

**TURKISH
AVIATION
ACADEMY**



Changing Airline Industry

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Airport Planning and Management

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Airline Industry Reconfiguration

- **What kind of airlines will our airports serve?**
- **How will they differ from ones we know?**
- **Focus on Dynamics of Evolution, illustrated by examples worldwide**
 - Rise of Low Cost Carriers
 - Effects on Traditional “Legacy” Airlines
 - Consolidation of Legacy Airlines
 - Convergence of Industry toward a formula
- **JetBlue (and Azul) as possible role models?**

Impact of Low Cost Carriers

Phases of Competition with Legacy Carriers:

- **Low operational costs, thus of fares**
- **LCCs develop markets, gain market share**
- **LCCs dominate National, Regional Markets**
- **Legacy airlines struggle to compete**
 - Withdraw from short-haul markets, focus on long-haul
 - Lose Money; Financial Stress; Many Bankruptcies
- **Legacy Airlines simplify operations, cut costs**

**CONVERGENCE TOWARD A FUTURE MODEL
OF OPERATIONS, COSTS, AND SERVICE**

Change: Rise of LCCs

- **Low-Cost Carriers**

- “Low Cost” due to their economical way of operating (any airline can have low-prices, to meet competition)

- **Innovative Operations**

- 30 minute turn-around times (more time in air, working)
- Common aircraft – easier maintenance, training
- No-frills – no meals, eliminate kitchens and catering
- Flexible adjustment of prices... Paperless ticketing...

- **Flexible Labor Arrangements**

- New Employees, lower pay scales
- Cross training for many jobs
- Flight attendants clean aircraft, etc.

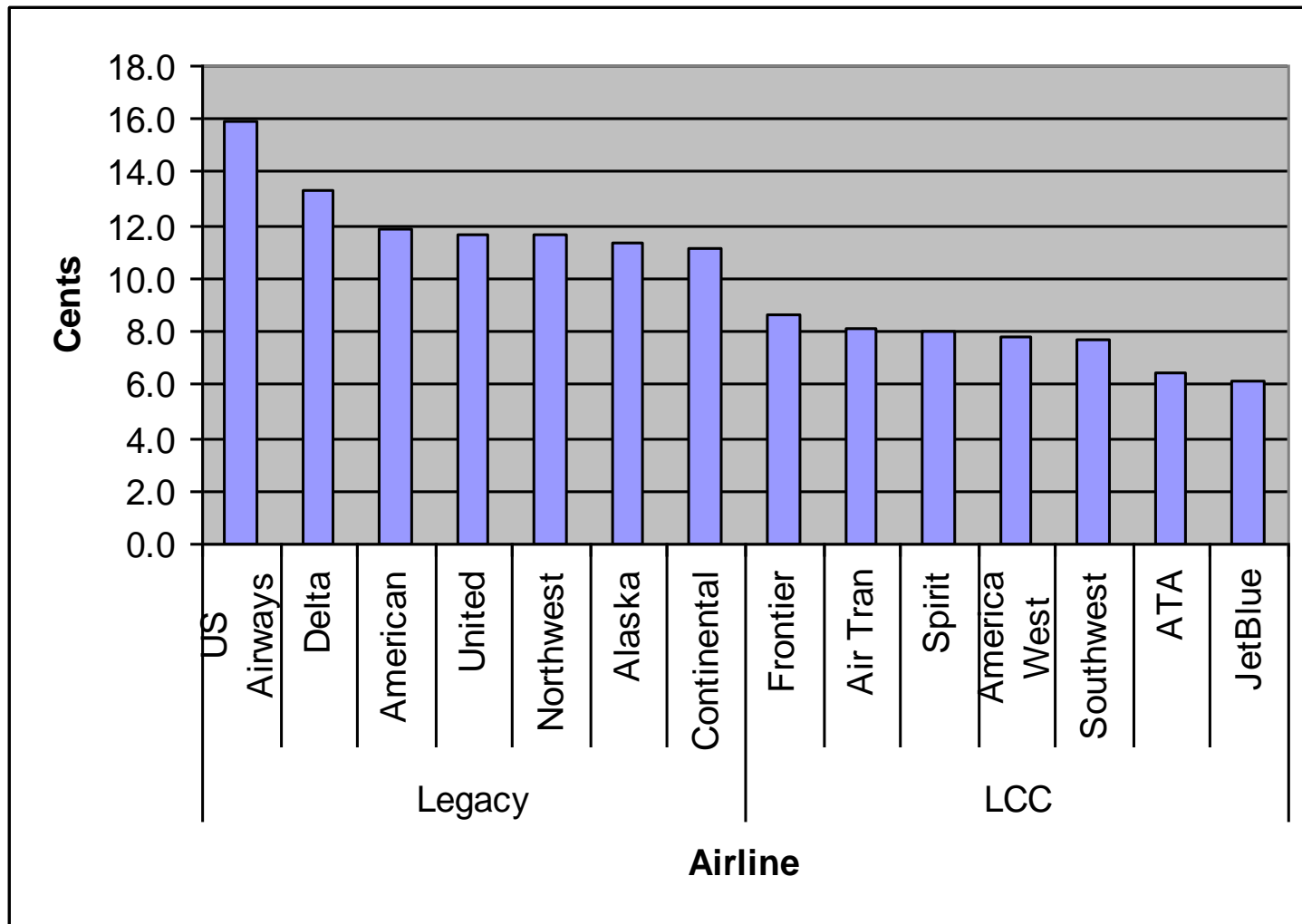
Major Examples of LCCs

- **Southwest – the role model for world**
 - Established 1967, only in Texas, then all US from 1978
- **WestJet (Canada) – modeled on Southwest**
- **jetBlue (US), later Azul (Brazil)**
 - Developed by Neeleman, also a founder of Westjet
- **Ryanair (Ireland)**
 - Modeled on Southwest, but focus on low cost, not service
- **Norwegian (Europe)**
 - Proposes transatlantic, intercontinental
- **AirAsia (Southeast Asia)**
 - Transnational Model (AirAsia X, AirAsia India, etc.)

Other Examples of LCCs

- **IndiGo; SpiceJet; and others (India)**
 - Now dominate domestic market within India (80% share)
- **easyJet (UK)**
 - Close competitor with Ryanair
- **Vueling**
 - Owned by British (technically by International Airline Group)
- **Gol (Brazil)**
- **Pegasus**
 - The major Turkish model

Airline Seat-Mile Costs, 2005



**In 2005,
Southwest
Costs were
only 2/3 of
that of
Legacy
Carriers**











Southwest LCC Dominates Domestic Competitors

Airline	Passengers	
	Millions	% of Total
Southwest	118	20
American + US Air	99	17
Delta	96	16
United	58	10
Total USA	584	100

Source: US DoT, BTS, Air Carrier Domestic Market 2014

Southwest has been top carrier for US domestic market for about 10 years

Ryanair dominates in Europe

Country (Cap m)*	No. 1	No. 2	No. 3	Share
UK (117)	easyjet	 RYANAIR <small>LOW FARES. MORE SIMPLE.</small>	BA	16%
Germany (112)	Luft	Air Berlin	 RYANAIR <small>LOW FARES. MORE SIMPLE.</small>	4%
Spain (105)	 RYANAIR <small>LOW FARES. MORE SIMPLE.</small>	Vueling	Iberia	18%
Italy (85)	 RYANAIR <small>LOW FARES. MORE SIMPLE.</small>	Alitalia	easyJet	25%
France (72)	AF- KLM	easyJet	 RYANAIR <small>LOW FARES. MORE SIMPLE.</small>	7%
Portugal (19)	TAP	 RYANAIR <small>LOW FARES. MORE SIMPLE.</small>	easyJet	17%
Belgium (15)	 RYANAIR <small>LOW FARES. MORE SIMPLE.</small>	SN Brussels	Jetairfly	25%
Ireland (15)	 RYANAIR <small>LOW FARES. MORE SIMPLE.</small>	Aer Lingus	BA	46%
Poland (15)	 RYANAIR <small>LOW FARES. MORE SIMPLE.</small>	LOT	Wizz	26%
Morocco (12)	RAM	 RYANAIR <small>LOW FARES. MORE SIMPLE.</small>	easyJet	12%

*Cap Stats Departing Seats 2014

Similar story elsewhere

- **LCCs dominate India in April 2014, having ~ 80% overall (<http://www.anna.aero/2015/01/16>)**
 - Indigo had 33%
 - SpiceJet and Jet each about 18%
 - GoAir about 9%
 - And the National Indian Airways only about 18%
- **Pegasus reports 28% share of Turkey traffic**

Airline Ranking: Passengers carried (000s)

Rank	Airline	2014 ^[4]	2013 ^[5]	2012 ^[6]
1	Delta Air Lines	129,433	120,636	116,726
2	Southwest Airlines	129,087	115,323	112,234
3	China Southern Airlines	100,683	91,504	86,277
4	United Airlines	90,439	90,161	92,619
5	American Airlines	87,830	86,823	86,335
6	Ryanair	86,370	81,395	79,649
7	LATAM	67,833	66,696	64,983
8	China Eastern Airlines	66,174	62,653	79,611
9	EasyJet	62,309	58,410	
10	Lufthansa	59,850	63,273	64,393
11	Turkish Airlines	54,675	48,268	39,045
12	Air China	54,674		

Delta and United grew by mergers.

American had 146,814 in 2015 (after merger with US Airlines)

Southwest, Ryanair, and EasyJet are Low Cost Carriers

Old European Airlines down list

Airline Ranking: Number of Aircraft

Rank ▲	Airline (including contract carriers) ⇄	Fleet ^[16]
1	 American Airlines Group	1,494
2	 Delta Air Lines	1,280
3	 United Airlines	1,264
4	 Southwest Airlines	683
5	 FedEx Express	634
6	 Lufthansa Group	616
7	  Air France-KLM	572
8	  International Airlines Group	525
9	 China Southern Airlines	509
10	 Air Canada	408
11	 China Eastern Airlines	405
12	 Air China	338
13	 Ryanair	321
14	  LATAM	320
15	 Turkish Airlines	299

US based carriers have largest fleets.

Note Size of Fedex and LCCs Southwest and Ryan Air

Note 'almost mergers':

- Air France + KLM
- British + Iberia (and soon Aer Lingus)
- LATAM Lan+ Tam

Lufthansa group has Swiss and Austrian

Airline Ranking: Sample Market Capitalizations

AIRLINE	Market Cap US\$ Billions	AIRLINE	Market Cap US\$ Billions
UPS	81	United	17
China Eastern	73	Singapore	13.4
China Southern	62.4	Turkish	9.8
Emirates	37.5	British	6.9
Fedex	36.3	EasyJet	6.4
Delta	35.7	Lufthansa	6.3
Southwest	26.3	Latam	2.6
American	25.6	Air France	2.2
Ryanair	19		

Source: Quotes as of Jan 19, 2016

“ Market Cap” = value of company = (number of shares) x *(share price)
Note Importance of Freight, Low Cost Carriers; weakness of European Airlines
 Changing Airline Industry / RdN □

Effects on Legacy Airlines

- **Legacy Airlines lose market share to LCCs**
 - LCCs attracted passengers from Legacy airlines
 - This forced Legacy airlines to cut fares, lose revenue
- **Legacy Airlines reconfigure their markets**
 - Left, downgraded some markets, especially short haul
 - Focused attention on transcontinental, business flights
- **Legacy Airlines reconfigure their operations**
 - Struggles to develop new work rules, pay scales for employees – strikes, bad morale, customer revolts
- **Attempt to set up subsidiary low costs airlines**
 - Lufthansa – Germanwings; Air France – Transavia; United – Ted; Singapore – Silk, Scoot, Tiger!

Bankruptcies of National Airlines

- **Some Disappear**

- Pan American, TWA (US)
- Varig (Brazil)
- Sabena (Belgium)
- Malev (Hungary)
- Olympic (Greece)

- **Some Recover**

- Air Canada
- American Airlines
- Continental (US) bankrupt two times!!
- Delta (US)
- Swissair – became Swiss
- United (US)

Consolidation of Legacy Airlines

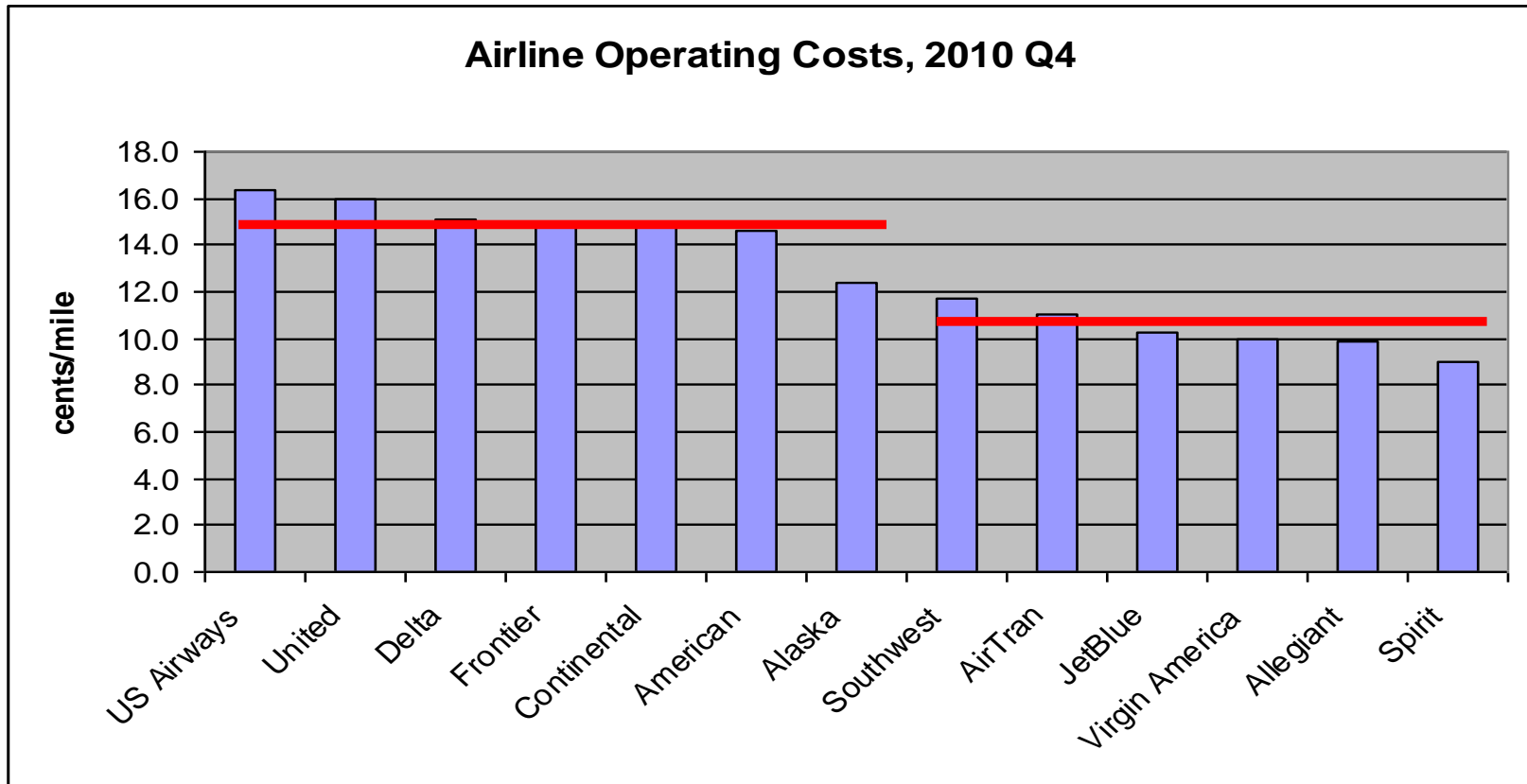
- **Mergers in US, Europe, Worldwide**

- Delta + Northwest;
- United + Continental
- American + (US Air + American West) + TWA
- Air France + Air Inter + KLM
- British + Iberia + Aer Lingus + Vueling (under holding company “International Airline Group”)
- Lufthansa + Swiss + Austrian
- TAP + Portugalia
- Japan Airlines + JAS;
- Air India + Indian
- Gol + Varig

Meanwhile, LCCs evolve too

- **As LCCs gain market share, they have had to broaden their appeal to passengers**
- **They have upgraded services**
 - “extra leg room” seats
 - Connecting services (AirAsia)
- **They have also had to raise salaries**
 - Staff age, insist upon salary increments
 - competition for pilots increases
- **And deal with higher operating costs**
 - As they move into congested primary airports
 - Southwest to Philadelphia, Chicago/Midway

Airline Seat-Mile Costs, 2010 Q4



5 years later, Convergence: Cost gap narrowed

Convergence of Airlines

- **We are in a process of “convergence”**
- **Legacy carriers adopt many of the practices of the LCCs**
 - But of course not all!
 - Still maintain a focus on Business travel
- **While LCCs adopt many characteristics of the remaining Legacy carriers!**
- **What might a fully converged airline look like? Would it resemble JetBlue?**

Jet Blue Concept

Co-founded by David Neeleman

Also a founder of

- Westjet, Morris Air, and**
- Azul latest, in Brazil**



“New York-based JetBlue Airways puts the highest value on customer satisfaction, service and style. The company has already received a number of awards for its customer service. The airline is also well-known, and popular, because of its low fares.”

JetBlue Market Position

- **Special position: low cost – but elegant!**
- **Examples**
 - Leather seats
 - free individual in-flight TV, etc.
- **Very distinct from easyJet, Ryanair**
- **Collaboration with Legacy carriers**
 - Partnership with Lufthansa (which at one point has 15% of shares)
 - [Lufthansa needed cash and sold these shares...]
 - Codeshares with many Legacy carriers

JetBlue Codeshare

- **Many Major Airlines**
 - British, Lufthansa, Iberia
 - Cathay Pacific, Japan, Hainan, Korean, Singapore
 - Emirates, Etihad, Qatar
 - El Al, Egyptair, Royal Air Maroc
 - Turkish
- **Many others (39 in all in January 2016)**
 - Air China, ANA, Asiana, Hawaiian,
 - Aer Lingus, Icelandair, Lot, Sata, Virgin Atlantic
 - Aeroflot, Eva
 - Avianca, Lan, Tam

JetBlue Operations

Commitment to technology and innovation, such as:

- **Individual TV screens**
- **No carts, easier for passengers**
- **ipads for attendants**



JetBlue announced it will provide each inflight crewmember with an iPad mini for use as a point of sale and document management device. ... every inflight crewmember will have device for onboard use.

JetBlue Terminal Concept

Revolutionary: designed to serve 20 million passengers year at a high level of service yet is small

Value Proposition: It's an industrial building. Much equipment is simply on top of the roof to save on space and facilities. Sky-lights are all vertical.

JetBlue rejected architectural elements that did not create value in the transport. The questions were:

- Does this create value for the customers (would they be willing to pay extra for it on their trip?)
- Does this reduce life-cycle costs to operator?

**No “starchitech” roof line
No Calatrava, Foster, Pelli or Rodgers**

JetBlue Internal Operations

Terminal designed around efficiency of the functions.

**Check-in a radical change: a “flow-through” system.
Customer controls of much of the process.**

Great efficiency gains: faster process; shorter travel paths (less space); less Labor cost, as passenger substitutes his efforts (otherwise unused) for that of airline staff (putting bags on belts, etc.)

[Alaska Airlines has similar processes]

Space is used efficiently. Although the volume of building is small, the passenger is not crowded.

**Building designed for conventional level of service C
[contrast to designs for Ryanair, some other LCCs]**

JetBlue Project Management

Management of project directed by the airline – JetBlue is the client and makes the major decisions.

Contrast with standard where airport makes decisions. [Airline direction of the design of terminals is frequent in the United States.]

Airline focus on terminal as a processing facility delivering value almost unique. US airlines have seen terminals as big advertisements for their brand, and have wanted to make architectural statements.

Yet Airline had to meet airport constraints. It had to show that it could reconfigure gates for larger aircraft.

Take-aways

- **The Airline/Airport Industry continues to change**
- **We can expect that current structure of airline industry will continue into future**
- **We can anticipate, based on experience in the United States with about 40 years experience in Low Cost Carriers, that airlines will converge in practices**

JetBlue may be a prototype!