

The Business Daily of the Global Scheduled Airline Industry Since 1939

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AIRLINES

Virgin Atlantic Seeks Bankruptcy Protection In U.S. Court

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UK carrier Virgin Atlantic, which is 49% owned by Delta Air Lines, filed for bankruptcy protection in a New York court Aug. 4.

The move comes just three weeks after Virgin announced a restructuring and financing deal that seemed to secure the carrier's future.

Virgin resumed scheduled passenger flights on July 20 after arranging a recapitalization deal worth around £1.2 billion (\$1.5 billion) over 18 months. Shareholders Virgin Group and Delta provided around £600 million, including £200 million previously announced by Virgin Group, partially raised from the sale of shares in the Virgin Galactic commercial space venture.

According to Bloomberg, the restructuring plan needed Chapter 15 filing approval to ensure creditor support.

Chapter 15 is a relatively new form of bankruptcy protection established in the U.S. in 2005 and specifically aimed at cases where the company is based outside the U.S. and operates in multiple countries. But it works in a similar way to Chapter 11, shielding the

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In The U.S., Regional Airlines Bear The Brunt Of Pandemic Downturn

BEN GOLDSTEIN, ben.goldstein@aviationweek.com

The major U.S. airlines have removed near-term bankruptcy risk from the table, helped by massive infusions of public and private financing—but their regional affiliates have not all been as fortunate.

Of the four U.S. carriers that have permanently ceased operations since the COVID-19 pandemic first swept across North America in mid-March, three of them—Compass Airlines, RavnAir Group and Trans States Airlines—were regional carriers.

And following United Airlines' decision last week to consolidate its operations using 50-seat Embraer jets with CommutAir, ExpressJet Airlines looks set to join that list, which will make it the largest U.S. airline so far to go under as a result of the crisis.

Independently-owned regional carriers, which typically partner with major airlines under their regional affiliate brands, face several challenges from the current crisis that render them more vulnerable than their larger counterparts. In a sense, regionals

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company from its debtors while restructuring terms are agreed via the court.

Virgin's Australian operation, Virgin Australia, entered voluntary administration in April, after which several companies bid to acquire the airline. Bain Capital was named the preferred bidder on June 26, but that bid must be approved by creditors in August.

For Delta, the Virgin Atlantic bankruptcy filing shows the risks of airline equity partnerships. LATAM Airlines, in which Delta took a 20% stake in September 2019, filed for Chapter 11 protection in a New York court in May.

Unlike U.S. carriers, airlines in South America and the UK have received little to no government aid despite the sudden and massive effect of the COVID-19 pandemic on demand for air travel and the related quarantine rules that are severely restrict-

ing travel to and from those regions.

Nevertheless, Virgin Atlantic CEO Shai Weiss said in July that the recapitalization deal would ensure continued connectivity and competition while allowing the company to emerge as a sustainably profitable airline.

The decision to seek U.S. court help in achieving that goal cannot have been easy.

On the one hand, the company will buy itself breathing space from creditors and time to restructure using the newly raised funds. On the other hand, court restructuring significantly depletes a company's senior management ability to take strategic decisions and to innovate. For Virgin Atlantic, with its entrepreneur founder and president Richard Branson, that will be a difficult environment.

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were hit twice by the pandemic; not only do they have to contend with depressed demand, but they are also directly impacted by decisions made upstream by major carriers that are themselves under severe pressure by the downturn.

"ExpressJet and Compass Airlines are examples of this," explained Faye Malarkey Black, president and CEO of the Regional Airline Association (RAA).

"Neither airline faced immediate winddown due to the pandemic alone; rather, the pandemic influenced service decisions outside their control."

Regional airlines also have fewer available financing options than larger carriers.

The majority are privately held, and unable to tap into public capital markets to raise debt or equity. Additionally, most regionals lease or sublease their aircraft, and because they typically have fewer unencumbered assets, they lack ability to raise capital in the private markets and are also largely unable to pledge the collateral necessary to secure loans from the Treasury Department under the CARES Act.

Still, major carriers' regional consolidations, and the ensuing airline failures, have left some of the sector's strongest players in an enviable position.

Take SkyWest Airlines, the country's largest regional airline, which recorded the best pre-tax margins of the country's 10 or so biggest airlines in the 2020 second quarter, according to data from Deutsche Bank analyst Mike Linenberg. SkyWest has

"ExpressJet is not the canary in the coal mine; without intervention, this will be the fourth regional airline to fail."

-FAYE MALARKEY BLACK, REGIONAL AIRLINE ASSOCIATION

since found itself in a stronger financial position than its major airline partners and has extended a variety of concessions to help the airline get through the downturn, such as deferral of payments and waiving of contract minimums.

Still, the performance of the largest publicly traded regionals doesn't change the fact that many of the sector's smaller players remain at risk.

Black said she believes more regionals may fail unless the U.S. Congress provides additional support by extending the Payroll Support Program until demand returns, noting the payments have bridged much of the gap between carriers' losses and payroll costs.

"Lawmakers may feel a sense of security in that their air service has not collapsed presently; but those circumstances may change dramatically when the supports and requirements associated with the CARES Act expire," Black said.

The RAA has also argued that Treasury's previous lending and grant programs were not suited to address the financial realities of many regional carriers, which has dealt an unfair blow to the sector's ability to survive the crisis. In the case of ExpressJet, for example, the carrier was required to repay 30% of the payroll support it received and has been unable for months to secure a CARES Act loan—as have all but one large regional airline, the association said.

"ExpressJet is not the canary in the coal mine; without intervention, this will be the fourth regional airline to fail," Black said.

AIRFRAMERS

Third Boeing 777-9 Joins Flight Test Campaign

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Despite Boeing's recent decision to push back the commercial debut of the 777X from next year to 2022, the 777-9 test program continues to ramp up with the third development aircraft completing its first flight on Aug. 3.

Designated WH003, the aircraft departed Boeing's Everett facility and flew a circuit encompassing parts of northern Oregon and central Washington before returning to land at the company's flight test base Boeing Field, Seattle. The flight, which lasted around 2 hr. 50 min., reached a maximum altitude of 28,000 ft., top speed of around 530 kt., and included two missed approaches and circuits of Moses Lake.

The third aircraft will be used primarily to evaluate flight loads and performance of the auxiliary power unit, avionics and General Electric GE9X engines. It joins Boeing's first two 777-9 development aircraft, which continue to amass test hours since the flight of the first aircraft on Jan 25 and the second on April 30. The first aircraft—which resumed flight tests on April 23 after an almost month-long hold-up related to the COVID-19 pandemic—is currently engaged in flutter tests and last week conducted stalls as part of continuing envelope expansion work.

While WH001 is primarily aimed at stability and control as well as high and low-speed aerodynamics, it has also been used for avionics, flight control systems and brake tests. The second aircraft—the entry of which into the program was also delayed

by virus-related precautions—is mainly targeted at autoland system work as well as ground effects testing. WH002, which conducted autoland approaches at Moses Lake on Aug 3., will also be used to augment the stability and control work being undertaken by WH001.

A fourth aircraft, WH004, is also set to join the test program later in 2020. Incorporating a production representative internal cabin configuration, the last dedicated 777-9 test airframe will be used mainly to evaluate the environmental control system. Later in the certification effort in 2021, WH004 will also conduct airport noise compliance work and ultimately finish its test role with a phase of extended twin-engine operations (ETOPS) and airline-like functionality and reliability operations testing.

Despite what appears to be continuing progress with flight tests, Boeing said 777-9 development has slowed because of the COVID-19-related negative impact on market demand for the big new twin, as well as an extended certification process. This will reflect lessons learned from the revised certification of the 737 MAX, Boeing CEO Dave Calhoun said.

Commenting during the company's recent earnings call on July 30, Calhoun said "we've tried to incorporate, or embed, as much of what we've learned in the 737 recertification as we can into that of the 777X, which means it just elongates that [process] a bit.

Certain things are going to take more time to work our way through with the FAA. They're going to go deeper than maybe they would have, or we would have assumed in earlier certification processes."

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AIRLINES

EasyJet To Increase Capacity After Better-Than-Expected Bookings

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EasyJet expects to fly around 40% of planned capacity in its fiscal fourth quarter (Q4), based on current travel restrictions—up from the 30% previously announced after better-than-expected summer bookings.

The UK-based LCC also expects a smaller loss for Q4 than in its fiscal third quarter (Q3) but said it would not give further financial guidance for the rest of its fiscal 2020, which runs to the end of September.

"I am really encouraged that we have seen higher than expected levels of demand, with load factor of 84% in July with destinations like Faro and Nice remaining popular with customers," easyJet CEO Johan Lundgren said.

The announcement came as the carrier reported group revenue for the quarter ending June 30 of £7 million (\$8.2 million), a 99.6% drop on the same quarter a year earlier, after it fully grounded its fleet as of March 30 because of the COVID-19 pandemic. EasyJet restarted flying June 15, carrying 117,000 passengers with a total capacity of 132,000 seats in the final two weeks of the quarter.

EasyJet recorded a pre-tax loss of £325 million for the quarter, compared with a £174 million profit in Q3 2019.

"We have now completed more than one month of restart operations and are seeing encouraging performance across the network with a continued focus to undertake only profitable flying. In July easyJet flew just over 2 million passengers with a load factor of 84%," the airline said.

The LCC added that it is assessing demand daily and reviewing schedules every two weeks. Operations in August are expected to increase to around 210 lines of flying, up from 147 in July.

"Our crews and aircraft have been kept in flight-ready mode, in order that we have the flexibility to alter capacity either up or down with around two weeks' notice," easyJet said. "We now expect to fly [about] 40% of planned capacity for the fourth quarter, peaking in August, compared to the 30% highlighted at our first half results," easyJet said.

The airline has launched a restructuring and cost-cutting program to drive cash generation and allow it to emerge from the crisis in a more competitive position. This includes reducing its headcount by up to 30%.

"Low cost airlines are returning capacity to the market ahead of legacy groups, but within that both Wizz Air and Ryanair are planning to fly more of their normal schedule in the September quarter (more than half) than easyJet (40%)," Bernstein analyst Daniel Roeska wrote in a research note.

"This may reflect either lower demand for the routes easyJet flies, connecting cities with a higher mix of business passengers, or simply more caution on the part of the airline. Initial indications of profitability on the restored schedule in July are encouraging, with an 84% load factor."

EasyJet recorded total Q3 headline costs of £332 million—79% lower than Q3 2019—with total Q3 cash burn of £774 million compared to the previous guidance of £1 billion.

Referring to network development, the carrier also said it would act quickly to selectively acquire attractive slots that became available.

AIRLINES

Global Capacity Creeps Above 50% Of 2019 Level

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The number of scheduled seats being offered by airlines across the world will top 60 million this week (beginning Aug. 3) for the first time in four months, meaning global capacity is now at 50% of the level achieved in 2019.

Analysis of data provided by OAG Schedules Analyser shows 60,042,355 weekly seats scheduled, more than half of the 118,998,100 available seats during the same week a year ago (see top chart).

The last time the year-on-year figure exceeded the 50% mark came during the fourth week of March as the COVID-19 crisis was deepening with carriers quickly slashing capacity.

Overall, global capacity this week is 4.4% higher than during the previous seven days and 21% higher than during the first week of July.

However, the pace of recovery is varying from region to region. Growth has largely plateaued in many areas in recent weeks, apart from in Europe which continues on an upward trend (see bottom chart).

Europe has emerged as the key growth region thanks to the easing of travel restrictions and resumption of service in July by several large carriers, including

Ryanair and easyJet.

The number of scheduled departure seats from and within Europe is on course to increase by 12.6% this week to 15.1 million seats, up from 13.4 million last week. Western Europe will account for 12 million of the total, with 3.1 million in Central and Eastern Europe.

However, while Europe's market has expanded by nearly 50% since the beginning of July, the speed of growth in other regions has been slower. After large capacity gains in June, North America recorded the lowest growth between the week of July 6 and the week of Aug. 3—of 7.2%—while fewer than 400,000 departure seats were added in Latin America over the same period (see top table, Page 8).

Looking at the year-on-year change, North East Asia's market has recovered the quickest.

Capacity is now 76.9% compared with the same week a year ago.

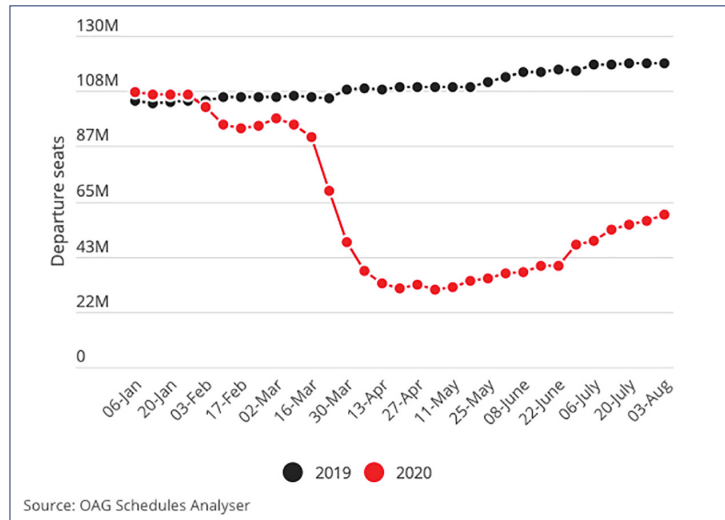
Central and Eastern Europe's market has recovered to 58.1% of this time last year, while North America's is 49.1%. Central America and Western Europe complete the top five.

At the bottom end of the scale, upper South America's market is only 12.7% of the size it was a year ago.

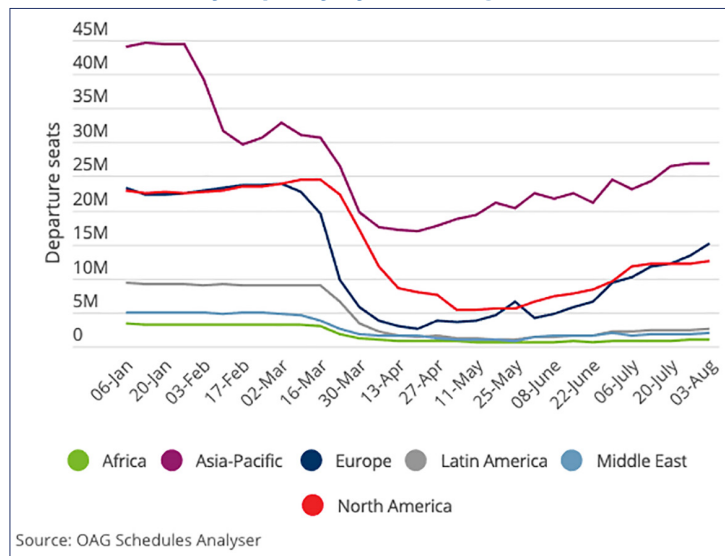
This week there are just 227,309 departure seats, compared with 1.78 million during

the same week in 2019 (see bottom table, Page 8).

Scheduled Global Weekly Capacity



Scheduled Weekly Capacity By World Region



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AIRLINES

Frontier Airlines Alerts Pilots, Flight Attendants Of Potential Furloughs

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Frontier Airlines has issued formal furlough notifications to 35% of its flight attendants and pilots, becoming the latest U.S. carrier to warn of coming job losses following the end of federal payroll support on Oct. 1.

A spokeswoman for Denver-based Frontier confirmed in an email that the company plans to furlough up to 925 flight attendants and 559 pilots “as early as Oct. 1.” The company has not yet unveiled any furloughs outside of those workgroups.

Frontier is the latest ULCC to warn employees of possible furloughs, as discount operators feel the impact of declining leisure travel demand as COVID-19 cases surge across the country. South Florida-based Spirit Airlines recently warned 2,500 employees of coming furloughs, while Las Vegas-based Allegiant Air plans to furlough up to 275 pilots and eliminate 220 additional non-unionized positions.

All told, U.S. carriers have notified upwards of 75,000 combined employees about possible furloughs beyond Oct. 1,

upping the stakes for Congress to reach an accord to extend payroll support for another six-month term. Of the country’s 10 largest mainline carriers, only JetBlue Airways and Southwest Airlines have not issued furlough warnings; JetBlue management has said the solid uptake of its voluntary leave and separation packages may mitigate the need for involuntary furloughs, while Southwest has committed to avoid letting go workers or cutting their pay through year-end.

Frontier’s warning to employees comes on the heels of a decision by its parent company, privately-held Indigo Partners LLC, to withdraw its application seeking an initial stock offering for the airline. Frontier spokeswoman Jennifer De La Cruz told Aviation Daily the filing has “remained dormant for some time now.” Withdrawing the registration “made procedural sense” from the perspectives of both the airline and the Securities and Exchange Commission, Cruz added.

Frontier has taken a more conservative approach to the pandemic than its ULCC peers, offering 57% of scheduled capacity from a year ago in July, compared to 91% for Allegiant and 82% for Spirit, according to schedule data sourced from Bloomberg analyst George Ferguson.

SUPPLIERS

Pratt & Whitney Lays Off 400 Employees In Singapore Units

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SINGAPORE—Pratt & Whitney will retrench around 400 jobs—or 20%—of its 2,000 employees in Singapore as demand for engine-related MRO has disappeared amid the COVID-19 pandemic.

The layoffs will affect most of Pratt’s seven units in the country with the job losses coming at Component Aerospace Singapore, Eagle Services Asia, Pratt & Whitney Component Solutions, P&W NGPF Manufacturing Company Singapore and Turbine Overhaul Services.

Pratt said management arrived at the decision after implementing other cost-containment measures including temporary salary reductions, shorter work weeks, cancellation of merit increases, hiring freezes and discretionary spending cuts. Pratt is currently forecasting aviation traffic to recover to pre-COVID levels from 2023. “With the longer-than-expected recovery time line for commercial aviation, we will remain focused on repositioning our business to be resilient and relevant to our customers’ needs and what the future of our industry will look like,” the engine-maker said in a statement. “This is our responsibility as a business to our employees and other stakeholders.”

Pratt has been working with the unions since April and will

support affected employees with an “upskill” training grant, sponsoring union membership fees for affected union employees for the rest of the year. Staying in the union enables the employees to attend job fairs and further employability workshops organized by the National Trades Union Congress (NTUC) and to continue receiving benefits including union bursary awards, financial relief under NTUC support programs, insurance coverage, and personal development and training assistance.

Pratt added that Singaporeans will continue to comprise more than 77% of the local workforce after the layoffs.

Pratt initially suspended redundancies at Eagle Services Asia in the last week of July after NTUC and other unions stepped in citing premature retrenchment of employees before talks with unions were concluded. The parties also adjusted the retrenchment list to reduce the total number of locals affected, after the initial list of 144 workers consisted of 56% Singaporeans. The final list had 140 employees, comprised of 44% Singaporeans.

Eagle Services Asia is a joint venture between Singapore Airlines Engineering Company and Pratt.

Separately, Rolls-Royce also announced it will let 240 employees go in Singapore, starting in mid-August, as part of a global restructuring. Rolls employs around 1,000 at its plant at Seletar Aerospace Park, manufacturing blades and assembling the company’s Trent engines.

REGULATORY/LEGISLATIVE

EASA Reminds Airports To Validate Ground-Service Capabilities

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EASA is urging European airport operators to ensure ground-handling companies at their facilities are prepared to handle increased traffic as airlines steadily rebuild their networks amid the global COVID-19 pandemic.

EASA's guidance is the second in a planned series of safety information bulletins aimed at helping industry manage risk as operations begin to resume.

"Following the outbreak of COVID-19, the majority of the flights have been suspended. This had a severe impact in ground-handling business due to the fact that the absence of clients forced many ground-handling services providers to scale down or

cease operations completely," EASA cautions in the bulletin. "This resulted in a large number of personnel being unemployed and ground-handling equipment being abandoned at the aerodromes."

EASA's guidance underscores the need to confirm ground-handling companies have trained their personnel both on operating equipment and in accessing secure areas of the airfield. Airports also should designate specific areas for storing excess ground-handling equipment that factors in risks such as collisions with other vehicles and creating foreign object debris.

"Coordinate and ensure the ground handling service provider has developed a return-to-operations plan" that matches anticipated service levels, EASA added.

The first bulletin, also aimed at airports, focuses on facility operations, such as runway and landing-aid maintenance.

SUPPLIERS

Russia Tests Demonstrator For PD-35 Turbofan

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MOSCOW—Russia's United Engine Corporation (UEC) has made a vital step in the development of the PD-35, its largest turbofan engine.

The engine-maker's Perm-based subsidiary UEC-Aviadvigatel reported in late July that bench tests of a fan demonstrator for the new engine had begun on June 27.

UEC-Aviadvigatel managing director and chief designer Alexander Inozemtsev explained the company had to make a scaled-down fan demonstrator as the development of PD-35 is at the design stage now. The new fan is being tested on the company's smaller turbofan, PD-14, which has been developed for Russia's new MC-21 narrowbody commercial airliner.

The PD-35 fan demonstrator features composite blades in a first for Russia's aerospace industry. UEC expects that the use of composites—developed by VIAM (All-Russian Scientific Research Institute Of Aviation Materials)—will reduce the engine's weight by 400 kg (882 lb.), thus increasing its fuel efficiency. Inozemtsev said the fan demonstrator is to undergo overspeed tests in August. Flight tests at the flying laboratory are planned for 2021. Flight tests of the full-size fan for the PD-35 are scheduled for 2025. The fan will have a diameter of 3.1 m (10 ft.) while the scaled-down demonstrator apparently fits the PD-14 diameter of 1.9 meters.

UEC officially launched the development of PD-35 at Aviadvigatel in December 2017. The composite fan blades are one of 18 key new technologies that are to be developed for the new engine.

PD-35 is also expected to feature large-size laminar flow engine nacelles, a new efficient high-pressure compressor, a low-emission combustion chamber and components made of new materials. Inozemtsev estimated the PD-35 development costs up to the certification stage at RUB180 billion (\$2.5 billion). Serial production is now scheduled for 2028.

UEC says that the main platform for the 35-ton thrust PD-35 will be the Russo-Chinese CRAIC CR929 widebody. That airliner is being developed jointly by Russia's United Aircraft Corporation (UAC) and China's COMAC (jointly known as CRAIC), a collaboration that has not been without issues. The selection of key suppliers for the CR929 recently slipped to 2021. The Russian side has already said that this will delay the aircraft's first deliveries to 2028-2029, three years behind the initial schedule.

There is no guarantee that UEC will supply the engines for the CR929. The aircraft's designers have held talks with other contenders including General Electric and Rolls-Royce.

Another potential platform for the PD-35 is UAC's Ilyushin Il-96. The new engine could be used to develop a two-engine version of its that widebody, or to power a future heavy transport aircraft. Inozemtsev said that the PD-35 will serve as a basis for future engines with 25- to 50-ton-thrust range. He added that after the composite blades are tested in the current PD-14 demonstrator, this technology can then be applied to the PD-14 engine too, upgrading its standard hollow titanium blades. But the win in weight will not be as significant as it will be for the PD-35 due to the PD-14's smaller size. "If we can reduce the PD-14 weight by 20-30 kg [44-66 lbs.] [because of the composite blades], we will be able to persuade airlines [to buy this version]," he explained.

Industry Data

Scheduled Weekly Capacity
By Departure Seats

July 6-August 3, 2020						
Region	July 6, 2020	July 13, 2020	July 20, 2020	July 27, 2020	August 3, 2020	% chg (July 6 vs Aug. 3)
Africa	699,352	895,169	845,101	980,449	1,027,291	46.9%
Asia-Pacific	23,092,639	24,383,393	26,508,920	26,869,672	26,871,407	16.4%
Europe	10,227,439	11,696,114	12,210,830	13,382,805	15,062,500	47.3%
Latin America	2,178,249	2,303,079	2,380,882	2,370,040	2,541,095	16.7%
Middle East	1,587,269	1,736,906	1,696,623	1,789,024	1,902,608	19.9%
North America	11,792,523	12,071,851	12,107,834	12,095,649	12,637,454	7.2%

Source: OAG Schedules Analyser

Scheduled Year-On-Year Capacity Change
By Region

Week of August 3, 2020			
Region	August 5, 2019	August 3, 2020	% Chg (2019 vs 2020)
North East Asia	25,911,691	19,919,482	-23.1%
Eastern/Central Europe	5,295,739	3,075,952	-41.9%
North America	25,753,927	12,637,454	-50.9%
Central America	2,445,798	1,130,622	-53.8%
Western Europe	26,506,940	11,986,548	-54.8%
Caribbean	963,760	422,103	-56.2%
South East Asia	10,078,993	4,187,241	-58.5%
South Asia	4,832,433	1,908,766	-60.5%
Eastern Africa	782,109	297,685	-61.9%
Central/Western Africa	610,320	225,529	-63.0%
Middle East	5,233,645	1,902,608	-63.6%
Central Asia	406,131	130,271	-67.9%
North Africa	1,264,747	391,341	-69.1%
Southwest Pacific	2,804,635	725,647	-74.1%
Lower South America	3,540,365	761,061	-78.5%
Southern Africa	781,411	112,736	-85.6%
Upper South America	1,785,456	227,309	-87.3%

Source: OAG Schedules Analyser

Industry Data
Leisure Fares

Week Of July 27 Vs. Previous Week
And Year-Ago Week

LEISURE FARES (ONE WAY)

Source: Harrell Associates, LLC – Fares as filed by the airlines.

Airline	Route	Last Year		This Year		% WoW	% YoY
		22-Jul-19	29-Jul-19	20-Jul-20	27-Jul-20		
UA	ATL-EWR	\$46	\$46	\$4	\$4	0%	(91)%
DL	ATL-TPA	\$62	\$62	\$41	\$41	0%	(34)%
AA	BOS-WAS	\$44	\$48	\$41	\$41	0%	(15)%
DL	CHI-MSP	\$44	\$39	\$52	\$52	0%	32%
UA	CHI-NYC	\$59	\$59	\$73	\$73	0%	24%
UA	DEN-LAX	\$40	\$36	\$29	\$29	0%	(19)%
AA	DFW-LAX	\$64	\$64	\$16	\$86	433%	34%
UA	EWR-ATL	\$46	\$46	\$4	\$4	0%	(91)%
DL	EWR-ORL	\$89	\$89	\$69	\$69	0%	(23)%
UA	LAX-DEN	\$40	\$36	\$29	\$29	0%	(19)%
AA	LAX-DFW	\$64	\$64	\$16	\$86	433%	34%
AA	LAX-NYC	\$104	\$104	\$148	\$148	0%	43%
DL	MSP-CHI	\$44	\$39	\$52	\$52	0%	32%
UA	NYC-CHI	\$59	\$59	\$73	\$73	0%	24%
AA	NYC-LAX	\$104	\$104	\$148	\$148	0%	43%
DL	ORL-EWR	\$89	\$89	\$69	\$69	0%	(23)%
DL	TPA-ATL	\$62	\$62	\$41	\$41	0%	(34)%
AA	WAS-BOS	\$44	\$48	\$41	\$41	0%	(15)%

LEISURE COST PER MILE

Airline	Route	Last Year		This Year		% WoW	% YoY	Length Type	% Thru Range	Current Quintile
		22-Jul-19	29-Jul-19	20-Jul-20	27-Jul-20					
UA	ATL-EWR	\$0.06	\$0.06	\$0.01	\$0.01	0%	(91)%	M	2%	1
DL	ATL-TPA	\$0.15	\$0.15	\$0.10	\$0.10	0%	(34)%	S	3%	1
AA	BOS-WAS	\$0.11	\$0.12	\$0.10	\$0.10	0%	(15)%	S	3%	1
DL	CHI-MSP	\$0.13	\$0.11	\$0.15	\$0.15	0%	32%	S	4%	1
UA	CHI-NYC	\$0.08	\$0.08	\$0.10	\$0.10	0%	24%	M	87%	5
UA	DEN-LAX	\$0.05	\$0.04	\$0.03	\$0.03	0%	(19)%	M	27%	2
AA	DFW-LAX	\$0.05	\$0.05	\$0.01	\$0.07	433%	34%	L	66%	3
UA	EWR-ATL	\$0.06	\$0.06	\$0.01	\$0.01	0%	(91)%	M	2%	1
DL	EWR-ORL	\$0.09	\$0.09	\$0.07	\$0.07	0%	(23)%	M	62%	3
UA	LAX-DEN	\$0.05	\$0.04	\$0.03	\$0.03	0%	(19)%	M	27%	2
AA	LAX-DFW	\$0.05	\$0.05	\$0.01	\$0.07	433%	34%	L	66%	3
AA	LAX-NYC	\$0.04	\$0.04	\$0.06	\$0.06	0%	43%	T	67%	3
DL	MSP-CHI	\$0.13	\$0.11	\$0.15	\$0.15	0%	32%	S	4%	1
UA	NYC-CHI	\$0.08	\$0.08	\$0.10	\$0.10	0%	24%	M	87%	5
AA	NYC-LAX	\$0.04	\$0.04	\$0.06	\$0.06	0%	43%	T	67%	3
DL	ORL-EWR	\$0.09	\$0.09	\$0.07	\$0.07	0%	(23)%	M	62%	3
DL	TPA-ATL	\$0.15	\$0.15	\$0.10	\$0.10	0%	(34)%	S	3%	1
AA	WAS-BOS	\$0.11	\$0.12	\$0.10	\$0.10	0%	(15)%	S	3%	1

Fares above are the lowest levels for fare types generally used for leisure travel.

Sample data from the Harrell Associates H100 Airfare Report

Notes:

WoW = week over week; YoY = year over year.
Airline Codes: AA: American; DL: Delta; UA: United; US: US Airways
Airports: Fares are for the airport with the most non-stop flights.
Most fares are filed city specific rather than airport specific.
CHI = O'Hare; NYC = LaGuardia/Kennedy; WAS = Reagan/Dulles

Leisure Fares: Lowest fare generally used by the leisure traveler.
These fares are highly restricted in terms of advance purchase, penalty, minimum stay, etc. All fares shown are one way.
Cost per mile (CPM) is based on DOT route mileage.
CPM % Through range shows the relative position of the

cost per mile as compared to the Min and Max levels for the trip length type, Short, Medium, Long, etc.
Trip Length Type Detail: S = Short: 650 miles or less
M = Medium: 651 - 1,000 miles; L = Long: 1,001 - 1,750 miles
T = Transcon: 1,751 miles or more.

The full Harrell H100 family of reports tracks:
• Nearly 300 major routes every week for most major airlines
• 40 top routes for each airline
• Over 30,000 business and leisure data elements per month

Harrell data capabilities:
• Year-over-year detailed pricing data that is hard to find
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• Custom reporting available

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Industry Data
Business Fares

Week Of July 27 Vs. Previous Week
And Year-Ago Week

DISCOUNTED BUSINESS FARES (ONE WAY)

Source: Harrell Associates, LLC – Fares as filed by the airlines.

Airline	Route	Last Year		This Year		% WoW	% YoY
		22-Jul-19	29-Jul-19	20-Jul-20	27-Jul-20		
UA	ATL-EWR	\$228	\$233	\$260	\$247	(5)%	6%
DL	ATL-TPA	\$244	\$211	\$174	\$173	0%	(18)%
AA	BOS-WAS	\$204	\$199	\$248	\$250	1%	26%
DL	CHI-MSP	\$162	\$161	\$196	\$149	(24)%	(7)%
UA	CHI-NYC	\$166	\$172	\$246	\$237	(4)%	38%
UA	DEN-LAX	\$120	\$119	\$233	\$239	2%	100%
AA	DFW-LAX	\$196	\$198	\$180	\$260	45%	31%
UA	EWR-ATL	\$228	\$233	\$260	\$247	(5)%	6%
DL	EWR-ORL	\$245	\$249	\$248	\$254	2%	2%
UA	LAX-DEN	\$120	\$119	\$233	\$239	2%	100%
AA	LAX-DFW	\$196	\$198	\$180	\$260	45%	31%
AA	LAX-NYC	\$412	\$411	\$447	\$436	(3)%	6%
DL	MSP-CHI	\$162	\$161	\$196	\$149	(24)%	(7)%
UA	NYC-CHI	\$166	\$172	\$246	\$237	(4)%	38%
AA	NYC-LAX	\$412	\$411	\$447	\$436	(3)%	6%
DL	ORL-EWR	\$245	\$249	\$248	\$254	2%	2%
DL	TPA-ATL	\$244	\$211	\$174	\$173	0%	(18)%
AA	WAS-BOS	\$204	\$199	\$248	\$250	1%	26%

DISCOUNTED BUSINESS COST PER MILE (AVERAGE - ONE WAY)

Airline	Route	Last Year		This Year				Length Type	% Thru Range	Current Quintile
		22-Jul-19	29-Jul-19	20-Jul-20	27-Jul-20	% WoW	% YoY			
UA	ATL-EWR	\$0.30	\$0.31	\$0.34	\$0.33	(5)%	6%	M	63%	3
DL	ATL-TPA	\$0.60	\$0.52	\$0.43	\$0.43	0%	(18)%	S	5%	1
AA	BOS-WAS	\$0.50	\$0.49	\$0.61	\$0.62	1%	26%	S	12%	1
DL	CHI-MSP	\$0.47	\$0.47	\$0.57	\$0.43	(24)%	(7)%	S	5%	1
UA	CHI-NYC	\$0.23	\$0.24	\$0.34	\$0.33	(4)%	38%	M	63%	3
UA	DEN-LAX	\$0.14	\$0.14	\$0.27	\$0.28	2%	100%	M	42%	3
AA	DFW-LAX	\$0.16	\$0.16	\$0.15	\$0.21	45%	31%	L	40%	2
UA	EWR-ATL	\$0.30	\$0.31	\$0.34	\$0.33	(5)%	6%	M	63%	3
DL	EWR-ORL	\$0.26	\$0.26	\$0.26	\$0.27	2%	2%	M	38%	2
UA	LAX-DEN	\$0.14	\$0.14	\$0.27	\$0.28	2%	100%	M	42%	3
AA	LAX-DFW	\$0.16	\$0.16	\$0.15	\$0.21	45%	31%	L	40%	2
AA	LAX-NYC	\$0.17	\$0.17	\$0.18	\$0.18	(3)%	6%	T	38%	2
DL	MSP-CHI	\$0.47	\$0.47	\$0.57	\$0.43	(24)%	(7)%	S	5%	1
UA	NYC-CHI	\$0.23	\$0.24	\$0.34	\$0.33	(4)%	38%	M	63%	3
AA	NYC-LAX	\$0.17	\$0.17	\$0.18	\$0.18	(3)%	6%	T	38%	2
DL	ORL-EWR	\$0.26	\$0.26	\$0.26	\$0.27	2%	2%	M	38%	2
DL	TPA-ATL	\$0.60	\$0.52	\$0.43	\$0.43	0%	(18)%	S	5%	1
AA	WAS-BOS	\$0.50	\$0.49	\$0.61	\$0.62	1%	26%	S	12%	1

Fares above are the lowest levels for fare types generally used for normal business travel.

Sample data from the Harrell Associates H100 Airfare Report

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Discount Business Fares: Lowest fare generally used by the cost conscience business traveler. These fares are highly restricted in terms of advance purchase, penalty, minimum stay, etc. All fares shown are one way. Cost per mile (CPM) is based on DOT route mileage. CPM % Through range shows the relative position of the

cost per mile as compared to the Min and Max levels for the trip length type, Short, Medium, Long, etc.
 Trip Length Type Detail: S = Short: 650 miles or less
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