



2008 ASPO-USA Peak Oil Conference

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US Airline Industry Trend Forecast

Not New Metrics. A New Industry

Sacramento, California
September 23, 2008

TheBoydGroup

Aviation Consulting & Forecasting

It's Not A Cycle.

It's A Whole New
Transportation System



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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

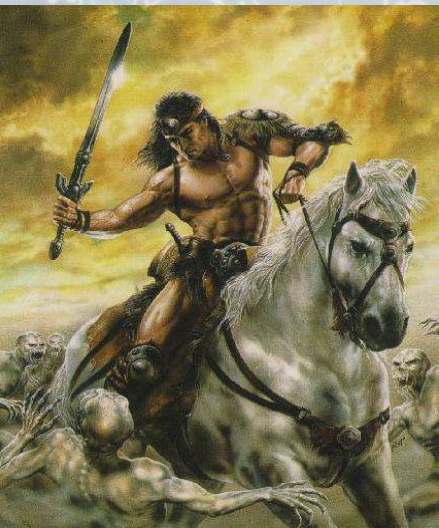
That business trip to Omaha, or that vacation to go ride Dumbo in Orlando may now be less likely



What This Means To Air Transportation



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 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

Hi. I'm From The
Oil Company

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

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



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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



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

Sao Paulo, Brasil - Hong Kong, China

More About The New Airline Industry



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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



Wall Street's "Analysis" of Airline Consolidation

- **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

Total Non-Solutions



This is not the same
as air transportation

- 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

But Still More Aircraft. Different Mix

The Boyd Group 2008 – 2017 Global Fleet Forecast

North America	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Net Chg
180 + Seats	643	644	665	667	633	592	550	519	514	512	-111
126 - 180	3,321	3,326	3,294	3,291	3,329	3,387	3,435	3,493	3,546	3,599	246
101 - 125	396	515	662	790	958	1,123	1,276	1,409	1,517	1,621	1,327
75 - 100	276	353	454	559	656	739	810	869	912	950	740
61 - 74	68	108	163	196	219	245	271	298	319	340	305
Regional Jets	1,675	1,591	1,394	1,265	1,149	1,042	978	932	895	860	-873
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

	Fare Paid	Net To Airline	Fuel Per Pax	Net To Pay For Everything Else	Percent of Fare
Year 2000	\$188.16	\$168.08	\$31.77	\$136.31	72.4%
Year 2007	\$181.91	\$156.13	\$74.03	\$82.10	45.1%
June of 2008	\$191.00	\$166.17	\$138.80	\$27.37	14.3%

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**

Re-Thinking The Business - What Must Be Done



\$10, please.

Or you'll be in a middle seat between this guy and his brother.

- 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.

Not Which Airline Is Better. Just Less Bad



A major repository of airline revenues

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



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First, Get The Data Right

Watch Your Sources

- **Bureau of Transportation Statistics:**

Jet-A Consumption 1997: 13.56 Billion Gallons

Jet-A Consumption 2006: 13.45 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 Numbers

- 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 do not manage minutes.

That's the metric to control costs

- 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...

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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

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