

Airline Strategies & Fleet Shifts Adjusting To The New Future

April 2020

***COVID-19-Inflicted Changes on Air
Transportation...***

***Trends & Futurist Review For
Aviation Financial Entities***

In This Presentation

- **The New Airline Industry Structure**
- **The New Roles of Air Transportation In The Communication System**
- **Changing Airline Strategies & Planning**
- **The Future**

78 Beaver Brook Canyon Road, Evergreen, CO USA 80439
(303) 674-2000 info@AviationPlanning.com

Boyd Group International – We Have The Research Expertise To Determine The New Future



- *We focus is on independent aviation research, forecasting and consulting*
- *Clients include aircraft manufacturers, airlines, airport authorities, investment entities*
- *Forecasting The Future: Airports:USA® the only traffic forecasts accomplished independently in the private sector*
- *We hold the International Aviation Forecast Summit, now in its 25th year, the leading conference of its type. This year scheduled August 23-25, Cincinnati, USA*
- *We also are the leader in China air traffic trend and traffic forecasting. Changes there will have a material effect on U.S. traffic and aviation*
- *Founded in 1984... Headquartered in Evergreen, Colorado*

Talking & Stalking Points We'll Be Exploring

The fundamental changes needed to understand the current crisis

The timeframe of the crisis – what constitutes “normalized” & what’s the trajectory out of this situation

Major airlines burning \$60 to \$100 million per day. Alternative options? Will CARES grants make a difference?

How the glut of airliners will affect – positively – the U.S. air transportation system

Changes in domestic and international travel demand... Domestic is going to return before international

Before We Start... Details of The CARES Act

Not a bail-out, *per se*.

Grants and loan combinations, mostly to provide income protection for employees at least through next September

Keeps employees on payroll, but not on property. A 70% cutback in flights means less needs for manpower

Does not cover other costs of airline operations – fuel, maintenance, debt service, rent, etc. – therefore flights operated must be cut back until economy improves

Tentative DOT requirement for airlines to keep flying to points served in March is incredibly stupid. There are no passengers.

An Understanding of The U.S. Airline Industry

Two Parallel Airline Systems

Major Airline Brand Systems

Main objective is to address & profit from air service demand

American, Delta, United, Southwest, Alaska

Outlier: JetBlue

Discretionary-Generator Carriers –

Main Business is providing leisure air travel as alternative to other discretionary spending

Allegiant, Frontier, Spirit, Sun Country



Getting Clear About “Regional Airlines”



These are neither “regional” nor “airlines” – In the lower 48, these entities have evolved into vendors to major airlines, leasing aircraft and crews to major carrier systems...



They have no route system of their own, no passengers of their own, do not book seats, do not take reservations, and carry passengers based on the contract of carriage of the major airline customer.



The aircraft and lift are part of the major carriers’ fleets, just as are the aircraft leased from ILFC, Air Lease, Jackson Square, BOC, etc.

And more...

These entities do not serve small communities, per se. Those points are served by American, Delta, United or Alaska, which make the decision which part of their fleets operate the routes. The “regional airline” entity is not the decision-maker... just the vendor.

Let's Candidly Take Stock...

Nationally, **air passenger traffic volume** is down by 85% or more. This leaves a vacuum “clean sheet” for rebound

The hospitality industry has been mostly shut down, particularly at major leisure destinations such as Las Vegas, Orlando, and Hawaii. Aside from quarantines and other constrictions on travel, the lack of hotel space is a barrier to leisure travel.

Airline fleets are geared to pre-2020. There will be changes in how airlines strategize and determine revenue objectives

Intra-Regional & Short Haul – air service didn't fit well, and will be even less valuable in the future

There will be fleet changes in the restoration process... A reduction in need for inter-continental long-haul airliners and a reduction in 50-seat jets within major airline fleets.

What About Airline Mergers?

On paper and from a very veneer perspective, the concept of combining airlines looks great... But

***Not a solution* – merging airlines is a lot more than just changing the paint scheme...**

Enormously time and energy consuming to combine carriers...

Different fleets... Different operating certificates... Different labor agreements... Different everything

With all of the challenges facing the major airline systems, mergers would be distractive, and not bring the benefits that would appear on the surface.

Point: The challenge today is choked off traffic, not lack of potential demand

Today's Curriculum

Format: Data Points, Perspectives & Open Questions

- ***The future air transportation system fleet & strategies***
 - *Changes in demand*
 - *Changes in veracity of air travel in the expected environment*
 - *The U.S. Airline Industry – vulnerabilities and emerging strategies*
- ***Fleet shifts & future demand***
 - *Category changes*
 - *Excess overhang*
 - *Fuel Prices – effects on current & future airliner demand*
- ***Review: Key U.S. Airlines & Expected Fleet Strategies***
 - *Major carrier systems*
 - *The ULCC parallel system*

Section One: The future air transportation system fleet & strategies

- ***Changes in demand***
- ***Changes in veracity of air travel in the expected environment***
- ***The U.S. Airline Industry – vulnerabilities and emerging strategies***

Demand Changes...



Source: BGI Airports:USA® projections as of 4/10/20

12-Month Forecast...

Airports:USA™ based on 166 airports.

“Stabilization” expected by end of 2020

Core traffic generation expected to be @ 15% down from 2019.

Damage: 440 million fewer passengers thru U.S. airports...

Fare value @ \$100 billion+

Assumes economy coming out of caves by end of June

The Post-CONVID U.S. Picture

The New Normal



	2021	2022	2023	2024	2025
Original PaxForecast	713,010	731,546	750,039	768,750	788,017
COVID	620,348	636,475	717,822	735,729	754,169
Variance	92,662	95,070	32,217	33,021	33,849
Original Enplanements					
COVID Revision	876,057	898,162	1,012,345	1,037,074	1,062,495
Variance	130,857	134,159	45,436	46,546	47,687

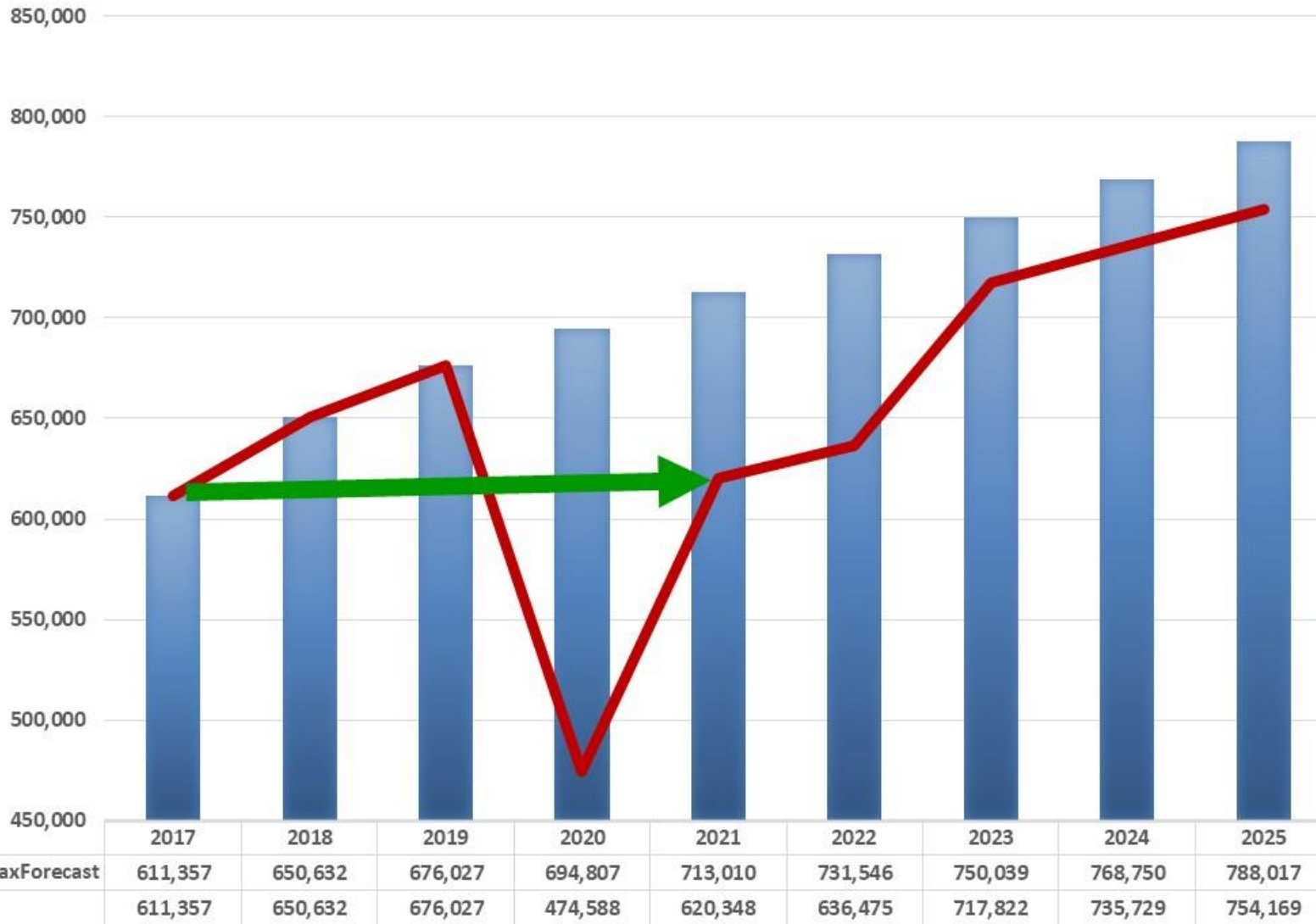
Factors in play...

- Changes in communication channels
- Regionalization of air service access
- Lower International travel

The role of air transportation within the total communication channels will change due to the fallout from the CONVID crisis.

Five-year forecast indicates total passenger generation in the US will be 286 million fewer than previously projected... Airports will handle @ 402 million fewer enplaned passengers.

EFFECTS OF COVID PANDEMIC ON U.S. AIRPORT ENPLANEMENTS



Original PaxForecast COVID

It is an open question whether the same drivers of air transportation growth will be in place post 2020

Channels of communication changing – accelerating a current trend

Fleet shifts – more regionalization of air service, less need for hub-feed, possible

In any case, less capacity will be needed

Section Two: Fleet shifts & future demand

- ***Category changes***
- ***Excess overhang***
- ***Fuel Prices – effects on current & future airliner demand***

Assumptions Regarding Changes In Fleet Demand

- *Assumption One: Consumer bookings are down 80% - 90% - This will tend to re-structure the rebound*
- *Assumption Two: Airlines scrambled to reduce capacity & flights. Now, some are re-organizing the grounded fleet*
- *Assumption Three: Fleet demand shifts will not be equal across the industry – airline strategy changes will differ*
- *Assumption Four: Federal aid will not factor into long-term route and resultant fleet strategies*
- *Assumption Five: Fleet changes will affect the major carrier systems more than the ULCC sector*
- *Assumption Six: There are hundreds of parked airliners – many relatively new and many are orphaned*
- *Assumption Seven: **Rebound will be slow, but it is believed that it can return to “stability” by end of 2020***

Re-Thinking Global Fleet Demand

Until 2017, the majority of global demand was in the replacement category ...

New generation airliners – 737MAX, A320neo, 787-8/9 etc. - replacing less fuel-efficient aircraft.

That process is largely complete – by 2019 the demand was driven by global traffic demand growth.

Growth is no longer an operative term.

Criteria		
Passenger Jet Airliners	Units	% of Total
Global Total, Year End of Year 2018	23,695	
Total Global Fleet, End of Year 2028	33,217	
Net Increase In Fleets Globally	9,522	28.7%
		% of Total
New Airliners: Replacement	7,317	34.9%
New Airliners: Growth	13,660	65.1%
Total New Units	20,976	
New Airliner Demand By Category		
	Units	% of Total
Seats Plus 180	4,595	21.9%
126-180 Seats	8,988	42.8%
101 - 125 Seats	5,353	25.5%
75 - 100 Seats	2,041	9.7%
Total	20,976	

Pre-COVID Global Demand

Far from needing more lift, all regions of the globe will have an excess of lift, at least for the next two years

There will be a glut of airliners on the market – mostly new-generation

China will be a major driver in the global excess, fundamental changes in economic and political factors will deter domestic growth and decimate international service

Here's a hint: all the prognostications about China air traffic bouncing back are based on blind assumptions

Plan on this: air traffic between the USA and China in 2019 was @8.2 million O&D. As of now, the new base will be less than 500,000 – if that – a 95% reduction (More information is at www.BoydGroupChina.com)

New Airframe Demand By Region Of Operator HDO		
	Units	% of Total
Africa & Middle East	3,129	14.9%
Asia & Pacific	1,198	5.7%
China	6,974	33.2%
Europe	4,293	20.5%
North America	3,953	18.8%
Latin America	1,421	6.8%

New Dynamic: Multi-Mission Aircraft

Traditional

Short-Haul: CRJ-200s, ERJ-145

Mid-Haul – 737, A320

Long Haul – 747, DC-10-30

Future

A220, A321XLR, 737MAX

These have the mission capabilities that overlap all three of the former categories.

Raw Capacity is no longer the main criteria for international service.

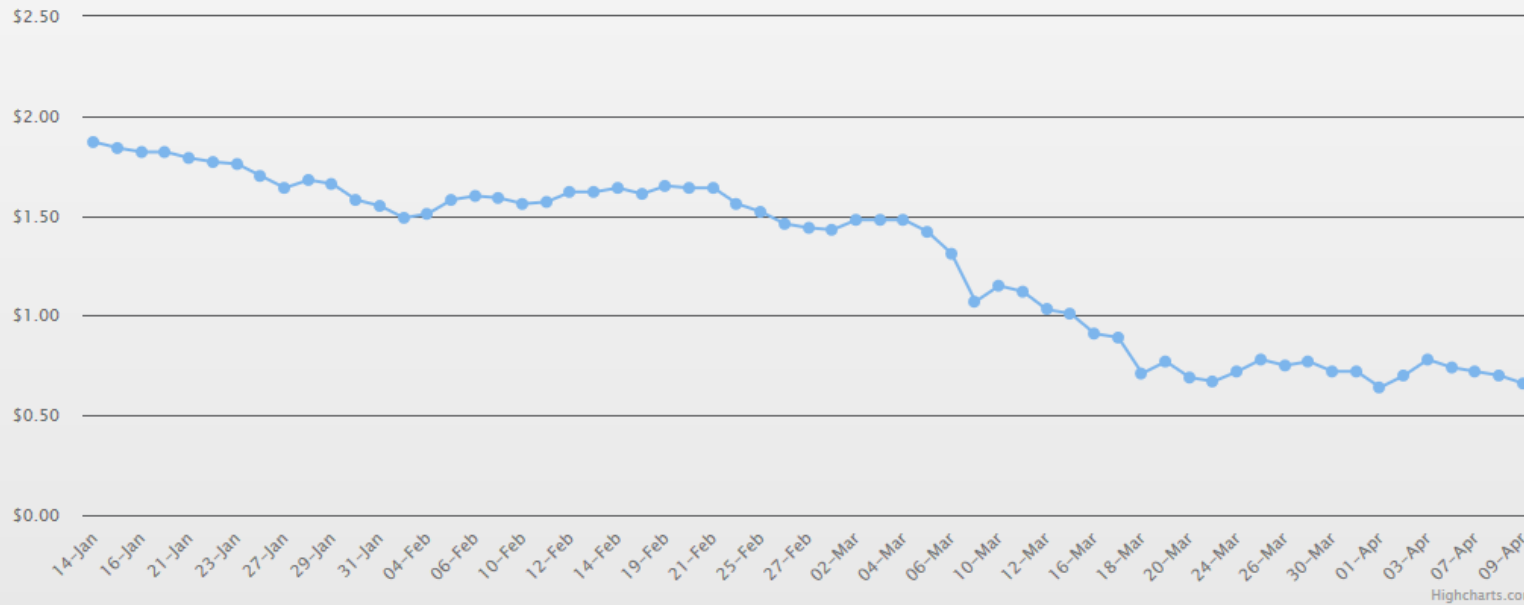
Therefore, the market for wide-body airliners will mostly be in the Pacific, and the Pacific will not be a growth market.

New Economics... Reconsideration of Fleets

Argus US Jet Fuel Index™

Price for 09-Apr-2020: \$0.66/gallon

Argus daily simple-average jet-fuel price for Chicago, Houston, Los Angeles, and New York



Source © Argus Jet Fuel Index

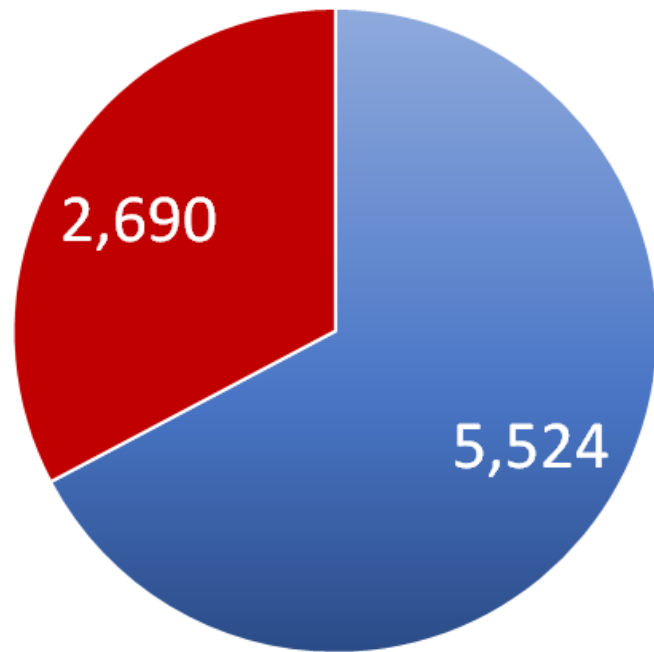
Based on publicly-published data from the respected Argus US Jet Fuel Index, jet-A is now at just 35% of the price at the beginning of the year.

Because of the fact that the industry will be ramping back toward 2019 levels, the demand for jet fuel will still lag behind supply...

That means that it's likely that prices will stay low.

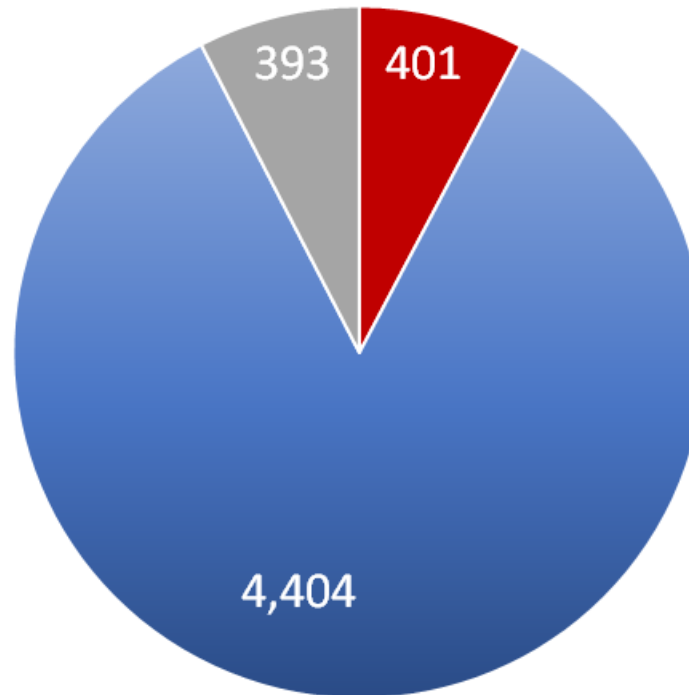
Fleet Distribution – 737

B-737-800/900



■ Built ■ Stored

737MAX



■ Built ■ OnOrder ■ Stored

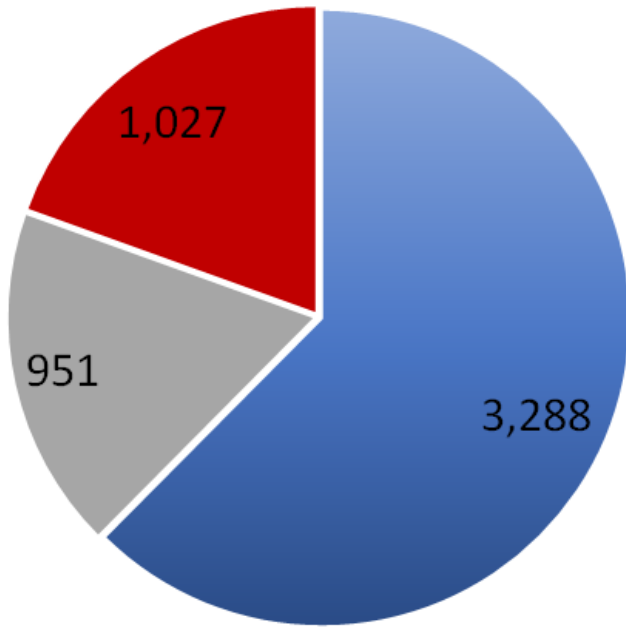
In the 737 category, there are over 3,000 airliners now out of service...

The stored 737MAX aircraft are “spoken for” but it is likely that some former operators such as Air Canada will look to cull them out.

The remaining orders for 4,400 737MAX (inclusive of recent cancellations as of 4/14/20) are likely to be joined by more in the next 6 months.

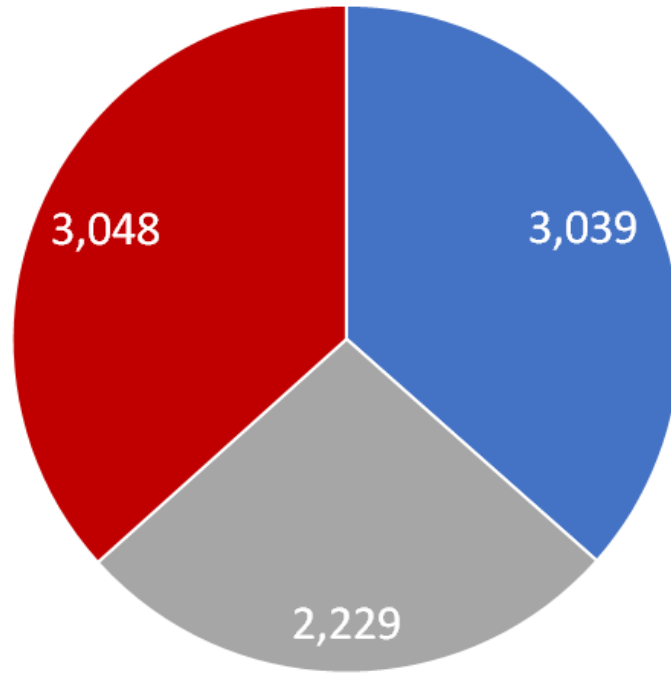
Fleet Distribution – A320/321

A321 Fleet
Units <8 Years Old



■ OnOrder ■ Active ■ Stored

A320 Fleet



■ OnOrder ■ Active ■ Stored

Approximately 4,000 A320/321 airliner are now indicated as out of service.

Not all former operators will be around to get them back in the air.

Many of these are A320neo versions, and will be on the market competing with new units.

Effect on aircraft lessors – Avalon dropped 75 MAX orders probably for this reason. Too much competition from orphaned 737-800s.

Rough Numbers: Doing The Math...

A 15% reduction in fuel burn...

At \$1.87/gallon = 28.0 cents reduction in cost

At \$.66/gallon = 9.9 cents reduction in cost

At a fuel burn of 850 gph x 2,000 utilization/yr.

Fuel savings at 28.0 reduction = \$476,000

Fuel savings at 9.9 reduction = \$168,000.

Open question: market price of used 737-800 – or 737MAX?

Or, A320/321neo?



Source: Boeing

At @ \$100M per unit, at what fuel price point does lower fuel burn become less important?

With jet-A prices dropping for the foreseeable future, and thousands of viable used 737-800s and A320s orphaned, the lower fuel burn of new airliners is much less of an incentive to buy...

The ramifications for the entire industry are enormous.. And not all are negative to a few aviation sectors.

Section Three

Key U.S. Airlines & Expected Fleet Strategies

- ***Major carrier systems***
- ***The ULCC parallel system***

Let's Look At American

	Operating	Stored	% Grounded
Widebody	34	76	69.1%
Single-Aisle	560	185	24.8%
Total	594	261	30.5%



Fleets Retired:

A330 – 24

B767 - 17

757 – 38

E-190 – 20

Likely To Be Retired:

B777-200 - 48

Likely replaced by 46 787s on order

Let's Look At United



	Operating		Grounded		Fleet	% Grounded
Widebody	70	16.0%	78	148	52.7%	
Single-Aisle	367	84.0%	158	525	30.1%	
Total	437		236	673	35.1%	

Fleets Retired:

B757 – 41

B767 – 39

Fleet Notes:

183 737MAX On order

75 A320/321 On order

All 787-8 Grounded

Let's Look At Delta

	Operating		Grounded	Fleet	% Grounded
Widebody	34	9.0%	44	78	56.4%
Single-Aisle	343	91.0%	250	593	42.2%
Total	377		294	671	43.8%



Fleets Retired:

767 – 78

MD-88 – 61

MD-90 – 56

B-717 - 91

Fleet Notes:

A220 – 64 On Order

Let's Look At Southwest

	Operating	Grounded	Fleet	% Grounded
Single-Aisle	603	143	746	19.2%
Total	603	143	746	19.2%

The Southwest logo, featuring the word "Southwest" in a blue sans-serif font with a red heart icon to the right.

Fleet notes:

Grounded aircraft are almost all 737-700s, with larger -800s still flying.

Southwest entered this situation with 34 of the "grounded" aircraft being 737MAX units.

Has 257 737-8 MAX airliners on order... Could be in jeopardy with numbers of -800s now grounded around the globe

The Parallel Airline System - ULCCs

These carriers have a very simple non-complex model, with high route and market flexibility. They are in business mostly focused on offering air travel as an option for discretionary spend. While this is dependent on a robust economy, these carriers for the most part have no real market turf and can move resources easily.

They are not in the same business as the major network carriers

	Operating	Grounded	Fleet	% Grounded
Single-Aisle	59	41	100	41.0%
Total	59	41	100	41.0%

Frontier: reportedly has grounded most of its fleet. However has also announced at least one new route for June. They have an additional 159 A320 airliners on order.

	Operating	Grounded	Fleet	% Grounded
Single-Aisle	104	50	154	32.5%
Total	104	50	154	32.5%

Spirit: Also has grounded most of its fleet. Has requested aid waivers to delete service temporarily to over a dozen airports. Has an additional 140 A320 aircraft on order.

The Parallel Airline System - ULCCs

Both Allegiant and Sun Country differ somewhat from Frontier and Spirit.

Allegiant is highly focused on ground-driven ancillary revenues – hotel, rental car, tours etc. Sun Country has a very conservative model. Not reflected here is the agreement with Amazon to operate a fleet of ten freighter aircraft.

	Operating	Grounded	Fleet	% Grounded
Single-Aisle	54	55	109	50.5%
Total	54	55	109	50.5%

Allegiant: Dependence on ground revenues is a factor... Las Vegas and Florida hotel closures is a major issue. Fleet plans are fluid... Carrier has essentially no orders on the books, and has ability to pick up used A320s when needed

	Operating	Grounded	Fleet	% Grounded
Single-Aisle	20	11	31	35.5%
Total	20	11	31	35.5%

Sun Country: With only 31 airliners, and no current orders for new ones, this carrier probably has the lowest vulnerability of any U.S. airline. The Amazon deal has only upside.

Conclusions & Starting Points

The shutdown has likely made some changes in future use of air transportation

There will be an excess of airliners available, post-pandemic

Long-haul international traffic will recover slowly... Some markets, such as China, won't recover for years

All major network carriers have solid fleet and market plans for the near-term

There will be smaller fleets and consolidated traffic aggregation

ULCCs – assuming an economic turn around – will recover first, due to the fact that they aren't in the “traditional” airline business

Thank You...

Thoughts, Questions, Comments

We Are Ready To Assist With
Your CCP-COVID Planning
Not Just Data – *Futurist* Planning

www.AviationPlanning.com

www.BoydGroupChina.com

78 Beaver Brook Canyon Road, Evergreen, CO USA 80439
(303) 674-2000 info@AviationPlanning .com

