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Where few want to fly

How the Humanitarian sector buys cargo and passenger air transport, and what constrains it

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SAMPLE SIZE

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UN, NGO, donor

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Executive summary

Humanitarian aviation splits into two largely independent markets: cargo and passengers. They are served by different vendors, through different onboarding and contracting processes, using different aircraft types, against different vendor requirements.

Cargo is the more fragmented of the two, with organisations using purchasing strategies that range from spot purchase to long-term agreements with freight forwarders, and some smaller organisations outsourcing freight purchase to their suppliers (ICT, medicines).

Where the two markets converge is on the constraints their buyers face. Cost is the constraint raised most often, sharpened by the current funding crunch, but access is the one that decides whether a flight happens: landing permits, aircraft registration, war risk insurance and import clearances.

Passenger transport has already been partially consolidated, with a single mandated agency purchasing on behalf of all other United Nations entities. Cargo has not, and this paper closes by asking why.

Background

This perspective paper is published on the back of a comprehensive assessment of humanitarian air transport requirements conducted by Arche Consultancy between January and May 2026.

Arche Consultancy ran 16 semi-structured interviews of 45 to 60 minutes each, over the course of six weeks, with 11 different organisations across the UN, NGOs and donors.

This paper distils high-level, anonymised results, focusing on how humanitarian air transport for cargo and passengers operates today, the main requirements humanitarians expressed on air transport, and the main constraints the sector currently faces. It closes with questions for further research.

How humanitarian aviation works

Cargo and passenger air transport operations are vastly different in the aircraft required, the contracting mechanisms, the constraints and the profile of suppliers. They operate almost as two separate markets, with little overlap.

Humanitarian organisations require external providers to secure the transport by air of cargo (such as medical supplies, food, blankets) and passengers, mainly humanitarian workers and medical patients.

Although medical evacuation was discussed during the interviews, it is not detailed here: most organisations interviewed outsource it to specialised air ambulance carriers, or to intermediaries such as brokers and insurers.

1.1 Passenger

Among the organisations interviewed, only three of them contract and manage passenger air operations. The United Nations has mandated a single agency to manage all passenger air transport for civilian movement on behalf of the entire UN system, and a small number of humanitarian stakeholders run their own passenger aviation service.

Passenger **demand can be forecast and is relatively stable**. Organisations contract small aircraft to be positioned in one country for a long period, typically two to four years, and to operate from there. The contract type

is mainly ACMI, for aircraft, crew, maintenance and insurance, where the organisation buys in one bundle the aircraft together with its crew, maintenance and insurance. Insurance is paramount and is often cited as a non-negotiable.

A typical operation would be a small aircraft positioned in Bangui, Central African Republic, shuttling between the main airport and smaller towns or villages in the hinterland to bring people and light cargo, stacked at the back or between the seats.

These operations rely on small aircrafts such as the **Cessna Caravan, Twin Otter, LET-410 and Beechcraft 1900**, valued for their short take-off and landing capability. They are suited to the short, often unpaved airstrips typical of last-mile humanitarian destinations.

Insurance (war) is **paramount** and is often cited as a non-negotiable requirement for vendors.

1.2 Cargo

While passenger air transport is concentrated around few buyers and few vendors, many more organisations purchase cargo airfreight, and through different channels: air operators, brokers and freight forwarders.

Demand behaves differently too. Where passenger demand is stable and forecastable over two to four years, **cargo airfreight demand falls into three categories.**

a. Recurrent demand linked to core programmes

Volumes are relatively stable and forecastable, derived from the core programmes of the organisation, such as a recurring vaccination campaign.

Items are high value and require a short delivery mode, owing to their short shelf life and their handling requirements as dangerous goods or temperature-sensitive items.

As volumes are usually low, organisations prefer to **use an available commercial airline**, loading in the belly hold of the aircraft, when the destination allows.

b. Protracted emergency

Beyond the initial three to six months after a disaster, air transport can become a regular and forecastable requirement, especially where alternative modes of transport are either unavailable or too costly.

Organisations report chartering full aircraft by consolidating volume across different product categories. A recent example in 2026 is Afghanistan, a landlocked country usually served by sea and land, but where active conflict erupted in neighbouring countries, Pakistan and Iran, such that transport by land was no longer a safe option.

When commercial routes are no longer served by airlines, humanitarians resort to chartering a full aircraft.

c. Sudden-onset surge

During a sudden-onset emergency the first response is usually by air, where a large volume of items needs to be shipped rapidly, usually from warehouse hubs to the disaster zone.

In such cases organisations **charter a full aircraft**, as commercial aviation is unlikely to fly to the destination for safety reasons.

Following a cyclone in Mozambique, one organisation needed to move a surge of emergency relief kits quickly. It drew on its regional logistics hub and chartered a single wide-body freighter to fly the cargo in.

On aircraft type, full charter cargo operations are flown mainly on wide-body freighters (60 to 120 tonnes), chosen to capture **economies of scale**. Typical aircraft cited are the **Boeing 747 and 777, Boeing 767 and the Airbus A330 and A340**. Where the destination airstrip is damaged, or where the infrastructure for offloading the aircraft is insufficient, more specialised aircraft are used, such as the Ilyushin IL-76 or the C-130, the former loading through a rear ramp and do not depend on ground handling equipment being available. These assets are rare on the spot market.

Smaller aircraft (30–50 tonnes) are used where volumes from a given hub are lower, or where destination airstrip limitations rule out a wide-body aircraft, as at Sana'a airport.

Finally, there is a small overlap between passenger and cargo, at the last mile in the field, usually from the capital airport to a remote

city in the hinterland.

Here a **small propeller aircraft can be used both for the transport of passengers and for light cargo** of one to two tonnes, stacked between the seats or at the back of the aircraft.

On geographical coverage, from the interviews gathered, most cargo flows from the main hubs located in Europe, generally around the organisation's headquarters or main operating base, from the UAE and from Kenya, as well as directly from supplier bases, towards East and Central Africa and the Near East.

Chad, Sudan, DRC, Mozambique, South Sudan, Afghanistan, Lebanon, Gaza and Yemen were the main recurring countries cited when respondents were asked about destinations for cargo air transport in 2026.

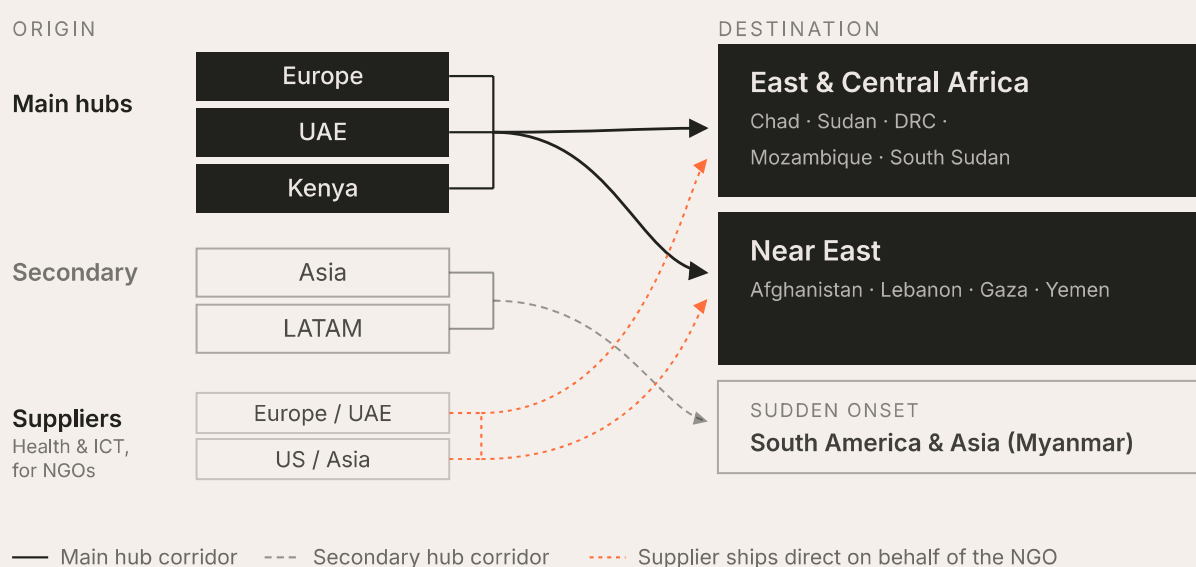


Figure 1. Where humanitarian cargo originates and where it goes. Main hubs in Europe, the UAE and Kenya serve East and Central Africa and the Near East, while suppliers ship directly to destination on behalf of smaller organisations. Corridors are mapped to the demand type they mostly serve, core programme or sudden onset.

How are humanitarians purchasing air transport

2.1 Passenger

Passenger transport follows a different purchasing logic from cargo.

Instead of spot purchases or freight forwarder agreements, humanitarian organisations contract passenger operators directly, typically through **ACMI-type arrangements, or through minimum-guaranteed-hours contracts** that run **two to four years**.

Becoming an approved vendor is a lengthy process, generally six to twelve months, centred on **safety audits and alignment with UN aviation standards**, along with proof that the operator can maintain a spare parts and maintenance base near where it flies. This long onboarding process, combined with multi-year contracts, means organisations tend to stay with the same small group of vendors once a relationship is established.

6–12_{months}

to become an approved passenger vendor: safety audits and alignment with UN aviation standards.

On the market, around a dozen specialised operators serve humanitarian passenger needs, based mainly in **South Africa, Kenya and Switzerland**, but in the highest-risk and hardest-to-reach locations that pool narrows further, with few operators willing to accept the risk. In practice, this means that when the usual provider cannot add capacity, organisations have very few alternatives to turn to.

2.2 Cargo

Interestingly, the strategy for purchasing cargo airfreight differs quite substantively across organisations.

Some take a very transactional approach of spot purchase, floating a request to a large number of suppliers for one specific route and cargo, while others work through a more strategic, long-term contract.

Of the eleven organisations interviewed, two purchase only on the spot market, mainly floating requests directly to the air operators themselves. Six rely on long-term agreements with freight forwarders, and one runs a dual strategy. The remaining two are smaller NGOs with less logistics capacity, which

do not purchase airfreight directly at all, relying instead on donated cargo flights or on outsourcing the airfreight to their suppliers.

Why are most humanitarian organisations preferring long-term agreements with freight forwarders? A freight forwarder is generally asset light, meaning that it does not own or lease an aircraft but sources the service from air operators. Humanitarians rely on very large freight forwarders with years of experience, dedicated humanitarian desks and teams, a worldwide network and the ability to offer an end-to-end service. An example would be cargo picked up in Europe, transshipped in Djibouti, for final delivery to Sana'a airport.

Why work with a freight forwarder long term

Three reasons reported by respondents

a. Multimodal reach

A freight forwarder can handle complex multimodal requirements, for example landing in Chad and then trucking to Darfur, Sudan, as well as advising on import and export requirements, which are mainly a constraint for NGOs, made possible by a very large network worldwide.

b. Sensitive cargo capability

The freight forwarder brings strong capability for sensitive products such as dangerous goods or temperature-sensitive items, and is the sole party responsible for the integrity of the supply chain end to end.

c. Humanitarian expertise

The freight forwarder offers a deep understanding of humanitarian ways of working, with dedicated teams.

On the other side, the interest of a **spot purchase** lies in broader competition and in a potentially **faster turnaround**, as the organisation contracts the air operator directly and cuts out one intermediary. One large UN organisation maintains a registered pool of 120 to 130 vendors, of which 30 to 40 respond actively to any given tender, with a response window of 24 to 48 hours and the aircraft positioned and ready for loading two to three days after award.

What are the main pain points for humanitarians

The pain points reported by respondents cluster into three broad themes: access, cost, and supplier technical capability. Figure 2 shows how often each was raised.

3.1 Access

Access is the constraint that decides whether a flight happens. For cargo, respondents report the difficulty of **obtaining the appropriate landing permits**. The equivalent for passenger transport is **obtaining civil aviation aircraft registration** when placing an aircraft in a country for a long period, for example a Kenyan-registered aircraft stationed in Chad for four years. Further, the ability of the aircraft provider to obtain the required **insurance, including war risk cover**, is a repeated issue and constraint. One organisation reported having to cancel a spot contract with a supplier who could not secure such insurance, or could only secure it at a prohibitive price.

More broadly, humanitarians expect their suppliers, whether for passenger or for cargo, to share the organisation's risk profile by building the internal capability to fly where few can or want to, owing to risks of war or natural hazard. Finally, NGOs frequently report the difficulty of obtaining the required **import permits at destination** as one of the main pain points they need to solve.

In the Sahel and other sub-Saharan underfunded emergencies, the binding constraint seems to be donor fatigue (funding) and diplomatic access rather than carrier capability alone.

CORRIDORS NAMED AS CONSISTENTLY UNDERSERVED

Sahel · Sub-Saharan Africa · DRC · Yemen · Afghanistan · Central African Republic · Pacific small islands · DPRK · Haiti

FIGURE 2

Funding is raised by most organisations — but access decides whether a flight happens at all



Figure 2. Number of organisations, out of the eleven interviewed, mentioning each pain point, with passenger-specific mentions in brackets. Funding is raised by the most organisations, but frequency is not decisiveness: price decides between suppliers only once access, capability and reliability are established. War insurance appears under both access and cost because respondents raised it as both an access and a pricing problem.

3.2 Cost

Cost is the constraint raised most often. Price came up in almost every interview, but respondents consistently described it as secondary: it becomes the **deciding factor only once technical capability, access and reliability are met**.

The funding picture is the sharpest change since 2025. Most respondents report a funding crunch following the reduction of US budgets, the United States having been the largest humanitarian donor for years, and **several large UN and NGO actors saw cargo demand fall by 25 to 30 percent** over the year.

The picture is not uniform. One channel actor that consolidates cargo on behalf of NGOs saw volumes rise by around half over the same period, driven by a major response and by a decision to support other operations facing cuts.

Especially for cargo, the **volatility of price was reported as a pain point**, reducing visibility for budget planning purposes.

One large UN organisation structures its freight forwarder agreements in two tiers: a broad long-term end-to-end framework agreement, plus a shorter six to twelve month rate-bidding cycle that locks in rates for specific routes across a wider pool of approved vendors. This appears to help temper the volatility described above, and it is the one mechanism surfaced in the interviews that another organisation could adopt directly.

3.3 Supplier technical capability

Two organisations reported difficulty maintaining **cold chain**, especially on complex routings with several transshipment points, where cargo can sit for hours on the airport tarmac.

A related problem is shipment splitting: when a consignment is spread across several flights the cargo is exposed to repeated temperature excursions.

Suppliers are accordingly expected to provide proof of their capability through specified certifications, including Good Distribution Practice for pharmaceutical handling.

Drones: still at an exploratory phase

What struck me most in the desk review was how much has been written about drones for humanitarian operations relative to how little is happening in practice.

A search on Google Scholar (28 July, key words "humanitarian" & "drones") returns close to a **hundred published papers**.

Of the eleven organisations interviewed, **three had actively piloted them**.

For those who had, the main use cases were monitoring of crops, water levels and post-impact damage, and the transport of light cargo such as medicines.

The organisations using drones to lift cargo are constrained today by what the market offers: one organisation piloting drones cited an available payload of 150 kg over a 1,000 km range.

Organisations shared three barriers to adoption

Perceived dual use

Drones risk being mistaken for military aircraft, which would compromise humanitarian neutrality as a key principle.

Regulatory and operational complexity

A pre-positioned drone itself counts as dangerous goods, and operating one requires licensing and expertise that organisations do not always have in-house, least of all in a last-mile environment.

A stalemate over who moves first

Humanitarian organisations want vendors to prove the model works, while vendors want organisations to commit funding first, in order to develop humanitarian-type prototypes.

The literature has moved faster than the field.

For humanitarian organisations, **drones remain at an experimental stage for now.**

Some unresolved questions

I approached this research with an open mind, having little knowledge of the inner workings of humanitarian aviation, except for having requested mobile storage units to be sent off urgently ahead of a cyclone, and having made a few journeys on small aircraft myself.

My first surprise was how widely different cargo and passenger air transport operations are, from the type of suppliers to contracting mechanisms, buyer-vendor relationships and requirements. My second was access. I had expected funding to dominate, and it is certainly what respondents raised most often, but access is what actually determines whether a flight materialises: permits, registrations, insurance, clearances. A capable vendor in this sector is one that has built its ecosystem to share its customer's risk profile and to deliver under difficult circumstances. On drones, which were not the focus of the interviews, the topic may read as current from an academic perspective but it is not yet standard delivery practice on the ground, with perceived dual use making organisations hesitant to roll it out.

What I keep returning to is **how heterogeneous the purchasing of air transport is.**

Beyond the UN-mandated system, a small number of organisations maintain their own standalone passenger aviation operation, sourcing from much the same vendor pool. Why has that overlap never prompted them to pool resources into a single shared unit?

For cargo the fragmentation is greater still. Most organisations purchase independently, and in fact mostly from the same four or five major global freight forwarders. Not only does the sector fragment its demand, it also approaches it through different purchasing strategies: spot, long-term agreement, or outsourcing to suppliers in the case of small NGOs. Passenger transport has, in effect, already partially answered this question by consolidating UN passenger flight requirements under a single mandated agency. Cargo has not, despite similar logic potentially applying, and despite a sector-wide push for efficiency under falling budgets and growing needs.

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What would it take for the sector to rethink the purchase of air transport?

Methodology

This perspective paper is written on the back of a report produced for **BlueLight Humanitarian Airline**. All views expressed here are solely those of the author.

The interviews aimed to gather data to test a set of five hypotheses.

The paper focuses mainly on two hypotheses (constraints, purchasing patterns) deemed relevant to the sector as a whole.

On sample selection, the 11 organisations were selected on the following criteria: they have humanitarian operations; they represent a mix of large UN organisations, donors and smaller INGOs; and they represent a mix of cargo profiles across medical, food and non-food items.

The geographical scope of interviews was Europe, Asia and the Middle East. The focus of this research and of this paper has been on the civilian movement of passengers and cargo. Peace-building activities are not covered.

Seven academic papers and 12 white papers were read as part of the desk review, sourced on Google Scholar, published post-2019. An academic researcher supported the pre-coding as well as the interview guide. All interview transcripts were anonymised and then coded with AI support.

This paper does not cite specific volume, flight or passenger figures, even where they may be publicly available, because such figures are often traceable to a specific respondent organisation in a sector small enough that anonymity would otherwise be compromised.

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