be performed or arranged by the air cargo carrier in the event that a flight is not possible due to conditions. In the extreme, low limitations of liability may be used for domestic service since those are both lawful and place onus on shippers for any insurance requirements.

The theme to these risks and responses is that both shippers and carriers will need to ascertain their specific use application of Advanced Air Mobility, new risks, the impact of cargo liability exposure for each party, and how those factors are addressed under contract. For some users of these services the approach to buying is similar to a commodity service and lowest rates will win the day. For others, particularly those with high-value and time-sensitive cargoes, these factors can mean the difference between electing to use Advanced Air Mobility services or using other legacy transportation services. In all events, both parties will often spend considerable time and energy establishing a baseline cargo loss and liability standard as well as communicating expectations for exceptions in day-to-day traffic.

Tracking and Chain-of-Custody Transparency Is Key

Chain of custody is another meaningful point of discussion when selling or procuring Advanced Air Mobility services. The first- and last-mile nature of the service means that deliveries often involve multiple handling points. Those increased nodes on the supply chain can challenge visibility to

throughput and convolute responsible parties for claims. Shippers, carriers, and logistics stakeholders alike may benefit from the adoption of technologically advanced tracking systems that record cargo condition at each transfer point. Those solutions may help to preliminarily assess potential issues in real time and assign liability based on where and when damage occurs. Greater transparency of chain of custody and tracking will deliver higher quality of service to commercial users and their customers while also assisting in faster claims resolution by better substantiating claims and eliminating ambiguities.

Conclusion: The Need for Strategic Cargo Liability Frameworks

In very short time the reality of widely deployed domestic, short-distance Advanced Air Mobility deliveries may be upon us. Those buying and selling the services face an interesting challenge due to the unique risks and operating models of these technologies. Liability considerations when contracting for these services may include: cargo-appropriate liability levels and terms, claims filing requirements, relevant KPIs and SLAs, accounting for new service risks in the operating environment, focus on technological implications and risks, and chain of custody technologies. Advanced Air Mobility stakeholders can begin establishing their desired baseline liability framework now to help manage service experiences, service compensation, operational clarity, and ultimately the long-term sustainability for Advanced Air Mobility logistics.

The Benesch team is experienced at representing shippers, logistics services providers, airlines, indirect air carriers, Advanced Air Mobility carriers, and technology service providers throughout the transportation & logistics sector. We are ready to assist with contract drafting and negotiation for eVTOL and UAV transportation services, the standup of operations in the space, and navigating regulatory hurdles associated with the same.

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