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Este trabajo analiza el crecimiento de Delta Air Lines durante el último cuarto del siglo XX. Afirma que su desarrollo hasta convertirse en una compañía aérea de categoría mundial, se produjo a lo largo de un extenso periodo de tiempo y como resultado de importantes decisiones adoptadas en los años setenta y ochenta. Una época de conservadurismo financiero al principio, reemplazada por otra de agresiva expansión al final. Al mismo tiempo, la expansión geográfica estuvo acompañada por un nuevo compromiso de reducción de costes. Basado en un análisis de las memorias y otras publicaciones de la empresa, y en entrevistas con trabajadores de la compañía, este artículo sugiere que Delta se convirtió en una compañía aérea globalizada hacia 1990, paseando su marca desde Tokio a Tallahassee (Florida).
Palabras clave: *Globalización; Delta Air Lines; aviación americana*

This paper analyzes the growth of Delta Air Lines over the last quarter of the twentieth century. It argues that its development into an airline of global stature took place over an extended period of time and was the result of important decisions taken in the 1970s and 1980s. A period of financial conservatism during the former was replaced by aggressive expansion in the latter. At the same time, geographical expansion was accompanied by a new commitment to reducing costs. Based upon an analysis of company reports, publications and interviews with company workers, this paper suggests that Delta became a globalized airline by 1990, carrying its brand from Tokyo to Tallahassee, Florida.
Key words: *Globalization; Delta Air Lines; US aviation.*

Delta Air Lines 1970-1995: Sowing the seeds of globalization

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Introduction[1]

In 1993, Delta Air Lines, the once primarily regional carrier based in Atlanta, Georgia, announced:

> "Our vision is to make Delta the worldwide airline of choice. *Worldwide*, because we are and intend to remain an airline that gives our customers access to the world."[2]

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[1] I would like to express my gratitude to Marie Force, Delta Air Lines archivist. This paper benefited from an airing at the joint Business History Conference/European Business History Association meeting in Lowell, Massachusetts, in June 2003. My thanks here to Maggie Walsh, Greg Thompson, Mark Rose and Gus Veenendaal. My understanding of the airline industry would be much poorer without the wisdom of Parker Nolen. My coherence in writing about it would be similarly disadvantaged without the scrutiny of Lisa Dillman. I would also like to thank the numerous former and current flight attendants who gave up their time to be interviewed. Finally I acknowledge the helpful suggestions of an anonymous referee. This article is part of a wider study on airline workers conducted at the Emory Center for Myth and Ritual in American Life, Emory University, and funded by the Alfred P. Sloan Foundation.

[2] Delta Air Lines, *Annual Report* (1993), p. 3.

This declaration came on the back of a yearly performance deemed "unacceptable" by CEO Ronald Allen, and which had left the carrier facing "the most critical time in its history"[3].

The board's strategy for recovery focused on three areas: rigorous cost control led, a year later, to the formal introduction of Leadership 7.5, aimed at reducing operating costs per available seat mile (or unit costs) from 9.5 to 7.5 cents; second, new lower-cost carriers were confronted through a combination of streamlined technology, including better fleet utilization, and the deepening of the relationship with Delta's own franchisee airlines; and lastly, the airline extended and expanded its international presence, building on the recent acquisition of Pan Am's transatlantic routes while at the same time expanding the Delta brand of good service[4],

Four years later, the carrier's new-look, glossy, company report announced in large font on the cover "Delta's 1997 earnings were the highest in Company history"[5]. A world map inside highlighted "Delta's Global Reach: Today and Tomorrow"[6]. The implication of the text was that not only had Delta, the Global Carrier, arrived but that its strong global position was a result of the tough decisions successfully implemented in the preceding four years. "During the past few years," wrote new CEO Leo Mullin, "there have been significant improvements in financial and operational efficiency"[7].

This paper argues that there was rather more at work in Delta's climb to global status and leading player in the globalization of the airline industry than the efficiencies forced through in the years immediately following 1993. To understand fully how Delta reached this position, one needs to analyze the carrier's performance at least as far back as the 1970s, when it was hardly a household name in the US, let alone the world.

Globalization did not become a hot topic beyond the confines of business and industry conferences until the mid 1990s, but the formation of Delta, the Global Airline, took place gradually over the preceding twenty years. Characteristics of global companies at the turn of the millennium could all be found in the airline by 1990 (a local and global-scale network; interpenetration of share capital across borders and regions; contracting and franchising out of non-essential services; cost-based competition, in which surplus value was extracted from employees through flexibility and efficiency drives; the deepening and extension of the product brand; and the transition between Fordist and flexible accumulation strategies highlighted by geographers such as David Harvey[8].

This paper chronicles the period from the 1970s up to the introduction of Leadership 7.5, a timeframe in which the airline grew in prominence relative to other carriers in the US (Table 1)[9]. In the 1970s, fuel hikes and capital outlay were the main concerns of the company. Delta's strong financial position ena-

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3 *Ibid*, pp. 2-3.

4 On Delta's route expansion see Deming (1991).

5 Delta Air Lines, *Annual Report* (1997), p. 1.

6 *Ibid* p.18.

7 "A Message from Leo F. Mullin", Delta Air Lines *Annual Report* (1997), p. 26.

8 Harvey (1989).

9 The best overall discussion of the period can be found in Petzinger (1995). On American Airlines see Reed (1993); on Eastern, see Serling (1980); on Continental, see Murphy (1986); on Southwest, see Muse (2002)

Table 1. Domestic trunk market share, revenue passenger miles, US scheduled carriers, 1971-1990.

AIRLINE	Market share 1971 (%)	AIRLINE	Market share 1981 (%)	AIRLINE	Market share 1990 (%)
UNITED	24.3	UNITED	23.5	AMERICAN	18.8
AMERICAN	16.6	AMERICAN	15.5	UNITED	16.4
TWA	13.1	DELTA	13.5	DELTA	15.2
EASTERN	12.0	EASTERN	12.6	US AIR	10.5
DELTA	10.0	TWA	11.0	NORTHWEST	8.7
WESTERN	5.1	CONTINENTAL	5.1	CONTINENTAL	8.3
CONTINENTAL	4.8	BRANIFF	4.3	TWA	6.1
NATIONAL	4.2	REPUBLIC	4.3	EASTERN	4.8
BRANIFF	3.4	NORTHWEST	3.4	AMERICAWEST	3.2
NORTHWEST	2.7	US AIR	3.1	SOUTHWEST	3.0
PAN AM*	2.0	PAN AM*	1.4	OTHERS	10.5
NORTHEAST	1.8				
TOTAL	100.00		100.00		100.00

"Pan Am Domestic"

Source: Civil Aeronautics Board, Reports to the President (1971, 1981), Washington DC; Financial Times (1990).

bled it to maximize its earning potential during the fallout from the 1978 Deregulation Act. A major part of this success was the route structure already in place through Atlanta's hub and spoke system. During the 1980s, aggressive expansion took the form of acquisition, overseas route development, domestic franchising, foreign alliances and a new obsession with costs. All of these measures were part of the building blocks of Delta's global status of the 1990s.

The Prudent Seventies

Financially, Delta earned a reputation as a conservative carrier.[10] Aircraft depreciation rates of 10% in 10 years during the 1970s and the purchase – as opposed to leasing – of aircraft made it unusual in the industry. Eighty per cent of the outlay on wide-bodied craft during the early 1970s was met by internal cash generation, compared to 53% at its closest regional rival, Eastern Airlines[11].

Delta's financial conservatism during the 1970s was reflected in its attitude to long-term debt, a major feature of US airline performance in the early part of the decade. In 1974, debt stood at $366 million, representing 82.5% of equity[12]. By 1980, long-term debt had been reduced to $163 million – inflation notwithstanding – and the debt-equity ratio was only 18%, one of the lowest in the industry[13]. This performance looks even more impressive when juxtaposed with Eastern's. Between 1970 and 1980, both Delta's and Eastern's total debt (long

10 *Lloyds Aviation Economist* (1985); Gaudin (1986).
11 *Business Week* (1977).
12 Delta Air Lines, *Annual Report* (1974), p. 9.
13 Delta Air Lines, *Annual Report* (1980), p. 3.

and short-term) fell from $244 million to $174 million and $757 million to $667, million respectively. By 1982, however, following a sharp downturn in the industry, Eastern's debt had increased to $1,136 million while Delta's was up to $636 million. In other words, Delta's debt in a bad year was still less than Eastern's in a good one. By 1982, Delta had matched and then passed Eastern in terms of operating revenue, so the disparity could not be attributed to airline size. In 1982, Delta's total debt-equity ratio stood at 38.6%, while Eastern's stood at 61.2%. Of the latter, Eastern paid 16.2% to airline suppliers; Delta's indebtedness to this sector was zero.[14] In short, Delta entered the 1980s in far better financial shape than Eastern and was rivaling the latter in enplanements and Revenue Passenger Miles (RPM). As a company, the Georgia carrier had grown out of all recognition[15].

However, the 1970s were not just about expansion and debt reduction. The decade was also infamous for the rising price of oil. Airlines that had already laid out large sums of money on new wide-bodied aircraft were faced with a sharp increase in fixed costs. Between 1973 and 1980, the average price of jet fuel rose from 12 to 74 cents per gallon[16].

Delta militated against rising fuel prices in areas where it could exert flexibility. This included fleet utilization and maintenance costs. Comparing domestic operating costs and performance for the L1011 Tristar between Delta and Eastern, for instance, shows where Delta out-maneuvered its closest rival. As Table 2 indicates, Delta generally paid more, or roughly the same, for its fuel per gallon than Eastern through the period. In addition, up to 1977 Delta's operating costs surpassed Eastern's.

In its annual reports the airline consistently pointed to its successful fuel efficiency efforts. Between 1973 and 1980, total fuel consumption rose only 10%, from just under 1,000 million gallons to just over 1,100 million. During the same period, RPMs per fuel gallon rose from 17 to 23, i.e. some 35%[17].

These efforts notwithstanding, Delta also exploited other areas. Its L1011s flew substantially more miles per aircraft than Eastern, by some 61% in 1980. It also flew more hours per day than its rival: 9.32 hours to 8.06 hours by 1980. Also, having bought its aircraft (two L1011s were leased during the period) Delta's rental payments were zero or insignificant, compared to Eastern's annual +$120 per block hour fees. In 1977, for instance, Delta's L1011 rental payment was zero; Eastern's was over $9 million (rental fee per hour multiplied by total number of hours flown).

Perhaps Delta's greatest advantage lay with maintenance. Both crew and fuel costs were comparable across the carriers, but Delta serviced its aircraft about 20% more cheaply than its rival. Part of the low maintenance costs was through fleet standardization, initiated in the mid 1970s, which simplified processes and replacement part inventories, and also through operating one of the most modern fleets in the industry (hence the 10% depreciation rate). But it also came from labour. Importantly, Delta paid high wages to its non-union (except for pilots) staff. It also followed a no-furlough policy until the introduction of the

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14 All figures are taken from Civil Aeronautics Board *Reports to Congress*, for respective years.

15 Serling (1980) provides the best account of Eastern's performance over this period. On the rivalry between Eastern and Delta, see Lewis and Newton (1979), pp. 283-346.

16 Delta Air Lines, *Annual Report* (1980), p. 7.

17 *Ibid* p. 9.

Table 2. Domestic operating costs for L1011 Tristar for Delta and Eastern, 1974-1980 (1975 unavailable).

	1974	1976	1977		1978	1979	1980					
	DL	EA	DL	EA	DL	EA	DL	EA	DL	EA	DL	EA
Per block hour $												
Crew	312.2	335.3	362.4	344.0	408.8	415.1	428.7	458.3	468.2	488.5	531.2	584.7
Fuel oil	560.9	487.2	722.6	740.9	852.4	847.2	916.7	901.8	1281.9	1338.5	1879.1	2085.0
TOTAL FLYING OPERATIONS (LESS RENTALS)	903.9	843.7	1109.6	1104.5	1281.2	1278.1	1357.6	1371.7	1765.2	1840.6	2419.5	2679.5
Rentals	0	258.8	.06	227.2	0	227.5	11.6	135.9	28.0	127.3	19.6	128.7
TOTAL AIRCRAFT OPERATING COSTS	1787.9	1934.1	2154.3	2240.3	2326.7	2586.8	2500.8	2582.5	2887.5	3103.9	3621.3	4092.8
Utilization												
Total Airborne Hours	25,278	29,530	59,733	39,336	66,106	43,809	75,470	51,777	83,676	57,185	93,355	57,889
Revenue hours per aircraft per day	7.82	6.54	8,24	7.01	8.65	7.00	8.85	7.26	8.93	7.82	9.32	8.06
Cost of fuel per gallon	23.46	19.56	31.14	29.96	35.50	35.50	38.12	37.83	54.56	55.15	83.16	84.35
Average revenue passengers per aircraft	134.2	121.2	129.1	120.5	137.7	120.9	160.5	153.7	164.1	172.1	149.7	156.6

Source: Civil Aeronautics Board, Aircraft Operating Cost and Performance Reports, Washington D.C.

Leadership 7.5 program. In return Delta expected and received a flexibility from its employees that was not matched at union-dominated Eastern, where the machinists' union, the IAM, was viewed as particularly truculent[18].

Increasing fuel prices during the 1970s were problematic for the industry, not least because the knock-on inflation caused economic recession that inevitably curtailed air travel and cargo transport. The point for this paper, though, is that Delta responded to the problem of fixed costs with action in the field of its variable costs. This was partly possible because of the flexibility afforded by a non-union workforce. As oil prices fell during the early 1980s, Delta moved from concerns about management of fixed costs via variable costs to notions of how to control variable costs more cohesively per se. These concerns ran alongside an aggressive expansion policy that pushed Delta towards global status.

18 Saunders (1992).

However, such expansion was also constructed upon Delta's route network developed during the 1960s and 1970s, within the restrictions of the Civil Aeronautics Board (CAB).

Hubs, spokes and deregulation

Delta's emergence as a national –as opposed to regional– carrier coincided with the widespread introduction of jet aircraft. Its purchase of Douglas DC8s when the future of jets was unproven, coupled with the opening of Atlanta's new jet terminal in 1960 signaled an expansive direction for the Sunbelt carrier. The economic growth of the South and the rising importance of Atlanta in the civil rights and urban renewal era of the 1950s and 1960s also provided an important context for this growth[19].

Delta's position at Atlanta was strengthened by its pioneering of the hub and spoke system widely adopted by the rest of the industry after deregulation in 1978. The central task of the industry was to maximize load factors (the number of purchased seats as a percentage of the number of available seats) as much as possible. The outlay on new jet airliners during the early 1960s would not necessarily be recompensed by the growth in passenger numbers. Excess capacity had to be removed, and Delta's hub and spoke at Atlanta helped in this task.

Essentially, all flights were routed through Atlanta. The famous quip that any journey to heaven or hell would involve changing planes in Atlanta emerged during this period[20]. But to make sense of the importance of the hub and spoke for Delta's future development it is necessary to grasp the structural constraints of the industry as controlled by the Civil Aeronautics Board (CAB).

The CAB was a classic Fordist body, designed to protect the industry as a whole and predicated on security of employment and investment, rather than promotion of competition[21]. Two crucial aspects of CAB jurisdiction were the strict controls on route awards and the banning of price competition. Airlines were not allowed to fly anywhere they pleased. Airlines adhered to a complex and protracted series of route tendering and negotiation, often with competing bids for similar route awards and the CAB deciding which carrier would best serve the public interest. For a long time, Delta was confined to Atlanta and the southeast not necessarily from choice but by legislation. Where two carriers flew the same route – deemed preferable by the CAB – price competition was not allowed. Airlines could compete on service, speed and – notoriously – the attractiveness of their flight attendants, but undercutting a rival through price was forbidden[22].

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19 Whitelegg (2000).

20 The maxim originated with the Atlanta's status as railroad hub in the nineteenth century.

21 European nations, with their larger proportion of international flights, adopted similar institutional structures following the Chicago Convention of 1944. A number of bilateral agreements existed between European nations and the US, the most important being the Bermuda treaties that limited competition on routes between the US and United Kingdom. This structure protected London's Heathrow airport, and enabled it to become the busiest international airport in the world. It also, however, complemented the CAB, as it protected international US airlines such as Pan Am and, to a lesser degree, TWA, making it unnecessary for them to develop sophisticated domestic markets, which in turn lessened competition for domestic US carriers. For an overview of the relative position of Europe to the US, see Sinha (2001), pp. 67-102.

22 An exception was the price competition offered by non-scheduled carriers in the United States. Such airlines, however, found little political favor in Washington (Launius, 2000). My thanks to Mark Rose for drawing my attention to this point.

The implications of these structural limitations on Delta were enormous. First, in a competitive environment predicated on service, Delta, with its heavy emphasis on "Southern hospitality" had an obvious advantage in its hinterland when compared with Eastern. For Southerners increasingly being tied into the economic fabric of the nation, flying Delta was partly an act of loyalty, partly a comforting reminder of home. Delta had historically been good at nurturing its Southern connections, not least in the realm of politics[23]. Second, and of more long-term importance, Delta was in a perfect position to take advantage of the shake-up that deregulation afforded the industry. As other airlines struggled to implement their own hub and spoke systems, Delta could take comfort in the fact that they had been operating one at Atlanta for over ten years.

Like most established airlines, Delta had been ostensibly opposed to the 1978 Airline Deregulation Act. With the problem of fuel prices and overall debt, the last thing the industry needed was the kind of upheaval deregulation would inevitably bring. Delta predicted that, if anything, the flying public would face less choice under deregulation since airlines would only cater to high-density routes. Lower-cost carriers might provide cheaper seats but at a price of overall industry instability[24].

However, though unsupportive of deregulation, Delta was not afraid of it. As Chair Walter Beebe argued in 1977, no carrier could threaten Delta in the southeast. Moreover, with a fleet of new, fuel-efficient airplanes, the carrier was well poised to attack other markets[25]. Indeed, following deregulation, Delta's main argument switched from opposition to speedy full implementation, arguing for immediate dissolution of the CAB as opposed to waiting for the sunset expiration date of January 1, 1985[26]. In retrospect, Delta became a strong advocate of deregulation and its ensuing route structure, claiming "more communities now have more flights as well as a greater number of available destinations through connections at numerous hub airports"[27]. In 1981, Delta signaled its aggressive intentions by expanding at Dallas-Fort Worth (DFW), an assault that would help contribute – among a host of other reasons – to the bankruptcy of Braniff International, DFW's main tenant[28].

Delta's combination of financial conservatism and ideal deregulated route structure combined to place the airline in a strong position from which to launch itself aggressively in the 1980s. Table 3 illustrates the comparative health of airlines at the time, registered by long-term debt-equity ratios.

As can be seen, Delta's long-term debt-equity ratios were among the lowest in the industry. Its capital strength had always been significant but, Wells suggests, had hitherto not been translated into competitive advantage. The strictures of the CAB paradoxically aided Delta in two distinct ways. First, they protected the airline in Atlanta, enabling it to build an impregnable power base that underpinned its success, support an oligopolistic and – with an increasingly weakened Eastern as the only significant competition – sometimes near-monopolistic operation, and facilitate an enviable financial reputation. Where other

23 Lewis (2000).
24 For a contemporary account of the fallout from deregulation see Bailey, et al (1986).
25 *Business Week* (1977), p.89.
26 Delta Air Lines *Annual Report* (1980), p.15.
27 *Delta Digest* (1990a), p.19.
28 Nance (1984), p.210.

Table 3. Long-term debt-equity ratios for major airlines, 1980-1982.

AIRLINE	LONG-TERM DEBT-EQUITY RATIO		
	DEC 31, 1980	DEC 31, 1981	SEPT 30, 1982
AMERICAN	1.57	1.77	1.57
BRANIFF	2.76	13.50	WENT BANKRUPT
CONTINENTAL	1.66	3.23	3.50
DELTA	**.17**	**.28**	**.47**
EASTERN	2.51	3.41	4.70
NORTHWEST	.10	.04	.02
PAN AM	1.66	1.42	1.87
REPUBLIC	5.52	7.18	7.68
TWA	1.96	2.07	2.05
UNITED	1.49	1.23	2.25
US AIR	1.41	1.36	.67
WESTERN	2.65	3.35	2.00
ALL MAJORS	1.31	1.45	1.59

Source: Alexander Wells, Air Transportation: A Management Perspective. (1984, Belmont, CA: Wadsworth). p. 468. (Original compiled from CAB statistics by Airline Executive, May 1983).

airlines became indebted to insurance companies by the early 1980s, Delta's main major debtors remained commercial banks, which held 61.4% of the airline's debt in 1982 (double the national average for majors)[29]. Delta's prudent reputation remained good at the bank, as opposed to Braniff, which went bankrupt in 1982.

The second long term impact of the CAB was that with deregulation, as Wells argues, the gloves could come off. The CAB had inoculated individual airlines and the industry in general from collapse. "In the 1980s," he claims, "for the first time, the capital superiority of Delta...[could] be converted into a competitive advantage because the rest of the industry [was] becoming capital and capacity constrained."[30] In the subsequent decade this superiority enabled Delta to begin putative steps towards world status, thinking globally and locally at the same time.

The Aggressive Eighties

By 1985, President and Chief Operating Office Ron Allen was anticipating the language of the pared-down global business more associated with the 1990s:

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29 Civil Aeronautics Board (1983) Table 14.

30 Wells (1994), p.469.

> "Delta is going to be seen as a tough, lean competitor that is going to be out in front with a lot of innovations, and the other airlines are going to have to react to us. They are going to have to compete with Delta because of the great strength we have and upon which we will capitalize"[31].

The lean machine that took shape in the 1980s corresponds to the kind of firm Naomi Klein analyzed in *No Logo*.[32] Through marketing the Delta brand was carried far and wide, operating at both a global and local level. But this brand was accompanied by micro-management and a fastidious attention to costs.

Delta's global expansion

In Delta mythology, the "transfer point" between the airline's past and future was the inauguration of the Atlanta–London Gatwick service on April 30, 1978[33]. Chair Walter Beebe claimed the link "practically assured Atlanta's future as a world city of major stature"[34]. Subsequent Delta services to Frankfurt and Paris began in 1979 and 1985 respectively. It was not until the 1980s, however, that Delta's international direction moved from an implicit to explicit strategy. Expansion of its route system became a "central element of the Company's strategic plan to achieve its goals and objectives as a major international airline"[35]. Rather than tagging on the European flights to Atlanta, Delta envisaged a far more complex and cohesive network of international and national connections, taking in the Far East, via Portland, and also opening international connections from its newer hubs in Cincinnati and Dallas-Fort Worth. Delta's aggressive purchase of Pan Am's transatlantic routes occurred in the context of an already established commitment to international expansion (Table 4).

Direct connections were only part of the story. Delta also expanded its international presence through local agents abroad. In South America, for instance, which Delta did not serve, local representatives sold the connections the airline offered passengers and cargo shippers arriving in Miami on Eastern. Having representatives on the ground in nations like Argentina and Brazil was regarded as essential, as – it was perceived – "the Latin American market is peculiarly responsive to friendship as a basis for doing business"[36], Expertise in and responsiveness to the nuances of local political situations was also an important part of Delta's on-the-spot team. "What is effective in one of these places may be disastrous in another," claimed the airline's Vice President-International in 1990. "Diplomacy in large amounts is vital to Delta's whole international operation. Our regional people always serve as Delta's ambassadors"[37].

International General Sales Agents (GSA) were also part of the 1980s global expansion. Working on commission – thus avoiding any overheads for the airline and keeping its costs down – GSAs had been in operation for over twenty years but had expanded from four to nineteen in 1986. Using the Delta owned and developed DATAS information system, GSAs were able to contribute $9

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31 *Delta Digest* (1985), p.10.

32 Klein (2000).

33 *Delta Digest* (1988), p.3.

34 Lewis and Newton (1979), p.47.

35 Delta Air Lines, *Annual Report* (1987), p.4.

36 Carlos Augstroze, director, Interline Agency Sales-Latin America, quoted in *Delta Digest* (1982a), p. 10.

37 *Delta Digest* (1990b), p. 4.

Table 4. Delta's new inter-continental destinations from the United States, 1978-1995 (with year of route inauguration).

1978	1979	1985	1986	1987	1988	1991*	1992
London	Frankfurt	Paris	Shannon Munich Stuttgart	Tokyo	Taipei Seoul	Hong Kong Nagoya Amsterdam Berlin Brussels Helsinki** Nice Tel Aviv** Milan Rome Oslo** Lisbon** Moscow Stockholm** Geneva Zurich	Madrid Barcelona St Petersburg

* Purchase of Pan Am transatlantic routes and Frankfurt hub. In addition, Delta service operated from Frankfurt to the following: Vienna, Prague, Athens, Budapest, Bombay, Delhi, Warsaw, Bucharest and Istanbul.
** Subsequently withdrawn

Source: Delta Air Lines Annual Reports.

million in sales in 1985 from the Tokyo office alone; this was two years before the airline even opened service to Japan[38].

Such attention to local detail not only raised business but it also deepened the penetration of Delta brand. As the company argued (through its employee newsletter):

> "Next time you find yourself in Bangkok, Thailand, face to face with the Delta widget, remember, that's no mirage; that's just one more outpost in Delta's expanding international market".[39]

By 1987, Delta was claiming that its "goal of being a world-class, worldwide carrier [was] no longer a dream, [but] an expanding reality"[40]. Integral to spreading the Delta message were a greater number of employees competent in foreign languages. Delta's Language of Destination Program, set up in 1985, sought both to train and recruit non-English speakers through pay incentives. Flight attendants proficient in foreign languages could command significantly higher seniority than non-foreign language speakers. Pilots would be encouraged to make announcements in languages other than English, and advertising abroad cemented Delta's global aspirations through local campaigns.

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38 *Delta Digest* (1986a), p. 12.
39 *Delta Digest* (1986b), p. 13.
40 *Delta Digest* (1987a), p. 6.

Several measures helped Delta's growing appeal in Japan. "Japanese cultural training" was instituted for all employees involved with the new Tokyo service in 1987. The cross-cultural training program was a first for Delta, though it had been utilized in other large corporations[41]. As significant in terms of future industry trends, Delta and Japan Air Lines (JAL) in 1986 initiated a marketing agreement called "Three for the Sky" (Western Airlines, soon to be bought by Delta, had a separate agreement with JAL). The agreement channeled passengers from respective airlines onto each other's domestic fleets while linking the Delta brand, largely unknown at that point in Asia, to the prestigious JAL. Flight attendants from both companies participated in an exchange program aboard flights, a move that was replicated in the 1990s at a more sophisticated level[42].

By the late 1980s, analysts were talking about the "globalization" of the airline industry, citing over 50 worldwide agreements that shared codes, marketing, maintenance and terminals[43]. Though some regard the 1992 KLM-Northwest pact as "the first true global alliance"[44], Delta's 1989 partnership with Singapore International Airlines (SIA) and Swissair could justifiably lay claim to the title. Initiated in December 1989 and billed as the "world's first global aviation network," the three-way alliance provided seamless travel on three continents. The alliance cemented the transnational equity swaps that had been carried out by Delta and its two partners during the previous year, whereby Delta acquired 5% of SIA and Swissair, and its partners each acquired 5% of Delta.

The equity swap was partly designed to prevent the kind of hostile takeover pioneered by Frank Lorenzo at Continental and Eastern. But in securing the global alliance it was also a necessity of the present regulatory climate. US-style deregulation had not been widely implemented at the global level, though Europe and parts of South East Asia were partly liberalized in the 1990s. Indeed, international aviation was somewhat incongruous in its strict regulatory structure. Most egregious – for airlines at least – were the Bermuda agreements that governed service between the US and the UK, with US airlines reluctant to allow international carriers access to domestic markets, and British Airways, in particular, reluctant to allow US airlines unfettered access to its main power base at London Heathrow. Delta has yet to gain access to this airport, though it did arrange a code-share agreement in the mid-1990s with the flamboyant Virgin Atlantic.

Apart from global alliances, Delta's other main foray into the international market came with its acquisition of Pan Am's transatlantic route system in 1991. With this move, Delta flew to more European cities than any other US carrier. Frankfurt was designated a European hub, operating 128 flights each week to destinations in the US, Europe, the Middle East and India[45].

In 1992, Michael Medlicott, Delta's London-based Vice-President Europe, offered the following choice for the world's carriers: "Either become a global

41 *Delta Digest* (1987b), p. 4.

42 *Delta Digest* (1986a), p. 5.

43 Fotos (1989), p.75.

44 Statement by Kevin Mitchell, Chair, Business Travel Coalition, Statement to Parliamentary Group of the Swiss Aeronautical Economy, Bern, Switzerland, December 15, 1998.

45 *Delta Digest* (1992), p. 3.

airline, or become a niche or regional carrier."[46] This seems a straightforward proposition, but at heart it is disingenuous. Perhaps a sideswipe at the continually (and for other airlines irritatingly) successful Southwest Airlines, the low-cost Texas airline, Medlicott's claim surely missed the central point of Delta's 1980s expansion. There was no attempt at choosing one or the other, between figuratively staying in Atlanta or reaching for the world. The key issue in Delta cementing the building blocks of globalization in the 1990s was not that it was either an international *or* highly localized carrier, but that it was *both at the same time*. To deepen this argument, I will now turn to Delta's domestic matters.

Domestic Delta in the 1980s

Delta's strength had originally been based upon its network of routes based on Atlanta. Through two acquisitions, Chicago and Southern in the 1950s and Northeast in the early 1970s, Delta had gradually expanded its network to the Great Lakes and New England. It had also reached the West Coast in the 1960s. Though it was ranked a national carrier, it did not yet serve all parts of the US.

The 1986 merger with Western changed that, placing the airline's network on a par with American and United. The merger was a bold move, and somewhat uncharacteristic of the carrier[47]. By expanding the number of cities served in 1986 from 98 to over 150, the merger also gave Delta new hubs in Salt Lake City and Los Angeles. Critically, the merger was only possible because of Delta's financial position. Yet even with the merger, the airline's debt-equity ratio only reached 45%, and fell again to 30% by 1988[48].

As important as the Western merger, however, was Delta's development in the short-haul feeder market. By 1984, according to Ott, the battle over traffic feed at Atlanta's Hartsfield airport had become intense[49]. In response to Eastern Metro Express setting up short-haul operations to connect smaller cities with Eastern's trunk service, Delta initiated a series of partnerships that eventually formed Delta Connection. Airlines such as Atlantic Southeast Airlines (ASA), Comair and SkyWest provided the prototypical franchise system more associated with global airlines in the 1990s. Each used Delta's code and flight numbers on their flights, so that passengers had little indication that they were not in fact flying on a Delta service.

The relationship between major carrier and regional feeder airline was instructive. For a start, costs at feeder airlines were low – ASA needed only a break-even load factor of about 33% (i.e. the other 67% of passengers represented profit)[50]. Salaries at ASA were lower than at Delta. Benefits of smaller airlines were not as good, hours tended to be longer and there was little progression up the ranks. For flight attendants, there were no potentially exciting weekends in foreign cities[51].

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46 *Delta Digest* (1993), p. 8.

47 Ticer (1988), p.92. See Davis (1988), for a more critical view of the merger. Procrastination on the part of CEO Ron Allen, Davis claims led to Delta paying ten times the market price ($900m) for Western.

48 Woolsey (1988), p. 23.

49 Ott (1984), p. 41.

50 Davies and Quastler (1995), p. 23.

51 The information here is taken from interviews with ASA flight attendants conducted by the author in 2003 as part of a project looking at flight attendant families. Names are withheld to protect anonymity. More details of this project can be obtained from the author.

Delta billed the Delta Connection as "an exciting new concept in travel experience"[52]. The fact that Connection flights used Delta codes and flight numbers ensured that they appeared in the Official Airline Guide and would thus appear in Delta timetables. As the flights would be "online" they would usually appear among the first listed on a computer reservations screen, which was crucial for competitiveness as, it was claimed, 70% of all flights were chosen from the first few available. Importantly, Delta Connection flights contributed to the burgeoning frequent flyer program, which increasingly gripped all airlines in the quest to retain passengers[53].

Delta acquired 20% of common stock – with voting rights – in both ASA and Comair in 1986, investing some $55 million in an attempt to "solidify and enhance 'The Delta Connection'"[54] (and eventually acquired both airlines outright in 1999 and 2000, respectively). At a time when American Airlines was developing its B-scale salary system, with the revolutionary concept of "an airline within an airline," Delta was thus surreptitiously doing the same.[55] Yet Delta was in effect forming a virtual airline within an airline that carried its brand into the smallest of airports, a policy at the heart of British Airways global push ten years later[56]. Each of these airports and short-haul flights (Macon, Panama City, Chattanooga, Dothan, Valdosta, Brunswick, Savannah and so on) generated traffic for Delta's system. This was more than just a network of connected carriers. It was an aggressive policy to create a flow of customers, driven by the competitive post-deregulation environment. As Whit Hawkins, Senior Vice President – Marketing, argued, "Today, if you don't generate it yourself, you're not going to get it." Delta's three Delta Connection carriers generated more traffic for Delta than American Eagle's (American's equivalent group) nine carriers did for its airline[57].

"Seamless travel," (through ticketing on one airline code) which carried the Delta brand into all corners of the globe, was only possible with the concomitant development of global alliances *and* Delta Connection. Yet it was also only possible with a new attention to costs and a far more hands-on business structure. I now turn to these developments.

Costs and yields – the new obsession

In 1982, following disappointing results, Chair David Garrett addressed Delta employees through *Delta Digest*:

> "It is more important than ever before that each member of the Delta family eliminates unnecessary expenses and increase efficiency at every opportunity, work hard to obtain that extra passenger on every flight and provide the very best service to each and every customer"[58].

In an increasingly sensitive and troubling economic environment, Delta focused specifically on two indicators. The first was the passenger mile yield – the

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[52] *Delta Digest* (1984), p. 4.
[53] *Delta Digest* (1986c), p. 8.
[54] Delta Air Lines, *Annual Report*, (1986), p. 3.
[55] Petzinger (1995), pp. 144-148.
[56] Whitelegg (2003), pp. 244-263.
[57] *Delta Digest* (1987c), pp. 4-6.
[58] *Delta Digest* (1982b), p. 3.

average fare paid by the passenger per mile flown. Often determined by exogenous factors, Delta claimed that "we as individuals can do very little to influence the yield." But every member of the company carried the responsibility to "become a salesperson for Delta...While we cannot influence the yield, we can certainly influence the other side of the revenue equation by getting as many passengers as we possibly can"[59].

Again, the argument was somewhat specious. The other side of passenger mile yield was not more passengers but unit cost. Part of Delta's development into a global airline was the drive to reduce costs, especially to face competition from new low-cost carriers like People Express, or revamped lower cost old ones, such as Continental. As Chair David Garrett argued in 1983, following a rare loss by the airline, "to meet these competitive circumstances, we must look at reducing Delta's operating expenses... Much of our cost improvement will have to come from increased effectiveness of our personnel"[60].

To this end, Delta introduced various measures. Pilots, though among the best paid in the industry – and Delta's only significant union presence – flew more hours. New employees entering the airline in 1985 did so on lower pay scales; though parity with colleagues was eventually reached, it took significantly longer to do so. Some activities were contracted out – for example aircraft cleaning and fueling – to avoid paying benefits[61]. Some cost controls bordered on the surreal, the most infamous being the edict reducing the number of shrimp in a shrimp cocktail from five to four[62]. Much was made of the "Delta Family", with Stakhanovite appeals to the workforce and reminders of the airline's no-furlough policy. Workers registered their gratitude by clubbing together to buy the first Boeing 767, named "The Spirit of Delta".

The no lay-off policy was excellent public relations with Delta employees, and partly ensured the absence of unions among its staff (save for the pilots). But it masked the fact that the airline was relying more on temporary and part-time workers – who weren't counted – and also upon workers at other airlines, such as Delta Connection and, eventually, SIA and Swissair, who also did not figure on the payroll. It concealed the level of job flexibility required of its workers. Delta bitterly opposed remnants of the CAB regulatory era concerning work rules, claiming them to be potentially unconstitutional[63]. It finally concealed that Delta would achieve its goals "with fewer people in all areas," through attrition[64].

However, passenger yield was not the uncontrollable factor the airline suggested. Indeed, in the early 1980s Delta took several steps to exert more influence over yield. Through the use of new, sophisticated computers, Delta's Yield Management Group, set up in 1982, could track individual flights and adjust the proportion of discounted to full fares on offer accordingly. In 1987, the department was renamed Revenue Control Department, which "more clearly identifies what the whole concept is about," claimed Whit Hawkins[65].

59 *Ibid* p. 3.

60 *Delta Digest* (1983), p. 4.

61 *Lloyds Aviation Economist* (1985), p. 27.

62 Davis (1988), p.69

63 Delta Air Lines, *Annual Report* (1982) p. 12.

64 *Delta Digest* (1982b), p. 2.

65 *Delta Digest* (1987d), p. 10.

In other words, Delta became highly aggressive in yield management and turned it to a competitive advantage, as low-cost European airlines such as Ryanair have done. Like all airlines, Delta overbooked its flights to maximize load factors. Yet the use of just-in-time inventory control systems enabled the airline a far more hands-on approach to make sure that potentially empty seats would be full with people paying as high a fare as was feasible.

Conclusion – the nervous nineties

The decline in the relative cost of international air travel and the increase in capacity helped stimulate passenger numbers greatly. The annual number of scheduled international passengers on American carriers nearly doubled between 1982 and 1992, from 446 billion to 806 billion. The average annual growth rate during this period was 6.1%[66]. At the same time, relatively cheaper fares introduced lower income groups to aviation. Spending on international travel and tourism by 1994 had increased in the previous twenty years at twice the rate of world GDP[67].

In 1994, Delta's international passenger service accounted for 20% of its operating revenues, up from only 8% in 1988[68]. Though domestic operations remained the bedrock of the airline's finances, international expansion was by now a significant force. The carrier's global aspirations caught the attention of *The Economist* in 1991, which noted the "breathtaking pace" of the "conservative and even sleepy" carrier. Too fast, alleged some of the major credit-rating agencies, which downgraded Delta's stock (admittedly they had done the same following the Western acquisition)[69].

In the 1990s Delta was one of the biggest airlines in the world and displayed the hallmarks of a global carrier as defined by industry analysts[70]. It outsourced maintenance of much of its European fleet to Swissair. Cabin crew from Sabena and Virgin Atlantic worked on Delta flights and vice versa. This caused some friction between the airline cultures, especially between Delta and Virgin flight attendants. The latter, the embodiment of their chairman Richard Branson's racy image, did not gel with Delta's more senior international fliers[71]. The airline also entered into various partnerships, with Delta forming the main body of Sky Alliance, along with Air France. Its route network expanded into South America, while playing a high profile role as the official airline of the Centennial Olympics, propitiously held in Atlanta. In 2002, the airline shifted some of its reservations work to India and the Philippines in the hope of saving $12-15 million a year[72]. Domestically, Delta Express provided low-cost service – finally to be replaced by Song, in 2003.

The trajectories of all these network developments were up and running in the 1980s, and would not have been possible were it not for Delta's aggressive

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66 Hanlon (1996), p. 11.

67 Wheatcroft (1994), p. 1.

68 Delta Air Lines, *Annual Report* (1988), p.5; (1994), p.8. The airline did not differentiate between domestic and international operating revenues in published reports before 1988.

69 *The Economist* (1991), p. 23.

70 Paul Blyton, Miguel Lucio Martinez, John McGurk and Peter Turnbull (1998).

71 This impression was confirmed in interviews with Virgin Atlantic flight attendants in the United Kingdom as well as Delta flight attendants in the United States. Names are withheld to protect anonymity.

72 *Atlanta Business Chronicle* (2002).

expansion during that decade, and its capitalization on financial and geographic strengths. In the 1990s, the concern with variable costs that had become dominant in the previous decade became more entrenched. The post (First) Gulf War recession provided an opportunity for management to attack some sacred cows in the Delta family. For the first time in its history, Delta furloughed workers under its Leadership 7.5 Program, shedding in total some 20% of its workforce in a drive to save $2bn over three years. Pilots, much to their surprise and despite their union status, were downsized as part of the program, as were non-union customer service representatives[73]. With a collapse in employee morale, Delta flight attendants attempted to gain union recognition. The move failed amid recriminations and accusations of company heavy-handedness[74].

To be a global business in the 1990s, a company needed to concentrate on three things: expansion, costs, and branding. As Naomi Klein has argued, companies such as The Gap, Nike, McDonalds and other large household names all exhibit these traits. Delta Air Lines, in its global form did too. But, as I have argued, it had done so for significantly longer than the current buzz about globalization would suggest. Delta may now stand as a global carrier, but the seeds of such status were sown over an extended period of time.

Bibliography

ATLANTA BUSINESS CHRONICLE (2002), "Delta shifts reservations work to India, Philippines" *Atlanta Business Chronicle*, October 8.

BAILEY, E., GRAHAM, D. AND KAPLAN, D. (1985), *Deregulating the Airlines*, MIT Press, Cambridge, Mass.

BLYTON, P., MARTINEZ, M., MCGURK, J. AND TURNBULL, P. (1998), *Contesting globalization: airline restructuring, labour flexibility and trade union* strategies, International Transport Workers Federation, London.

BUSINESS WEEK (1977), "Delta's flying money machine" May 9, pp. 84-89.

CIVIL AERONAUTICS BOARD (1983), *Reports to Congress*, Civil Aeronautics Board, Washington DC.

DAVIES, R.E. AND QUASTLER, I.E. (1995), *Commuter Airlines of the United States*, Smithsonian Institution, Washington DC.

DAVIS, S. (1988), *Delta Air Lines: Debunking the Myth*, Peachtree Press, Atlanta.

DELTA DIGEST (1982a), "A Word About Passenger Mile Yield" July, p.3.

DELTA DIGEST (1982b), "Selling Delta in Latin America" December, pp.10-12.

DELTA DIGEST (1983), "A candid conversation with David Garrett" June, pp.4-9.

DELTA DIGEST (1984), "The Delta Connection: An Alliance for excellence" July, p.4.

DELTA DIGEST (1985), "Interview with Ron Allen" June, pp.4-11.

DELTA DIGEST (1986a), "Shaking hands and bowing from the waist" August, p.5.

DELTA DIGEST (1986b), "Selling Delta: the Global view" March, pp.12-13.

DELTA DIGEST (1986c), "The Delta Connection really connects" July, pp.8-9.

DELTA DIGEST (1987a), "World Class: Delta qualifies in any language," August, pp. 6-7.

DELTA DIGEST (1987b), "Bridging the gap between cultures..." March, pp.4-5.

DELTA DIGEST (1987c), "Interview: Whit Hawkins" January, pp. 4-7.

DELTA DIGEST (1987d), "A rose by any other name: revenue control" August, pp. 10-11.

DELTA DIGEST (1988), "April 30, 1978...Transfer Point" April, p.3.

DELTA DIGEST (1990a), "The airline industry in the 1990s: after deregulation" July, pp.4-6.

[73] McKenna (1994), p. 32.

[74] The source for this information is interviews conducted by the author with numerous former Delta flight attendants. Names are withheld to protect anonymity.

DELTA DIGEST (1990b), "Delta's World" *Delta Digest*, June, pp.4-11.
DELTA DIGEST (1992), "Connecting the World: Delta's Frankfurt hub" August, pp. 3-8.
DELTA DIGEST (1993), "Delta in Europe: On the Road to Global" June, pp.8-11.
DEMMING, A. (1991), "Ready for Takeoff?", *Newsweek*, July 29, pp. 24-25.
ECONOMIST (1991), "Global Reach", November 9, p.23.
FOTOS, C. (1989), "US Airlines Forge Marketing Agreements with Overseas Carriers" *Aviation Week and Space Technology*, November 20, p. 75.
GARRET, D. (1982), David Garrett, Jr., "To: All Domestic Ground and Flight Attendant Personnel" August, p.3.
GAUDIN, P. (1986), "Delta sticking to internal growth" *Airline Business*, August, pp.24-29.
HANLON, P. (1996), *Global Airlines*, Butterworth Heineman, Oxford.
HARVEY, D. (1989), *The Condition of Postmodernity*, Blackwell, Oxford.
KLEIN, N. (2000), *No Logo*, Flamingo, London.
LAUNIUS, R. (2000), "Right man, right place, right time? Orvis M. Nelson and the politics of supplemental air carriers" in W. David Lewis (Ed.) *Airline Executives and Federal Regulation*, University of Ohio Press, Columbus.
LEWIS, W. D. and NEWTON, W.P. (1979), *Delta: The History of an Airline*, University of Georgia Press, Athens.
LEWIS, W.D. (2000), "A man born out of season: Edward Rickenbacker" in W. David Lewis (Ed.) *Airline Executives and Federal Regulation*, University of Ohio Press, Columbus.
LLOYDS AVIATION ECONOMIST (1985), "Delta Air Lines: proving nice guys can be winners too" June, pp. 26-29.
MCKENNA, J. (1994), "Delta furloughs stun ALPA leaders" *Aviation Week and Space Technology*, August 22, p.32.
MURPHY, M. (1986), *The Airline That Pride Almost Bought: the struggle to take over Continental*, Scholastic Library Publishers, New York.
MUSE, L. (2002), *Southwest Passage: the inside story of Southwest Airlines formative years*, Eakin Press, Austin.
NANCE, J. (1984), *Splash of Colors: the self-destruction of Braniff International*, Morrow, New York.
OTT, J. (1984), "Eastern, Delta competing for Atlanta traffic feed" *Aviation week and Space Technology*, March 26, p.41.
PETZINGER, T. (1995), *Hard Landing*, Times Business, New York.
REED, D. (1993), *American Eagle: the ascent of Bob Crandall and American Airlines*, St Martins Press, London.
SAUNDERS, M. D. (1992), *Eastern's Armageddon: labor conflict and the destruction of Eastern Airlines*, Greenwood Press, Westport, CT.
SERLING, R. (1980), *From the Captain to the Colonel: an informal history of Eastern Airlines*, Dial Press, New York.
SINHA, D. (2001), *Deregulation and Liberalisation of the Airline Industry*, Ashgate, Sydney.
TICER, S. (1988), "Why folks from Delta are walking on air" *Business Week*, August 1, pp.92-93.
WELLS, A. (1994), *Air Transportation: A Management Perspective*, Wadsworth Publishing, Belmot, CA.
WHEATCROFT, S. (1994), *Aviation and Tourism Policies*, Routledge, London.
WHITELEGG, D. (2000), "Keeping their eyes on the skies: jet aviation, Delta Air Lines and the growth of Atlanta" *Journal of Transport History*, 21, pp. 73-91.
WHITELEGG, D. (2003),"Labour, Globalisation and the Airline Industry" *Antipode*, 35, (2003), pp. 244-263.
WOOLSEY, J. (1988), "Delta is as good as ever; there is just more of it" *Air Transport World*, August 8, pp.18-25.