AviationDaily

AVIATION WEEK Intelligence NETWORK

The Business Daily of the Global Scheduled Airline Industry Since 1939

October 27, 2020

Inside:

AIRFRAMERS/SUPPLIERS/MRO

Spirit, Bombardier Agree To 45% Cash Discount To Close Acquisition

MICHAEL BRUNO, michael.bruno@aviationweek.com

Wichita aerostructures giant Spirit AeroSystems has struck a 45% cash discount with Bombardier for the latter's Short Brothers capacity in Northern Ireland, as well as Bombardier Aerospace North Africa and most of a Dallas MRO site.

Spirit announced the new terms Oct. 26, just five days ahead of the deadline for closing the nearly year-old acquisition agreement with Canada's Bombardier. The amendment cut the net proceeds purchase price payable to Bombardier to $275 million from $500 million. At signing on Oct. 31, 2019, Spirit said the deal had a then-total enterprise valuation of $1.09 billion. The new terms cut that to $865 million, down about 20%.

The companies expect to close the deal on Oct. 30. The move makes Spirit one of Bombardier's largest suppliers, increases work content for Airbus, and also diversifies Spirit's revenue streams with more aftermarket sales. Spirit has been working for years to diversify away from Boeing commercial aerostructures work, which accounts for most of its annual revenue.

The acquired businesses are based in Belfast, Casablanca and Dallas. Jefferies analysts estimated the acquired assets have content on five aircraft and three engine

ACQUISITION, P. 2

The Daily Memo

New Turboprop Back On The Table At Embraer

JENS FLOTTAU, jens.flottau@aviationweek.com

JOE ANSELMO, joe.anselmo@aviationweek.com

When Francisco Gomes Neto took over from Paulo Cesar de Souza e Silva as CEO of Embraer, the company was on a clear path.

While keeping a 20% stake, it was essentially going to dispose of its commercial aviation business by moving it into the planned Boeing Brasil Commercial joint venture to kickstart the market introduction of the new E2 family through synergies in joint sales campaigns. Embraer was also expecting massive growth potential beyond the E2, participating in the development of Boeing's planned new mid-market airplane (NMA) and possibly even taking the lead on a future narrowbody larger than the E2.

The COVID-19 pandemic changed everything. Not only did sales implode, but Boeing abruptly pulled out of the joint venture, leaving a big question mark over Embraer's future.

Having run Brazilian bus manufacturer Marcopolo, Gomes Neto was a newcomer to the industry. Given the circumstances, he took his time to formulate a new strategy for the company. Now, seven months into the worst industry crisis on record, the

DAILY MEMO, P. 2

ACQUISITION, From P. 1

programs, with the largest current programs being the Airbus A220 and the Bombardier Global series, with 2019 normalized total revenue around $1 billion.

"The transaction secures Spirit's position as the world's leader in composite structures for aircraft and as one of the leaders in integrated wing technologies," Spirit AeroSystems CEO and president Tom Gentile said.

Still, no new information was provided regarding A320neo thrust-reverser work, and the issue remains a key question for investors, according to Jefferies analysts. In June, Airbus revealed its intent to forego insourcing the work on the nacelle from Raytheon Technologies, representing a relatively large lost opportunity for the Bombardier-turned-Spirit business.

The Spirit-Bombardier deal was one of many fragile, pre-pandemic acquisition agreements that were being watched by industry observers–especially following the recent failure of a separate deal by Spirit to buy Asco Industries of Belgium. Spirit was widely expected to seek a price reduction from Bombardier, particularly after the A320neo thrust reverser issue. Weeks ago, the companies revealed another change to their arrangement, with Spirit now not expected to make a $130 million pension contribution until sometime in 2021.

Still, both companies were motivated to close the deal. With the price reduction, Spirit saves roughly $355 million of near-term liquidity, according to Jefferies. Bombardier, meanwhile, receives badly needed funds to continue its own transformation as it focuses on being a business jet provider only. Both

ACQUISITION, P. 3

DAILY MEMO, From P. 1

strategy is emerging, and it is based on optimism that Embraer can emerge from the current crisis even stronger. In his first interview with the aviation trade press, Gomes Neto talked about his plans to Aviation Week—for the Check 6 podcast and a broad interview to be published soon in Aviation Week & Space Technology.

Gomes Neto had news to share. First, Embraer has given up on the idea of selling the commercial aviation business, for good. "We have no intention to sell commercial aviation or any other division anymore," he said. Instead, as part of a five-year plan stretching to 2025, he sees opportunities for the company to exceed pre-crisis revenues on its own. "We believe the regional market will rebound first and the airlines will look for more versatile, flexible and economical jets to improve their profitability as well. Our E2s fit that scenario perfectly," Gomes Neto argued. He expects the recovery of the air transport market to begin in 2022.

Furthermore, the proposed new turboprop is back on the table. Former commercial aviation CEO John Slattery, now the chief at GE Aviation, had tied that project to the Boeing Brasil Commercial joint venture, particularly in the long process of trying to get regulatory approval from the European Commission. His argument: Embraer on its own could not fund the investment. Now, according to Gomes Neto, "we like the project, we believe it has a future, but at this point in time we really need one or two or three partners to contribute funds to develop the aircraft." The partnership is now supposed to be limited to the project, rather than the entire division.

Before the crisis, Embraer was looking at a large, conventionally powered turboprop. Few details were public, but the aircraft was believed to be positioned to compete with the ATR 72 and the de Havilland Dash 8-400, with an entry-into-service date well before the end of the decade. Importantly, the aircraft is to be designed so that it can be changed to hybrid-electric propulsion at a later date once the technology is ready.

While Airbus is pushing hard for hydrogen propulsion, Embraer is choosing a different technology path. "We understand of course that hydrogen propulsion is one of the lines of research for the future," Gomes Neto said. "But it is really still in a very premature stage. We at Embraer [will] work on an aircraft with hybrid-electric propulsion, because we believe this technology will be available in the short- and medium-term for commercial use."

Looking back at the Boeing deal, Gomes Neto isn't forgiving: "We believe that Boeing has wrongfully terminated the agreement. The reason [was] to avoid closing the transaction and pay us the $4.2 billion purchase price."

Now, the commercial aviation division is being reintegrated into the group structure, with the process essentially completed for administrative functions and services. And Gomes Neto stressed that Embraer "does not need to be saved. We did a great job in terms of financial strategy with loans from [state-owned] Brazilian bank BNDES to support our working capital complemented by [other] Brazilian and foreign banks. More recently we issued some bonds to lengthen our debt profile. We are in a very comfortable liquidity position also for the next two years and have time to do our homework."

REGULATORY/LEGISLATIVE

U.S. Government Tentatively Approves Delta-WestJet JV

AARON KARP, karpatw@yahoo.com

WASHINGTON—The U.S. Transportation Department (DOT) has tentatively granted antitrust immunity to the proposed Delta Air Lines-WestJet transborder joint venture (JV), but with conditions that the carriers must accept.

"The department is proposing, as a condition of approval, that the carriers remove Swoop, an ultra-low-cost carrier affiliate of WestJet, from the alliance, and divest 16 takeoff and landing authorizations (slots) at New York City's LaGuardia Airport (LGA)," DOT said in a statement. "The department is also proposing other conditions, including requiring WestJet to provide interline access to select carriers flying to Canada, and reviewing the proposed alliance in five years' time."

DOT noted that its "show cause order" is a first step in the approval process and interested parties have 14 days from Oct. 23 to submit public responses before the department makes a final decision.

The Delta-WestJet agreement deepens the existing codeshare partnership between the U.S. and Canadian airlines. The companies plan to expand codesharing, more closely align frequent flyer programs, jointly coordinate schedules and work together on cargo operations.

As of July 2018, when the JV was proposed, Delta had a 12.3% capacity share of the U.S.-Canada market while WestJet had 12.7%.

The lucrative market has been disrupted by the COVID-19 pandemic, but Delta had been eager to form a similar antitrust immunized JV with WestJet as it has with Aeromexico on the southern U.S. border.

AIRLINES

U.S. Investor New Majority Owner Of Air Burkina

ALAN DRON, alandron@adepteditorial.com

The West African state of Burkina Faso is privatizing its national carrier Air Burkina with a U.S.-based development, consulting and contracting firm taking a majority stake.

In June, Pensacola, Florida-based African Global Development (AGD) announced its involvement with Air Burkina, with the intent to collaborate with the country's government to expand the airline's fleet and to increase its route map and profitability.

"Following the merger and acquisition of Air Burkina by AGD, a new fleet of aircraft will be put into service. Air Burkina will be the cheapest and most efficient airline in West Africa," the partners said in a joint press release at the time.

They added that the national carrier would start offering a domestic service to a minimum of six airports while the capital, Ouagadougou, would become the center of operations for what the partners described as "a large regional airline" with new destinations. The destinations include regional West African locations, later expanding to North and East Africa, with the possibility of European flights in the longer term.

According to local media, AGD on Oct. 20 signed an agreement with the Burkina Faso government under which the African state and local private investors will retain a 20% share in the national airline. The airline will reportedly transfer to the private sector Jan. 1, 2021.

AGD, an investment group specializing in the development and operation of large-scale infrastructure, had not responded to inquiries by press time.

According to local reports AGD will inject $452 million into the airline and significantly increase its fleet. AGD reportedly intends to add four Airbus A220-300s, three Embraer E145s and three Cessna Grand Caravans. However, according to some media reports, Burkina Faso transport minister Vincent Dabilgou has also suggested acquiring ATR turboprops for sub-regional services.

Aviation Week Intelligence Network Fleet data shows Air Burkina's current in-service fleet comprises two Embraer E195, an Ei75 and an E170. An additional E170 is in storage; all the aircraft are leased.

Air Burkina was previously partially privatized between 2001 and 2017, when the Aga Khan Fund for Economic Development (AKFED) held a majority of shares. The government retook control in 2017.

ACQUISITION, From P. 2

companies have seen their stock and credit ratings sink in 2020 as cash concerns skyrocketed in the wake of COVID-19's devastating affects to the commercial aviation sector.

Bombardier on Sept. 16 said it finalized terms of the sale of its train business to Alstom for $8.4 billion, including a $350 million price cut from the MOU unveiled in February.

AIRFRAMERS

Mitsubishi Heavy Industries To Issue Updated SpaceJet Plan

BRADLEY PERRETT, perrett@aviationweek.com

Mitsubishi Heavy Industries (MHI) will issue an update on its plans for the SpaceJet regional jet program on Oct. 30.

Responding to a Kyodo news agency report that freezing the program was under consideration, the conglomerate said no such decision has been made.

"It is true that we are considering various possibilities, but there is no truth to reports that we have decided to freeze development," the company said.

Kyodo said sharply reducing the program's staffing and spending was being considered.

MHI said that, in light of the impact of the COVID-19 pandemic, it is continuing a detailed review of the program schedule and "is moving forward with development with an appropriate budget that takes into consideration the challenging financial headwinds facing MHI Group."

The group said in May it was working toward that target.

In its response to the Kyodo report, MHI said its "next mid-term business plan, which includes the SpaceJet program, is planned to be announced on 30th October, alongside FY2020 Q2 financial results."

The company's fiscal second quarter is July-September. Representatives of the group and subsidiary Mitsubishi Aircraft, which is developing the SpaceJet, declined to comment further.

SpaceJet flight testing and production have been halted. Mitsubishi Aircraft has been cutting staffing at the home of the development effort in Nagoya, Japan.

At the main flight-test base, at Moses Lake, Washington, operations have been reduced to preserving the prototypes there.

AIRLINES

Denmark, Sweden Increase Stakes In SAS Recapitalization

VICTORIA MOORES, victoria.moores@informa.com

Scandinavian Airlines (SAS) has completed its critical recapitalization, increasing the Danish and Swedish government stakes in the airline to 21.8% each.

The SEK14.25 billion ($1.6 billion) recapitalization plan included five separate financial instruments, several of which were state-backed.

Under the plan, SAS increased its share capital by SEK5.2 billion to SEK8.6 billion, taking the total number of shares from 382.6 million to 7.3 billion.

"This corresponds to a dilution of approximately 95%. The recapitalization plan will result in each of the government of Sweden and the government of Denmark holding 1,584,296,144 common shares, corresponding to approximately 21.80% of the total number of shares and votes in the company each," SAS said Oct. 23.

"Through the recapitalization plan, SAS converts SEK2.25 billion of debt to equity, raises proceeds corresponding to approximately SEK12 billion before issue costs and hence restore equity by an amount corresponding to SEK14.25 billion," SAS said.

New state hybrid notes will be issued to Denmark and Sweden on Oct. 26. Other new

RECAPITALIZATION, P. 6

Staff

EDITORIAL
2121 K Street, NW, Suite 210, Washington, DC 20037
+1-202-517-1100 awin.aviationweek.com

EDITORIAL STAFF
Managing Editor Mark Nensel
Executive Editor Jens Flottau
Contributing Editors Sean Broderick, Michael Bruno, Bill Carey, Chen Chuanren, Alan Dron, Thierry Dubois, Ben Goldstein, Kurt Hofmann, Helen Massy-Beresford, Polina Montag-Girmes, Victoria Moores, Guy Norris, Tony Osborne, Bradley Perrett, Adrian Schofield, Graham Warwick
Air Transport Group Editor-In-Chief Karen Walker
Group Editorial Director Joseph C. Anselmo
Associate Producers Amy Hardcastle, Donna Thomas
Copy Editors Guy Ferneyhough, Natalia Pelayo

DATA & ANALYTICS
Director, Forecasts and Aerospace Insights Brian Kough
Senior Industry Analyst Craig Caffrey
Manager, Data Operations/Production Terra Deskins
Lead Company Analyst Eric Brown
Fleet Analysts Brian Bostick, Nigel Harod, Nigel Howarth, Bo-Göran Lundkvist, Dan Williams

SUBSCRIBER SERVICES
Customer Service, New/Renewal Sales
Aviation Daily, 22701 W 68th, Ste 100,
Shawnee, KS 66226-9806
Tel: +1-877-369-3706 (within the U.S.)
Tel: +1-913-850-6930 (outside the U.S.)
Fax: +1-800-455-3145
Email: tech_assistance@aviationweek.com

INTELLIGENCE AND DATA SERVICES
Managing Director Anne McMahon
Tel: +1-646-291-6353, anne.mcmahon@aviationweek.com

Senior Director, Business Development Thom Clayton
Tel: +44 (0) 20 7017 6106, thom.clayton@aviationweek.com

Discounted rates for multiple users and enterprise access available. Custom packages and additional services available including Intelligence/Research, Fleet Data, Forecasts.

User Engagement Laurie Grossman, Tel: +1-646-233-4434
laurie.grossman@aviationweek.com

Online access to Aviation Daily is available at awin.aviationweek.com

ADVERTISING
Sales Director Tom Davis
Tel: +1-469-854-6717, tom.davis@aviationweek.com

REPRINTS
Wright's Media
Tel: 1-877-652-5295 (within U.S.)
Tel: 1-281-419-5725 (outside U.S.),
informa@wrightsmedia.com

Published daily except Saturdays, Sundays and holidays by Aviation Week, 2121 K Street, NW, Suite 210, Washington, DC 20037. (ISSN No. 0193-4597).
Gregory Hamilton, President, Aviation Week.

Vol. 422 • No. 17

AVIATION WEEK NETWORK
an informa business

AIRLINES

Lufthansa Details Hibernation Plans For Coming Winter

JENS FLOTTAU, jens.flottau@aviationweek.com

FRANKFURT–Lufthansa plans to put large parts of group administration into "hibernation mode" between mid-December and the end of February 2021 and is making further operational cutbacks to deal with the much lower level of demand for air travel.

The group's executive board told employees in a memo Oct. 25 that efforts to reduce costs have to be reinforced, even though the company has been able to cut cash outflow from €1 million ($1.2 million) per hour to €1 million every two hours. "We have to avoid expenses even more strictly and lower costs even more," the board wrote. "There is unfortunately no other way for us."

The board said operating entities will have to produce a flight program equivalent to 25% of last winter with minimum operative and administrative resources. All airlines will go to a minimum crew complement and will only use the most efficient aircraft. Lufthansa plans to transfer four more Munich-based Airbus A350s to the Frankfurt hub to replace less efficient or larger aircraft like the A340-300 or Boeing 747-8. Lufthansa already decided to move an initial four A350s in September.

Among the Lufthansa Group airlines, Swiss plans to fly its entire European program using only A220s and some A320neos. Austrian is parking its entire A320 family fleet except for a few A319s. Austrian's European flights are operated by 17 Embraer E195s and eight de Havilland Dash 8-400s, with the turboprops to be phased themselves in 2021. Eurowings will fly less than 30 aircraft over the winter.

In total, Lufthansa is putting 125 aircraft back into storage that should have flown in the winter.

Stored aircraft will be used for spares, including for engines, auxiliary power units, landing gear and inflight entertainment screens, the board decided. Heavy maintenance foreseen for the 747-400 fleet is canceled.

In administration, only work-essential operations and legally binding processes are to be continued in addition to the restructuring planning. Short time work is to be used to the maximum extent. In Frankfurt, headquarter building "Lufthansa Aviation Center" will be closed from December to February with minimal exceptions for some staff. Eurowings is giving up all office space in Dusseldorf.

"We are in a situation the effects of which are similar to a lockdown," the executive board memo continued. It refers to €4.1 billion in accumulated losses over the first three quarters of 2020, a loss that will "increase significantly" in the fourth quarter.

Management stressed that "no one can predict how long travel warnings, entry bans and lockdowns will continue in individual countries until some recovery happens." And if it does happen, it is unclear to Lufthansa how steep or flat it will be.

For the first time, executives also warned of permanent impacts through the increased use of video conferences, a reduction in available income, a global recession and changing travel behavior as passengers become more conscious of environmental protection. "No one can safely predict these effects," according to the memo.

Nonetheless, management insisted it is doing everything it can to keep around 100,000 of the 130,000 pre-crisis jobs at Lufthansa.

AIRFRAMERS

Airbus Delivers First U.S.-Assembled A220-300 To Delta Air Lines

BEN GOLDSTEIN, ben.goldstein@aviationweek.com

Airbus delivered the first U.S.-assembled A220 to Delta Air Lines, marking the onset of a new era of stateside aircraft production for the European OEM, as well as the first delivery of the larger A220-300 variant to a North American operator.

Airbus inaugurated a dedicated final assembly line (FAL) for the A220 at its Mobile, Alabama plant in May 2020, with the capability to produce both the smaller A220-100 and larger A220-300 variants. Intended for the assembly of aircraft destined for U.S.-based customers, the new FAL complements Airbus's primary A220 production facility in Mirabel, Montreal.

"The delivery of the first U.S.-built A220-300 is a historic moment that highlights Airbus' growing industrial footprint in North America," Airbus Americas CEO Jeffrey Knittel said in a statement. "We look forward to seeing passengers ... traveling on board this brand new A220-300 proudly built in Mobile, Alabama."

The first delivery of a U.S.-assembled A220, earmarked for Delta, is also the first of the larger A220-300 variant to enter the fleet of a North American airline. Delta was also the North American launch operator of the smaller -100 model, with 31 of the type already in its fleet. Currently the world's largest operator of the former Bombardier C Series, the carrier has firm orders in place for 14 additional -100s and 49 more -300s,

AIRBUS, P. 6

AIRLINES

Uganda Airlines To Go Long-Haul In 2021

VICTORIA MOORES, victoria.moores@informa.com

East African carrier Uganda Airlines is preparing to receive its first Airbus A330-800 in December, ahead of the carrier's long-haul debut in early 2021.

State-owned Uganda Airlines launched Bombardier CRJ900 operations in August 2019. Despite the COVID-19 outbreak, the Entebbe-based carrier is sticking with its original plan to now go long-haul in early 2021.

"It's been a long time coming," Uganda Airlines CEO Cornwell Muleya said in a television interview with NTV News. "It's a big milestone, after 18 years of not going intercontinental."

The previous incarnation of Uganda Airlines collapsed in 2001, while privately owned Air Uganda closed its doors in 2014.

"The CRJs, which were for the regional [services], they came, they arrived on time and on budget. And we are once again, we are seeing the A330 is coming at the right time, in December," Muleya said.

The new pair of A330-800s are being purchased direct from Airbus by the Ugandan government. The first of these aircraft left the Airbus paint shop on Oct. 16.

"We have three principal flights that we're going to make on these aircraft," Muleya said. "The first route is to go to London, which is the UK. And then the second one is to go to Dubai, in the Middle East. And the third option is to go to Guangzhou in China. This is where the majority of traffic out of Uganda goes."

Other potential routes include Mumbai, as well as destinations in west and southern Africa to provide connectivity across the continent.

Muleya said passengers need reassurance that it is safe to fly. Ugandan travelers are required to provide a negative COVID-19 test before they fly.

"2020 has been devastating for the entire sector," the CEO said. "In Africa, I think more than 98% of the capacity was down [in March to June], because of airport closures, so we are just recovering."

However, Muleya added that Uganda Airlines is still in its start-up phase and was able to conserve cash by suspending some route launches. The airline is now gradually resuming flights across its regional network.

Muleya is no stranger to African aviation. He trained as an accountant, specializing in company restructuring, and has previously held senior roles with Air Botswana, Air Mauritius, Air Tanzania and Zambezi Airlines. Muleya also worked for Uganda Airlines predecessor Air Uganda.

Uganda has a population of 40 million and Entebbe Airport handles around 1.6 million passengers annually. There are other small private airlines in Uganda, but they are focused on domestic and small regional operations.

RECAPITALIZATION, From P. 4

shares issued under the recapitalization plan are expected to start trading on Nasdaq Stockholm, Nasdaq Copenhagen and Oslo Børs on or around Nov. 3.

On Aug. 25, SAS reported a SEK2.07 billion fiscal third quarter pre-tax loss, compared with a SEK1.49 billion profit a year earlier. Revenue for the period fell 81% to SEK2.5 billion.

AIRBUS, From P. 5

leaving it with an eventual fleet of up to 95 A220s.

Delta's A220-300s feature 130 total seats divided into a three-class cabin configuration, with 12 seats in first class, 30 in Delta Comfort and 88 in the main cabin. Its smaller A220-100s, on the other hand, feature 99 total seats, with 12 seats in first class, 15 in Delta Comfort and 82 in the main cabin.

The Atlanta-based carrier has leaned heavily on its A220 fleet during the COVID-19 pandemic, preferring the more fuel-efficient model to older narrowbodies that are currently seeing accelerated retirements. Around 93% of Delta's total A220 fleet—or 30 out of 32 jets—were in active service as of Oct. 15, according to Aviation Week Intelligence Network Fleet Data, making it the most active single-aisle jet in the carrier's fleet, followed by the Boeing 737-800 and 737-900ER, both of which were about 80% active. By contrast, Delta's 717s and A320ceos were just 48% and 51% active, respectively, with large proportions of both types placed in long-term storage.

Scheduled flights of the A220-300 are set to begin Nov. 10, according to Delta spokesman Drake Castaneda. The stretched variant will initially operate between Delta's hub at Salt Lake City and Austin and Houston, Texas.

Departures

Opinions On Current Issues In Aviation

Why Airliner Manufacturing Could Go From Bad To Worse

RICHARD ABOULAFIA, VP TEAL GROUP

Commercial aviation faces an unprecedented crisis as a result of the COVID-19 pandemic. Yet hopes of government aid to keep production rates from collapsing are fading, and the consequences of this inaction could be profound.

Many ideas have been proposed to help the commercial aviation industry ride out the worst challenge it has faced since World War II. Some have mooted a "Cash for Clunkers" jetliner production support program, similar to the one provided to the auto industry in the Great Recession, with government-supported trade-ins of older jets. Other proposals involve government-backed jetliner finance schemes. The U.S. also has considered a $17 billion support package for Boeing and its supplier base, an idea that died for political reasons and due to the company's rejection of strings attached.

Yet so far, most government aid to the aviation sector has taken the form of paycheck protection programs (PPP), with billions of dollars in aid to airlines. PPPs are useful for preventing mass unemployment in the aviation business. Other countries have emphasized airline employment over manufacturing sector support as well.

But in the U.S., most of this airline aid expired on Sept. 30. While there is discussion of renewing the assistance and extending it to the manufacturing sector, political gridlock has prevented anything tangible. Even if more PPP aid is provided, it is not intended as a strategic initiative that would stabilize civil aviation output. On the defense side of the industry, the Pentagon has provided accelerated payments to suppliers via the prime contractors, but there has been no increase in topline spending. If anything, we might see a decline in defense budgets, no matter who wins the presidential election.

There are exceptions to this government inaction. China has provided air ticket subsidies to stimulate travel demand, which will certainly help with jetliner demand. France's government has provided a unique €15 billion ($17 billion) manufacturing aid package, with R&D support for next-generation emission-free jetliners, supplemental defense procurement and loans to industry.

But most countries, particularly the U.S. and UK, seem unconcerned about their aero manufacturing sectors. Unlike airlines, aviation manufacturing has not really been threatened with a meltdown so far. While there have been production-rate reductions and layoffs, last year's Boeing 737 MAX production halt makes these changes less notable. The U.S. also has a much bigger defense procurement budget, which provides some degree of insulation for suppliers. And France is a uniquely centralized aerospace player, with much of the supply chain in-country. Politicians have a harder time justifying aid when much of the cash goes to global suppliers via complicated supply chains.

There are three likely consequences of this inaction.

First, we could see multiple business failures in aviation manufacturing. By some estimates, 20% of the supply chain is at risk of bankruptcy or of being forced to sell. In the UK, a notable lack of government intervention raises questions about Rolls-Royce, formerly regarded as a national champion and now issuing junk bonds. In 1971, the UK government was forced to nationalize Rolls, an expensive move thought necessary to keep it out of foreign hands. It is not clear what the government would be willing to spend today if the company's troubles become equally dire.

> **"Unlike airlines, aviation manufacturing has not really been threatened with a meltdown so far."**
>
> — Richard Aboulafia

Second, commercial aviation in some countries will simply be at an advantage coming out of this recession. China's domestic airline traffic is almost back to pre-pandemic levels, in stark contrast to the rest of the world. Similarly, France's aid package will help Airbus retain engineers, while Boeing has announced technical staff layoffs. French suppliers such as Safran and Thales will also benefit from both design work and additional defense work.

Third, and most impactful, we could see further production-rate cuts, resulting in an even more damaged industry landscape. Right now, what might be termed organic demand for jetliners—passenger traffic and airline profits—has collapsed. Most jetliners built today are the result of something more synthetic: lessors and financiers providing the cash needed for airlines to take deliveries of jets they really do not need. Everyone involved is banking on a fast recovery that will improve this situation.

But a lot could go wrong with that bet. So far, the finance industry and equities markets have stayed healthy. That could change. And airlines could simply conclude that air travel will stay suppressed longer than expected and stop taking delivery of new aircraft, no matter what kind of financing is offered.

In short, if the current fragile jetliner market worsens, the U.S. and other governments might feel pressure to reconsider their nonintervention. If mass unemployment in the airline sector was unpalatable to governments, presumably they will feel the same way about mass unemployment in the manufacturing sector.

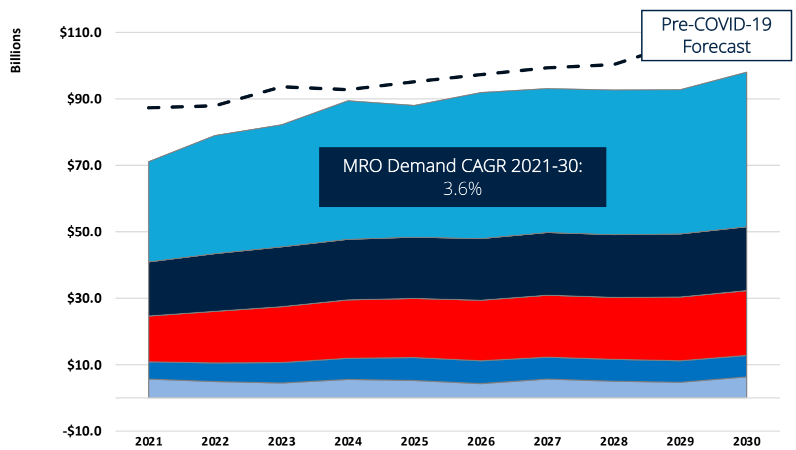
Richard Aboulafia is VP of analysis at Teal Group. He is based in Washington.

Aviation Daily welcomes Op-Eds. Bylined submissions should be sent to mark.nensel@aviationweek.com. They should be exclusive to Aviation Daily and no longer than 700 words. The author's title, affiliation and contacts must be supplied. Aviation Daily reserves the right to edit for space and house style.

Industry Data

MRO Demand - Analysis

MRO Aftermarket And The Impacts From The Pandemic



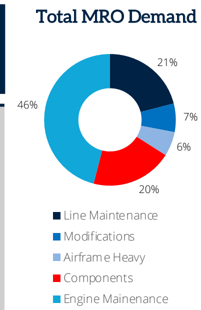
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Engine Maintenance	$30.2	$35.6	$36.7	$41.7	$39.7	$43.9	$43.3	$43.5	$43.3	$46.5
Line Maintenance	$16.3	$17.3	$18.0	$18.2	$18.4	$18.6	$18.8	$18.9	$19.0	$19.2
Components	$13.8	$15.5	$16.8	$17.5	$17.8	$18.2	$18.6	$18.7	$19.2	$19.5
Modifications	$5.2	$5.6	$6.1	$6.4	$6.9	$6.8	$6.6	$6.6	$6.5	$6.4
Airframe Heavy	$5.6	$4.9	$4.5	$5.5	$5.3	$4.3	$5.6	$5.0	$4.7	$6.4
Pre-Covid Forecast	$87.3	$87.9	$93.6	$92.7	$95.1	$97.3	$99.3	$100.3	$106.8	

Source: 2021 Commercial Aviation Fleet & MRO Forecast, Aviation Week Network, Copyright 2020

Pre-COVID vs. COVID
MRO Demand 14% lower, $36.6 billion across 2021-23

Highlights

- MRO grows at 3.6% CAGR 2021-30, worth $878 billion.
- Engine MRO demand is $405 billion over decade and grows the fastest at 4.9% CAGR.
- Component demand grows at 3.9% CAGR, $175 billion demand.

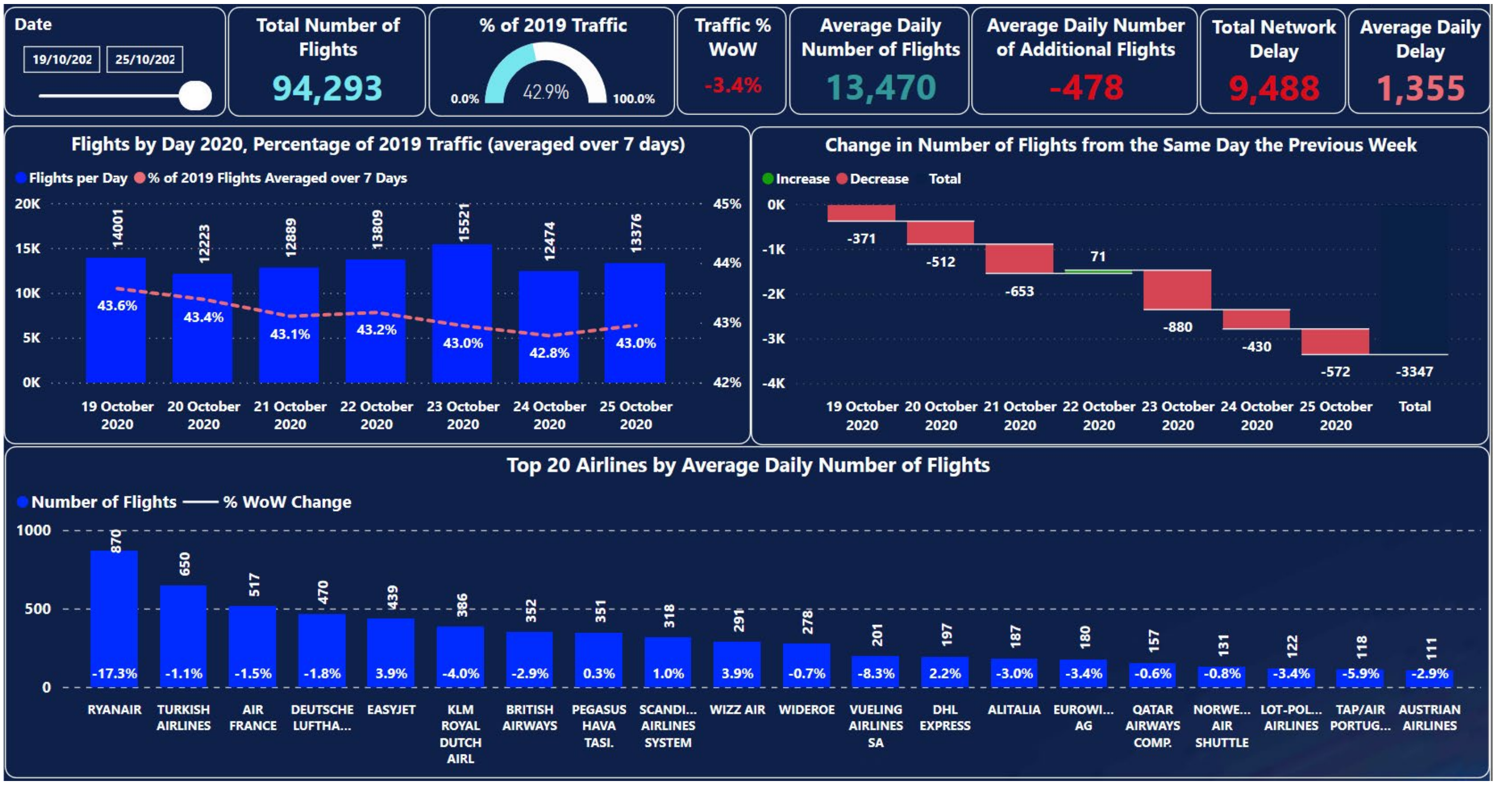


Analysis

After shrinking precipitously, MRO aftermarket demand post-pandemic totals $878 billion over 10-years, growing at a 3.6% CAGR after factoring in fleet & utilization impacts from the pandemic. Down from nearly $943B pre-COVID, the pandemic impacts are felt heavily 2021-23. 194,000 major MRO events are expected over the 10-year forecast (engine & airframe events) causing annual demand to increase from $71B in 2021 to $98B in 2030. Engine demand totals $405B with the CFM56 family holding $100B alone. Heavy Airframe events triggered by aircraft returning to storage produces a 3-year sinewave demand cycle. Component demand rises at 3.9% CAGR producing $175B in demand.

Industry Data

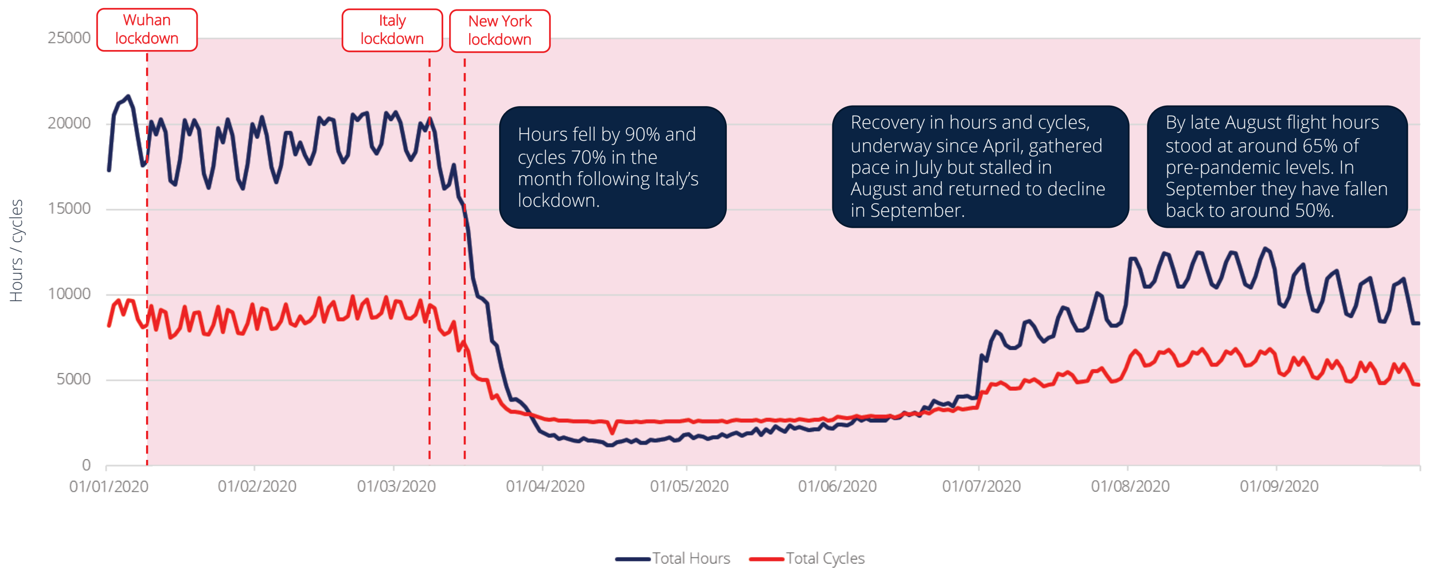
Eurocontrol Network Overview For 2020 Week 43



Source: Eurocontrol

AWIN Market Analysis/Commercial Aviation KPIs: Utilization – Major European Airlines

Utilization Rates In Hours And Cycles For Major European Airlines, Including LCCs – January To September 2020



Source: AWIN Flight Tracking Data. Copyright 2020

Airport Profile

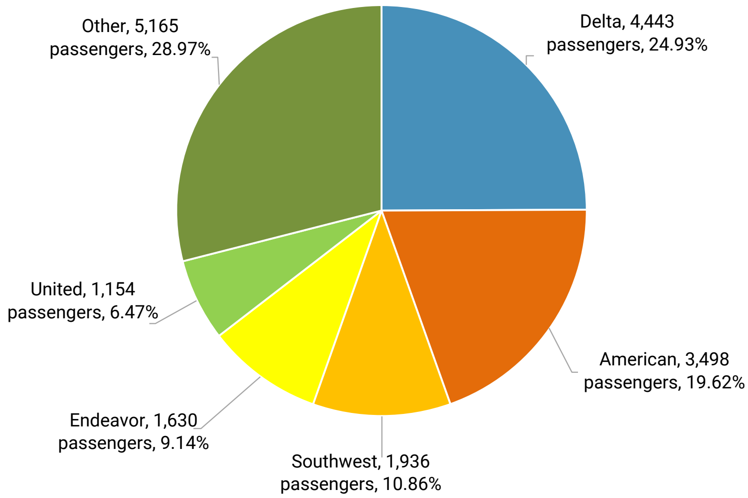
Airport Profile - New York LaGuardia (LGA)

Summary Data (U.S. Flights Only)

	2019**	2020**	%Change	Rank***
PASSENGERS (000) *				
Arrivals	14,131	8,884	-37.13%	19
Departures	14,119	8,942	-36.67%	19
SCHEDULED FLIGHTS				
Departures	166,485	115,940	-30.36%	19
FREIGHT/MAIL (LB.) (SCHEDULED AND NON-SCHEDULED)				
Total	21m	19m	-10.32%	143
CARRIERS				
	17	16	-5.88%	

* Scheduled enplaned revenue passengers
** 12 months ending July of each year
***Among 783 U.S. airports, 12 months ending July 2020

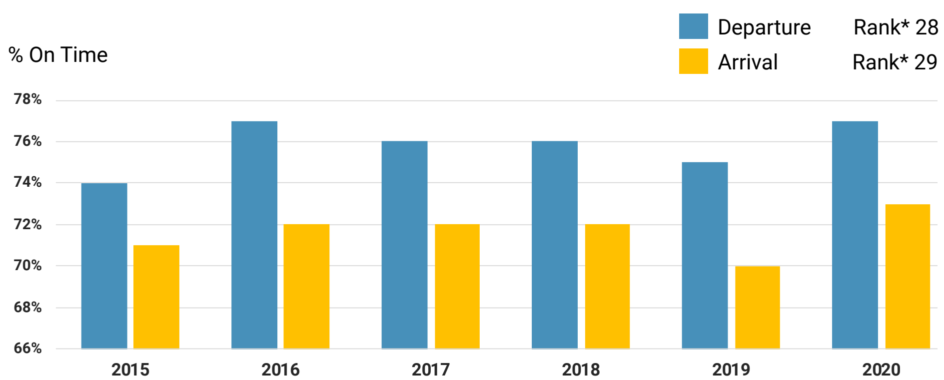
Carrier Shares
August 2019 - July 2020
Based on enplaned passengers (000) both arriving and departing



On-Time Performance Summary (Major U.S. Carriers Only) Domestic Flights 2015–2020

	2015	2016	2017	2018	2019	2020*	Rank**
AVG DELAY (MIN.)							
Departure	67.27	75.03	79.06	74.06	78.00	75.68	26
Arrival	63.45	67.66	75.32	73.91	77.77	74.61	23
% CANCELED							
Total	4.30%	2.55%	3.23%	4.07%	2.89%	5.57%	27
NUMBER OF FLIGHTS (000)							
Total	108.2	96.6	93.3	171.1	171.7	132.6	
NUMBER OF REPORTING CARRIERS							
	12	10	10	14	14	14	

* Jully 2019 - June 2020
** Ranked only for major U.S. airports July 2019 - June 2020



* Ranked only for major U.S. airports July 2019 - June 2020

Top 10 Destination Airports (U.S. Only, Passengers, [000])

Chicago (ORD)	894
	1,606
Atlanta (ATL)	773
	1,203
Miami (MIA)	539
	828
Dallas/Fort Worth (DFW)	536
	791
Fort Lauderdale (FLL)	460
	711
Orlando (MCO)	387
	572
Denver (DEN)	378
	568
Charlotte (CLT)	364
	595
Boston (BOS)	364
	649
Detroit (DTW)	319
	492

August 2019 - July 2020
August 2018 - July 2019