

Response to Ramsgate Town Council (RTC) – report by Peter Forbes of ASA [PF]

Re-determination of the Application by RiverOak Strategic Partners Limited (“the Applicant”) for an Order granting Development Consent for the reopening and development of Manston Airport in Kent.

Save Manston Airport association (SMAa) has over 3,700 members who are in full support of the Development Consent Order to reopen Manston Airport, many wanting jobs for themselves, their family or other Kentish people. Thus, we wish to make further representations to assist in the re-determination of the DCO.

We would like to respond to the representation by Peter Forbes (PF) of Alan Stratford Associates (ASA) [PF], on behalf of Ramsgate Town Council, which, we believe, contains several errors and / or omissions.

1.0 Background

As an interested party, Ramsgate Town Council (RTC) were notified by letter on the 11th June asking for further representations on the four matters outlined. RTC did not hold a meeting to discuss their representation until 30th June (wasting nearly 3 weeks). The minutes of that meeting¹ show that, to write a response, they said they needed expert advice and because of the short time scale negotiations had already taken place with Peter Forbes (PF) of Alan Stratford Associates (ASA). He was appointed by the council to write a report which RTC subsequently agreed, by a vote, to use as their representation to the Secretary of State.

The choice by RTC to use PF of ASA to write their report is significant because:

- PF is a member of “No Night Flights over Ramsgate” (NNF) which opposes the development of Manston².
- PF has written several articles³ that have been critical of the applicant’s plans and have contained personal attacks against Tony Freudmann⁴.
- The Chair of the RTC, Cllr Anne-Marie Nixey, is an Admin of NNF⁵ and screenshots of tweets and retweets by her prove that she was aware of critical articles by Peter Forbes of ASA⁶.
- Cllr Green, who proposed the motion and Cllr Hetherington, who seconded the motion, along with 3 other RTC councillors are members of NNF making six in total⁷.

It is in this context that one should decide whether the author produced a balanced, impartial report to enable the council to make a suitable representation to the Secretary of State.

2.0 Errors and omissions

2.1 ANPS and Heathrow expansion

PF states, *“The new runway would provide a significant increase in the availability of slots for both belly hold cargo on passenger aircraft and for dedicated freighters”* and *“The increase in ATM capacity at Heathrow would clearly reduce any potential long-term demand for a new cargo hub at Manston”*.

¹ Minutes RTC 30th June

² Screenshot – Peter Forbes (ASA) NNF

³ ASA Manston article 1

⁴ ASA Manston article 2

⁵ Screenshot Cllr Nixey NNF ADMIN

⁶ Screenshots Cllr Nixey tweets & retweets

⁷ Screenshots of other RTC councillors in NNF

As outlined in detail in SMAa [Matter 2] section 1.2, the expansion to Heathrow is not likely to happen for a considerable time and even when it does, with “its emphasis on passengers and belly freight at Heathrow, it is not going to be sufficient to meet the predicted need. A reopened Manston, with its state-of-the-art facilities and available capacity, will provide resilience to the supply network in the UK that LHR cannot, for at least several decades. The predicted delay to Heathrow increases the quantitative need for Manston Airport”.

2.2 Alleged reduction in demand for air freight

PF indicates that “the overall UK air cargo market in 2020 declined by some 21.0 %” and that “as indicated in Tables 3.2 and 3.3 both the volume of cargo handled by dedicated freighters and the number of dedicated freighter ATMs have begun to decline”.

Table 3.2 UK Air Cargo Market by Type – May 2019 – May 2021

Tonnes Handled	May-19	May-20	May-21
Passenger Bellyhold	146,491	17,322	49,231
Dedicated Freighter	65,507	123,090	115,199
Total	211,999	140,412	164,430

Source: CAA Airport Statistics

Table 3.3 UK ATMs by Type – May 2019 – May 2021

Total ATMs	May-19	May-20	May-21
Passenger Aircraft	202,572	10,283	17,000
Dedicated Freighter	4,888	8,263	6,899
Total	207,460	18,546	23,899

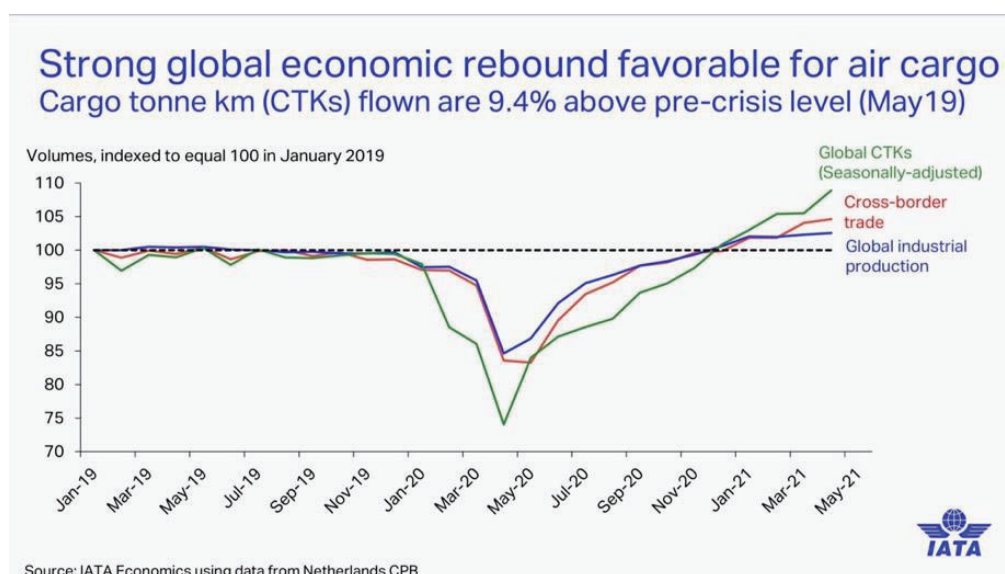
Source: CAA Airport Statistics

However, the numbers highlighted in red do not tally with the data published on the CAA web site. The correct number for May-21 for tonnes should be 142,975⁸ (not 115,199) which represents a 16% rise from May-20 NOT a decline. The correct number for May-21 for Cargo ATMs should be 8,335⁹ (not 6,899) which represents a 1% rise NOT a decline.

It seems remarkable that PF has made such a fundamental error and had not checked his work. PF would only have needed to look at the latest data released by IATA in June to realise the mistake:

“Air cargo continued to perform well in May 2021, as industry-wide cargo tonne-kilometres (CTKs) rose by 9.4% compared to pre-crisis levels in May 2019”¹⁰.

The trend in the Air Cargo market since January 2019 is shown below:



⁸ CAA May 2021 data

⁹ CAA May 2021 data

¹⁰ IATA air freight monthly analysis May 2021

The data clearly shows that the reduction in air freight occurred in the early part of 2020 and that there has been a strong growth since then.

2.3 Future growth of demand for air freight

PF states, *“Boeing’s latest 20-year air cargo forecast published since July 9, 2019 (October 2020) shows a reduction in the rate of growth of global air freight to 4.0% pa in comparison with their 2018 forecast of 4.2% pa.”* and *“this would imply that the Azimuth and Northpoint forecasts for Manston presented at the PINS Inquiry would need to be reduced accordingly”*.

However, the Boeing forecast referred to actually strengthens the case for the Manston development. In reference to the need for dedicated freighters:

“In addition to the long-term trend of dedicated freighters carrying more than 50% of global air cargo traffic despite growing widebody passenger fleets, the COVID-19 pandemic has highlighted the importance of main-deck freighters in our global air transportation system”¹¹.

“There are several key reasons for freighter preference in air cargo flows: 1) Most passenger belly capacity does not serve key cargo trade routes; 2) twin-aisle passenger schedules often do not meet shipper timing needs; 3) freight forwarders prefer palletized capacity, which is not available on single- aisle aircraft; 4) passenger bellies cannot serve hazardous materials and project cargo, a key sector in air cargo flows; and 5) payload-range considerations on passenger airplanes may limit cargo carriage, which decreases the likelihood that cargo will arrive at its destination on time”¹².

“The combination of 4.0% annual average RTK growth, in addition to the proven need for dedicated freighter capacity to support our global transportation system, results in the need for a 60% larger fleet during the next two decades”¹³.

The Manston development is primarily for a cargo hub using dedicated freighters and, since PF clearly believes the Boeing report is a reliable indicator of trends (otherwise he wouldn’t have used it), Boeing’s predictions strengthen the quantitative case for granting the DCO.

2.4 Growth in e-commerce

It is significant that PF does not refer to e-commerce in relation to its huge growth and subsequent benefit to Manston but only refers to it in passing when dealing with “locational factors”.

This is an astonishing omission in what is meant to be an impartial independent report!

Globally it is predicted that e-commerce sales will continue to grow and reach a forecasted global sales value of USD \$4,800,000,000 (USD 4.8 trillion) in 2021.¹⁴

In SMAa [Matter 2] section 2.1 we outlined the huge growth in e-commerce, how it is predicted to continue growing and how Manston will be able to make use of it.

For PF to seemingly ignore such evidence is unforgivable.

¹¹ Boeing WACF 2020 – page 7

¹² Boeing WACF – page 7

¹³ Boeing WACF – page 10

¹⁴ IATA Air Cargo and e-commerce – page 2

2.5.0 Cargo ATM and handling capacity at other airports

2.5.1 Stansted

PF maintains that, despite the granting of planning permission at Stansted which allows for passenger numbers to increase and therefore passenger ATMs to increase, there will be spare capacity at Stansted for dedicated freighters. PF states that *“Dedicated CATMs were forecast to grow to just over 16,000 by 2028”*. (N.B. Cargo ATMs are capped at 16,000).

As outlined in detail in SMAa [Matter 2] section 1.1, 16,000 Cargo ATMs would only be possible if there was no increase in passenger ATMs which seems very unlikely. Using the passenger ATM projections by MAG the number of Cargo ATMs available could be as low as 6,000¹⁵.

2.5.2 Belly hold

PF states that *“Given the likely price constraints required to meet the UK’s carbon emissions targets and the need to maximise their overall revenues, it is likely that many shippers will favour passenger belly hold over dedicated freighter cargo in the future”*.

However, there is some evidence that airlines may be considering moving away from wide bodied planes:

*“A trend among airlines of phasing out four-engine widebody aircraft in favour of smaller, more fuel-efficient two-engine aircraft, including even narrow bodies, has accelerated”*¹⁶.

This trend is explained because *“a narrow-body airplane can make money in good times and lose money in bad times, but the swing in either direction is not so great. A wide-body can make more money in good times, of course because they can carry more people. But they also can lose a lot more in weaker times, because of their high monthly ownership costs, fuel, and labour requirements”*¹⁷.

Orders for the new Airbus A321XLR are strong with 20 companies and 450 ordered so far¹⁸.

“The A321XLR is a single-aisle, narrowbody aircraft with a typical two-class capacity of 180-200. But it pushes the range to the highest of any narrowbody – up of 8,700 kilometers (4,700 NM)” and *“should enter service in 2023”*¹⁹.

According to Airbus figures, the A321XLR will have *“20% lower fuel burn per seat, 5,000 tonnes less CO2 per year, and a noise footprint that is 50% lower for passengers and airports”*²⁰.

For aeroplane operators, the increased range, increased fuel economy and a smaller Carbon footprint will make such planes an attractive proposition.

If this trend for a reduction in wide-body aircraft does materialise then it has huge ramifications for belly hold cargo. The narrow-bodied planes clearly have less belly hold capacity and once passenger baggage has been accommodated there is not going to be much room for air cargo.

¹⁵ Reduction in cargo ATMs at Stansted

¹⁶ Forbes – fewer wide-body aircraft

¹⁷ Forbes – fewer wide-body aircraft

¹⁸ Travel Daily – switch to narrow bodied

¹⁹ Simple Flying - A321XLR

²⁰ Airbus 321XLR

2.6.0 Locational Factors

2.6.1 Building resilience

PF refers to the “Golden Triangle, but as outlined in our representation for Matter 2 section *“this should not be seen as an either East Midlands or Manston Airport situation. Instead, it should be seen as a vital opportunity to build significant resilience to the air freight market by having both airports available for dedicated freighters, one serving the Midlands / North and the other the South of England”*.

To illustrate this point, at the time of writing this, East Midlands Airport is closed after a ‘plane’s undercarriage collapsed. This was only a small ‘plane, and the airport is unlikely to closed for more than an hour or so, but it does demonstrate the problem with not having significant resilience in the system if there was a more serious incident.

2.6.2 e-commerce facilities

PF refers to the sighting of several e-commerce facilities but states *“with the exception of Amazon’s proposed new logistics park near Dartford, none of these are close to Manston Airport”*.

This seems rather dismissive of the significance of this facility. As outlined in SMAa [Matter 2] section 2.1 *“Amazon are in the process of building a “Mega Shed” in Dartford. This will be one of their largest warehouses in Europe and its four floors will encompass 2.3 million square feet”*.

We go on to say *“Amazon have decided to make this huge investment in the Southeast rather than in the Midlands which is very telling. As has already been stated, neither Stansted nor Heathrow will have sufficient capacity to meet the need for e-commerce dedicated freighters in the next 5 to 10 years. In contrast, Manston Airport will have the necessary capacity and the location of this facility is much closer to Manston than East Midlands by road (58.5 miles as compared with 141.2 miles)²¹. Since the warehouse is adjacent to the Thames, it opens up the possibility of using greener methods of transporting goods from Manston, via Ramsgate Port, to Dartford”*.

2.6.3 freeports

PF states *“Furthermore, in the March 2021 budget. the government announced eight new freeport sites across the UK, including the East Midlands (which incorporates East Midlands Airport). All of these freeport locations are, however, more easily accessed via other UK airports rather than via Manston”*.

It is surprising that PF has chosen not to refer to the Thames Freeport at Tilbury which is described as *“ready for development now in Europe’s biggest consumer market and resurgent industrial cluster”* and that it *“would be London and the South East’s freeport”²²*. Its location is easily accessible from Manston so would have expected it to have been referred to in a balanced, impartial report.

3.0 Sixth Carbon Budget

PF states *“Furthermore, it should be noted that Manston’s potential 1.9% share of the UK’s aviation carbon target by 2050 is implicitly already allocated to other airports, many of which have existing planning consent for such growth”*.

²¹ AA route finder

²² Thames Freeport

It appears that PF has conflated two separate issues; the contribution aviation makes to the “carbon target for 2040” and “growth”.

Dealing with growth first, there are plans for expansion in the South East at Stansted and Heathrow. As indicated in SMAa [Matter 2] section 1.1, Stansted has been granted planning permission for expansion, but this is to accommodate an increase in passenger ATMs with a reduction in cargo ATMs. The overall ATMs remain capped at 274,000 so this does not constitute growth in the sense that the author implied.

As indicated in SMAa [Matter 2] section 1.2, the expansion at Heathrow is nowhere near to gaining planning permission and is unlikely to be operational for at least a decade.

Moving onto the role aviation will play in achieving the “aviation target by 2040”, this was dealt with at great length in SMAa [Matter 3]. In section 1.0, the Manston development itself will be as Carbon Neutral as possible *“The Proposed Development’s effect on the global climate is not significant”*²³.

In section 2.1, we explained the role that aeroplane operators will have to play in achieving Net Zero by 2050. In particular, *“Aeroplane operators will be set a “CORSIA Eligible Emission Unit” quota by the ICAO Council and these must be cancelled by the buying and selling of Eligible Emission Units on the Carbon Market”*²⁴. This makes clear that these “will be set” and so have not been “implicitly already allocated to other airports” as stated by PF.

4.0 Other Matters arising

None of the items raised by PF in this section are relevant at all to the information requested by the Secretary of State and one must question why they have been included?

5.0 Conclusion

PF was asked to write a report for RTC to enable the council to respond to the Secretary of State. The money to pay for the report is public money (up £6,000) and it is incumbent on ASA to produce a balanced, impartial report. However:

- PF failed to factor in the consequences of a long delay in the expansion of Heathrow.
- PF failed to highlight that the priority at Heathrow is for belly hold not freighters.
- PF used incorrect data to represent what has happened to air cargo since 2020 which has increased not decreased so his conclusions were totally wrong and thus misleading.
- PF completely misrepresented the data from the Boeing report implying there was a predicted drop in demand for freighters whereas the report actually predicted a 60% rise in freighter numbers.
- PF completely ignored the huge rise in e-commerce which will benefit the Manston development.
- PF ignored the significance of Amazon building their biggest warehouse in Europe at Dartford.
- PF did not factor in MAGs clear intention to increase the number of passenger ATMs which inevitably lead to a reduction of cargo ATMs with total ATMs fixed at 274,000.
- PF has totally ignored the possibility that there will be a move away from wide-body to narrow-body jets with the subsequent reduction in belly hold capacity.
- PF has not considered the need to build resilience into the system by granting the Manston development.
- PF has not even mentioned the Thames Freeport which is *“ready for development now in Europe’s biggest consumer market”* and easily assessable from and to Manston.
- PF has not considered that *“the Proposed Development’s effect on the global climate is not significant”*.

²³ [APP – 034] – table 16.16

²⁴ CORSIA – FAQs – page 20 section 2.14

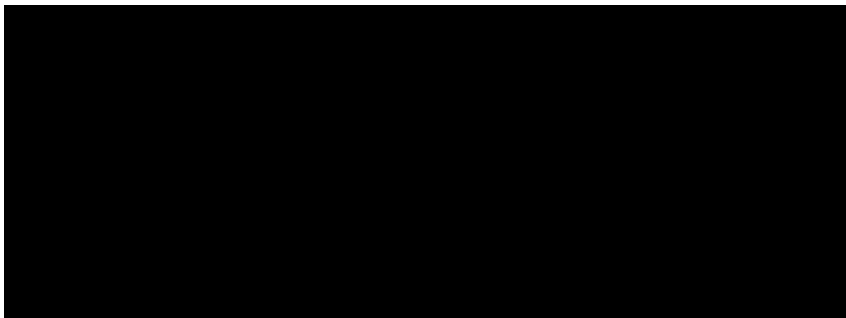
- PF has not given an accurate analysis of the planning situation regarding growth at many airports. Heathrow, for example, is by far the biggest expansion plan and that is nowhere near getting planning permission.
- PF has misrepresented the situation by alleging that airports have already been allocated their “share of the UK’s aviation carbon target”.
- PF has not referred to the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) and that it is still in the monitoring, reporting and verification phase so allocations to “aeroplane operators” have not yet been finalised.
- PF tried to strengthen his argument against the development at Manston by including matters that were totally irrelevant.

The residents of Ramsgate deserve to have a representation that is balanced, impartial and factually correct. Unfortunately, Peter Forbes (ASA) has allowed his own prejudices to cloud his judgement and we have been left with a very one-sided report.

We urge the Secretary of State to consider the arguments that we have put forward and conclude that the representation by PF for RTC does not stop the granting of the DCO for Manston.

From the SMAa Committee on behalf of the 3,700 members

Dr Beau Webber (Chairman)



Email: committee@savemanstonairport.org.uk

Addendum

TR020002 – SMAa representation to the Secretary of State for Transport

Response to Ramsgate Town Council [RTC] – report by Peter Forbes of ASA [PF]

Since writing our report in July 2021, several relevant events have occurred, and we felt it important for us to make them available to you.

2.2 Alleged reduction in demand for air freight

PF indicates that *“the overall UK air cargo market in 2020 declined by some 21.0 %”* and that *“as indicated in Tables 3.2 and 3.3 both the volume of cargo handled by dedicated freighters and the number of dedicated freighter ATMs have begun to decline”*.

Since writing there have been a further 3 IATA Air Cargo Market Analysis statements and the latest released on 29th September for August 2021 states:

*“Growth in air cargo remained robust in August - Air cargo demand has stabilized over the past four months at levels well above the pre-pandemic period. Industry-wide cargo tonne-kilometres (CTKs) rose by 7.7% in August 2021 vs. August 2019, which is only modestly slower than in July (8.8%) and well above the long-term monthly average of 4.7%.”*²⁵

The data clearly indicates that the PF statement does not reflect the facts which show that there has been a strong growth in the air cargo market and is now consistently above pre-pandemic levels.

6.0 Sixth Carbon Budget

PF states *“Furthermore, it should be noted that Manston’s potential 1.9% share of the UK’s aviation carbon target by 2050 is implicitly already allocated to other airports, many of which have existing planning consent for such growth”*.

At the IATA Annual General Meeting held in October 2021, the members representing 290 airlines (82% of global air traffic) approved a resolution for the air transport industry to achieve net-zero carbon emissions by 2050.²⁶

In their statement they outline that there is a big role for Sustainable Aviation Fuels (SAF) and they plan for SAF to bring about a reduction in carbon emissions by 65%. Use of new propulsion systems such as Hydrogen or electric will make up approximately 13% with efficiency improvements accounting for a further 3%. The rest will be achieved through carbon capture and storage (11%) and offsets (2%).

IATA also reaffirmed their support for CORSIA in their resolution.

Manston will play its part with its development being as carbon neutral as possible and having the infrastructure to supply SAF and Hydrogen fuels, but it is airlines not airports, with government and industry support, that will deliver net-zero carbon emissions from aircraft.

In the 3 months since writing our response there have been several developments which clearly indicate the direction of travel for transport.

- 1) Yara International to launch first zero-emission, crewless cargo ship

²⁵ IATA air freight monthly analysis August 2021

²⁶ IATA press release October 2021

In August Yara International announced that it *“expects to sail the first autonomous, fully electric ship in Norway by the end of 2021”*.²⁷ It would have sailed in 2020 but COVID delayed the trip. The ship can carry 103 standard-sized containers and travel at a speed of 13 knots.

Manston could utilise this technology (not necessarily the autonomous part) immediately to operate ships from Ramsgate to the Thames if Hydrogen systems took longer to come onstream.

2) British Airways runs first flight with SAF

In September BA operated its first passenger flight using sustainable aviation fuel between Heathrow and Glasgow and the flight resulted in 62% fewer carbon emissions compared to a similar journey in 2010 according to BA.²⁸

3) ASL Aviation Holdings to fly Hydrogen-powered planes

In October ASL Aviation Holdings announced that it is to use an ATR 72-600F plane converted to operate using Hydrogen fuel and intend to purchase up to 10 conversion kits to make their other ATR 72 freighters run on Hydrogen.²⁹

According to the manufacturer ATR 72-600F freighters can carry 9 tonnes and are 9dB quieter than the most stringent ICAO requirements.³⁰

Zero carbon emission, quiet freighter aircraft technology already exists and *“industry experts expect the hydrogen aircraft market to reach over \$174 billion by 2040”*.³¹

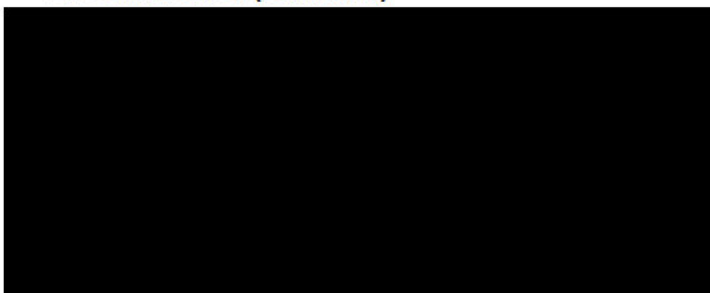
4) An Electric HGV drives 683 miles on a single charge

A 19-ton electric truck reached a total of 683 miles on a single charge (a world record) and the team behind it have *“set a joint signal for a future with sustainable drive systems in delivery traffic and demonstrated the suitability of today’s technologies for everyday use”*.³²

The focus globally is on incorporating green technologies into all methods of transport and this reaffirms our belief that the proposed development at Manston will not have a significant negative effect on the global climate.

From the SMAa Committee on behalf of the 3,700 members

Dr Beau Webber (Chairman)



Email: committee@savemanstonairport.org.uk

²⁷ Inceptive Mind August 2021

²⁸ Airport Technology September 2021

²⁹ Aerotime October 2021

³⁰ ATR 72-600F specifications

³¹ Aerotime October 2021

³² Inceptive Mind September 2021

References for SMAa representation to the Secretary of State for Transport
Response to Ramsgate Town Council – Report by Peter Forbes of ASA [PF]

	Pages
1. Minutes RTC meeting 30 th June 2021	11-16
2. Screenshot – Peter Forbes (ASA) NNF	17
3. ASA Manston Article 1	18
4. ASA Manston Article 2	19
5. Cllr Nixey NNF ADMIN	20-21
6. Screenshots Cllr Nixey tweets & retweets	22-26
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9. IATA air freight monthly analysis May 2021	36-38
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14. Travel Daily – switch to narrow-bodied	56-57
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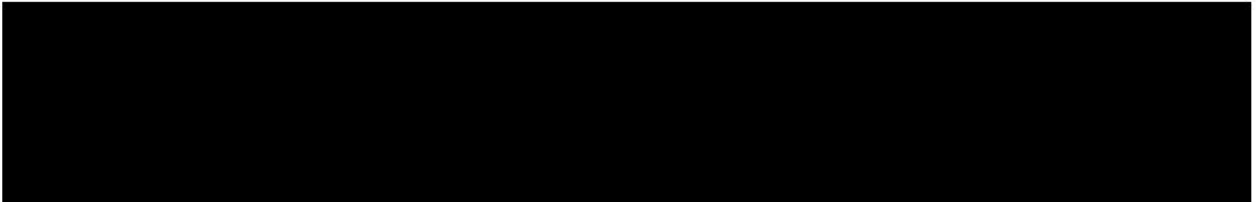


RAMSGATE TOWN COUNCIL

Minutes of Meeting of Council

Venue: The Custom House, Harbour Parade, Ramsgate.

Date: Wednesday 30 June 2021.



Council agreed that the meeting could be audio recorded.

048 **APOLOGIES**

None received.

049 **DECLARATIONS OF INTEREST**

None declared.

050 **QUESTIONS FROM THE PUBLIC**

There were no questions from the public.

051 **MINUTES OF COUNCIL MEETINGS**

Proposed by Cllr Albon, seconded by Cllr Young and **RESOLVED** that;

The minutes of the Extraordinary Council meeting held on 1 March 2021 (Minutes 130 -136) be agreed as a true record.

Proposed by Cllr S Piper, seconded by Cllr Hetherington and **RESOLVED** that;

The minutes of the Extraordinary Council meeting held on 14 April 2021 (Minutes 155 – 157) be agreed as a true record.

052 **COMMITTEE TERMS OF REFERENCE / POLICY DOCUMENTS – UPDATE
2021**

Council considered the report of the Digital Communications and Marketing Officer updating the Email Acceptable Use Policy and the Web and Social Media Policy in line with current legislation.

Proposed by Cllr Albon, seconded by Cllr Wing that;

The updated Email Acceptable Use Policy amendments as detailed in the report be accepted by Council.

RESOLVED

Proposed by Cllr Wing, seconded by Cllr Green that;

The updated Web and social media Policy amendments as detailed in the report be accepted by Council.

RESOLVED

Council reviewed the Terms of Reference for its Committees apart from the Finance and General Services committee as those Terms of Reference had been reviewed by Extraordinary Council on 23 June 2021.

Proposed by Cllr Nixey, seconded by Cllr Hetherington that;

The Terms of Reference for the Planning and Infrastructure Committee be amended as follows;

Page 1 para 3 **amend** to read:

“To consider matters pertaining to environment and conservation interests, including flora and fauna and the built environment only in relation to planning matters”.

Page 1 **Remove**; “Restrictions on Appointment” and “Members who are also members of the Planning Committee of Kent County Council and Thanet district Council may not be appointed”

RESOLVED

Proposed by Cllr Austin, seconded by Cllr Nixey that;

The Terms of Reference for the Town Promotion Committee be amended as follows;

Page 1 para 1 **amend** to read;

“A Committee of the Town Council established to consider and make recommendations to Council in relation to the promotion of Ramsgate as a place to live, work and visit”.

Page 1 individual points **add** point 6 to read;

“To undertake any other activities with the objective of promoting Ramsagte that are approved by Council”.

Page 2 under Terms of Reference **amend** point 1 to read;

“To formulate and make recommendations to Council in relation to any strategies, plans or policies intended to improve the experience of living in, working in or visiting Ramsgate and to attract visitors, investors and residents to the town”.

RESOLVED

The Terms of Reference for the Radford House and Custom House Committee were considered.

Proposed by Cllr Albon, seconded by Cllr Nixey that;

The Terms of Reference for the Radford House and Custom House Committee to remain unchanged”.

RESOLVED

Proposed by Cllr Albon, seconded by Cllr Nixey that;

The Terms of Reference for the Amenities Committee be **amended** as follows;

Amend the Committee name to “Amenities and Environment Committee”.

RESOLVED

053 **EXTERNAL AUDITOR REPORT AND CERTIFICATE - ANNUAL RETURN 2019-2020**

Council considered the report of the Deputy Town Clerk (RFO) and the External Auditor Report and Certificate 2019-2020 noting that there were no other matters affecting the external auditors opinion to be drawn to the attention of Council.

Proposed by Cllr Albon, seconded by Cllr Green that;

This Council has considered and notes the External Audit Certificate 2019-2020.

RESOLVED

054 **GOVERNANCE AND AUDIT RETURN STATEMENTS 2020-2021**

Council considered the report of the Deputy Town Clerk (RFO), completed Annual Return and Internal Auditor’s report.

Proposed by Cllr Nixey, seconded by Cllr Green that;

ANNUAL GOVERNANCE STATEMENT

This Council certifies that the statements made in Section 1 of the Annual Return are a true record of the system of governance at Ramsgate Town Council.

ANNUAL ACCOUNTING STATEMENTS

This Council certifies that corrective action has been taken with regards to the 'except for' matters as detailed in the 2019-2020 Annual Return External Auditor Report.

Note There were no except for matters 2019-2020.

This Council certifies that the accounting statements made in Section 2 of the Annual Return for 2020-2021 are a true and fair record of the financial position of the council.

RESOLVED

055 **RAMSGATE FUND AND EVENTS FUND**

Council considered 4 applications to the Ramsgate Fund and 1 to the Events Fund.

RF 4 2021/22 – Thanet Community Development Trust

Proposed by Cllr Nixey, seconded by Cllr Green that;

Thanet Community Development Trust be awarded £3,000.00.

Council recommends that the guidebook is advertised more widely especially to children / schools.

RESOLVED

RF 5 2021/22 – Hi Kent

Proposed by Cllr Nixey, seconded by Cllr Hetherington that;

Hi Kent be awarded £753.00.

Council would like to be advised by Hi Kent whether the online classes can be recorded and used online for the benefit of others. Council may need the assistance of Hi Kent when it begins live streaming of its meetings.

RESOLVED

RF 6 2021/22 – Ramsgate Arts Barge CIC

Proposed by Cllr Green, seconded by Cllr Austin that;

Ramsgate Arts Barge be awarded £500.00.

THE PROPOSAL FELL

Proposed by Cllr Albon, seconded by Cllr Young that;

Ramsgate Arts Barge application is rejected as it does not fit the criteria.

RESOLVED

RF 7 2021/22 – Nethercourt 20 is Plenty

Councillor Green brought forward a request for funding towards progressing with a 20 mile per hour speed limit project for the Nethercourt estate as supported previously by Council.

Proposed by Cllr Nixey, seconded by Cllr Young that;

The matter to be brought back to the Finance and General Purposes Committee for further debate but £1,700.00 to be set aside from the Town Improvements budget to assist with the project.

RESOLVED

EF16 2021/22 – Global Generation Church – Lark in the Park Lite

Proposed by Cllr L Piper, seconded by Cllr Rusieki that;

Global Generation Church be awarded £3,000.00.

THE PROPOSAL FELL

Proposed by Cllr Albon, seconded by Cllr Green that;

Global Generation Church be awarded £2,000.00.

RESOLVED

056 FREEDOM OF TOWN

The Chair withdrew this item pending further information.

057 RAMSGATE TOWN COUNCILS RESPONSE TO THE SOS TRANSPORT'S CALL FOR EVIDENCE TO INFORM HIS DECISION REGARDING THE DCO APPLICATION BY RSP FOR A FREIGHT HUB AT MANSTON TO CONSIDER THE REQUEST OF THE SECRETARY OF STATE

Council considered the letter from the Secretary of State calling for more evidence.

Council had received all emails and letters received by the Deputy Town Clerk in relation to this item via email and had hardcopies for the meeting.

Proposed by Cllr Green, seconded by Cllr Hetherington that;

Due to the technical nature of the SoS questions, Ramsgate Town Council (RTC) recognises the need for expert advice before responding.

The short timescales imposed by the SoS has meant a swift negotiation with Peter Forbes of Stratford's, independent experts previously used by Thanet District Council.

They will agree to produce a draft for consideration by Council before the deadline of 9th July 2021.

Their charges are £2,000.00 for the draft. Should RTC require advice in responding to the SoS expert and others, the charge will be an extra £4,000.00.

RTC will be able reclaim the VAT.

RESOLVED

058 **DEPUTY TOWN CLERK'S REPORT**

There was nothing further to report.

The Chair closed the meeting at 9.35 pm.

No Night Flights Over Ramsgate

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Manston Airport DCO – Promises of over 23,000 new jobs are flawed



A personal view – Peter Forbes, Director, Alan Stratford and Associates

The approval of the Development Consent Order (DCO) for a major cargo hub at the disused Manston Airport is a highly controversial and politically charged decision by the UK Department for Transport. But what is in the East Kent airport's 'hot air' and on sector and the local community in East Kent? In this article I offer my personal view as to why I feel that this is a decision which over-rides an earlier recommendation by the Planning Inspectorate. It is based and is only partly in my own interest. My developer 'mother' has provided me with 23,000 new jobs both in the local area and across the UK as a whole.

I should also state that I have been personally involved with Manston Airport over a number of years – initially providing consultancy when it was through my company Alan Stratford and Associates to the then-owner the Wiggins Group and subsequently to Thames Valley of Dover (TVO). More recently I carried out a feasibility study for a private investor intended to expand the site and re-opening the airport. The main conclusion of this study was that while it is a viable cargo/passenger airport, it might not be commercially viable – the net value was in the state of all (or parts) of the land for housing development.

However, since this study the economic landscape has changed through the impacts of Brexit, Covid-19 and several other UK regional airports have either closed or are struggling financially. In the case of Manston, the site was also a key asset as to where permission for flight rights would be granted from TVO, which would strongly impact on the retail and residential levels of dedicated flight traffic that might be achievable. In the end, the potential investment did not proceed further – I am not sure if working for any group involved with the airport.

Location is too remote

In terms of freight, the key advantage of Manston is its location at the extreme SE corner of the UK and its proximity to the sea. However, its location at the airport has generally been remote and it has never been to compete with East Midlands and Stansted – the UK's two largest airports for dedicated freight traffic, which account for some 71% of all cargo handled by dedicated freighters at all. The remote location of Manston is particularly relevant for perishable goods which require a high level of security and control. In addition, the fact that the airport is located in a rural area means that the DCO will be a significant constraint on the development of a freight hub, particularly for road, rail and air freight. The airport is also located in a rural area, which means that the airport is not a key asset for the local community. The airport is also located in a rural area, which means that the airport is not a key asset for the local community. The airport is also located in a rural area, which means that the airport is not a key asset for the local community.

UK airports – Cargo handled (freighter aircraft) – 2019				
	Cargo (tonnes)	%	Airline	
East Midlands	338,642	43.8%	33,232	43.2%
Stansted	312,585	40.2%	33,232	43.2%
Heathrow	88,757	11.5%	2,738	4.7%
Perth/Inverness	18,247	2.4%	264	3.4%
Other	128,438	16.6%	38,633	38.4%
Total UK	775,669	100.0%	87,835	100.0%
Manston (Year 4)	181,438		18,144	

Source: CAA statistics

Source: CAA statistics

No clear need for the Development

Given the fact that Manston was historically unable to develop significant levels of freight and passenger traffic on a profitable basis and the constraints on future growth I laid out above, I really cannot see why the Secretary of State for Transport would be approving this project. The DCO is a significant constraint on the development of a freight hub, particularly for road, rail and air freight. The airport is also located in a rural area, which means that the airport is not a key asset for the local community. The airport is also located in a rural area, which means that the airport is not a key asset for the local community. The airport is also located in a rural area, which means that the airport is not a key asset for the local community.

The issue of cost was not a key part of the DCO approval process. The capital cost of the proposed development has been variously reported at £300m and £400m. The investment in the airport is a significant constraint on the development of a freight hub, particularly for road, rail and air freight. The airport is also located in a rural area, which means that the airport is not a key asset for the local community. The airport is also located in a rural area, which means that the airport is not a key asset for the local community.

It should also be noted that the airport is not a key asset for the local community. The airport is also located in a rural area, which means that the airport is not a key asset for the local community. The airport is also located in a rural area, which means that the airport is not a key asset for the local community. The airport is also located in a rural area, which means that the airport is not a key asset for the local community.

Sustainability of the developer

A further issue is the background of RSP and its key personnel. RSP is a US investment company with its background in real estate and airport development. The background of the key personnel is also a concern. The background of the key personnel is also a concern. The background of the key personnel is also a concern. The background of the key personnel is also a concern. The background of the key personnel is also a concern.

Impact on climate change

I recognise that for some objections there is an issue as to whether the project would contribute to climate change. RSP has indicated that the airport would contribute some 1% of the UK's total CO2 emissions for 2050. The Planning Inspectorate does not think that this is a significant contribution to climate change. The background of the key personnel is also a concern. The background of the key personnel is also a concern. The background of the key personnel is also a concern.

Manston's history
In assessing this project it is useful to review the airport's history. The airport was originally an RAF base and was used by the RAF and the Royal Air Force. The airport was used by the RAF and the Royal Air Force. The airport was used by the RAF and the Royal Air Force. The airport was used by the RAF and the Royal Air Force. The airport was used by the RAF and the Royal Air Force.

Later in 2013 the site was sold to Am Group, a South African entrepreneur, reportedly for £1.5m. The site was subsequently sold to Stone Hill Park, a property company who intended to develop the site with plans for some 4,000 homes and a business park. The site was subsequently sold to Stone Hill Park, a property company who intended to develop the site with plans for some 4,000 homes and a business park. The site was subsequently sold to Stone Hill Park, a property company who intended to develop the site with plans for some 4,000 homes and a business park.

Manston Airport – Passengers & Cargo (tonnes) handled		
	Passengers	Cargo (tonnes)
2008	3,000	43,686
2009	101,000	24,626
2010	204,000	7,812
2014	40,000	3,791

Source: CAA Statistics

In order to fulfil the requirements of the DCO, RSP needed to show that the airport was a significant all-out infrastructure development with a minimum of 10,000 ATRs per annum. Under RSP's forecast, Manston would handle some 181,438 tonnes of cargo with 10,144 cargo ATRs by Year 4 of its operation. Passenger traffic was forecasted at 40,000 by Year 4 and 1,300 by Year 10. The development is forecasted to create some 23,000 direct and indirect jobs – of which 2,417 were direct jobs at the airport itself. This compares against the total of just 150 jobs at Manston when the airport closed.

It might be argued that the UK air freight market will grow substantially over the coming decade. If so, then the UK air freight market will grow substantially over the coming decade. If so, then the UK air freight market will grow substantially over the coming decade. If so, then the UK air freight market will grow substantially over the coming decade. If so, then the UK air freight market will grow substantially over the coming decade.

UK airports – Cargo handled (freighters aircraft) – 2019-2029		
	Cargo (tonnes)	%
2019	775,669	100.0%
2029	880,000	113.2%
2019	775,669	100.0%
2029	880,000	113.2%

Source: CAA statistics

April 2020 the UK air freight market has seen a sharp decline in activity. The UK air freight market has seen a sharp decline in activity. The UK air freight market has seen a sharp decline in activity. The UK air freight market has seen a sharp decline in activity. The UK air freight market has seen a sharp decline in activity. The UK air freight market has seen a sharp decline in activity.

Sale of land

There is also a concern that the DCO is a significant constraint on the development of a freight hub, particularly for road, rail and air freight. The airport is also located in a rural area, which means that the airport is not a key asset for the local community. The airport is also located in a rural area, which means that the airport is not a key asset for the local community. The airport is also located in a rural area, which means that the airport is not a key asset for the local community.

Although Thames Valley of Dover and the local MP are a factor of the development, there is considerable opposition to the airport. The airport is also located in a rural area, which means that the airport is not a key asset for the local community. The airport is also located in a rural area, which means that the airport is not a key asset for the local community. The airport is also located in a rural area, which means that the airport is not a key asset for the local community.

How would the development be financed?

Should the DCO be approved, then it is unclear as to how the development will be financed. The background of the key personnel is also a concern. The background of the key personnel is also a concern. The background of the key personnel is also a concern. The background of the key personnel is also a concern. The background of the key personnel is also a concern.

Father figures?

As a special adviser, I am certainly not anti-development and I generally support expansion. However, I am concerned about the impact of the airport on the local community. The background of the key personnel is also a concern. The background of the key personnel is also a concern. The background of the key personnel is also a concern. The background of the key personnel is also a concern.

I personally hope that the decision will now be overturned in a Judicial Review. If not, I suspect it will be a long drawn out saga with few, if any, jobs created and no long-lasting benefits to the local community.

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Manston Airport – A win-win scenario for the developer but not for East Kent?

A personal view by Peter Forbes,
Director, Alan Stratford and Associates Ltd



The long-running saga of the proposed freight hub at Manston Airport continues despite the Government's decision to grant the Development Consent Order (DCO) against the recommendations of the Planning Inspectorate. Riveroak Strategic Partners (RSP) is planning to invest some £300m in the development which it claims will create over 23,000 jobs in East Kent and the wider economy by its 20th year of operation.

Will it ever be commercially viable?

But despite the go-ahead, there are fundamental question marks about Manston's commercial viability, which was not assessed or taken into account either in the Government's decision nor in the Planning Inspectorate's analysis. The key disadvantage of Manston is its remote location in the far south east of the UK, which increases the time and cost of onward trucking within the country. This is particularly important for perishable items and it is not surprising that many of the larger supermarket chains have their main distribution centres in the 'Golden Triangle' within the East Midlands.

The scale of the project is ambitious, but this was necessary in order to warrant consideration for a DCO. As an aviation economist, I can safely say that Manston, irrespective of the level of investment funding, will never attain the cargo throughput to make the hub financially viable, which RSP say is between 150,000 – 200,000 tonnes per annum.

This would represent nearly a quarter of all dedicated freighter traffic in the UK in 2019. Growth in this market in the UK has been virtually static over the past decade (an increase of just 0.8% pa between 2010 and 2019) and, whilst there has been some improvement in dedicated freighter traffic during the Covid-19 pandemic, this growth is likely to be short-term once the passenger market recovers. The reality is that air freight is often carried more cost-effectively as bellyhold cargo on passenger aircraft rather than in dedicated freighters. Furthermore, the future demand for air freight will be constrained by increasing costs as the aviation sector endeavours to meet its climate change commitments.

Over 84% of the UK's dedicated freighter traffic is focused on three hubs at Heathrow, East Midlands and Stansted airports, where the main freight consolidators, FedEx, UPS and DHL, have their main bases. There is no reason to suppose that they would abandon these in favour of Manston. Whilst it is recognised that there can be slot constraints at these airports at certain times, there are other centrally-located airports such as Birmingham and Doncaster Sheffield which would be preferable to Manston. Furthermore, and of crucial importance, these airports have no night flight constraints, whereas RSP has committed to no night flights at the proposed Manston hub. Night flights represent nearly one half of all dedicated cargo flights and are particularly important for perishables and other fast-moving consumer goods (FMCGs).

It is difficult to see how Manston will now suddenly be able to attract cargo airlines to the airport when its previous owner, Infratil, were unable to do so. Whilst some investment will be necessary to make the airport operational, this would not dramatically change this position. Other airports handling freight traffic already have up-to-date facilities with available capacity in place. Any investment in Manston would be unlikely to give it any competitive advantage.

Similar considerations apply for possible passenger flights at Manston, although these would be on a smaller scale than dedicated freighter traffic. There was an attempt to introduce passenger flights in the 1990s, when the then-owner, Planestation, established its own home-based airline, EUJet, at the airport, although this was short-lived. A new rail station at Thanet Parkway has recently been given the go-ahead by Kent County Council but although this is relatively close, passengers would still need to be bussed to the airport. The reality is that nearly all smaller regional airports in the UK were losing money even before the Covid-19 pandemic, so it is difficult to see how Manston might be any different.

Local concerns

The decision to proceed with the development has split those living in East Kent, which has one of the highest unemployment rates in the UK. On the one hand, some residents support the proposals due to the significant level of jobs that the developer, Riveroak Strategic Partners (RSP) claim would be created.

RSP seem now to be backtracking on this by saying that they would not be as high as they originally stated and were assessed by the Government and the Planning Inspectorate due to automation. It is difficult to understand why this was not considered in the first instance. Many local residents are concerned about aircraft noise, particularly if night flights were ever to be introduced and about the impact of the development on climate change. RSP has recently indicated that it is in discussions with the Port of London Authority (PLA) about the use of electric barges, whereby freight arriving at Manston is trucked to the Port of Ramsgate, transferred onto electric barges to sail round the Thames and into London. Whilst technically this might perhaps reduce carbon emissions, it clearly would significantly increase transit times and costs in comparison to a direct road journey. Whilst it should be expected that all air freight and any subsequent trucking will need to comply with the UK's Net Zero carbon commitments in the future, the electric barge scheme is unlikely to be commercially viable.

A local resident has launched an appeal against the Government's decision in the High Court following a Crowdfunder campaign, although this can only be overturned on the basis that the Secretary of State failed to adopt the correct procedures rather than on the merits or demerits of the freight hub itself. A judicial review has now been granted, although a date for this has not yet been set.

What are the motives of RSP and Stone Hill Park?

If a major freight hub at Manston is not commercially viable, as is predicted by all industry experts, then we need to look at the motives of RSP and of Stone Hill Park, who originally sold the site to RSP, reportedly for £16.5m. It is important to appreciate that the only commercial value at Manston is in the sale of the land, ideally for residential housing but, on a secondary level, for industrial development. This, however, must largely be seen as a longer-term strategy as the site is not designated for housing in Thanet District Council's Local Plan, which may have prompted Stone Hill Park to sell the site to RSP. We do not know the precise details of this sale, but it seems hard to believe that in the event of any future land sales, Stone Hill Park would get no financial payback.

If the Appeal is unsuccessful, in the short-to-medium term RSP may attempt to set up some cargo operations at Manston, but these would be very limited, particularly without any night flights which were a vital component of its modest levels of traffic prior to its closure. It may try to seek investment, including Government grants, for industrial development on part of the site on the basis that this would qualify as 'enabling development', although this would not significantly increase traffic levels at the airport. So for RSP and its financial backers, it is a waiting game until it is clearly demonstrated that the airport will never be commercially viable and that residential housing and/or industrial development is the only alternative. If the Appeal is successful, then the airport development would not proceed and again it is a waiting game until the site can be redeveloped. Either way, it would appear that, as the owners of the site and the beneficiaries of any future land sales, RSP may be in a 'win-win' situation.

So where does this leave local residents in Ramsgate and in East Kent?

Whilst it is possible that, if the Appeal is unsuccessful, a small number of jobs could be created in the short-term, it is unlikely that the airport would ever require more than the 150 staff it employed when it closed in 2014. There is likely to be a continuing fear of the possibility of reintroducing night flights and climate change concerns will not vanish away.

Whatever the outcome, the Government, Thanet District Council and Kent County Council will need to look very carefully at the way forward in the best interests of local residents and the wider UK economy.

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Intro

Member of No Night Flights Over
Ramsgate since 29 September 2009

Things in Common



Group badges



Admin



Conversation starter

Group posts

Admin · 8 July at 23:11 · 🌐

Well, it's in. I'm never good at writing these, give me a FB post
anyday...

Did you get an email receipt?

👍 10

31 comments

👍 Like

💬 Comment

No Night Flights Over Ramsgate

Admin · 5 July at 12:33 · 🌐

Submissions

Sorry this is later than anticipated, but you've been amazing with
the submissions you've sent in so far!



[REDACTED] shown to be playing a key role in NNF

1. Securing York Aviation for NNF representation
2. Encouraging members of NNF to write in & pay money
3. Demonstrates her close relationship with Jenny (Dawes) who fronted the JR

The image is a screenshot of a Facebook group page. On the left, the 'Things in Common' section shows a redacted area and a 'Group badges' section where the 'Admin' badge is circled in red. Below this is a 'Recent photos' section with a redacted image. The main post area on the right shows a post from a redacted user. The post text reads: 'So we have York Aviation. They stand by what they said in the hearing. They will explain the recent changes and why they are still right, Manston is not viable! We simply need to write in ourselves and keep the monies coming in. I will write a better update later, but wanted to share the good news. Well done everyone, this has always been a collective effort and Jenny knows that too. I'll talk about what we can do very soon. Until then breathe and relax xx'. The post has 73 likes and 16 comments. Below the post, there are two comments: 'Thank you Anne-Marie Nixey thank you so much for all the work you do for all of us 🙏' and 'Yes and thanks'. Both comments have 1 like. A third comment, 'We want to share this with our Nethercourt group is that ok Anne', is partially visible at the bottom.

Things in Common

Group badges

Admin

Conversation starter

Recent photos

So we have York Aviation.

They stand by what they said in the hearing. They will explain the recent changes and why they are still right, Manston is not viable!

We simply need to write in ourselves and keep the monies coming in. I will write a better update later, but wanted to share the good news. Well done everyone, this has always been a collective effort and Jenny knows that too.

I'll talk about what we can do very soon. Until then breathe and relax xx

73 16 comments

Like Comment

View 11 more comments All comments

Thank you Anne-Marie Nixey thank you so much for all the work you do for all of us 🙏

Like · Reply · 2 w 1

Yes and thanks

Like · Reply · 2 w 1

We want to share this with our Nethercourt group is that ok Anne

Like · Reply · 2 w 1

aware of ASA anti Manston article 1

27/07/2020

If [#Manston](#) ever opens as a cargo hub it is certain to fail. So why bother and leave [#Ramsgate](#) in a state of limbo for years. An interesting view from someone who is pro aviation expansion and it would appear that the real goal for RSP is development but not as an airport

 **Alan Stratford & Associates** @ASAaviation · 27/07/2020

DfT's decision to approve the DCO application for a cargo hub at Manston airport looks set to be challenged in a judicial review. But will the promised 23,000 new jobs be delivered? Find out more in ASA's latest Insights article. [#airports](#) [#avgeek](#) alanstratford.co.uk/aviation-insig...

1

7

11





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Support Judicial Review of Manston Airport DCO



1



6



18



Retweeted



Alan Stratford & Associates @ASAaviation · 02/08/2020



The SoS's approval (Para 33) specifically banned scheduled but not charter flights between 2300-0600 hours. However, if Manston ever re-opens, there would be relatively few of each and it would not be commercially viable. [...structure.planninginspectorate.gov.uk/wp-content/ipc...](https://structure.planninginspectorate.gov.uk/wp-content/ipc...)



3



4



3



Tweets

Tweets & replies

Media

Likes



Retweeted



Alan Stratford & Associates @ASAaviation · 03/08/2020



Barry - On the basis of these figures, there would be more staff on duty at any time between 2200-0600 than during the day. More flights at night than during the day...?



3



2



1



Retweeted



Alan Stratford & Associates @ASAaviation · 03/08/2020



There is an ambiguity between the SoS's approval letter (which makes no mention of charter flights) and the DCO. But crucially, either with or without night flights, Manston is not commercially viable - the competition from other better-located airports is far too strong.



2



2



2



Retweeted



Alan Stratford & Associates @ASAaviation · 03/08/2020



The attached link demonstrates how airports in the Midlands (or with good access to it) are better placed than Manston for the many of the UK's supermarket distribution centres.



Alan Stratford & Associates

240 Tweets



Tweets

Tweets & replies

Media

Likes

I suspect the current regulated airport charges model must also be under stress right now?

1



1

**Alan Stratford & Associates** @ASAaviation · 31/07/2020

Hi Mike - At present, HAL is working on a revised business plan (RBP) with the CAA and the airlines for the price control regime in H7 (2022-2026) based on a two runway scenario. Given the current situation, the key focus is on value-for-money and capital efficiency.

1

**The Loadstar** @theloadstar · 29/07/2020

Plan for cargo hub at Manston Airport seriously flawed, says consultant



Plan for cargo hub at Manston Airport seriously flawed, says consultant - The Loadstar
theloadstar.com

1

9

9

**Alan Stratford & Associates** @ASAaviation · 29/07/2020

Just a note to say that I've not joined any group opposing this development. The article is purely my own personal view - Peter Forbes, Director, ASA



1

5

**Alan Stratford & Associates** @ASAaviation · 28/07/2020

Replying to @elmlea11 and @roblaur32



anne-marie nixey



24.1K Tweets



Tweets

Tweets & replies

Media

Likes

RSP is a US company, with a UK director who has also been involved with other airport developments in Germany, none of these have proved to be successful".



2



4



7



@Qinginteriors · 29/07/2020



Plan for cargo hub at Manston Airport seriously flawed, says consultant - The Loadstar
theloadstar.com



2



Retweeted



The Loadstar @theloadstar · 29/07/2020



Plan for cargo hub at Manston Airport seriously flawed, says consultant



Plan for cargo hub at Manston Airport seriously flawed, says consultant - The Loadstar
theloadstar.com



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9



No Night Flights Over Ramsgate

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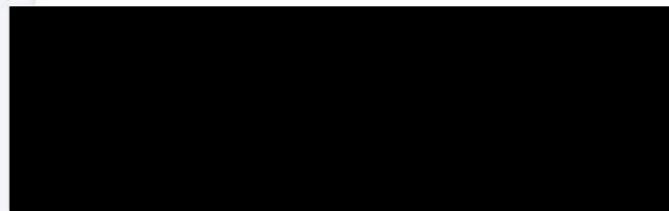
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This is Cllr Crittenden



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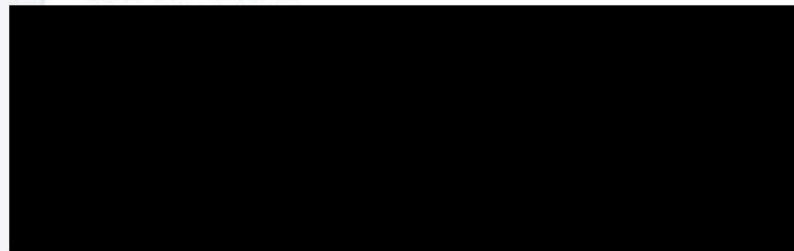



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Freight by Aircraft Configuration May 2021 (a)
Comparison with Previous Year
Tonnes

Table 15

	<----- Passenger Aircraft ----->			<----- Cargo Aircraft ----->			<----- Total ----->		
	2021	2020	Percentage Change	2021	2020	Percentage Change	2021	2020	Percentage Change
London Area Airports									
GATWICK	390	3	12900	509	-		899	3	29867
HEATHROW	47 189	16 345	189	70 311	63 751	10	117 500	80 095	47
LUTON	-	-		1 736	2 464	-30	1 736	2 464	-30
STANSTED	16	12	33	22 037	19 829	11	22 053	19 840	11
Total London Area Airports	47 595	16 360	191	94 593	86 043	10	142 188	102 403	39
Other UK Airports									
ABERDEEN	113	121	-7	347	280	24	460	401	15
BARRA	1	-		-	-		1	-	
BELFAST CITY (GEORGE BEST)	3	-		-	-		3	-	
BELFAST INTERNATIONAL	-	-		2 253	1 838	23	2 253	1 838	23
BENBECULA	2	2		-	-		2	2	
BIRMINGHAM	29	15	93	1 200	474	153	1 229	489	151
BOURNEMOUTH	-	-		2 090	-		2 090	-	
CARDIFF WALES	-	-		-	72		-	72	
DONCASTER SHEFFIELD	-	-		1 766	3 069	-42	1 766	3 069	-42
EAST MIDLANDS INTERNATIONAL	-	-		35 214	28 404	24	35 214	28 404	24
EDINBURGH	170	1	16900	1 383	1 202	15	1 553	1 203	29
GLASGOW	8	12	-33	183	54	239	191	66	189
HUMBERSIDE	5	3	67	1	1		6	3	100
ISLAY	7	1	600	-	-		7	1	600
ISLES OF SCILLY (ST.MARYS)	4	1	300	6	4	50	9	5	80
KIRKWALL	2	1	100	-	-		2	1	100
LANDS END (ST JUST)	3	1	200	5	4	25	9	5	80
LIVERPOOL (JOHN LENNON)	1	10	-90	-	-		1	10	-90
MANCHESTER	1 414	749	89	2 557	576	344	3 971	1 325	200
NEWCASTLE	-	-		61	-		61	-	

Freight by Aircraft Configuration May 2021 (a)
Comparison with Previous Year
Tonnes

Table 15

	<----- Passenger Aircraft ----->			<----- Cargo Aircraft ----->			<----- Total ----->		
	2021	2020	Percentage Change	2021	2020	Percentage Change	2021	2020	Percentage Change
NORWICH	8	22	-64	-	-		8	22	-64
PRESTWICK	-	-		1 314	1 069	23	1 314	1 069	23
SCATSTA	-	11		-	-		-	11	
SOUTHAMPTON	2	2		-	-		2	2	
STORNOWAY	12	8	50	-	-		12	9	33
SUMBURGH	14	3	367	-	-		14	3	367
TIREE	1	-		-	-		1	-	
Total Other UK Airports	1 798	963	87	48 382	37 047	31	50 181	38 009	32
Total All Reporting UK Airports	49 394	17 322	185	142 975	123 090	16	192 369	140 412	37
Non UK Reporting Airports									
ALDERNEY	4	4		-	1		4	4	
GUERNSEY	5	3	67	59	40	48	63	44	43
ISLE OF MAN	1	10	-90	-	4		1	14	-93
JERSEY	2	2		82	26	215	85	28	204
Total Non UK Reporting Airports	12	19	-39	141	71	99	153	90	70

(a) Domestic traffic is counted both at the airport of arrival and the airport of departure.
The total domestic plus international traffic is, therefore, only a measure of airport activity.

Air Transport Movements May 2021
Comparison with Previous Year (a)

Table 6

	<-----May 2021----->			<-----May 2020----->			<----- Percentage Change ----->		
	Total	Passenger Aircraft	Cargo Aircraft	Total	Passenger Aircraft	Cargo Aircraft	Total	Passenger Aircraft	Cargo Aircraft
London Area Airports									
GATWICK	1,539	1,524	15	126	126	-	1121	1110	..
HEATHROW	11,441	8,003	3,438	6,698	2,997	3,701	71	167	-7
LONDON CITY	431	431	-	-	-	-	..	..	..
LUTON	1,765	1,668	97	977	840	137	81	99	-29
SOUTHEND	2	2	-	2	2	-	-	-	..
STANSTED	2,304	1,462	842	1,236	403	833	86	263	1
Total London Area Airports	17,482	13,090	4,392	9,039	4,368	4,671	93	200	-6
Other UK Airports									
ABERDEEN	3,749	3,593	156	2,765	2,653	112	36	35	39
BARRA	120	120	-	62	54	8	94	122	..
BELFAST CITY (GEORGE BEST)	639	639	-	75	75	-	752	752	..
BELFAST INTERNATIONAL	1,304	843	461	350	-	350	273	..	32
BENBECULA	106	104	2	56	56	-	89	86	..
BIGGIN HILL	27	27	-	8	8	-	238	238	..
BIRMINGHAM	902	757	145	225	144	81	301	426	79
BLACKPOOL	-	-	-	88	88	-	..	..	..
BOURNEMOUTH	127	75	52	2	2	-	6250	3650	..
BRISTOL	548	548	-	39	39	-	1305	1305	..
CAMPBELTOWN	91	91	-	77	70	7	18	30	..
CARDIFF WALES	68	68	-	3	1	2	2167	6700	..
CITY OF DERRY (EGLINTON)	152	152	-	52	52	-	192	192	..
DONCASTER SHEFFIELD	105	81	24	45	3	42	133	2600	-43
DUNDEE	86	86	-	-	-	-	..	..	..
EAST MIDLANDS INTERNATIONAL	2,159	31	2,128	2,137	-	2,137	1	..	-
EDINBURGH	1,496	1,091	405	574	186	388	161	487	4
EXETER	251	214	37	39	-	39	544	..	-5
GLASGOW	1,341	1,297	44	289	239	50	364	443	-12
HUMBERSIDE	239	228	11	135	125	10	77	82	10
INVERNESS	274	227	47	22	-	22	1145	..	114
ISLAY	118	118	-	67	64	3	76	84	..
ISLES OF SCILLY (ST.MARYS)	855	774	81	126	50	76	579	1448	7
KIRKWALL	590	571	19	372	340	32	59	68	-41

	<-----May 2021----->			<-----May 2020----->			<----- Percentage Change ----->		
	Total	Passenger Aircraft	Cargo Aircraft	Total	Passenger Aircraft	Cargo Aircraft	Total	Passenger Aircraft	Cargo Aircraft
Other UK Airports									
LANDS END (ST JUST)	537	457	80	128	52	76	320	779	5
LEEDS BRADFORD	130	130	-	1	1	-	12900	12900	..
LERWICK (TINGWALL)	79	79	-	4	4	-	1875	1875	..
LIVERPOOL (JOHN LENNON)	375	374	1	106	106	-	254	253	..
MANCHESTER	1,850	1,702	148	437	365	72	323	366	106
NEWCASTLE	449	418	31	2	2	-	22350	20800	..
NEWQUAY	126	126	-	-	-	-	..	..	..
NORWICH	950	950	-	650	650	-	46	46	..
OXFORD (KIDLINGTON)	1	1	-	-	-	-	..	..	..
PRESTWICK	74	6	68	52	-	52	42	..	31
SCATSTA	-	-	-	213	213	-	..	..	..
SOUTHAMPTON	353	353	-	75	74	1	371	377	..
STORNOWAY	212	210	2	62	61	1	242	244	100
SUMBURGH	654	654	-	107	107	-	511	511	..
TEESSIDE INTERNATIONAL AIRPORT	318	318	-	-	-	-	..	..	..
TIREE	108	107	1	51	30	21	112	257	-95
WICK JOHN O GROATS	-	-	-	1	1	-	..	..	..
Total Other UK Airports	21,563	17,620	3,943	9,497	5,915	3,582	127	198	10
Total All Reporting UK Airports	39,045	30,710	8,335	18,536	10,283	8,253	111	199	1
Non UK Reporting Airports									
ALDERNEY	334	334	-	65	59	6	414	466	..
GUERNSEY	568	424	144	247	103	144	130	312	-
ISLE OF MAN	233	194	39	235	198	37	-1	-2	5
JERSEY	442	349	93	86	34	52	414	926	79
Total Non UK Reporting Airports	1,577	1,301	276	633	394	239	149	230	15

(a) Excludes air taxi operations.

Air Cargo Market Analysis

May 2021

Air cargo trends higher and outperforms global goods trade

- Air cargo continued to perform well in May 2021, as industry-wide cargo tonne-kilometres (CTKs) rose by 9.4% compared to pre-crisis levels in May 2019. That said, that was a slowdown from the 11.3% growth rate seen in April, with month-on-month growth in seasonally adjusted traffic (0.4%) also decelerating.
- Supply chain conditions and economic activity are supportive of air cargo, helping it post a fifth consecutive month of overperformance versus global goods trade. But there are signs of a stabilization in growth in manufacturing output in some key economies, as consumption shifts from goods to services.
- Air cargo capacity continues to slowly improve despite the lack of international passenger traffic. Having said that, the market remains tight, with no clear decline in cargo load factors.

Global air cargo trended higher in May...

May was another month of strong air cargo performance, but a moderate slowdown was apparent in the pace of growth. Indeed, industry-wide cargo tonne-kilometres (CTKs) increased by 9.4% in May 2021 versus pre-crisis levels in May 2019. This was down from 11.3% in April 2021 versus 2019.

Moreover, seasonally adjusted CTAs – which smooth out seasonal variations in volumes – rose by 0.4% month-on-month in May. This is the 13th consecutive month of rising levels, but it marks a slowdown from the 3.2% gain seen in April (**Chart 1**).

Chart 1: CTK levels, actual and seasonally adjusted



Airlines in all regions but Latin America contributed positively to the headline growth rate of 9.4%. Once again, North American airlines supplied the most, at 4.6 percentage points. But it is worth noting that the slowdown in growth was reflected in all the regions

Air cargo market overview - May 2021

To aid understanding, the table includes both % comparisons with pre-crisis 2019 months and 2020 months.

	World share ¹	May 2021 (% ch vs the same month in 2019)				May 2021 (% year-on-year)			
		CTK	ACTK	CLF (%-pt) ²	CLF (level) ³	CTK	ACTK	CLF (%-pt) ²	CLF (level) ³
TOTAL MARKET	100.0%	9.4%	-9.7%	10.0%	57.2%	30.0%	26.7%	1.5%	57.2%
International	85.5%	10.4%	-11.1%	12.7%	65.0%	33.3%	18.0%	7.5%	65.0%

¹% of industry CTKs in 2020

²Change in load factor vs same month in 2019

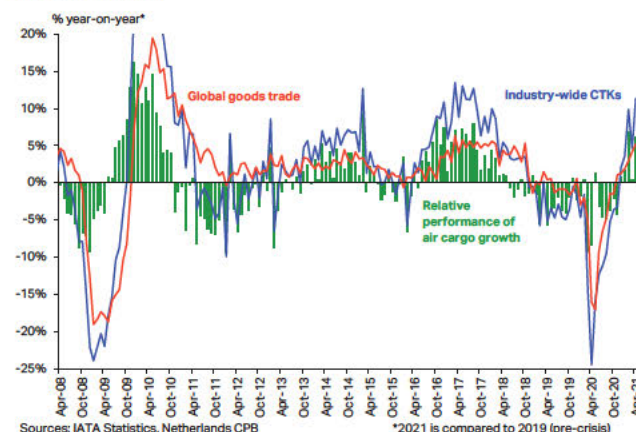
³Load factor level

except Latin America, where growth performance improved significantly in May.

...and is growing faster than goods trade

The latest data shows global goods trade grew by 5.2% in April 2021 versus April 2019. This is a robust pace, but slower than that of CTKs (11.3%). In fact, this is the fifth consecutive month during which CTKs overperformed overall trade. The last such cycle ended in early 2018, and another period of air cargo overperformance during the post-GFC rebound in 2009-2010 lasted roughly 18 months (**Chart 2**).

Chart 2: Growth performance of CTKs versus total goods trade



Periods during which CTKs grow faster than other modes of transport are typical at the start of economic upturns. They are often explained by inventory restocking cycles, and both cycles usually cover the same periods.

Indeed, air cargo becomes attractive when businesses have low inventories and are faced with rising demand as the economy restarts. In that case, the speed of air cargo provides a strong competitive advantage.

Currently, air cargo also benefits from exceptionally congested container supply chains. Global shipping schedule delays rose significantly, to an extent equivalent to an implied 8.6% loss of capacity on the available fleet in April 2021 (c.2% prior to the pandemic in 2019), according to Sea-Intelligence. Further pressures were added more recently by slowed-down operations in key Chinese ports.

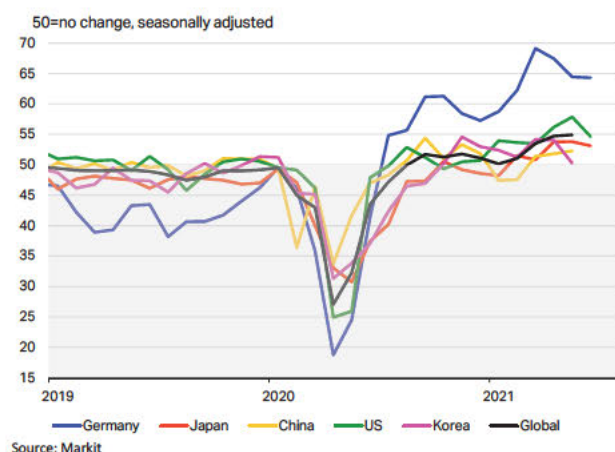
A consequence is that the price of air cargo relative to that of container shipping has fallen significantly, even if air transport has not been exempted from its own disruptions. Per kg of chargeable weight, air cargo was more than 12 times more expensive than ocean shipping prior to the crisis, but this has fallen to a ratio of 6 in May 2021, adding to the [competitive advantage of air cargo](#).

The shift from goods to services may impact air cargo

Most other drivers of air cargo are currently supportive. World trade and industrial production rose by respectively 0.5% and 0.2% month-on-month in April. Purchasing managers indices (PMIs) show that business confidence, manufacturing output and new export orders are growing at a rapid pace in most economies.

Having said that, there are signs of a moderate deterioration in manufacturing PMIs in recent months, notably in emerging markets, while advanced economies in Europe and North America are faring better. In particular, data show activity in key manufacturing economies such as China and South Korea has stabilized somewhat after the initial recovery from the crisis, as illustrated by new export orders (**Chart 3**).

Chart 3: New export orders component of manufacturing PMI, selected countries



This is partly explained by the shift in consumption from goods to services, as restaurants, hotels and entertainment reopen, and consumers return outside. Indeed, PMIs for services business activity have improved faster than PMIs for manufacturing output since March-April in both developed and advanced economies as well as at the global level.

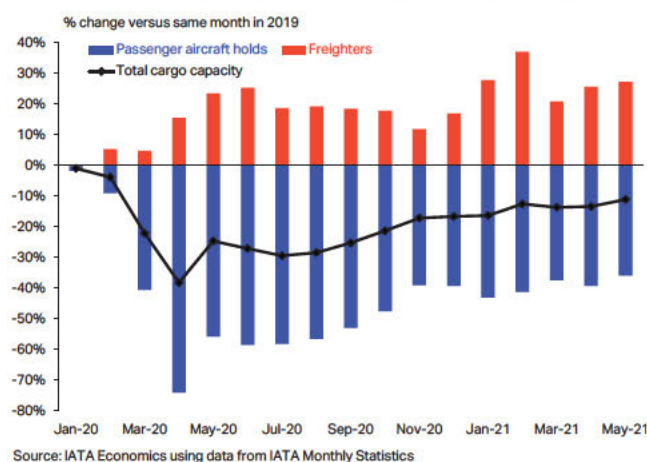
Air cargo capacity continues to improve slowly...

An additional advantage for air cargo is that the capacity crunch – which created significant headwinds for volumes carried – is slowly unwinding. This makes it easier for carriers to meet demand, although the exact magnitude of the impact is unclear.

Indeed, industry-wide available cargo tonne-kilometres (ACTKs) were down 9.7% in May 2021 versus May 2019, after a 10.4% decline in April. SA ACTKs climbed 0.8% month-on-month in May, the fourth consecutive month of improvement.

International ACTKs were down 11.1% compared to pre-crisis values in May 2021, also on a moderate upward trend. Both passenger aircraft and dedicated freighters contributed to improvements in May, although international passenger traffic – and bellyhold capacity – remain limited (**Chart 4**).

Chart 4: Int'l belly cargo and freighter capacity growth



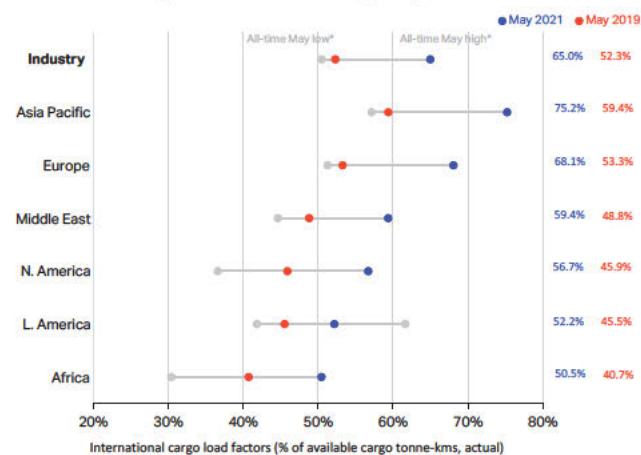
Many airlines continue to operate 'passenger-freighters', which are included in passenger aircraft holds in the above. But those operations are costly and complex to operate, and there is anecdotal evidence some services may be discontinued in the near term, as international long-haul passenger traffic restarts and some exemptions allowing to transport cargo in the main cabin of passenger aircraft are lifted.

... but load factors remain at elevated levels

Cargo load factors continue to trend far above their pre-pandemic levels. In May 2021, the industry-wide cargo load factor was at 57.2%, 10.0 percentage points (ppts) above May 2019. While the SA total load factor is below its peak of more than 60% reached in January, a clear downward trend has yet to emerge.

The international load factor was at 65.0% in May 2021, a new record-high for any month of May. Most regions posted a similar performance (**Chart 5**). With the SA international load factor only slightly off its all-time high of April 2021 (66.8%), it is too early to say that the market is relaxing.

Chart 5: Cargo load factors by region



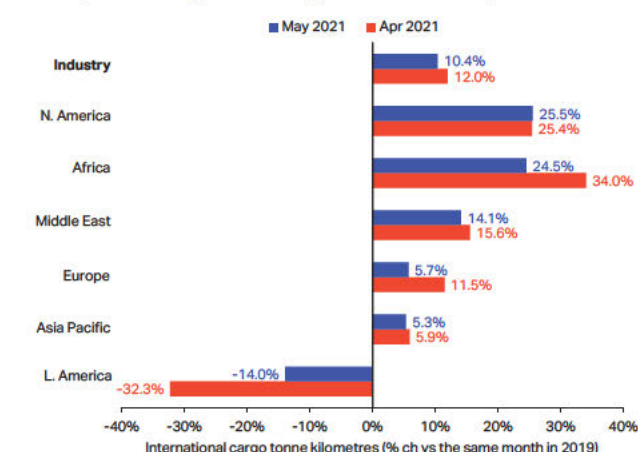
Sources: IATA Economics, IATA Monthly Statistics

CargoS data show that global air cargo rates including surcharges were up more than 90% in May 2021 versus May 2019, while air cargo revenues rose more than 70% over the same period.

Small slowdown in int'l CTKs growth on many markets

International CTKs grew 10.4% in May 2021 versus the same month in 2019, after a 12.0% growth rate in April. While the contraction eased significantly in Latin America, growth stabilized or moderated in the other regions (**Chart 6**).

Chart 6: Int'l CTK growth versus the same month in 2019 (airline region of registration basis)



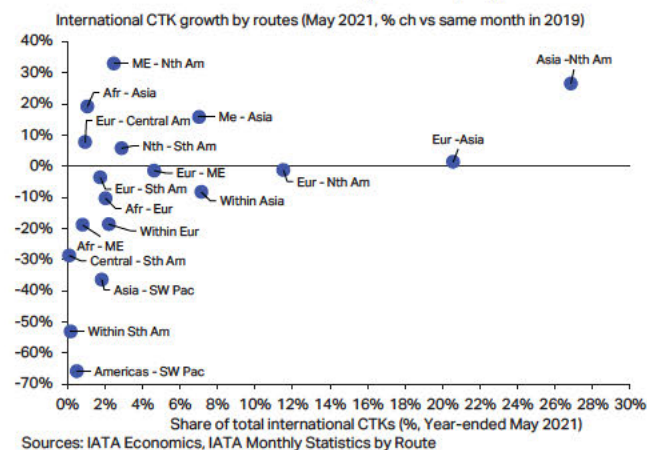
Sources: IATA Economics, IATA Monthly Statistics

Airlines based in **North America** saw growth in their international CTKs remain stable in May at 25.5%. Drivers such as manufacturing output (PMI of 59.6 in May) are very supportive, despite risks from

consumers shifting to the services sector as the pandemic is put under control.

Growth in international CTKs registered by **African** airlines moderated in May to 24.5%, but that was down from a brisk 34.0%. This was mostly driven by a deceleration in the strong trade flows between Africa and Asia, from 29% vs 2019 in April 2021 to 19% in May 2021 (**Chart 7**).

Chart 7: International CTKs by route (segment-based)



Sources: IATA Economics, IATA Monthly Statistics by Route

There was a relatively widespread but moderate slowdown in air cargo growth on many important segment-based trade lanes in May. Routes such as Europe-Asia, Middle East-Asia, Within Europe and Within Asia decelerated. This is coherent with PMIs easing off somewhat in certain manufacturing-intensive countries, such as China and Korea, after a V-shaped rebound from the early stages of the crisis.

The consequence is a small slowdown in international CTKs growth for airlines in the **Middle East**, **Europe** and **Asia Pacific**. They grew by respectively 14.1%, 5.7% and 5.3% in May 2021 versus May 2019. Given the strongly supportive supply chain dynamics and still robust manufacturing activity and export orders, a more significant slowdown in the near term appears unlikely.

Finally, the main bright spot for air cargo volumes in May came from **Latin America**, where international CTKs carried by airlines in the region were down by 14.0% compared to 2019 in May, a marked rebound from the 32.3% fall a month earlier. SA volumes also rose strongly in May.

In recent months, traffic carried by airlines in the region had been low, as those carriers lost market shares to airlines in North America and Europe. With some of the largest carriers in Latin America still restructuring, it is not clear if May's rebound will be sustained.

EXECUTIVE SUMMARY



Air cargo markets disrupted in 2020 by COVID-19 pandemic

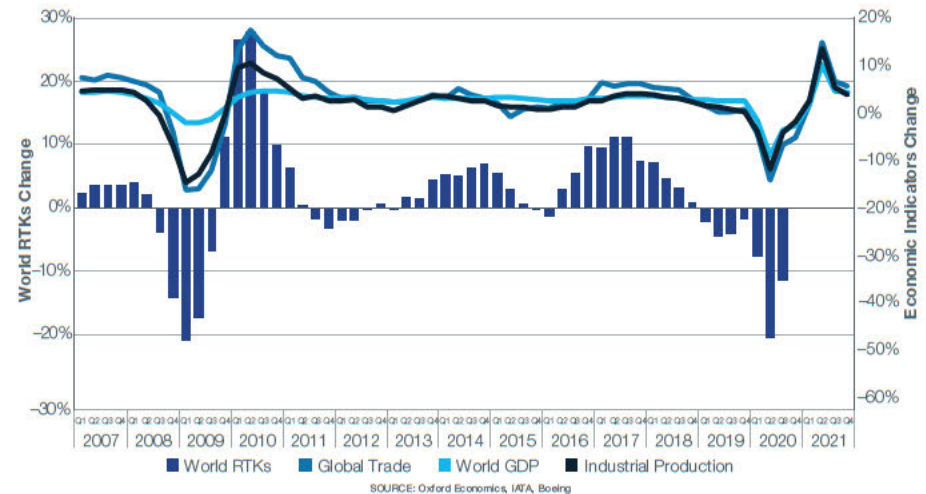
As the new decade began, the air cargo market was poised to benefit from improvement in the world economy.

This followed a weak 2019, in which the effects of tariffs, tepid world economic growth and weakened industrial production resulted in air cargo traffic decreasing by 3%.

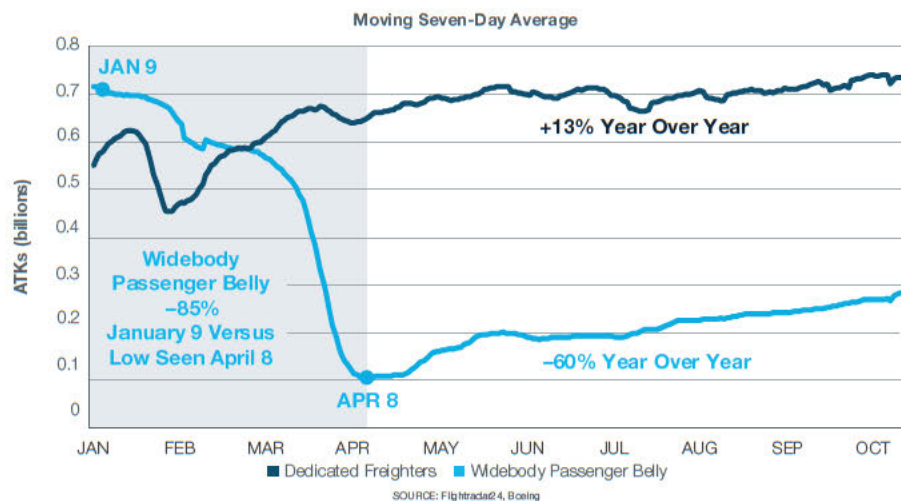
As COVID-19 quickly spread to all corners of the world early this year, the impact from the loss of long-haul passenger

belly capacity from widebody fleets created a significant air cargo capacity shortfall. Passenger belly cargo capacity typically accounts for 54% of the world air cargo capacity. Freighters operators have responded by operating above normal utilization levels to fill the lower cargo hold shortfall.

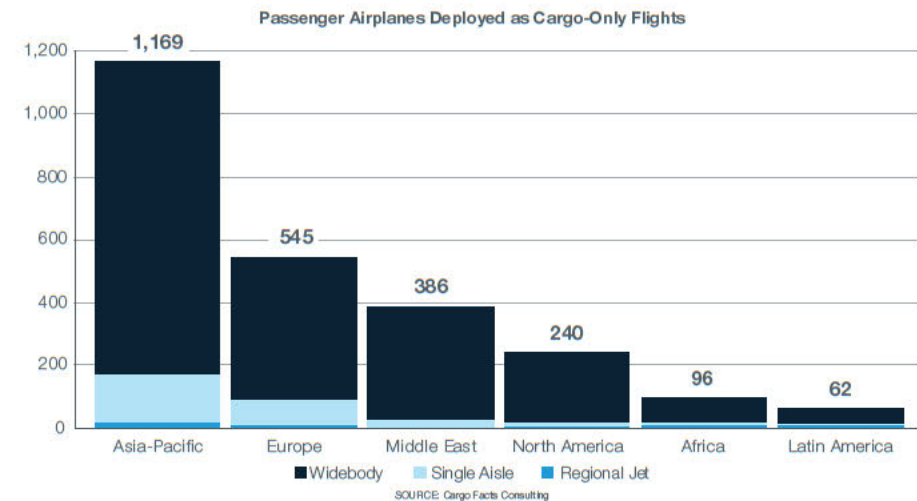
Anticipated Economic Recovery Expected to Bolster Air Cargo Traffic Growth



Major Reduction of Passenger Service Is Creating High Demand for Freighter Capacity



Widebodies Account for Nearly 90% of Passenger Airplanes Used for Cargo-Only Flights



In addition, the urgent need to meet demands for transporting medical supplies to all regions in response to COVID-19 created a unique and unprecedented environment. The decline in air cargo capacity plus urgent demand for medical supplies led to a spike in yields to high double-digit levels in second quarter 2020. With these market conditions, freighter operators have been in a unique position to meet market demands that require a high level of speed, reliability and security, as only air cargo can do.

With high air cargo yields and greatly reduced long-haul international networks, conditions have been favorable for many airlines to use some of their passenger widebody fleets for cargo-only operations to generate much-needed cash flow. These “freighters” have taken up some of the capacity shortfall and, even in some cases, have generated quarterly profits for carriers despite minimal passenger operations. As of the end of September, nearly 200 airlines have

operated 2,500 passenger airplanes exclusively for cargo operations.

Through September, air cargo traffic was down 12%, rivaling declines in past recessions. In a normal year, this would translate to poor financial performance for air cargo operators. However, in 2020 almost a quarter of air cargo capacity has been lost. As a result of the constrained air cargo capacity, yields were up over 40% and overall air cargo industry revenues were up 16%.

The 2020 World Air Cargo Forecast incorporates the near-term disruption to air cargo markets but does not assume the current dynamics of constrained widebody passenger belly capacity will continue into the long term. Long-haul widebody passenger traffic will return in the coming years, and air cargo will then reflect market dynamics much closer to what we have seen in the years prior to the COVID-19 disruption.

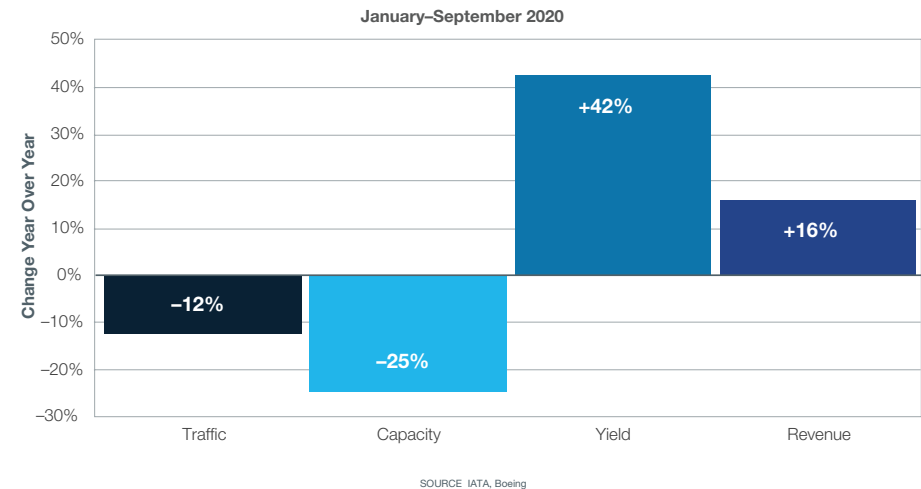
COVID-19 pandemic accelerating express and e-commerce market

In contrast to disrupted passenger markets, the higher-than-market-average growth seen in express markets over the last decade has increased during the COVID-19 pandemic. E-commerce, which was already growing at double-digit rates prior to the pandemic, has accelerated its impact on the air cargo market. Express carriers have fared well as a result of the market turmoil in 2020. Through the end of September,

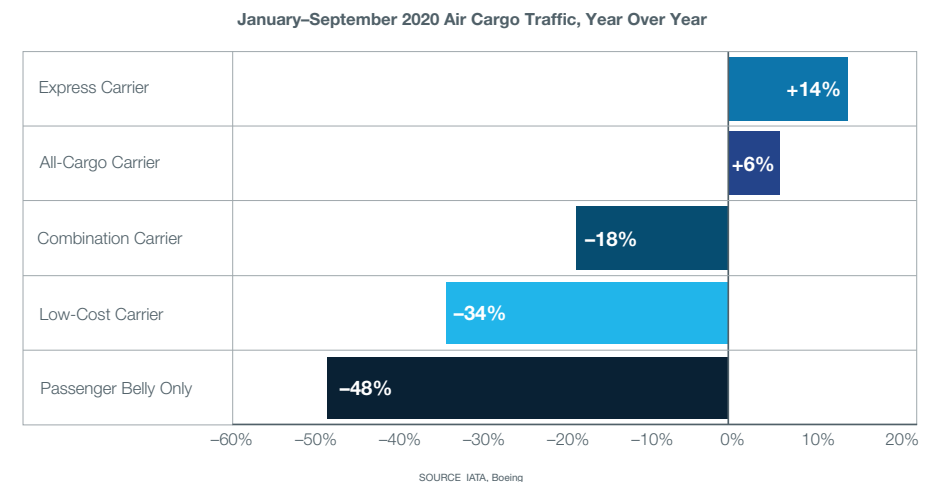
they had increased their traffic by 14%. All-cargo carriers, at 6%, are the only other air cargo business model to show growth. This forecast incorporates this continued structural growth and surge in demand that we have observed because of COVID-19.

Another consideration of structural shifts affecting air cargo growth, and a topic of intense debate in recent years, is the trajectory

Constrained Cargo Capacity Is Driving Higher Yields and Revenue



Dedicated Cargo Carriers Lead in Challenging Market Conditions



of globalization on global supply chains. Geopolitical tensions and trade disputes have percolated and increased in many major economies around the world. Air cargo is highly sensitive to global industrial production output and worldwide manufacturing supply chains.

However, even prior to the COVID-19 pandemic, some shifting of supply chains was already occurring. China, the location of choice for many Western manufacturing companies during the past 20 years, had slowly lost its low-labor-cost advantage relative to other developing countries. As a consequence, some manufacturing has moved away from China to other Asia-Pacific countries in the past few years. However, the movement of supply chains, depending on the complexity of the product, can take years to implement. The magnitude of air cargo imports from China to the United States, for example, is nine times that of the next Asia-Pacific country. This further highlights the current dominance of China as a manufacturing source and supplier. Early indications show trends

toward diversification of supply chains, rather than onshoring, to lessen risk.

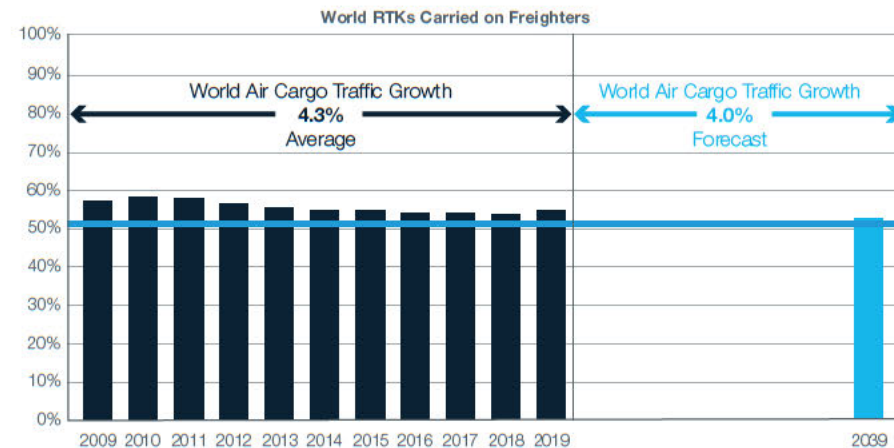
Developments in other modes of freight transport may affect air cargo industry growth. The maritime industry, which transports almost 90% of world merchandise trade, has experienced significant market disruption over the past decade. Several years of overcapacity and weakening trade led to collapsing yields. Ultra-large containerships (those vessels with more than 15,000 20-foot equivalent units of capacity) introduced by the major shipping operators contributed to the overcapacity as trade slowed. In the past five years, the industry has seen consolidation of players, reduced capacity growth and firming yields. While normally the maritime sector is not a competitor to air cargo, the changing nature of container shipping may benefit the air cargo sector. Containership operator capacity discipline, plus manufacturers seeking to de-risk their supply base and disperse manufacturing sites into lower-cost Asia-Pacific regions, may lead to the increased use of air cargo.

Importance of main deck freighters

In addition to the long-term trend of dedicated freighters carrying more than 50% of global air cargo traffic despite growing widebody passenger fleets, the COVID-19 pandemic has highlighted the importance of main-deck freighters in our global air transportation system. While increasingly capable passenger widebody airplanes have helped the air cargo industry grow during the past decade, dedicated freighters are anticipated to continue to comprise at least 50% of the world air cargo traffic carried. There are several key reasons for freighter preference in

air cargo flows: 1) Most passenger belly capacity does not serve key cargo trade routes; 2) twin-aisle passenger schedules often do not meet shipper timing needs; 3) freight forwarders prefer palletized capacity, which is not available on single-aisle aircraft; 4) passenger bellies cannot serve hazardous materials and project cargo, a key sector in air cargo flows; and 5) payload-range considerations on passenger airplanes may limit cargo carriage, which decreases the likelihood that cargo will arrive at its destination on time.

Freighters Will Continue to Carry Over 50% of World Air Cargo Traffic



SOURCE: IATA, ICAO, Boeing

World air cargo traffic growth outlook

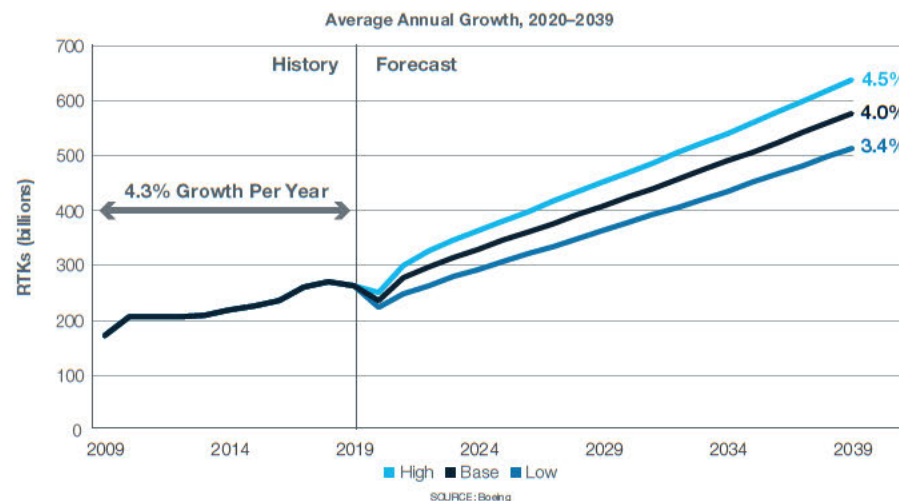
World air cargo traffic is forecast to grow at 4.0% per year over the next 20 years.

In terms of revenue tonne-kilometer (RTK) growth, air freight, including express traffic, is projected to grow at 4.1% while airmail will grow at a slower pace, averaging 1.7% annual growth through 2039. Overall, world air cargo traffic will more than double over the next 20 years, expanding from 264 billion RTKs in 2019 to 578 billion RTKs in 2039.

The Asia-Pacific region will continue to lead the world in average annual air cargo growth, with domestic China

and intra-East Asia and Oceania markets expanding 5.8% and 4.9% per year, respectively. Supported by faster-growing economies and growing middle classes, the East Asia–North America and Europe–East Asia markets will grow slightly faster than the world average growth rate. In the more established and mature trade flow between North America and Europe, growth will be below the world average growth rate.

World Air Cargo Traffic Will Grow 4.0% Per Year Over the Next 20 Years



Air Cargo Growth Rates Vary by Region

Region	History 2009–2019	2019	Forecast 2020–2039
World	4.3%	–3.0%	4.0%
East Asia–North America	3.1%	–7.5%	4.3%
Europe–East Asia	4.2%	–3.2%	4.4%
Intra–East Asia and Oceania	5.2%	–5.4%	4.9%
Europe–North America	3.4%	–4.7%	2.3%
North America	3.3%	3.2%	2.6%
Domestic China	4.9%	3.5%	5.8%
Latin America–Europe	3.9%	–1.2%	4.1%
Latin America–North America	2.1%	–3.6%	2.6%
Africa–Europe	2.8%	4.0%	3.3%
South Asia–Europe	4.1%	3.7%	4.3%
Middle East–Europe	4.8%	10.6%	2.4%
Intra–Europe	4.8%	6.0%	2.3%

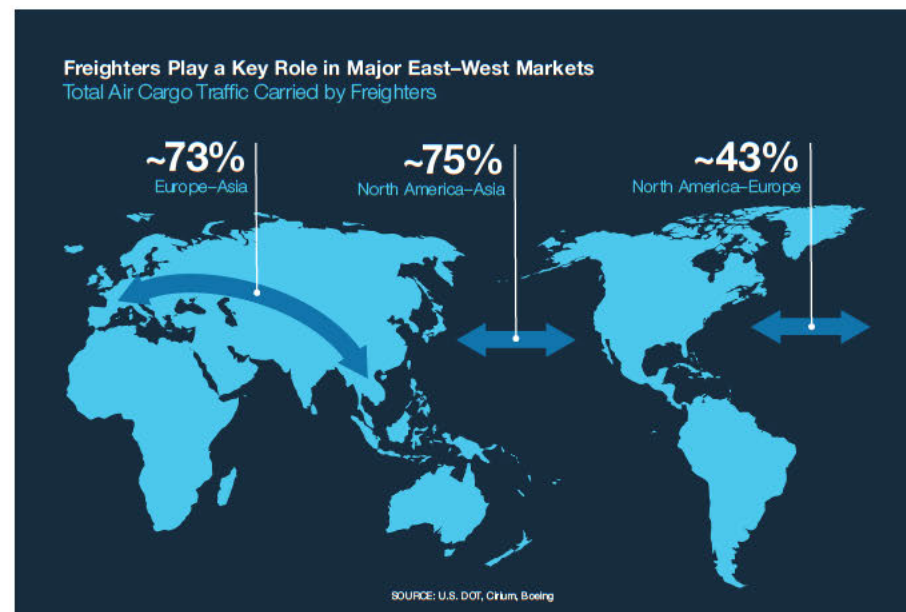
SOURCE: IATA, ICAO, ACI, AAPA, U.S. DOT, U.S. DOC, Eurostat, HS Market GTA, CAC, AA, DGCA, FAVT, Airline Reports, Airport Statistics, Boeing

Freighters and passenger lower-hold dynamics

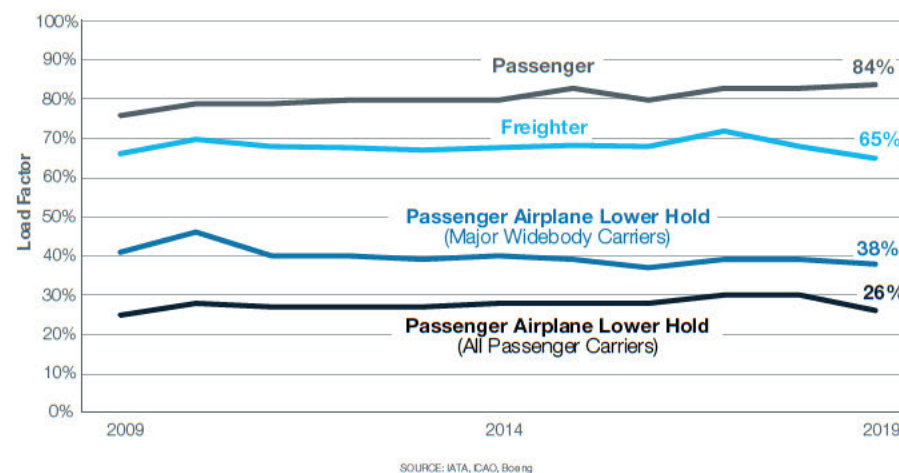
There are two options for air cargo transport — dedicated freighters and passenger aircraft lower holds (also referred to as passenger belly capacity) — and each offers unique advantages. Freighters are particularly well suited for transporting high-value goods because they provide highly controlled transport, direct routing, reliability and unique capacity considerations (volume, weight, hazardous materials and dimensions). These distinct advantages allow freighter operators to offer a higher value of service and generate nearly 90% of the total air cargo industry revenue. With the introduction of a new generation of widebody passenger airplanes with larger lower-hold capacity, more airlines are combining cargo transport with passenger operation to capitalize on additional revenue opportunities. Belly cargo space offers unique value on non-cargo routes by feeding dedicated freighter networks and providing new business opportunities for integrators. However, while lower-hold capacity in widebody airplanes serving long-haul missions has increased in recent years, several parameters can limit

the cargo operations in passenger aircraft. The reduced height of the lower deck can limit volumes. Different security standards and regulations may restrict commodities that can be shipped in passenger airplane lower holds. From a network standpoint, freighter routes are highly concentrated on relatively few trade lanes, especially in the world's two largest trade routes, East Asia–North America and Europe–East Asia.

In contrast, passenger networks are much broader and often include destinations where cargo demand is minimal. This difference in passenger and cargo traffic distribution explains the considerable load factor difference in belly space and freighters, which average approximately 30% and 75%, respectively over the last decade. In addition, range restrictions on fully loaded passenger aircraft and limited passenger service to major cargo airports make freighter operations essential. For these structural reasons, freighters are forecast to carry more than half of the world's air cargo for the next 20 years.



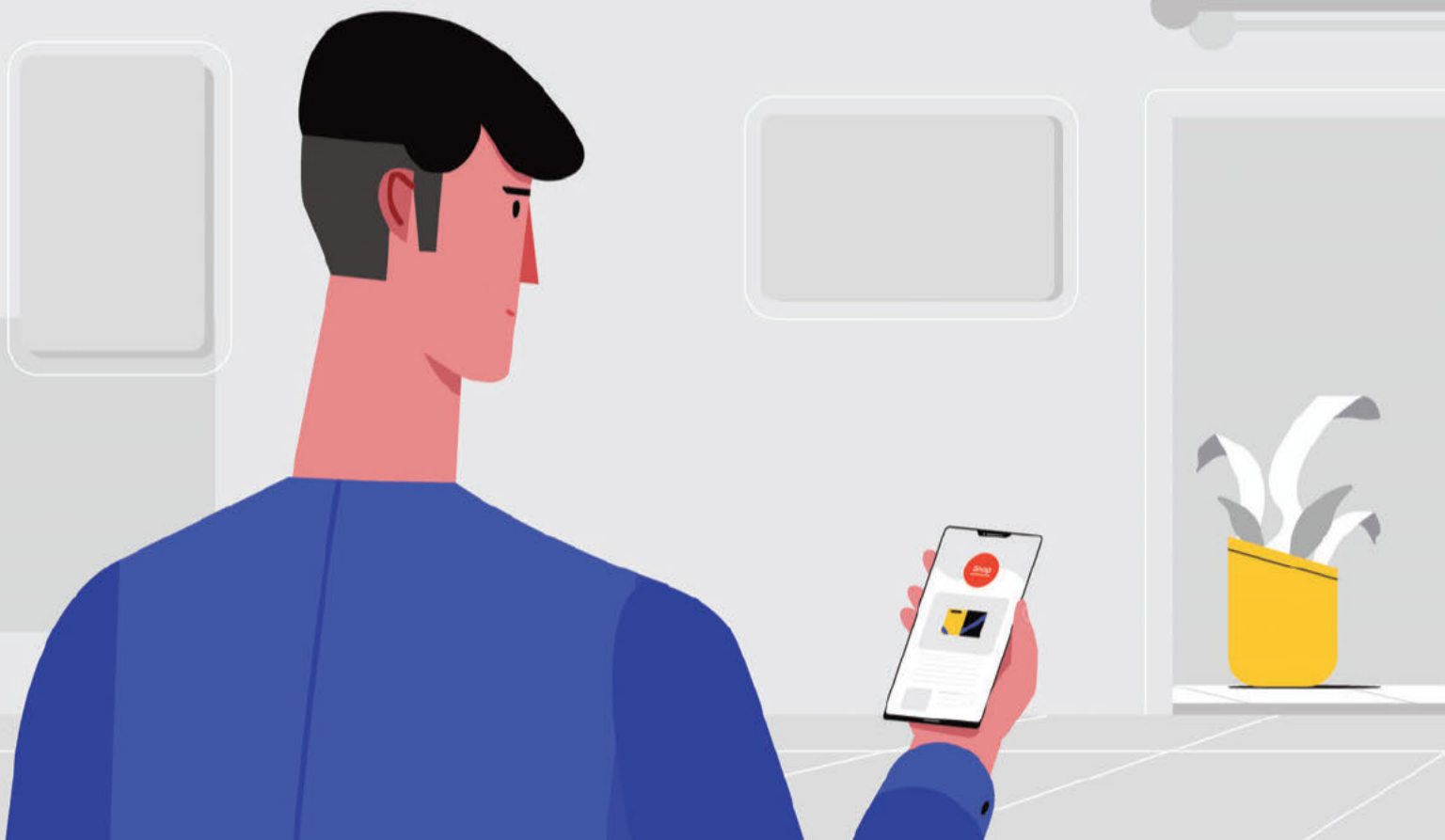
Freighter Cargo Load Factors Double That of Passenger Lower Holds





White Paper

Air cargo and e-commerce enabling global trade



Air cargo and e-commerce enabling global trade

Digital technologies are revolutionizing trade

Our industry is set to double in size by 2035. IATA's role is to facilitate the growth of civil aviation and cut airline costs by creating a better regulatory and business environment for our member airlines, and the stakeholders of the air cargo industry.

20%
growth
per year

IATA enables airlines, the broader value chain, and consumers to connect safely, securely, sustainably, and efficiently to all parts of the network, through global standards. We must add value for our members and enhance air transport, by providing services where we have a clear mandate and a distinctive capability.

IATA's member airlines, together with their partners, must prepare for the future growth of e-Commerce in the air cargo industry by transforming into a modern service provider and anticipating consumers' expectations. The global economy is increasingly turning to e-commerce: whether for online shopping between consumers and businesses, from consumer to consumer, or business to business. Traditional and digital worlds are also tightly integrated with omnichannel solutions and business models mixing offline, online, and even virtual experiences.

Consumers in stores use more and more digital devices (their own or the ones provided by the retailer) to virtually try clothes and customize the goods they will then order, buy products that are either out of stock or not sold in stores, scan product labels to check availabilities, and arrange delivery and returns.

A not-to-be-missed opportunity

Since 2005, global internet retail sales have grown above 20% a year on average, according to Euromonitor International, much faster than traditional store-based sales. The International Post Corporation (IPC) even suggests that this percentage has now reached 25%.

In addition to rising domestic volumes sent by large and small e-retailers, the fast-growing cross-border e-commerce market remains a key growth driver. IPC expects cross-border e-Commerce to account for 22% of global online commerce (nearly twice the growth rate for domestic trade). They predict that between 2016 and 2021, e-commerce sales will grow by 141% and reach a forecasted global sales value of USD 4.8 trillion.

Despite these impressive figures, online retail is still relatively immature as it accounts for only 12% of total retail sales in 2018, according to IPC. Those figures show the vast potential of e-commerce in the near future.



E-commerce is a future growth driver for the air cargo industry, as online shopping boosts demand for parcel delivery services worldwide. On aggregation, the industry's parcel volume more than doubled over the last decade, growing at a rate far above economic growth.

\$4,800,000,000,000
value of global e-commerce forecast for 2021

Cross-border e-commerce

Online shoppers are now buying more and more often, and cross-border e-commerce volumes are growing. According to IPC, in January 2019, 75% of online shoppers buy online at least once a month. Customers' expectations are no different for domestic and cross-border e-commerce. They want speed, predictability of delivery times, and visibility. Network coverage, frequency of flights, tracking capabilities, and flexible and varied final mile delivery solutions are therefore critical to serving e-commerce customers.

75%

of online shoppers buy online at least once a month

20%

buy online at least once a week

The same study also shows that currently, cross-border e-commerce is predominantly for low cost and light-weight products: 84% are below 2 kg, 40% cost less than 25 euros, and 8% are returned. It is therefore relevant to revisit the business models of the air cargo players, pricing structures, chargeable principles and align border regulations impacting traditional airlines, integrators and postal operators to ensure fair competition and interoperable solutions.

Another interesting fact is that footwear, apparel, and consumer electronics represent more than 52% of all online shopping, excluding services such as travel, entertainment, and financial products.

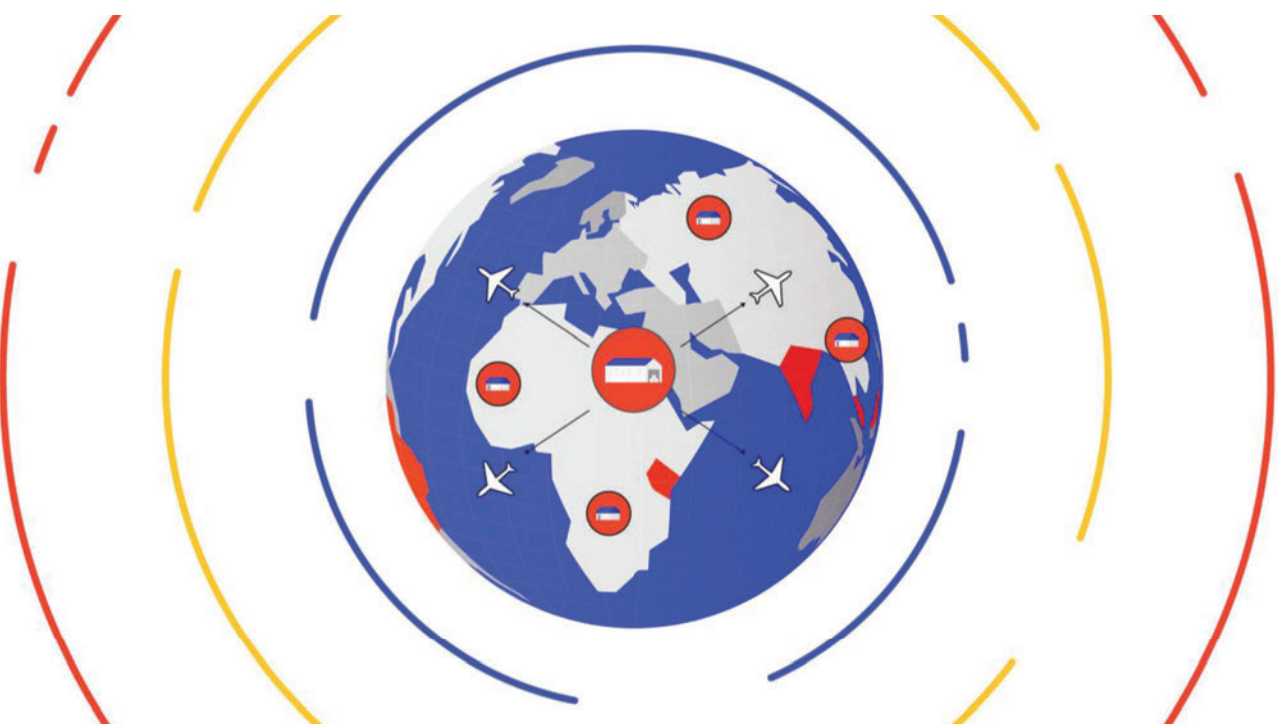
Educating online retailers will be essential to ensure safe packing, correct labeling and declaration of shipments with dangerous goods (specifically lithium battery shipments) and other regulatory compliance obligations.

New players, new rules!

Today's and tomorrow's e-commerce players expect innovation from their partners, and therefore, the complexity and out-of-date processes that are still in place in the logistics industry must evolve to meet their needs.

- They offer simplicity, smooth, and smart digital user experience to their own customers: they expect similar treatment from their logistics providers.
- They continuously innovate to survive the ever-growing competition and are therefore compelled to work with innovative partners.
- They embrace customer-centricity, often via instant comments on social media, and have to respond quickly to any deviation: they need reactivity from their supply chain partners.
- They invent new business models, create new rules: they are ready to be their own logistics provider if existing ones are not addressing their needs.

In the consumer to consumer scenario, there are no more traditional traders nor logistics experts. This means the air cargo logistics providers need to adapt to these individuals who do not necessarily have adequate expertise in trade and logistics.



Linking what the online consumers want and what air cargo can deliver

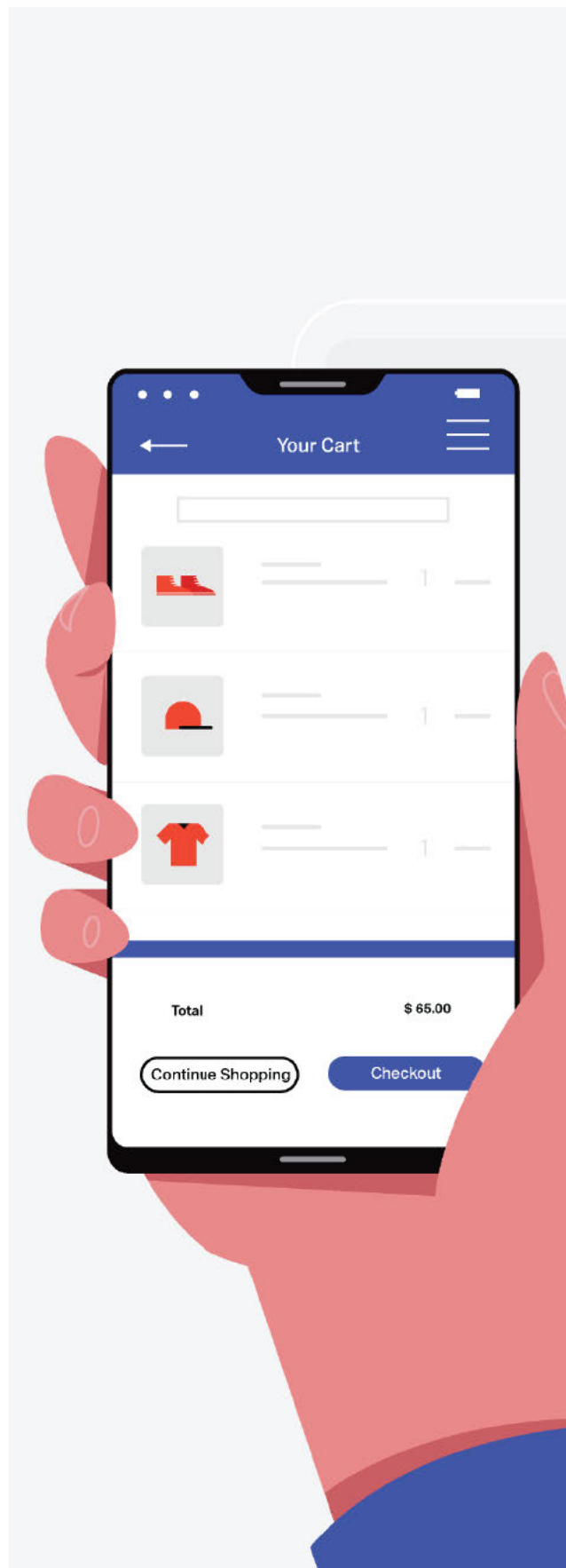
The online marketplace offers visibility of inventory status and expected delivery dates, a variety of shipping options including free, tracking options, and easy returns are demanded by digital shoppers. To be able to offer free shipping, retailers need to get low-cost solutions from their logistics providers. Equally, to be able to propose fast, including same-day delivery options to their consumers, retailers need high-priority and totally reliable logistics services.

High priority	High visibility
<ul style="list-style-type: none"> • Faster delivery • Expedited Customs clearance • Customized final mile / delivery 	<ul style="list-style-type: none"> • End-to-end tracking • Instant notification • Disruption alerts
Normal	Low cost
<ul style="list-style-type: none"> • Regular air cargo service • Basic final mile 	<ul style="list-style-type: none"> • Deferred delivery • Low touch final mile

The increasing need for speed, visibility, and easy returns profoundly impacts the logistics chain

The significant growth of e-commerce has already had a profound effect on retailers and manufacturers' logistics needs as they seek to reach their customer as quickly and cost-effectively as possible while providing supply chain transparency. On top of the speedy and free delivery, facilitating quick, easy and often free returns has become an important criterion for online consumers and a high cost for retailers to handle unwanted used or damaged goods each year.

Shipping items can become very expensive, and managing supply chains, logistics, and reverse logistics involved in e-commerce is often tricky. E-commerce is a challenge for logistics providers who need to understand the newly emerging trends and patterns, better anticipate expectations and volumes, and adapt their network coverage, products, and service level agreements accordingly.



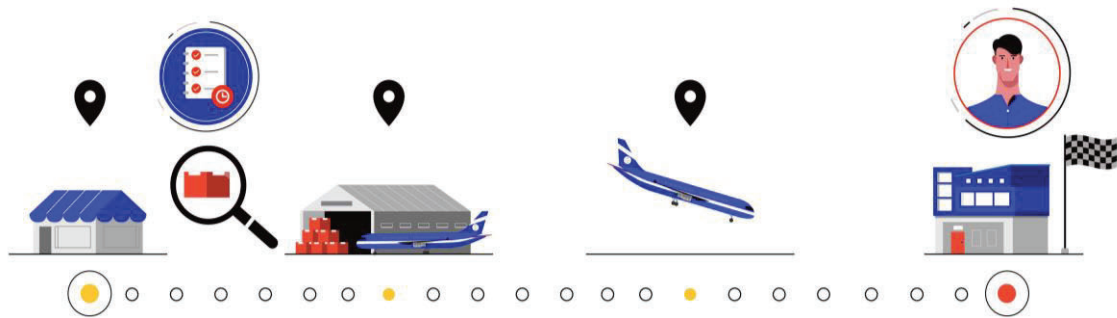
Is the air cargo industry ready to offer the right logistics solutions for the e-commerce retail industry supporting their business growth?

The global scale of the Internet means that online retailing can reach more prospective customers than brick and mortar, based competitors. To deliver to their customers, e-commerce players can choose a variety of logistics options: surface transport (such as road, rail, and sea) and air transport. As the world is their marketplace, air cargo is well-positioned to serve their needs and deliver their goods globally with speed, efficiency, and reliability.

Logistics by air are provided by the traditional model (freight forwarders, ground handlers, and airlines), integrators, and postal operators.

	Traditional air cargo	Integrators	Postal operators
Strengths	<ul style="list-style-type: none"> All type of cargo Security Safety Identification of dangerous goods Airlines' network and schedule Specialized supply chain partners 	<ul style="list-style-type: none"> Integrated supply chain solutions Customs pre-clearance / speed Security Safety Participants in trusted trader programs Identification of dangerous goods End-to-end tracking First and last mile Investments in new technologies Airlines' network and schedule 	<ul style="list-style-type: none"> First and last mile Pricing structure / chargeable principles (flat-rate convention from UPU) Tracking on ground Direct access to shippers and e-tailers
Weaknesses	<ul style="list-style-type: none"> Fragmented No end-to-end tracking Slow adoption of digital Limited investments in new technologies No direct access to shippers and e-tailers Undeveloped first-mile collection 	<ul style="list-style-type: none"> Costs Reliant on traditional air cargo carriers for their enhanced network 	<ul style="list-style-type: none"> Fragmented Security issues in airmail Safety issues in airmail Slow adoption of digital No air/rail/sea network
Opportunities	<ul style="list-style-type: none"> Airmail and cargo IT systems alignment End-to-end optimization Customs pre-clearance End-to-end tracking and interactive cargo Business diversification Drones Revised value model Cooperation with other modes Flexible final mile solutions Inter-modality for blended supply chains 	<ul style="list-style-type: none"> Drones and other autonomous vehicles and robotics Decrease in the taxation for online trade 	<ul style="list-style-type: none"> Alarm resolution concept ACI & e-CSD for airmail Airmail and cargo IT systems alignment End-to-end tracking and interactive cargo Drones and other autonomous vehicles
Threats	<ul style="list-style-type: none"> Competition from integrators and postal operators E-tailers becoming their own logistics providers (Amazon) Future competition from drones operators Innovations in surface modes of transport Too slow to adapt to necessary changes Inefficient and cumbersome regulations increasing costs and/or release times 	<ul style="list-style-type: none"> Postal operators pricing model E-tailers becoming their own logistics providers (Amazon) Future competition from drones operators Innovations in surface modes of transport Inefficient and cumbersome regulations increasing costs and/or release times 	<ul style="list-style-type: none"> Competition from integrators/express carriers E-tailers becoming their own logistics providers (Amazon) Future competition from drones operators Lithium batteries in airmail Too slow to adapt to necessary changes Lack of control of what is being transported Inefficient and cumbersome regulations increasing costs and/or release times

Air cargo responding to the e-commerce challenge: the industry action plan



Strengthen safety and security for air cargo and airmail

Safety and security must be further enhanced with stronger collaboration and compliance with programs related to training, trusted partner identification, and compliance with regulations and best practices. The e-commerce industry will benefit from these initiatives in terms of image and also in terms of efficiency and non-rejections of goods.

Simplify processes, optimize flows and speed up the transaction, introducing industry best practices

"We sell speed – we need to protect that speed." Strengthening the value proposition will be crucial for airlines, forwarders, and ground handlers to support and capitalize on e-commerce growth. What can the industry do to minimize stationary freight pre & post flight or to make the reasons for these temporary events more transparent?

Embrace new technologies that will ensure greater visibility, transparency, and efficiency

Accelerating digitization, developing real-time interaction, testing drones and robots, implementing sensors and data loggers, making sense of Big Data, developing new screening technologies will enable the air cargo industry to adapt, respond, and anticipate e-commerce needs!

Engage with e-commerce players to align understanding of air cargo safety and security matters

Stronger collaboration between commercial partners will benefit all! Interactive dialogue to transmit information like predictive and effective volumes, bookings, and allocations can help optimize capacity, load factors, routes, physical flows, and environmental footprint.

Challenge the status quo and reinvent business models

Evaluate and consider re-purposing excess capacity of the cargo warehouses into modular e-commerce logistics centers and distribution facilities. Forwarders and Ground handlers to consider entering the first and last-mile business with innovative solutions and new age vehicles such as drop boxes, multi-purpose lockers, or drones.

Call for and promote stronger industry coordination

An association of e-commerce vendors would facilitate discussions with international organizations representing airlines (IATA), freight forwarders (FIATA), postal operators (UPU), customs (WCO), etc

IATA's role in supporting air cargo capitalizing on e-commerce growth

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 delivering 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 as well as advocacy and outreach activities.

IATA is driving change in the air cargo industry by simplifying the business and helping make air cargo easier, faster, and smarter.

For e-commerce, our goals are to:

1. advise the industry and enhance understanding of the opportunities and challenges that exist and anticipate online consumer and e-tailer needs so airlines can capitalize on e-commerce growth;
2. ensure the air cargo industry has the right regulations, standards, and global framework to offer the right logistics solutions for the e-commerce retail industry supporting their business growth.



IATA's pipeline of initiatives supporting e-commerce

SAFETY AND SECURITY

Mail Safety Guidelines

Implementing Mail Safety Guidelines developed by IATA and the Universal Postal Union for airlines and posts to ensure that no dangerous goods and prohibited items are accepted in airmail.

e-CSD

Developing and implementing flexible solutions for the electronic exchange of security (e-CSD) related data for cargo and mail to comply with regulatory requirements in an efficient and automated way without disrupting the flow of goods.

Innovative screening technologies

Encouraging the development of new cost-efficient equipment and methodologies to automatically screen all types and all sizes of goods, including dangerous goods, which are simple to build into operation and complying with regulatory certification.

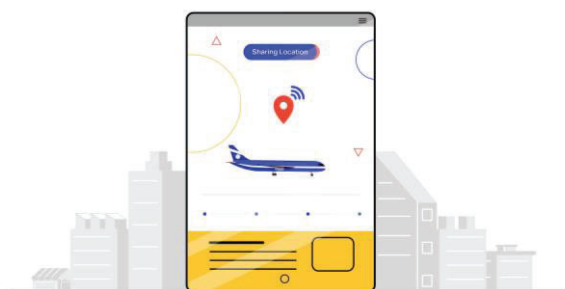
DIGITALIZATION

Cargo and mail IT systems mapping

Bringing together the two different systems for mail and cargo to allow visibility through bookings and allocations, planning through volumetric information, tracking through compatible messages.

Interactive Cargo

Developing the relevant standards and guidelines (piece level tracking, real-time notification, and use of connected devices) to enable cargo to talk!



ONE Record

Developing the relevant standards and guidelines to replace all existing paper and electronic documents by only one digital shipment record, including border formalities.

OPERATIONAL EFFICIENCY

Smart Facility

Driving excellence in air cargo handling by developing high-quality standards in cargo facilities, ensuring safe, secure, efficient and transparent cargo & mail handling. This will be verified through globally-accepted assessments and reinforced by identifying best-in-class cargo facilities using IATA's cargo handling standards

Cargo Facility of the Future

Developing a set of recommendations to modernize existing or build future facilities by making the best use of technologies, processes, and architectural developments.

Fast Cargo

Improving speed on the ground through smart regulations, efficient operations, and modern technologies

DATA

WCO Measurement and analysis

Big Data, review of work currently being undertaken by international bodies, research and analysis of various e-Commerce business models, measuring e-Commerce flows and economic benefits, capacity building, awareness and education

Cargo iQ

Shipment planning and performance monitoring for air cargo based on standard business processes and milestones. As part of that system, the Master Operating Plan (MOP) describes the standard end-to-end process of transporting cargo. Cargo iQ recently launched a strategic transformation to increase its value, positioning itself as the principal provider of quality standards and metrics for the air cargo industry.

STAKEHOLDER ENGAGEMENT

Trusted trader programs for e-commerce players

Promoting the use of existing trusted trader programs to recognize and differentiate the e-commerce players who are educated, trained, and compliant in the areas of safety and security.

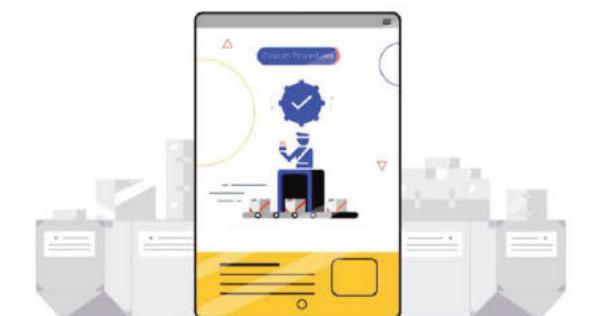
Collaboration

Develop partnerships and joint programs to enhance understanding of the requirements from various parties (UPU, IPC, Cainiao, JD)

BORDER PROCEDURES

Advanced cargo and mail information

Developing and implementing flexible solutions for pre-departure and pre-arrival risk assessments by customs for cargo & mail to comply with regulatory requirements.



Border efficiency

Lobby governments and national customs to collaborate in border efficiency to allow for faster clearance and delivery of e-Commerce goods.

SUSTAINABILITY

Seal of quality for e-commerce platforms

Developing a certification mechanism or a code of good practice for e-commerce platforms that sell lithium battery products to identify the trained ones complying with agreed sets of standards and safety programs.

Illegal Wildlife Trade

Collaborate with e-Commerce platforms and Logistics providers to raise awareness on the responsibility to be aware of endangered species and the necessity to train employees to combat illegal wildlife trade.

Environment

Strongly advocate the requirement to develop appropriate business models that will not impair the environment by taking care of waste, thinking of packaging efficiency and reverse logistics.

NEW BUSINESS ENHANCEMENTS

Drones for tomorrow's air cargo

Developing the relevant standards, guidelines, and partnership for the safe integration of this new branch of civil aviation into the commercial air space to open new opportunities for the air cargo industry.

PASS

Collaborate with the industry to develop an automated system allowing postal operators and airlines to speed up the billing and settlement process using a unique global platform

Reduction in air cargo ATMs at Stansted

Background

As a result of the granting of Planning Permission following appeal, passenger throughput has risen to 43mppa and the maximum Cargo ATMs has fallen from 20,500 Cargo ATMs per year to 16,000.

1) Minimum reduction in Cargo ATMs

Assuming there is no significant growth in passenger ATMs to constrain Cargo ATMs:

20,500 to 16,000 = **22% reduction in Cargo ATMs**

2) Midpoint reduction in Cargo ATMs

Assuming the Passenger ATMs rise to the level predicted by MAG of 253,000¹ and if MAG can reduce Other ATMs from 15,000 down to 10,000, with a limit of 274,000 total ATMs, that only leaves 11,000 Cargo ATMs:

20,500 to 11,000 = **46% reduction in Cargo ATMs**

3) Maximum reduction in Cargo ATMs

Assuming the same as scenario 2 but Other ATMs remain at 15,000 then that only leaves 6,000 Cargo ATMs:

20,500 to 6,000 = **71% reduction in Cargo ATMs**

¹ MAG Stansted Airport Planning Application – Planning Statement paragraph 2.80 on page 18

Airlines Will Need Fewer Wide-Body Aircraft Post-Pandemic

For traditional fly routes and airports like a big hub, it's



When people think of airplanes and air travel, the image that typically comes to mind is a large, wide-body aircraft traveling long distances around the globe. The original Boeing 747 transformed the way the world was able to connect, followed by safe and stable two-eng on wide-bodies. Today, the Boeing 777 and Airbus A350 are common workhorses.

Yet, despite their continued longevity, wide-body aircraft are a challenge for airlines because of their size and costs to acquire and operate. Few markets provide year-round demand that can fill their large cabins, requiring that connecting hubs be required to move traffic from beyond their nations. In this new demand environment due to the pandemic, these aircraft are uniquely challenged and likely will become a smaller proportion of a fleet's aircraft, even over the next 10 years.

Very Difficult For Smaller Airlines

Smaller airlines that have tried to use wide-body aircraft have generally been unsuccessful. Years ago, airlines like AmeriWest and People Express started their downfall when they brought in a wide-body to extend their route networks. More recently, WOW Air, which had flourished largely because of the pressure brought on from the A320, and Norwegian Air, which has finally abandoned their long-haul strategy after nearly breaking even before the pandemic.

Things that make it difficult for airlines to estimate are the disruption costs caused by this kind of airplane, the concentration of resources and attention to it, and the massive losses possible during weaker travel times. They become enmeshed with the network growth and potential status in a kind of plane binging and retirement all kinds of things to keep it flying.

Wide-Body Relative Risk

The narrow-body aircraft is an asset for small airlines and still challenging for large airlines in their relative risk. A narrow-body airplane can make money in good times and lose money in bad times, but the swing is in the direction is not as great. A wide-body can make more money in good times of course because they can carry more people, but they also can lose a lot more to weather it out because of their high monthly ownership costs, fuel, and labor requirements. This relative profitability is outlined in the graphic.

The U.S. Air Force just admitted the F-22 Stealth Fighter has failed. United Airlines won't negotiate over Catering Workers' Return, Union Charges

The F-15 Was The 'F-25 Of Its Day,' But Its Failure Was A Blow To U.S. Air Power



Travel Seasonality

Even without the pandemic, the biggest volumes of air travel are highly seasonal. Airlines often have to adjust capacity by season in order to address this, and there are times of year in most geographic areas where supply for out-of-state demand. With a narrow-body aircraft, there are often alternative opportunities to move the aircraft during low-season travel times. There may not be as profitable as the high-season opportunities, but could cover the aircraft's base cost and the flight variable costs. Scheduled this way, a narrow-body aircraft can be profitable in most months of the year. By comparison, a wide-body, because of its size, has more problems in low-season periods because there are fewer opportunities to rebook. This combined with higher fuel and costs of ownership to create a financial mismatch. Consider this: a new Airbus A350 or Boeing 777 might be leased for \$500,000 per month rent. An Airbus A320 or Boeing 737 would have monthly rent two to four times this amount. Thus, when the plane can't be filled, the airline almost always loses money.

Hub Need For Hubs

Connecting hubs work by effectively growing a local market by bringing in people from other locations. Delta can launch a long-haul flight from Atlanta and fill the plane not only with people from Atlanta, but also with people from dozens of other cities that arrive in time to meet the plane in Atlanta. Without those connecting ones, the local demand may not be big enough to fill the large plane in most weeks of the year. The gate even has to do with connections at both ends, which is why all airlines have been good for larger airlines. Delta can bring in dozens of cities to meet in Atlanta, and when the plane lands in Amsterdam, customers have easy connection options to more cities on KLM.

There are two financial challenges with this hub structure, though. First, the flights that bring customers to the hub must be profitable on their own. Without this, the long-haul flight may be profitable because it is full, but the losses incurred to fill it would be prohibitive. This is often why long-haul flights from smaller or secondary hubs have not generally been successful. Second, the nature of the hub requires a big build-up of people and a lot of facilities to accommodate a lot of planes in one place for a short period of time. These "twinkles" of flight are often with activity, but when all the planes leave there is not much to do until the next batch. This makes for higher costs because of the lower utilization of people and facilities.

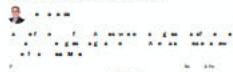
Fewer Wide-Body Aircraft Are Needed

Smaller, narrow-body aircraft with longer range like the Airbus A321XLR (Long Range) have made it possible for some longer flights with fewer connections at either end or even flying point-to-point with no connections. Delta has used older Boeing 737s in this way as well. The efficiency of these aircraft reduces the need for as many wide-body aircraft.

Add to this any measurable measure of air demand recovery recognizes that long-haul travel is the least certain to return quickly or completely. The reason that most point-to-point flights will not return, and those like JAL's Level will likely not succeed. With flights only operating to and from larger connecting hubs, there are fewer needs for wide-body aircraft.

The net result is that narrow-body aircraft, which have always far outstripped wide-body aircraft in numbers, will become even more dominant. Manufacturers, suppliers, MROs, and everyone in the industry should be planning for a world with fewer wide-body aircraft.

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AIR

FEATURES

GLOBAL

Airlines will be forced to aim at long and thin routes



By Joe Cusmano — On Jun 7, 2021

Guest Writer

Share



A trend among airlines of phasing out four-engine widebody aircraft in favour of smaller, more fuel-efficient two-engine aircraft, including even narrow bodies, has accelerated.

With business travel and long-haul international flying expected to be the slowest to recover from the pandemic, airlines are looking to utilise lower-capacity aircraft to operate long-haul routes, and many are permanently parking

With business travel and long-haul international flying expected to be the slowest to recover from the pandemic, airlines are looking to utilise lower-capacity aircraft to operate long-haul routes, and many are permanently parking their Airbus A380s and Boeing 747s. The new star among next-generation “long-haul” aircraft is the Airbus A321XLR, which will offer a range of 4,700 nm, the longest range ever for a single-aisle aircraft.

Assembly of the first flight-test A321XLR has just started, with the aim of deliveries commencing in the second half of 2023. The order book for the A321XLR is robust, with more than 20 customers—ranging from lessors to mainline airlines to LCCs—ordering 450 of the type in total. The aircraft is expected to open new route possibilities for airlines in much the same way the Boeing 787 widebody made new city pairs possible when it was launched.

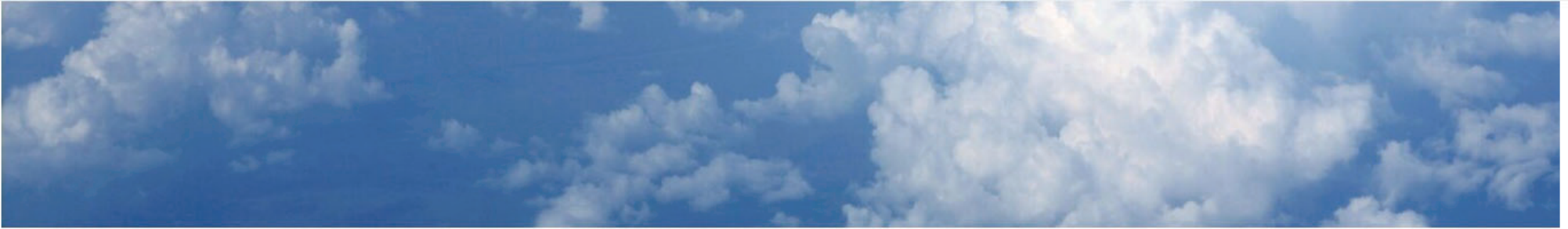
Airbus is not stretching its A321LR or modifying the aircraft’s Pratt & Whitney GTF engines—it is adding range but keeping the same ceiling on passenger load (around 220). The XLR’s added 700 nautical miles in range over the LR (Long Range) is made possible by an extra fuel tank in the rear centre of the aircraft. It is a telling sign of where the marketplace stands that airlines are enamoured with an aircraft that allows for carrying more fuel, but not more passengers.

Airbus has said that airlines operating the A321XLR will be able to fly “long, thin routes” such as India to Europe or China to Australia, or transatlantic routes beyond the traditional hub-to-hub flights. Among the US-based routes, Airbus envisions the A321XLR on routes such as New York JFK-Hamburg, Washington Dulles-Lima, Orlando-Santiago de Chile, Chicago O’Hare-Milan, Houston Intercontinental-Reykjavik, Boston-Casablanca, JFK-Rome, and Miami-London.

New York-based JetBlue Airways, which has just taken delivery of its first A321LR to be used on New York JFK-London flights, has said it will use the XLR to fly nonstop from New York to continental European destinations such as Madrid.

The pandemic has driven both Airbus and Boeing to slash production on their popular twin-engine widebodies. Airlines are still ordering them but in smaller numbers.

Lufthansa, for example, in early May placed an order for five A350-900s and five 787-9s. As a result, Airbus has cut monthly production for the A350 from 10 to under five aircraft per month, while Boeing has lowered 787 productions from 14 aircraft per month to just five per month.



The Airbus A321XLR has over 450 orders so far. Photo: Airbus

1. It is a narrowbody with an incredible range

The [A321XLR](#) is a single-aisle, narrowbody aircraft with a typical two-class capacity of 180-200. But it pushes the range to the highest of any narrowbody – up of 8,700 kilometers (4,700 NM).

To put this into context, the standard A321neo has a range of just under 6,000 kilometers. And the 737 MAX 8 reaches 6,570 kilometers. It is still a long way behind much larger widebodies. The A350-900 offers a range of up to 15,000 kilometers. But it is enough to make a big difference to narrowbody options.



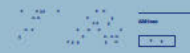
Long-haul flying with narrowbodies will offer new opportunities for airlines. Photo: Getty Images

2. It should enter service in 2023

There have been delays in aircraft production and deliveries during 2020 and 2021. The A321XLR so far seems to be getting through with minimal damage, though. It remains on course for first delivery in 2023.

In February 2021, Airbus [confirmed](#) it was preparing to start the main assembly of the first test aircraft. This is taking place in Hamburg, with a pilot production line in the area that previously handled assembly of front and rear fuselage sections of the A380.

A321neo



A320 Family aircraft



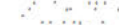
Key figures



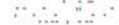
Figure 1: A 3x3 grid of heatmaps showing the relationship between Dimensions, Capacity, and Performance. The grid is organized by Capacity (rows) and Dimensions (columns). Each heatmap shows the relationship between Capacity and Performance. The heatmaps are color-coded: red for high performance, yellow for medium, and blue for low. The heatmaps show that performance generally increases with capacity, but the relationship is more complex for higher dimensions.

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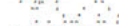
increased revenue potential



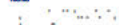
Focus on commonality



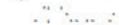
New Engine Options



A221UR Longer range on a single-side
coupled



AGG1XR Efficiency and exit range



APPENDIX B: Handling the Add-In: summary



Our product portfolio



A321neo media gallery



The screenshot shows the 'Circuit' window in the software. The window title is 'Circuit'. It contains a schematic diagram of a circuit with a voltage source, a switch, and a load. The voltage source is labeled 'V1' and the switch is labeled 'S1'. The load is a resistor labeled 'R1'. The circuit is connected to ground. The window also has a 'Simulation' menu and a 'Simulation' button. The 'Simulation' menu is open, showing options like 'Simulate', 'Stop', 'Pause', 'Resume', 'Reset', 'Help', and 'About'.



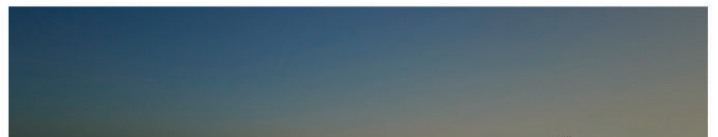
THAMES

F R E E P O R T



Land ready for development now in Europe's biggest consumer market and resurgent industrial cluster.

Thames Freeport is open to do business with new customers, after the Government announced on 3 March that it would be London and the South East's freeport.



	<p>offsetting, are exempted from the offsetting requirements of the CORSIA, while retaining simplified reporting requirements. The requirement to monitor, report and verify CO₂ emissions from international aviation is thus independent from the offsetting requirement.</p> <p>The data reported by States will be used for the calculation of the CORSIA baseline (see question 2.17 for more details on CORSIA's baseline) as well as for the calculation of the aeroplane operators' offsetting requirements, where applicable.</p>
2.11	Can an aeroplane operator have offsetting requirements, even if its State of registration does not participate in CORSIA offsetting?
	Yes. Because of the CORSIA's route-based approach, an operator operating on routes between participating States would be subject to the offsetting requirements under the CORSIA, no matter whether its State of registration participates in CORSIA offsetting or not.
2.12	What would happen to the CORSIA emissions coverage if an operator of a non-participating State flies on the routes between participating States (e.g. fifth-freedom traffic right)?
	Because of the CORSIA's route-based approach, these routes between participating States would be subject to the coverage of emissions offsetting requirements under the CORSIA. Thus, an operator of a non-participating State would be subject to offsetting requirements if it had a flight between two participating States, and emissions from such flights would be added to the coverage of CORSIA's offsetting requirements.
2.13	What would happen to the CORSIA emissions coverage if a State without an operator undertaking international flights decides to participate in the CORSIA offsetting?
	States without an operator flying international flights are encouraged to participate in all phases of the CORSIA. If such a State decides to participate, international flights to and from that State to other participating States are additionally included for the CORSIA's offsetting requirements, due to the route-based approach. The total international emissions covered by CORSIA offsetting would ultimately increase.
	Key design element 3: CORSIA offsetting requirements and eligible emissions units
2.14	What is offsetting and how does it work, in general?
	<p>In general, offsetting is done through the purchase and cancellation of emissions units (see question 4.20), arising from different sources of emissions reductions achieved through mechanisms, programmes or projects. The buying and selling of eligible emissions units happens through the carbon market. The price of the emissions units in the carbon market is influenced by the law of supply (availability of emissions units) and demand (level of offsetting requirements).</p> <p>“Cancelling” means the permanent removal and single use of an emissions unit so that the same emissions unit cannot be used more than once. This is done after an aeroplane operator has purchased emissions units from the carbon market.</p> <p>For CORSIA, an aeroplane operator is required to meet its offsetting requirements by cancelling CORSIA Eligible Emissions Units in a quantity equal to its total final offsetting requirements for a given compliance period. CORSIA Eligible Emissions Units are to be determined by the ICAO Council, and up-to-date information on eligible units is made available on the ICAO CORSIA website (see question 4.21).</p>
2.15	How are an aeroplane operator's offsetting requirements calculated?
	Paragraph 11 of the Assembly Resolution A40-19 addresses the distribution of the total amount of CO ₂ emissions to be offset in a given year among individual aeroplane operators. This is accomplished by introducing a dynamic approach for the distribution

Air Cargo Market Analysis

August 2021

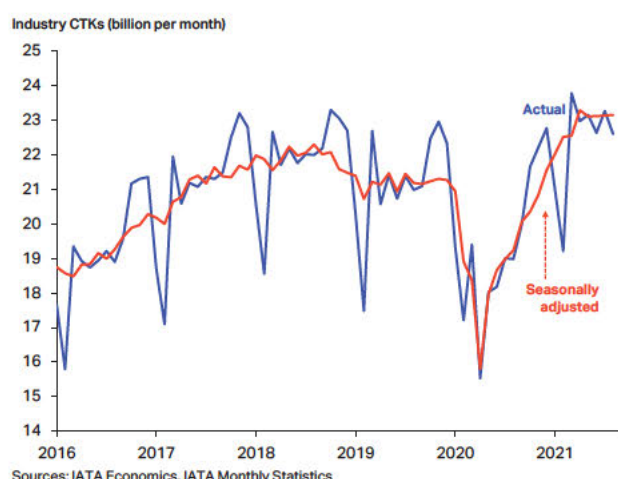
Air cargo still strong, but pressures on capacity are rising

- August was the fourth consecutive month of relative stability in air cargo. Industry-wide cargo tonne-kilometres (CTKs) rose by 7.7% vs. August 2019, compared with an 8.8% expansion in July. After removing seasonality from the data, CTKs continued to trend sideways, well above the pre-pandemic levels.
- Developments in key demand drivers such as manufacturing production and export orders remain supportive to the near-term cargo demand, but pandemic-related supply chain disruptions have been impacting cargo capacity and putting an upward pressure on cargo rates.
- Industry-wide cargo load factor (CLF) reached a record high outcome for any month of August, at 54.2%. CLFs remained elevated across all regions and were the highest in Asia Pacific.

Growth in air cargo remained robust in August

Air cargo demand has stabilized over the past four months at levels well above the pre-pandemic period. Industry-wide cargo tonne-kilometres (CTKs) rose by 7.7% in August 2021 vs. August 2019, which is only modestly slower than in July (8.8%) and well above the long-term monthly average of 4.7%. After removing seasonality from the data, global cargo volumes continued to trend sideways (red line in **Chart 1**). Growth and CTK levels were stable also across most regions, although at different rates. African carriers reported the fastest CTK expansion for another month, at 32.4% vs. pre-crisis August 2019, followed by North American airlines (19.3%). In contrast, Latin American CTKs continued to decline sharply (-13.2%).

Chart 1: CTK levels, actual and seasonally adjusted

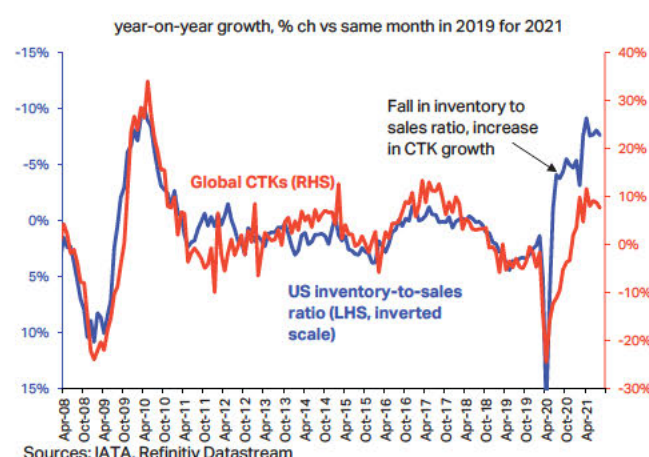


Outlook still upbeat but there are challenges ahead

For now, the outlook for air cargo business remains positive, but growth in some of the key demand drivers has slowed recently and pandemic-related constraints have increased pressure on available cargo capacity.

One of the key indicators that continues to bode well for the near-term cargo demand is the low level of stock for businesses as shown by inventory-to-sales ratio in **Chart 2**. Historically, this pattern has been associated with rising air cargo volumes since businesses and shippers tend to favor air cargo over the other modes of transport to meet the strong customer demand as quickly as possible.

Chart 2: US inventory-to-sales ratio, global CTKs



Another supportive factor for air cargo growth is that the manufacturing production continues rising

Air cargo market overview - August 2021

To aid understanding, the table includes both % comparisons with pre-crisis 2019 months and 2020 months.

	World share ¹	August 2021 (% ch vs the same month in 2019)				August 2021 (% year-on-year)			
		CTK	ACTK	CLF (%-pt) ²	CLF (level) ³	CTK	ACTK	CLF (%-pt) ²	CLF (level) ³
TOTAL MARKET	100.0%	7.7%	-12.2%	10.0%	54.2%	19.0%	19.5%	-0.2%	54.2%
International	85.5%	8.6%	-13.2%	12.3%	61.1%	22.0%	21.1%	0.5%	61.1%

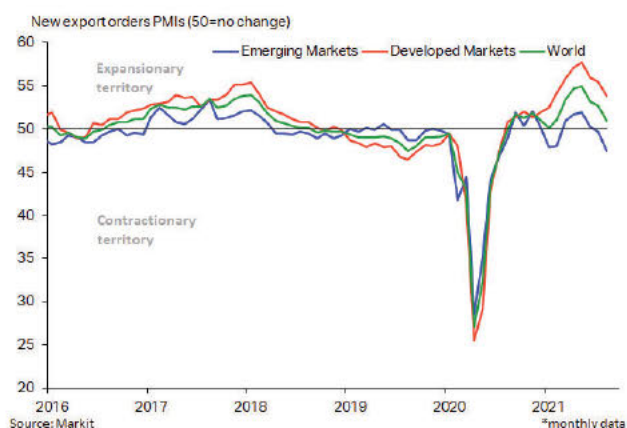
¹% of industry CTKs in 2020

²Change in load factor vs same month in 2019

³Load factor level

globally – a sign that global demand for goods remains strong and should benefit air cargo shipments. That said, the growth in this metric is not as fast as in the previous months (global output PMI at 51.9 in August vs. 54.4 in July) due to weaker outcomes in the US, Eurozone, and Asia. A similar trend has also been observed in new export orders – another important air cargo demand driver – where expansion slowed at the global level and turned into contraction in emerging economies (**Chart 3**). All told, although the latest developments in the two indicators mentioned above are consistent with growing air cargo demand, they are less supportive than in the previous months and show that global manufacturing growth has peaked.

Chart 3: New export orders component of the manufacturing PMI



One of the main challenges to further economic growth is a severe global supply chain congestion resulting from pandemic restrictions. Factory closures and staff quarantines have led to transport delays and input shortages, which have been adversely impacting businesses through higher cost of materials. For airlines, the longer delivery times mean higher air cargo demand since shippers use air transport to speed up their shipping process. However, delays and flight cancellations in airports and uncertainty about schedules have also increased pressure on already constrained cargo capacity. The combination of robust consumer demand and capacity pressures has been pushing up already elevated shipping rates, making air cargo less affordable for many businesses.

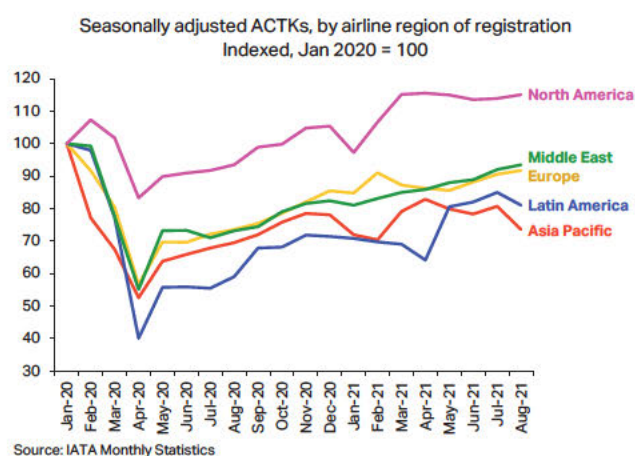
Looking forward, it is likely that cargo demand will remain strong amidst the upcoming large e-commerce events (Single's Day, Black Friday, Christmas...) and launch of new tech products. However, if the available capacity falls further, there might be some setbacks on the way for volumes actually carried.

Global cargo capacity falls amidst ASPAC disruptions

The pressure on global air cargo capacity has increased in August. The industry-wide available cargo

tonne-kilometres (ACTKs) fell by 12.2% in August 2021 compared with pre-crisis August 2019 – a 1.7 percentage points (ppts) faster decline than in July. In month-on-month terms, ACTKs fell by 1.6% – the fastest fall since January 2021. The deterioration in global capacity was largely driven by developments in domestic Asia Pacific market. The spread of Delta variant in mainland China led closure of the Nanjing airport and strict airport and airline crew quarantines in Shanghai, Beijing and other key airport hubs. Pandemic lockdowns also weighed on available cargo space in Vietnam. Amongst the other regions, capacity also fell in the highly volatile Latin America market (-4.6% m-o-m). In the other parts of the world ACTKs continue to recover, albeit at a slow rate (**Chart 4**).

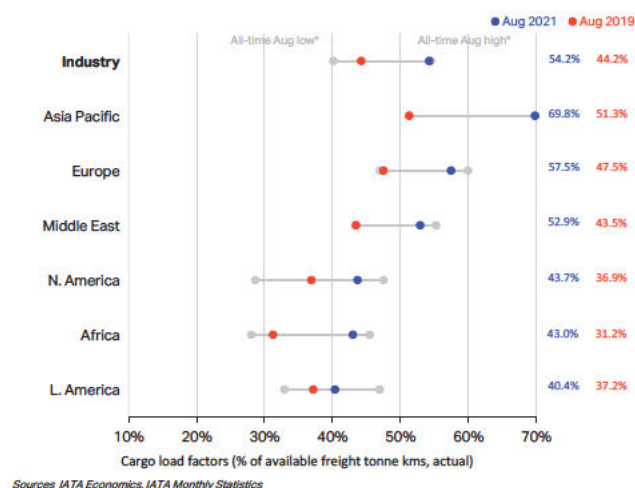
Chart 4: SA ACTKs by region of airline origin



Load factors remain well above the pre-crisis levels

The rising cargo demand against falling cargo supply meant that the industry-wide cargo load factor (CLF) reached a record high outcome for any month of August, at 54.2% (**Chart 5**). Cargo load factors remained elevated across all regions and were the highest in Asia Pacific.

Chart 5: Cargo load factors by region of airline origin

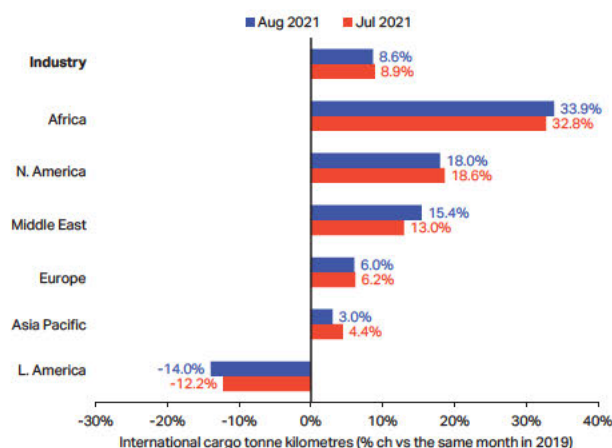


International air cargo remained stable

As for the industry as a whole, international air cargo continued to trend sideways but remained well above the pre-crisis levels. CTKs rose by 8.6% in August 2021 vs August 2019 – broadly unchanged from July (Chart 6). Growth results were similar to July across all regions.

The recovery in international capacity remained slow due to still subdued international passenger market. Indeed, international belly cargo ACTKs were down 37.7% in August 2021 vs. August 2019 – a little improvement on the 39.1% fall in July. At the same time, growth in international dedicated ACTKs accelerated, to 28.3% compared to August 2019 (27.3% in July). Aggregating the two, international ACTKs fell 13.2% vs. the pre-pandemic levels.

Chart 6: Int'l CTK growth versus the same month in 2019 (airline region of registration)



Sources: IATA Economics, IATA Monthly Statistics

African airlines outperformed again

African airlines continued to lead the international CTK growth chart in August, reporting a 33.9% expansion vs. August 2019 – a 1.1ppts improvement on the growth in the same metric in July. Amongst the key regional routes, Africa-Asia has been showing the fastest expansion, at 26.4% vs. two years ago.

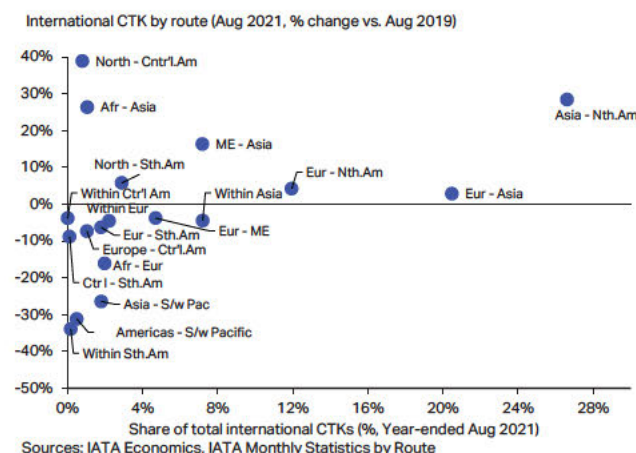
Demand drivers remain supportive in Nth. America

In August, airlines based in North America flew 18.0% more CTKs compared with pre-crisis levels. Manufacturing PMI indices signal that production and new export orders continue to rise robustly in the US. This bodes well for the region's near-term cargo demand outlook. That said, international cargo capacity remains restricted with many of the important cargo hubs reporting severe congestions (e.g. Los Angeles, Chicago). Amongst the region's key int'l markets, the smaller North-Central America performed the strongest, expanding by nearly 39% compared with pre-pandemic August 2019 (Chart 7).

CTK growth accelerated slightly in the Middle East

Middle Eastern carriers reported the largest improvement in August amongst all regions. Their international CTKs rose by 15.4% compared with pre-crisis August 2019 – a 2.4ppts uptick on the CTK expansion in July. The region's growth was boosted by cargo traffic on Middle East-Asia segment-based routes (+16.4% in August vs. August 2019).

Chart 7: International CTKs by route (segment-based)



Int'l cargo developments unchanged in Europe

International CTKs of European airlines grew by 6.0% vs. pre-pandemic levels for another month. The drivers of near-term air cargo demand including manufacturing production and export demand continue to perform well in the region.

Capacity recovery stalling in Asia Pacific

Asia Pacific airlines reported a moderate international air cargo growth in August, at 3.0% (vs. 2019), which is a slower expansion than in July (+4.4%). However, in month-on-month terms int'l CTKs picked up by 0.7%. Looking ahead, the slowing growth momentum in the Chinese economy indicates that operating backdrop will be less supportive to the region's near-term cargo demand. Moreover, although the latest pandemic disruptions in China impacted to a greater extent domestic flights, international Asia Pacific capacity also remains severely restricted, especially on Within Asia and Europe-Asia routes.

Latin American airlines lag the industry

Latin American airlines remained at the bottom of the CTK growth chart for another month, reporting a 14.0% international CTK decline vs. August 2019. The shortage of international cargo capacity remains the largest amongst all regions, at -27.1% vs. August 2019).

IATA Economics
economics@iata.org
 29th September 2021

Air cargo market detail - August 2021

To aid understanding, the table includes both % comparisons with pre-crisis 2019 months and 2020 months.

	World share ¹	August 2021 (% ch vs the same month in 2019)				August 2021 (% year-on-year)			
		CTK	ACTK	CLF (%-pt) ²	CLF (level) ³	CTK	ACTK	CLF (%-pt) ²	CLF (level) ³
TOTAL MARKET	100.0%	7.7%	-12.2%	10.0%	54.2%	19.0%	19.5%	-0.2%	54.2%
Africa	2.0%	32.4%	-3.8%	11.8%	43.0%	27.4%	34.7%	-2.5%	43.0%
Asia Pacific	32.6%	-2.1%	-28.1%	18.5%	69.8%	17.9%	5.1%	7.6%	69.8%
Europe	22.3%	6.3%	-12.1%	9.9%	57.5%	25.7%	24.1%	0.7%	57.5%
Latin America	2.4%	-13.2%	-20.0%	3.2%	40.4%	17.7%	36.4%	-6.4%	40.4%
Middle East	13.0%	15.5%	-5.2%	9.4%	52.9%	22.4%	27.8%	-2.3%	52.9%
North America	27.8%	19.3%	0.7%	6.8%	43.7%	13.2%	23.1%	-3.8%	43.7%
International	85.5%	8.6%	-13.2%	12.3%	61.1%	22.0%	21.1%	0.5%	61.1%
Africa	2.0%	33.9%	-2.1%	11.7%	43.4%	27.4%	34.2%	-2.3%	43.4%
Asia Pacific	29.1%	3.0%	-21.7%	18.2%	75.7%	21.8%	16.5%	3.3%	75.7%
Europe	21.9%	6.0%	-13.6%	11.2%	60.4%	25.9%	24.1%	0.8%	60.4%
Latin America	2.0%	-14.0%	-27.1%	7.9%	51.9%	14.4%	18.6%	-1.9%	51.9%
Middle East	13.0%	15.4%	-5.1%	9.5%	53.3%	22.4%	27.7%	-2.3%	53.3%
North America	17.5%	18.0%	-6.6%	11.4%	54.5%	17.5%	16.9%	0.3%	54.5%

¹% of industry CTKs in 2020

²Change in load factor vs same month in 2019

³Load factor level

Note: the total industry and regional growth rates are based on a constant sample of airlines combining reported data and estimates for missing observations. Airline traffic is allocated according to the region in which the carrier is registered; it should not be considered as regional traffic. Historical statistics are subject to revision.

Air cargo year-to-date developments (Jan-August 2021)

	Year-to-date (% ch vs the same period in 2019)					Year-to-date (% ch vs the same period in 2019)			
	CTK	ACTK	CLF (%-pt) ²	CLF (level) ³		CTK	ACTK	CLF (%-pt) ²	CLF (level) ³
TOTAL MARKET	7.9%	-12.3%	10.7%	57.0%	International	8.3%	-14.1%	13.3%	64.5%
Africa	31.8%	-3.9%	13.2%	48.8%	Africa	33.3%	-1.6%	12.9%	49.3%
Asia Pacific	-0.1%	-22.3%	14.7%	66.3%	Asia Pacific	3.6%	-21.5%	18.6%	76.6%
Europe	5.6%	-15.2%	12.4%	63.2%	Europe	5.4%	-15.6%	13.1%	65.7%
Latin America	-18.2%	-30.4%	6.1%	41.1%	Latin America	-19.8%	-36.1%	10.9%	53.2%
Middle East	12.7%	-10.8%	12.1%	58.2%	Middle East	12.7%	-10.6%	12.1%	58.6%
North America	20.2%	1.6%	7.2%	46.8%	North America	19.0%	-2.2%	10.0%	56.1%

¹% of industry CTKs in 2020

²Change in load factor vs same period in 2019

³Load factor level

¹% of industry CTKs in 2020

²Change in load factor vs same period in 2019

³Load factor level

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Net-Zero Carbon Emissions by 2050



Translation:

[Cero emisiones netas de CO2 en 2050 \(pdf\)](#)

[国际航协：2050年实现净零碳排放 \(pdf\)](#)

Boston - The International Air

Transport Association (IATA) 77th Annual General Meeting approved a resolution for the global air transport industry 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 world's airlines have taken a momentous decision to ensure that flying is sustainable. The post-COVID-19 re-connect will be on a clear path towards net zero. That will ensure the freedom of future generations to sustainably explore, learn, trade, build markets, appreciate cultures and connect with people the world over. With the collective efforts of the entire value chain and supportive government policies, aviation will achieve net zero emissions by 2050," said Willie Walsh, IATA's Director General.

Achieving net zero emissions will be a huge challenge. The aviation industry must progressively reduce its emissions while accommodating the growing demand of a world that is eager to fly. To be able to serve the needs of the ten billion people expected to fly in 2050, at least 1.8 gigatons of carbon must be abated in that year. Moreover, the net zero commitment implies that a cumulative total of 21.2 gigatons of carbon will be abated between now and 2050.

A key immediate enabler is the International Civil Aviation Organization's (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). This will stabilize international emissions at 2019 levels in the short-to-medium term. Support for this was reaffirmed in today's resolution.

World's first zero-emission, crewless cargo ship will make its first voyage this year

BY ASHWINI SAKHARKAR / AUGUST 27, 2021 / TRANSPORTATION



World's first zero-emission, autonomous cargo ship will make its first voyage this year. Credit: Yara International

When it comes to zero-emission, autonomous cargo transportation, the vehicles that first come to mind are trucks and [aircrafts](#). Now, Yara International expects to sail the first autonomous, fully electric cargo ship in Norway by the end of 2021.

A lot of work is being done to combat climate change on a global scale. Reducing greenhouse gas emissions is one of them. According to the International Maritime Organization, the [shipping industry](#) currently accounts for up to 3% of global greenhouse gases emissions. In this context, Yara Birkeland – the world's first zero-emission, autonomous cargo ship – was developed by a Norwegian company.

The electric, autonomous cargo ship project, which was [first implemented as a concept in 2017](#), has now come to an end. As CNN [reports](#), Yara Birkeland would go on its maiden voyage at the end of this year. The cargo ship will travel from Herøya to Brevik with only three onshore data control centers keeping watch over the journey.

Yara had planned to set sail in 2020, but the [COVID-19](#) pandemic delayed the trip. It's not the first crewless ship of any kind to move forward, but it is the first all-electric model.

Yara Birkeland features a 7 MWh battery, powering two 900 kW Azipull pods, as well as two 700 kW tunnel thrusters. The ship is expected to travel at a top speed of 13 knots and will carry 103 standard-sized containers. Considering that container ships typically travel at speeds between 16 and 25 knots, the electric ship is a bit slow. It is safe to say the giant 7MWh battery will take a while to charge.

The company says its new vessel will significantly reduce CO₂ and nitrous oxide emissions and improve road safety by removing up to 40,000 truck journeys in populated urban areas. Initially, loading and unloading the ship will require humans, but the company wants to make the entire operation crewless. So it will work towards developing autonomous cranes and straddle carriers – vehicles that place containers onto ships.

However, there is still a long way to go before you see [autonomous ships](#) making commercial long sea journeys. There are many challenges that need to be overcome – it would be harder for a self-sailing ship to navigate a busy port, and there are also legal issues. Also, different countries have their rules for the sea.

Industry-wide Collective Efforts:

The path from stabilizing emissions to emissions reductions will require a collective effort. All industry stakeholders, including governments must each individually take responsibility to address the environmental impact of their policies, products, and activities. And they must work together to deliver sustainable connectivity and ultimately break aviation's dependence on fossil fuels.

"Achieving sustainable global connectivity cannot be accomplished on the backs of airlines alone. All parts of the aviation industry must work together within a supportive government policy framework to deliver the massive changes that are needed, including an energy transition. That is no different than what we are seeing in other industries. Road transport sustainability efforts, for example, are not being advanced by drivers building electric vehicles. Governments are providing policies and financial incentives for infrastructure providers, manufacturers and car owners to be able to collectively make the changes needed for a sustainable future. The same should apply to aviation," said Walsh.

The Plan

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.

"We have a plan. The scale of the industry in 2050 will require the mitigation of 1.8 gigatons of carbon. A potential scenario is that 65% of this will be abated through sustainable aviation fuels. We would expect new propulsion technology, such as hydrogen, to take care of another 13%. And efficiency improvements will account for a further 3%. The remainder could be dealt with through carbon capture and storage (11%) and offsets (8%). The actual split, and the trajectory to get there, will depend on what solutions are the most cost-effective at any particular time. Whatever the ultimate path to net zero will be, it is absolutely true that the only way to get there will be with the value chain and governments playing their role," said Walsh.

The resolution demands that all industry stakeholders commit to addressing the environmental impact of their policies, products, and activities with concrete actions and clear timelines, including:

- Fuel-producing companies bringing large scale, cost-competitive sustainable aviation fuels (SAF) to the market.
- Governments and air navigation service providers (ANSPs) eliminating inefficiencies in air traffic management and airspace infrastructure.
- Aircraft and engine manufacturers producing radically more efficient airframe and propulsion technologies; and
- Airport operators providing the needed infrastructure to supply SAF, at cost, and in a cost-effective manner.

The Role of Governments

The energy transition needed to achieve net zero must be supported by a holistic government policy framework focused on realizing cost-effective solutions. This is particularly true in the area of SAF. Technology exists, but production incentives are needed to increase supply and lower costs.

The resolution calls on governments through ICAO to agree a long-term goal equivalent to the industry's net zero by 2050 commitment. In line with the longstanding approach to managing aviation's climate change impact, the resolution also called for governments to support CORSIA, coordinate policy measures and avoid a patchwork of regional, national, or local measures.

"Governments must be active partners in achieving net zero by 2050. As with all other successful energy transitions, government policies have set the course and blazed a trail towards success. The costs and investment risks are too high otherwise. The focus must be on reducing carbon. Limiting flying with retrograde and punitive taxes would stifle investment and could limit flying to the wealthy. And we have never seen an environment tax actually fund carbon-reducing activities. Incentives are the proven way forward. They solve the problem, create jobs and grow prosperity," said Walsh.

Milestones

The combination of measures needed to achieve net zero emissions for aviation by 2050 will evolve over the course of the commitment based on the most cost-efficient technology available at any particular point in time. A base case scenario as follows is the current focus:

- **2025:** With appropriate government policy support, SAF production is expected to reach 7.9 billion liters (2% of total fuel requirement)

- **2030:** SAF production is 23 billion liters (5.2% of total fuel requirement). ANSPs have fully implemented the ICAO Aviation System Block Upgrades and regional programs such as the Single European Sky
- **2035:** SAF production is 91 billion liters (17% of total fuel requirement). Electric and/or hydrogen aircraft for the regional market (50-100 seats, 30-90 min flights) become available
- **2040:** SAF production is 229 billion liters (39% of total fuel requirement). Hydrogen aircraft for the short-haul market (100-150 seats, 45-120 min flights) become available.
- **2045:** SAF production is 346 billion liters (54% of total fuel requirement).
- **2050:** SAF production hits 449 billion liters (65% of total fuel requirement).

"SAF will fuel the majority of aviation's global emissions mitigation in 2050. The recently announced US Grand challenge to increase the supply of SAF to 11 billion liters (3 billion gallons) by 2030 is a great example of the kinds of policies that will drive aviation sustainability. Similarly, the announcements from several big energy suppliers that they intend to produce billions of extra liters of SAF in the near term are welcome. But we cannot tolerate announcements with no follow-up. To be meaningful, fuel suppliers must be accountable for delivering SAF at cost competitive prices.

"The way forward for all means of carbon mitigation will be scrutinized. We will match commitments to achievements in reporting that makes it clear how we are progressing. Engaging with travelers, environmental NGOs and governments based on transparent reporting will ensure that our flightpath to net zero is fully understood," said Walsh.

Ambition

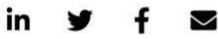
"There will be those who say that we face impossible numbers and technical challenges. Aviation has a history of realizing what was thought to be impossible—and doing so quickly. From the first commercial flight to the first commercial jet was about 35 years. And twenty years on we had the first jumbo jet. Sustainability is the challenge of our generation. And today we are launching a transition that is challenging. But in 30 years it is also within reach of human ingenuity, provided governments and the whole industry work together and hold each other accountable for delivery," said Walsh.

British Airways runs first flight with sustainable aviation fuel

16 Sep 2021 (Last Updated September 16th, 2021 12:50)

The journey using sustainable aviation fuel resulted in 62% fewer carbon emissions compared with the flight in 2010.

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UK-based airline carrier British Airways has operated its first passenger flight using sustainable aviation fuel (SAF) between Heathrow (LHR) and Glasgow Airport (GLA).

The journey of flight BA1476 with SAF resulted in 62% fewer carbon emissions compared to a similar journey in 2010, stated the carrier.

For operating this short carbon-neutral flight, British Airways partnered with Glasgow Airport, Heathrow, Airbus, oil giant BP, and air traffic service provider NATS.

BP provided the SAF that was blended at 35% with traditional jet fuel in line with technical aviation specifications.

The flight was operated by an Airbus A320neo, which is said to be the most fuel-efficient short-haul aircraft in British Airways' fleet currently.

NATS air traffic controllers directed the aircraft from the moment it took off from Heathrow airport in London to its descent at Glasgow, avoiding any levelling off, which would have led to a rise in fuel consumption.

In order to ensure an efficient journey, the aircraft's climb speeds were programmed in advance while aircraft computer systems worked out an optimum altitude and used precise weight and wind data.

During flight landing, the second engine of the aircraft was switched off in an effort to halve the power consumed and carbon emitted as it taxied to stand.

The flight's main objective was to show the progression of the aviation industry in decarbonisation over the last decade.

British Airways chairman and CEO Sean Doyle said: "This flight offered a practical demonstration of the progress we're making in our carbon reduction journey. By working together with our industry partners we've delivered a 62% improvement in emissions reductions compared to a decade ago.

"This marks real progress in our efforts to decarbonise and shows our determination to continue innovating, working with governments and industry and accelerating the adoption of new low carbon solutions to get us closer still to the Perfect Flight of the future."

In July, a total of four aviation projects, backed by British Airways and aimed at facilitating decarbonisation, were shortlisted for the UK Government funding.

The projects are set to promote the industry's net-zero carbon emissions targets by 2050.

Hydrogen-powered ATR 72 gets a launch customer

Share this news

ASL Aviation Holdings, an Ireland-based firm, intends to purchase up to 10 conversion kits to make their ATR 72 freighters run on hydrogen.

The company has signed a letter of intent with Universal Hydrogen, becoming the launch customer for the new type of vehicle.

According to a [press release](#), the converted ATR 72s are going to be used for cargo transportation. In addition to conversion kits, ASL Aviation Holdings will receive one already converted aircraft for tests.

Universal Hydrogen plans to manufacture conversion kits that would allow existing models of turboprop aircraft to run on hydrogen. The company also advertises its intention to create and maintain infrastructure for distributing the new type of fuel.

According to the firm, converting aircraft to run on hydrogen not only greatly reduces carbon emissions, but also improves their performance and reduces operational costs.

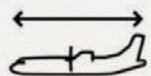
In recent years there have been numerous announcements of investments into research and development of hydrogen-powered aircraft. While the use of such fuel remains challenging, [industry experts expect](#) the hydrogen aircraft market to reach over \$174 billion by 2040.



ATR 72-600F

Born to be a freighter

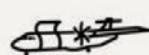
ATR



Overall length
27.17m



Wingspan
27.05m



Large cargo door
2.94m x 1.8m
(96" x 71")



21,000kg
maximum
zero fuel weight



23,000kg
maximum
take-off weight



22,350kg
maximum
landing weight



Rear upper hinged door
optimised for cargo operations



Reinforced flooring
allowing the transportation
of heavier cargo



Luminosity of **86 lux**
in the cargo hold more
than doubles standard of
previous generation



A Quiet neighbor
9 dB quieter than the most
stringent ICAO requirements



State-of-the-art
upgradable avionics suite
(standard 3)



9 tonnes
of maximum structural
payload



75m³
gross volume



900nm
range based on bulk
configuration & typical
cargo density



9 vertical nets
in bulk configuration



5 pallets
2.23m x 2.74m
(88" x 108")



7 LD-3
containers