US Airline Industry Trend Forecast

Not New Metrics. A New Industry

Sacramento, California
September 23, 2008
It’s Not A Cycle.

It’s A Whole New Transportation System
Oil Prices = Change In Business Fundamentals

The entire system of travel, distribution, and logistics is in line for major changes...
It was built on cheap oil.

Whole shifts in the way things are made and sold

“Just In Time” may need to revert back to more traditional warehousing

Proximity of goods & raw materials more important than just time

That factory in Sichuan may now be too far away

Those flowers from Peru may not be economical anymore

That business trip to Omaha, or that vacation to go ride Dumbo in Orlando may now be less likely
Think of the Air Travel Industry Like The Old Roman Empire

Barbarians Are Forcing It To Shrink...

Fuel costs are reducing the number of profitable businesses that involve the use of flying machines...

Air cargo... Charter airlines... Tour airlines... Aloha (literally)... etc.

Less potential for new service... more potential for reduced service... the certainty of higher fares

New fleet mixes... small jets are coming out. That means some of the markets they used to fly will, too.

Hi. I’m From The Oil Company
Mr. Wizard Isn’t Coming To The Rescue

- **Fact:** In the past, breakthroughs in technology have offset cost increases in the airline industry.

- **Fact:** The average cost of air travel adjusted for inflation, dropped 50% 1978 to 2004.

- **Fact:** That’s gonna change, big time.

- **Fact:** There are no technological breakthroughs in aircraft or powerplant technology that will address the fundamentally higher costs of fuel.

- **Conclusion:** Changes in business patterns. Changes in spending patterns.
Adding To Oil, Other Problems

- **Air Traffic Control.** Sorry, there’s only hot air from Washington. No upgrades representing real improvement. Plan of delays & higher fares.

- **Air Service Rationing.** With no real plan, the “solution” will be to constrict the air transportation system. Gee, will airlines cut service to Phoenix? Or to Pellston?

- **Larger Airliners. Larger Costs.** Airports will need additional funding to accommodate new fleets. Washington has no clue.

- **Labor.** Unhappy campers. They’ll leave the bargaining table with big increases. Or with strike posters. One or the other.

- **Environment v Second Social Agendas.** Air travel is a positive part of our economy.
But It’s Responding to The Market

Air Travel Is Essential To Our Economy

- Flights are essentially full - over 75% - 80% is “full”
- A diverse fleet is needed to assure air access for communities
- We aren’t Europe. No air service in a region means a problem for economic growth
- Realities of air service: access to the globe, frequency, and matching capacity to demand
- Common belief: it’s all due to fuel prices.
- Reality: It’s mostly due to myopic vision and rearview mirror planning
The Future Global Marketplace

We Still May Be
The Center of The Universe
Global Industry – The New Traffic Dynamic

• It’s not just Tokyo-Newark. It drives rural America traffic, too.

• Point: That chemical company executive from Taichung isn’t real interested in getting to Detroit on Northwest. He’s connecting on to Montgomery and Norfolk and Columbus.

• How ‘bout that Russian steel mill in Columbus, MS? And the Dutch truck plant, too. Or that Haier refrigerator plant in the Carolinas.

• Point: international traffic generation is no longer a big community issue – it is generated to and from communities of all sizes.

• International-related traffic creates investment and jobs. Orlando service gets you a ride at Disney World.

• The new future: international connectivity.
India: Example of The New Traffic Picture

- India: Highly-developed economy, stable legal system, expanding investment in the US
- Current estimate: @2.2 million Indians living in the US...
- 60% remain non-citizens... meaning they likely go home occasionally... Household Income: 25% above US average
- US Indian population is geographically diffused - representing huge opportunity for comprehensive network carriers to strengthen domestic flows to their key hubsites
- Raw US-generated Indian ethnic travel base: @ 1.6 million annually. Every community in the US has potential

Note: This is an opportunity for Indian carriers, as much or more than US airlines.
China: US Hubs Are In Line For Growth

- Number one global economy...
- Chinese investment in US will grow geometrically in next decade...
- Huge potential for business growth - both directions. Watch for inroads by Chinese carriers
- More importantly, Latin-China trade will grow...
- Nonstops from Beijing to Sao Paulo, yes. But Nanjing - Santiago, or Wuhan - Manaus, etc, will represent huge opportunity for US carriers connecting passengers over Atlanta, Newark, etc.
The Emergence of The Global Portal

Mega-connect points between regions, not just cities

A traditional airline **hub** inter-connects cities

A **Global Portal** is an access point to a major commercial center/region, **plus** an inter-connector between regions of the world

Combines traffic on a global basis where nonstops cannot be supported

**Partial example:** Dubai

**Textbook examples:** Dallas-Ft.Worth International, Detroit/Metro
The Emergence of The Global Portal

Illustrative Example: Asia-Latin America via Global Portal Alternatives

Sao Paulo, Brasil - Hong Kong, China

Single largest intra-regional growth potential is Asia-Latin America...

US hubsites are right in the middle... can provide enormous connectivity

Benefit is huge additional access for US markets

GRU-HKG via DFW - 13,234 miles
GRU-HKG via ATL - 13,052 miles
GRU-HKG via CDG - 11,799 miles
GRU-HKG via DXB - 11,276 miles
GRU-HKG via IAH - 13,248 miles
GRU-HKG via DFW - 13,234 miles
More About The New Airline Industry
Forecast - Basics

US Enplanements 2008
-2.5% to -3.2%

US Enplanements 2009
-7.5% to -9.2%

US Fleets:
Gone - 100/120 small jets
3% - 5% retirements

Off-Schedule Flights:
Up at least 10% from 2008

Bankruptcies:
On the margin. No majors
US Airline Industry Myths

• **There’s Over-Capacity.** No, not with 80% load factors and increasing pricing traction in the industry.

• **The Hub System is Outdated & Inefficient.** See what happens to Lubbock, El Paso & Ft. Wayne without it.

• **Southwest Is “The Model” For All Airlines.** See how well a 737 fits traffic at Gainesville. And how far it’ll go before running out of gas on the way to Shanghai.
The DOT has a plan to fix things: force people to pay more or they can just stay home.

Peak period pricing. Capping flights. Penalizing small aircraft.

The problem is that these clowns are taken seriously.

Fact: this isn’t the 7th Avenue Subway. There are no “peak periods” per se.

Fact: People and business can’t be reservoired like water: hold ‘em until they can fill a 747, instead of three flights during the day.

Fact: small communities can only support smaller units of capacity.

This is not the same as air transportation.
But Still More Aircraft. Different Mix

The Boyd Group 2008 – 2017 Global Fleet Forecast

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<td>643</td>
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<td>665</td>
<td>667</td>
<td>633</td>
<td>592</td>
<td>550</td>
<td>519</td>
<td>514</td>
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<td>-111</td>
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<tr>
<td>101 - 125</td>
<td>396</td>
<td>515</td>
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<td>790</td>
<td>958</td>
<td>1,123</td>
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<td>1,409</td>
<td>1,517</td>
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<td>454</td>
<td>559</td>
<td>656</td>
<td>739</td>
<td>810</td>
<td>869</td>
<td>912</td>
<td>950</td>
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<tr>
<td>61 - 74</td>
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<td>108</td>
<td>163</td>
<td>196</td>
<td>219</td>
<td>245</td>
<td>271</td>
<td>298</td>
<td>319</td>
<td>340</td>
<td>305</td>
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<td>Regional Jets</td>
<td>1,675</td>
<td>1,591</td>
<td>1,394</td>
<td>1,265</td>
<td>1,149</td>
<td>1,042</td>
<td>978</td>
<td>932</td>
<td>895</td>
<td>860</td>
<td>-873</td>
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| Total         | 6,378| 6,538| 6,631| 6,768| 6,945| 7,127| 7,320| 7,520| 7,704| 7,882| 1,635  |

- **Almost 25% More Airplanes** – more stress on the air traffic system. The same one the FAA is non-improving every year.

- **US Fleets** will gravitate toward the middle capacity bands – more international flying with mid-size airliners.

- **Regional Jets** - Wave Good-bye to about 50% of the RJs flying around. Bad news for chiropractors.
It Really Is A Crisis

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<tr>
<th></th>
<th>Fare Paid</th>
<th>Net To Airline</th>
<th>Fuel Per Pax</th>
<th>Net To Pay For Everything Else</th>
<th>Percent of Fare</th>
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<tr>
<td><strong>Year 2000</strong></td>
<td>$188.16</td>
<td>$168.08</td>
<td>$31.77</td>
<td>$136.31</td>
<td>72.4%</td>
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<td><strong>Year 2007</strong></td>
<td>$181.91</td>
<td>$156.13</td>
<td>$74.03</td>
<td>$82.10</td>
<td>45.1%</td>
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<td><strong>June of 2008</strong></td>
<td>$191.00</td>
<td>$166.17</td>
<td>$138.80</td>
<td>$27.37</td>
<td>14.3%</td>
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Source: Airports:USA® DataMiner

- Virtually all flights for July and August were heavily- or fully-booked
- At fares that didn’t cover the costs of $130 oil
- That means no relief until December - maybe
The system is now dysfunctional. Every airliner flying is obsolete in this system with $100 oil...

Just flying less, and parking airplanes will only turn a large dysfunctional system into a smaller dysfunctional system.

Fee-baiting is like taking a squirt gun to a forest fire - won't do diddly to counter fuel increases.

Only solution - restructure how airlines toss planes across the sky.

$10, please.
Or you’ll be in a middle seat between this guy and his brother.
US airlines have a 20% defect rate. That’s the number of sales they fail to deliver as promised.

Differences between “best” and “worst” are minor.

Airlines assume moving airplanes is the main objective. It’s not.

Airlines operate on automatic.

Airlines have no production-management.

Airlines waste billions. And drive away billions, too.
Let’s Talk About Jet Fuel
First, Get The Data Right

Watch Your Sources

- Bureau of Transportation Statistics:
  Jet-A Consumption 1997: 13.56 Billion Gallons

Huzzah! It’s gone down!

Wrong: It’s actually gone up. BTS does not reflect changes in airline industry... shift into leasing small jets from “regional airlines” - mis reports @ 1 billion gallons a year, compared to 1997...

Est: 1997: 17.0 Billion
Actual 2006: 19.7 Billion
Next, Get The Facts Straight

Don’t Believe The Department of Transportation

- The air traffic control system is so out of date, that the US airline industry actually must fly its planes @ 15% more than needed

- Slower flights, circuitous routings, congestion the system cannot handle

- Schedule: Departure 9:00AM. Arrival: 10:45AM

- You arrive at 10:40AM. You are not “early” - just ahead of schedule

- So, let’s do the math:
The US airline industry this year will burn @ 19.7 billion gallons of jet fuel this year

If 15% is wasted due to inefficient infrastructure, that's 2.9 billion gallons of go-juice.

At today's price of @ $3.40 a gallon, that's about $10.1 billion dollars wasted annually

You do your own math on stuff like offsets, footprints, and all that other happy stuff.

Problem: The airline as an industry hasn’t made any protest about the continuing, decades-long failures at the DOT/FAA to fix this.
But There’s More…

- Airlines must manage their production lines...
- Every facet of the movement of the aircraft...
- Geared to one goal – getting passengers across the goal line on-time, as promised, without hassle
- Minutes – not fuel costs – are the metric
- FAA is now irrelevant to fixing ATC. They can’t do it. So airlines must pick up the slack
- Remember. 20% of flights today are off-schedule. 100% are delayed
So, Conclusions

It’s Not A Crisis. It’s A Problem

• Algae. Peanut oil. Hydrogen. Pixie dust. Forget it. Air transportation is oil-driven for the foreseeable future

• And it can be driven on a whole less oil, too

• Washington has mismanaged infrastructure for over 30 years. Results take a back seat to congressional hearings

• New infrastructure - the ATC system must be re-designed. Current DOT programs insure more waste, more consumption, more nonsense

• Airlines: move customers and goods. Not airplanes

• We can retain and increase the benefits of a vibrant air transportation network - it is NOT in conflict with environmental issues if managed properly
Thank You...
And Mark Your Calendar…
October 5-7

The Aviation Forecast Summit
At Aspen 2008

Our 13th Annual Forecast Conference…
But the first of its kind in the new aviation environment

www.AviationForecastSummit.com
Thank You...