

Aviation Management Role Models in the Deregulated Era

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ABSTRACT

Aviation management students in both college and industry benefit by being provided credible role models. This research provides a methodical and valid approach to identify aviation industry leaders in the deregulated era. The research uses literature review of highly credible national awards and a unique survey of senior industry managers.

INTRODUCTION

Background

The challenge of managing in the deregulated era of aviation (starting October 24, 1978) is different than managing in the previous regulated era. The United States' General Accounting Office description of the changed environment is:

The Airline Deregulation Act of 1978 phased out the government's control over fares and service and allowed market forces to determine the price and level of domestic airline service in the United States...The airline industry has undergone significant change since the late 1970s. Industry capacity and passenger traffic have tripled. At the same time, the industry's profitability has become more cyclical, and the financial health of large legacy airlines has become more precarious. Legacy airlines emerged from a regulated environment with relatively high structural costs, driven in part by labor costs, including defined benefit pension plan costs (GAO, 2006, June 9).

In this difficult business climate the aviation industry has had some very public turmoil among its leaders. CEO Jim Goodwin was forced out of United (Embattled head of United Airlines is ousted, 2001, October 29). Don Carty was forced to resign as Chairman of American (Reed, 2003, April 25). Boeing lost two CEOs. Phil Condit resigned in 2003 under pressure associated with irregularities with an Air Force contract and in 2005 Harry Stonecipher resigned under pressure for perceived personal misconduct (Isidore, 2005, March 7).

These individuals will not appear in the aviation management literature as positive role models. But, role models are important in the learning process. Professional career planners indicate role models are beneficial for new employees and students (Ezari, 2004; Verlander, 1985). This suggests instructors in the aviation management field teaching new employees or college students should provide role models to their students.

The industry has positive role models from the era before deregulation. In the aviation history section of *An Introduction to Air Transportation* individuals are labeled as "the men who became the giants of the industry" (Wells & Wensveen, 2004, p. 46). Individuals listed are William A. Paterson, United Airlines; C.E. Woolman, Delta; Eddie Rickenbacker, Eastern, and Jack Frye, TWA. The leadership role of these individuals occurred in the early years of aviation starting in the 1930s. No individuals are identified as aviation leaders in the deregulated era.

Kaps (1997) discusses the history of the air transport labor relations environment. He separates the periods before and after deregulation but offers no suggestion as to individuals responsible for any positive industry trends since deregulation. These two nationally popular college texts are indicative of the situation that current aviation role models in the deregulated era have not been clearly identified in the aviation education literature. This situation leads to the research question: *Who are the aviation industry leaders in the deregulated era?*

Perspective

This project is limited to the aviation industry in the United States. "Aviation

industry” refers to commercial airline, corporate/business aviation or airport operations and aviation manufacturing and service companies. This view allows inclusion of possible role models from the FAA or other government agencies directly involved in civil aviation. No effort has been made to identify leaders in military aviation, individuals responsible for aircraft performance records, those primarily associated with technological development or politicians/legislators in the role of setting regulations or state/Federal policy.

Research method

Research for this project involves:

1. Literature review of information regarding role models,
2. Identification and review of national aviation sources that recognize management performance,
3. Identification and review of national business sources that recognize performance by aviation managers,
4. Personal interviews of a small group of very experienced airline managers to determine if they could and would identify industry leaders in the deregulated era,
5. An anonymous survey of another larger group of experienced senior aviation managers.

If steps 2 through 5 consistently identify the same individuals the results, based on the naturalistic research philosophy of Lincoln and Guba (1985), are valid. They indicate that when results start repeating themselves sample size is adequate and the results can be considered valid. Permission for research involving human subjects was obtained from the appropriate source before beginning this research.

IDENTIFYING AVIATION MANAGEMENT ROLE MODELS

The value of role models

Merriam – Webster online dictionary (2006a) defines a *role model* is an individual who will be imitated by others; *Worldreference.com* (2006) indicates a *role model* is someone worthy of imitation; and *Allwords.com* (2006) indicates it is someone

who sets an example to follow. A common synonym is *hero*. A *hero* is an individual admired for his or her qualities (Merriam-Webster online, 2006b). A full review of the role model literature requires starting with Aristotle’s *On Rhetoric* and his comments on emulation of behavior (Kristjánsson, 2006). Such thoroughness seems inappropriate for this effort. What follows, however, offers a consistent voice in support of the benefit of using the role model concept in the education process.

“Organizational behavior and career theorists have suggested that identification with role models is critical to individual growth and development” is Krumboltz’s view (as cited in Gibson, 2003, p. 1). “Motivational and developmental psychology stresses the need for role models for developing individuals” (Murphey, 1996, p. 21). The Vice Commander of the Air Force Air Education and Training Command told a high school audience to choose role models who can serve as positive examples for them to follow (Agency Group 9, 2002). This sentiment is echoed by an Air Force Chief Master Sergeant writing from Iraq stating that role models are vital and necessary (Erwin, 2006). “Today’s kids need heroes, but not the kind you’ll see in the movies or on TV. They need role models who can help with worthy activities” (Titus, 2000, p. 3). The editor of *Machine Design* states “My role models taught me about management” (Khol, 2005, p. 10). “Role models can change our beliefs about what we have the capability to be and to accomplish” (Sehgal, 2004, p. 1).

Jim Collins is the author of acclaimed management books *Built to Last* and *Good to Great...Why Some Companies make the Leap and Others Don’t*. In an interview he states, “We learn by stories and role models, and we need models to operate with” (Manville, 2001, 33). In their *Leadership: A communication perspective* text, Hackman and Johnson (1996) provide suggestions for shaping organizational culture. Step 4 is “Deliberate role modeling, teaching and coaching” (p. 215). Kouzes and Posner (1995), who have been recognized for their work on leadership, discuss the importance of learning from others. They indicate, “...we can learn from people without having a

relationship with them. As often as people mention learning from managers, peers, or mentors, they mention outside role models” (p. 331).

In summary, identifying role models (or heroes) is a recommended and accepted technique to aid a student’s education. “...educators are in a prime position to encourage young people to understand and identify with true heroes and the values they embody” (Sanchez, 2000, 12). This concept is valid if the student is in grade school, college or an industry supervisor.

Criteria for an aviation industry manager role model

Identifying individuals who might be aviation industry role models in the deregulated era requires locating or developing criteria on which to base a selection. A search of the aviation management literature resulted in finding no published criteria for an aviation industry role model. Yet, various individuals such as Patterson at United and Frye at TWA, mentioned by Wells and Wensveen (2004), have been accepted as industry leaders without argument. Their backgrounds therefore serve as a guide. Another guiding characteristic is the description of the management process which involves the achievement of targeted organizational objectives and the processes of planning, leading, organizing and controlling as described in Phillips and Kaps (2005). This assists in identifying the managerial versus other type roles in aviation history. The author’s personal twenty-nine-year management career in a major airline that spans the regulated and deregulated era also helps form the criteria. These three influences – (1) agreed upon early aviation leaders, (2) a description of management, and (3) personal managerial experience – guide in formation of the proposed criteria.

To be considered an aviation industry managerial role model a person must substantially meet these four criteria:

Criteria #1: Serves (served) in management positions directly related to producing, selling, or operating aircraft seats and cargo space in the public sector.

Criteria #2: Employees, customers, owners, shareholders and/or the general public depend(ed) on these individuals to ensure their companies or specific organization performed well. These two criteria exclude individuals such as:

- An individual known predominantly for personal performance such as Steve Fossett who has set recent world records in a balloon and airplane.
- Those known for general performance as a pilot such as Brigadier General Chuck Yeager.
- Politicians like Senator Barry Goldwater who has been recognized “for serving as an articulate spokesman for American aviation and space in the Congress and throughout the world” (NAA, 2006a, *Barry Goldwater*).
- Engineers or technological innovators such as Burt Rutan designer of unique aircraft and spacecraft.

These individuals all have a place in aviation history, but not as “industry managers.”

Criteria #3: Performed over an extended period of time (i.e. five or more years).

Criteria #4: Has received national recognition from a respected source.

Identifying possible role models through national awards

The fourth criteria, has received national recognition from a respected source, proves to be the most beneficial manner of identifying possible candidates. The seven sources selected were chosen for their probable validity. They are divided into two categories. The first three are primarily aviation sourced, and the last four are based on general managerial/leadership sources.

Source #1: *Wings Club Distinguished Achievement Award winners – Appendix A* This private club was formed in 1942 in New York City for the purpose of supporting aviation (Wings Club, 2005). Juan Trippe of PanAm and Eddie Rickenbacker were early board members. Current officers include the Chairman of AirBus North America, Chairman of Air Tran, President of JetBlue, and Boeing’s Vice President of Sales, Marketing and In-Service Support for the 787 (Wings Club, 2006). The Club’s interest includes military aviation, aerospace, general

aviation, commercial aviation, etc. Each year an Achievement Award is presented to a distinguished member of industry. In 1978 the award was presented jointly to W. A. Patterson (United Airlines), Robert F. Six (Continental Airlines), Cyrus R. Smith (American Airlines) and Juan Trippe (PanAm). (Job titles for individuals listed in appendices are those included in the original listing and have not been adjusted to accurately reflect current positions or to highlight prior positions of possible importance.)

The annual selection process is described by Harris Herman, General Manager of The Wings Club (personal communication, March 16, 2006). The process involves the Awards Chairman and club President discussing possible candidates and soliciting names from the Club's Executive Committee and other Board members. A short list is developed and presented to the Board who votes on the nominee. The nominee is contacted to determine if he/she will accept. The credibility of this award is suggested by the 24 Board members who approve the selection. Current members include Gordon Bethune, Chairman of Continental Airlines; David Barger, President and COO of JetBlue; Jim Guyette, President and CEO of Rolls Royce of North America; Dr. George H. Ebbs, Jr., President of Embry-Riddle Aeronautical University, etc.

Source #2: *Wright Brothers Memorial Trophy Past Recipients – Appendix B.* The Aero Club of Washington (District of Columbia) was founded in 1909 (Aero Club, 2006). Knowing the diversity among the officers helps explain the club which serves as a monthly gathering of a wide mix of 500 key aviation industry representatives. The current Club president is a JetBlue executive. The past three Aero Club presidents are from three different organizations, the National Association of State Aviation Officials, the American Association of Airport Executives and the National Business Aviation Association. The Club is the host for the annual Wright Brothers Memorial Trophy which is awarded by the National Aeronautic Association (NAA) (Nancy Hackett, Executive Director of the Aero Club of Washington, personal communication, March 16, 2006).

The NAA is the oldest national aviation association in the United States. Each year, starting in 1948, the Club awards the Wright Brother's trophy "to a living individual for significant public service of enduring value, as a civilian, to aviation in the United States" (NAA, 2006b). Nominations for the Wright Brothers Memorial Trophy may be made by the general public. The Selection Committee is appointed annually by the President of the NAA and consists of seven members, which includes the President, Chairman, Administrator, or a representative of each of the following:

- National Aeronautic Association
- National Aeronautics and Space Admin.
- Air Transport Association
- Aerospace Industries Association
- American Institute of Aeronautics and Astronautics
- Aero Club of Washington
- The Aviation Press.

The credibility of the award relates to those involved in the selection process. This group is clearly a knowledgeable, diverse and respected cross-section of the aviation industry.

Source #3: *W. A. Patterson Lecturers, Northwestern University Transportation Center – Appendix C.* W.A. Patterson was "a life trustee of Northwestern and was instrumental in the establishment and strategic leadership of the Transportation Center." In 1978 the William A. Patterson Distinguished Chair in Transportation was established. Starting in 1980 an annual Patterson Lecture is held. A faculty committee participates in selection of the speaker. Criteria include recognition of the speaker as a transportation expert or leader, as well as timeliness and variety of topic (Diana Marek, Assistant Director, Northwestern University Transportation Center, personal communication, March 17, 2006). The Northwestern University Transportation Center has and does hold a respected position within academia. Since selection of speakers is primarily limited to faculty and staff of the university and because "timeliness and variety of topic" are part of the criteria this is an award with a high level of credibility but one that perhaps does not rise to the same level as the two prior awards.

Source #4: CNN Top 25: Most influential business leaders of the last 25 years – Appendix D CNN selected a “distinguished panel” of “experts” to select these top 25 business leaders from the last 25 years (CNN.com, 2005 June 19). CNN does not specify the specific criteria used to rank the business leaders. It seems reasonable to accept CNN’s claim that appropriate individuals were used to develop this list and that the results are credible. CNN would not risk the embarrassment of an inappropriate process or selection. Other than perhaps the inclusion of Ted Turner on the list, there appears to be no possible political motivation in the selections. The 25 year time period is unspecified but covers approximately 1980 – 2005, essentially the entire period since deregulation. Those selected represent a wide range of recognized business persons.

Source #5: Harvard Business School 20th Century Great American Business Leaders – Transportation (Harvard Business School, 2006a) – Appendix E

Source #6: Harvard Business School 20th Century Great American Business Leaders – Automotive and Aerospace (Harvard Business School, 2006b) – Appendix F Both Appendix E and F are part of an effort by members of the Harvard Business School Leadership Initiative to identify “...20th century men and women whose business leadership shaped the ways that people live, work, and interact” (Harvard Business School Leadership Initiative, 2006, 20th Century Great American Business Leaders).

Source #7: Top 50 Business Leaders of the 20th Century – Appendix G The above three lists all stem from the same research conducted for *In Their Time: The Greatest Business Leaders of the Twentieth Century* (Nohria & Mayo, 2005). The book is a highly credible summary of extensive research evaluating managerial performance. The research involved surveying 7,000 American business leaders to determine their opinion about their peers. Individuals considered had to have been a chief executive officer (CEO) in a single company for a minimum of five years. (It is coincidental that the selection criteria included earlier in this

article and Nohria and Mayo’s research both are based on a five-year minimum period of performance.) Successful financial performance of the company, as measured by one of four specific financial metrics, is also a requirement. The authors also consulted 17 other significant research projects evaluating performance by individual business leaders.

Appendix G is the Top 50 of the 100 leaders identified through Nohria and Mayo’s (2005, p. xxii) research. Only the top 50 are used here for convenience. This list of those in 51st through 100th place includes one aviation industry person, Juan Trippe, in position 91.

Some may argue that *Time Magazine*, *Fortune*, *Aviation Week & Space Technology* and other sources that provide annual awards or lists of business leaders should also have been used. The author has no evidence that using such lists would increase the validity of the response provided by the above seven lists.

SELECTING ROLE MODELS

Table 1 lists the 13 names of aviation leaders of the deregulated era that are included in one or more of the sources/appendices. An “X” under the letter of the appendix indicates the individual’s name is included in that list. The company affiliation and calendar time-span have been added where not included in the original listing. Because of the differing qualifications between Appendices E and F, the maximum number of opportunities for recognition is six – only achieved by Kelleher. Seven of the above 13 individuals shown in Table 1 have received recognition from only one source. They are excluded from further consideration.

The six individuals listed in Table 2 are included in a minimum of two and maximum of six lists. They are listed in rank order based on number of awards or lists. Both Bethune and Lorenzo appear on only two lists. The two lists include one of the preeminent aviation groups (either the Wings or NAA) and one of the national business leaders lists. This seems adequate justification for them to be included in a final list.

Table 1. Summary of national recognition of aviation leaders of the deregulated era.

			Appendices						
	Name	Company and executive tenure	A	B	C	D	E	F	G
1	Gordon Bethune	Continental 1994 - 2004	X				X		
2	Donald Burr	People Express 1980 - 1986					X		
3	Edwin I. Colodny	US Airways 1975 - 1991		X					
4	Robert L. Crandall	American Airlines 1985 - 1998	X	X	X		X		
5	John C. Emery, Jr.	Emery Air Freight 1968 - 1987					X		
6	Richard Ferris	United Airlines 1975 - 1987			X				
7	Herbert D. Kelleher	Southwest Airlines 1971 - present	X	X	X	X	X		X
8	Francisco A. Lorenzo	Texas Air Company 1972 – 1990			X		X		
9	David Neeleman	JetBlue 2000 - present			X				
10	Frederick W. Smith	Federal Express 1971 - present	X	X	X		X		X
11	Harry Stonecipher	Boeing Company 1997-2002, 03-05	X						
12	William W. Winpisinger	President International Association of Machinist and Aerospace Workers 1977 - 1989			X				
13	Thornton A. Wilson	Boeing Company 1969 - 1986	X	X				X	

Table 2. Aviation Leaders in the Deregulated Era based on national recognition.

Aviation Leaders in the Deregulated Era		
1	Herb Kelleher	(6) (indicates number of awards)
2	Frederick W. Smith	(5)
3	Robert L. Crandall	(4)
4	Thornton A. Wilson	(3)
5	Gordon Bethune	(2)
6	Francisco A. Lorenzo	(2)

INDUSTRY VOICES

The Valentine weekend experiment

If you're in northern San Diego County over Valentine's Day weekend you'll find a group of now mostly retired airline people playing golf. In 2005 ten "airline guys" (it's traditionally been an all male gathering) plus their friends attended for the 36th year. All ten individuals are currently or were previously in managerial positions for one of the world's largest airlines, several for more than forty years. Their varied backgrounds include positions with system-wide responsibilities in various areas such as consumer relations, employment, onboard planning, contract negotiations, etc. Job titles held include vice

president, director, and general manager. Airport operations managed by these individuals include small *line* stations and major U.S. and international *hub* stations. Some left the core airline and went on to significant responsibilities with other airlines (i.e. chairman of a major regional) or related industry jobs. In summary, these individuals have much industry experience and, fortunately, they are better managers than golfers.

Either singularly or in groups of two or three, each was presented the same story. "I'm doing some research for a project. Think about our time in the industry since deregulation started. Who are the key industry leaders? Who should be put in the aviation history books as

being the best aviation managers? Said another way, who should I offer to my students as role models, as industry leaders?"

The consistent initial response was silence followed by something like, "I don't know if I can." Then, as the brain shifted from golf to work, names like Donald Nyrop (Northwest), W. A. Patterson (United), C. R. Smith (American) and Juan Trippe (Pan Am) were offered with the comment that they were great but came before deregulation. After a bit more reflection the comment would be something like, "Probably Crandall. He did a great job at American. Oh, yeah, and the Southwest guy, Kelleher. That airline has done great. And Lorenzo had a helluva impact but not the best of outcomes. So, maybe Crandall and Kelleher?" The majority of responses include one or both of these individuals.

No other name was mentioned with any consistency. Dick Ferris (United) was mentioned a few times as an individual who led the fight for deregulation. "That JetBlue guy (David Neeleman), and Bethune at Continental" were mentioned by one or two individuals. No other names were offered. Perhaps in support of a friend's efforts, several responses included the unsolicited comment, "That's a good question."

Reflecting on the answers during the trip home from the outing it seemed that the question was legitimate and answerable. The five individuals identified as possible role models were Crandall, Kelleher, Bethune, Neeleman, and Ferris.

The "former" group survey

One of the many groups that use the Internet to stay abreast of a common interest is about 180 former senior managers of a major international airline. (For convenience these individuals are referred to as the *former group*.) Members must have been in a senior management position at that airline and had at least a three year separation from the company before joining the email list. (This author is one of those members.)

The business background of members of the former group make them uniquely qualified to answer research questions about industry managers. The members of the *former group* include past presidents, senior officers, directors

and managers, many of which are known nationally within and outside the aviation industry. Their experience covers the spectrum of major functional areas: sales, marketing, finance, planning, law, operations, flight, onboard service, etc. A significant number of these individuals have worked at more than one aviation company. Some have prior or current experience in a wide variety of areas that support airline operations including security, cabin refurbishment, tourism, consulting, manufacturing, etc. Several members are currently chief executive officers of national aviation related companies other than airlines.

A significant number of the individuals on this email list have interacted personally with industry leaders such as Crandall and Kelleher. They have worked with them at another airline or on an industry task force or perhaps an Air Transport Association (ATA) committee. Essentially every member of the *former group* has been or is in daily competition with and frequently had or has an opportunity to observe first-hand the management style of industry leaders. Therefore names mentioned in response to the survey questions are not just people who the respondents have read about in the news. If they weren't known personally, their names and or strategies were often discussed in staff meetings, around tables in the employee cafeteria and even on the golf course.

Group members were asked by email to complete an online survey. Sixty-two percent of the respondents indicate an airline background. The remaining 38% identify themselves, spread almost equally, among the categories of government, aircraft manufacturing, airport operations, aviation service organizations, and one media representative. This demonstrates the diverse career pattern taken by individuals who at one time worked for an airline.

Eighty-one percent were able to identify "Who is the most influential manager in aviation since deregulation?" Thirteen percent said no one deserved that recognition and six percent didn't know who it should be. A second question asked for the name(s) of "Other individuals that should be on the list of top managers during the deregulated era of aviation." Results are shown in Table 3. Individuals receiving a single recommendation

are not included. Examples are Jerry Atkin (SkyWest), Bruce Kennedy (Alaska), Jane Garvey (FAA), Joe O’Gorman (Aloha, Frontier, Reno Air, United and DHL), and Howard Putnam (United, Southwest, and Braniff).

Analysis of industry voices

The five names identified during Valentine day interviews appear on the list of individuals identified by the *former* group. Results from the experienced *former group* closely mirror the results found in the national awards. A surprising omission is Smith of FedEx. The *former group* is from a predominant passenger carrier, but many of the individuals have been responsible for results in the cargo end of the business. The failure of this group to mention

Smith is not justification to question his inclusion on a list of aviation leaders during the deregulated era.

Wilson of Boeing is not mentioned by the *former group* of predominantly operational versus manufacturing managers. However, several of the members of this *former group* spent much time traveling to Boeing’s facilities during aircraft purchase and development meetings. Some of these contacts were at the senior executive level. My sense is this group of primarily airline people fail to give the same consideration to Wilson’s record as have others in the aviation community.

Table 3. *Survey results of the former group.*

Rank	Name – affiliation	Number of votes received
The most influential aviation manager during the deregulated era of aviation		
1	Herb Kelleher – Southwest	(24)
2	Robert Crandall – American	(9)
3	Dick Ferris – United	(2)
Other individuals that should be on the list of top managers during the deregulated era of aviation		
1	Robert Crandall – American	(12)
2	Herb Kelleher – Southwest	(7)
3	Dick Ferris – United	(6)
4	Gordon Bethune – Continental	(6)
5	David Neeleman – JetBlue	(5)
6	Frank Lorenzo – Continental, Eastern	(5)
7	Steven Wolfe – Flying Tiger, American, United, US Airways	(4).

Neeleman is mentioned by the former group and is one of the Patterson Lecturers. *JetBlue* is now only six-years old and long term performance of both the company and Neeleman is still being determined. His business strategies continue to receive attention from the media and competitors (i.e. low-cost operation with high-cost aircraft interiors and amenities such as all aircraft equipped with live TV, reliance on automation, openness of information sharing with employees, etc.). It will be difficult to discuss aviation in the early 21st Century without close attention to *JetBlue*. It is likely, depending

on the track performance of *JetBlue* in the next few years, that Neeleman will eventually be recognized by the Wings Club and or NAA. This view results in a conclusion he should be added to a final list of key aviation managers.

Dick Ferris is mentioned in the Valentine weekend experiment and the *former* survey. He is also the first Patterson Lecturer (which was probably influenced because United wrote a large check to help fund the W.A. Patterson Chair). But, he is not listed on any of the other national lists. He is an individual worth study, but does not belong on the role model list. He is

known in the industry as one of the key leaders for deregulation. However the 1985 ALPA pilot strike and United's aggressive but unsuccessful efforts to break the strike caused Ferris' subsequent departure from the airline prior to achieving his long-term personal goals of creating a multifaceted travel company (airline, hotels, rent-a-car, etc. conglomerate).

Steven Wolfe is mentioned only in the former group survey and not on any of the national award lists. His absence from any of the lists precludes his identification as a role model. Yet he is an excellent subject for research by individual students. His personal business history may be one of the more interesting and financially successful CEO careers in the industry (if an investor bought and sold at the proper times). His vision and leadership created the world's largest employee owned company, United. But it was an experiment that failed in the long-term. His varied leadership positions at a variety of airlines may make it difficult for him to be easily compared with a Kelleher or Crandall who have long roots with a singular company.

CONCLUSION

The final list

The three data sources – the award search, the interviews and the survey results – provide repetitive results complimentary results which create a meaningful list of aviation industry role models in the deregulated era. They are listed in Table 4 in alphabetical order. The repetition and consistency of results from the three sources meet Lincoln and Guba's (1985) test of validity.

Personal characteristics

An obvious question about these role models is "What have they done and how have they done it which results in personal and/or organizational achievement deserving of recognition?" Mayo and Nohria (2005) provide detailed information about the performance characteristics of managers and leaders. The various awards have some level of published criteria for selecting winners. The *former* group was asked to and provided explanation why they recognized individuals as an influential manager.

A long list of *what* is easily developed. Examples include the long-term financial success of Southwest, creation of innovative marketing concepts such as frequent flyer programs under Crandall's leadership at American, significant business turn-around as achieved by Bethune at Continental. Lorenzo created a large aviation empire and broke new ground in labor relations.

How these accomplishments were achieved is important. I refer to this as the individual's *management style*. Crandall's reputation among those in the industry is that of a tough boss. Kelleher has used a folksy image while hiding an extremely effective intellect. He epitomizes the view that the boss's job is to take care of the employees who in-turn will take care of the customer. Frank Lorenzo's managerial approach is often described with words that do not belong in an academic article.

The *what* and *how* questions which are only briefly addressed here are the basis for additional and meaningful research. A thorough investigation requires an extensive effort that does not fit within this article. But, one or more of you who read this are encouraged to accept the challenge of investigating these issues as a continuation of this project with the view of helping students identify *why* the individuals you or future textbooks identify are role models including both *what* is it they have accomplished and especially *how* have they achieved those accomplishments.

Summary

Providing students with role models is a meaningful, beneficial academic technique. The aviation business changed in 1978 and processes that worked in the regulated era require different approaches today. Aviation management students in college and industry will benefit by studying aviation role models of the deregulated era.

Seven established aviation role models are identified. All the individuals are living, and, most are still actively involved in the industry in some capacity. For example, Smith still leads FedEx. Crandall has retired from American but writes editorial opinion pieces about the industry and is now Chairman and CEO of Pogo (a new air-taxi service using very light jets) (flypogo.com, 2006). Specific study of what

these seven have accomplished and how they have accomplished is a desirable expansion of this research.

The information contained here only has value if it is shared. You are encouraged to share this information with whomever you

consider might benefit. That includes students, peers, or even the general public. Our industry, which continues to face service and financial challenges, has examples of successful, strong leadership and we should use every opportunity to publicize that fact.

Table 4. *Aviation manager role models in the deregulated era.*

Name		Affiliation
1	Gordon Bethune	Former Chairman of Continental Airlines
2	Robert L. Crandall	Former Chairman of American Airlines
3	Herb Kelleher	Executive Chairman Southwest Airlines
4	Francisco A. Lorenzo	Former Chairman Texas Air Corporation
5	David Neeleman	Chairman JetBlue
6	Frederick W. Smith	Chairman Federal Express
7	Thornton A. Wilson	Former chairman Boeing Company

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APPENDIX A

Past recipients of the Wings Club Distinguished Achievement Award

Year	Recipient	Year	Recipient
2005	Sir Richard Branson	1990	Armin O. Baltensweiler
2004	Gordon Bethune	1989	Thomas H. Davis
2003	Brigadier General Charles E. Yeager	1988	The Flight Safety Foundation
2002	Sir Ralph Robins	1987	Pioneer Trans-Atlantic European Passenger Carriers
2001	Harry Stonecipher	1986	T.A. Wilson
2000	Jean Pierson	1985	The National Air & Space Museum of the Smithsonian Institution
1999	John H. Glenn, Jr.	1984	James M. Beggs
1998	Lord Marshall of Knightsbridge	1983	John C. Bierwirth Thomas V. Jones David S. Lewis, Jr. Sanford N. McDonnell
1997	U.S. Air Force	1982	Senator Barry M. Goldwater
1996	Herbert D. Kelleher	1981	Olive Ann Beech Harry B. Combs Leroy R. Grumman William T. Piper, Jr. Dwane L. Wallace
1994	Cessna Citation Special Olympics Airlift Corporate Angel Network ORBIS International Wings of Hope	1980	Sir Frank Whittle Dr. Hans von Ohain Sir Stanley G. Hooker Jack S. Parker Arthur E. Smith
1993	Robert L. Crandall	1979	William M. Allen Donald W. Douglas, Sr. Hall L. Hibbard
1992	Frederick W. Smith and the 95,000 Employees of Federal Express Corp.	1978	William A. Patterson Robert F. Six Cyrus R. Smith Juan T. Trippe
1991	Aviation Test Pilots		

APPENDIX B

Wright Brothers Memorial Trophy Past Recipients

Year	Recipient	Year	Recipient
2005	Pete Aldridge	1990	Edwin I. Colodny
2004	Bob Crandall	1989	Thomas Jones
2003	Senator John Glenn	1988	Sam B. Williams
2002	Paul Poberezny	1987	Allen E. Paulson
2001	Neil A. Armstrong	1986	Joseph F. Sutter
2000	Herb Kelleher	1985	Harry B. Combs
1999	Delford M. Smith	1984	David S. Lewis
1998	Edward Stimpson	1983	J. Leland Atwood
1997	Charles H. Kaman	1982	Dr. Willis M. Hawkins
1996	Frederick W. Smith	1981	Dwayne L. Wallace
1994	Russell W. Meyer, Jr.	1980	Olive Ann Beech
1993	A. L. Ueltschi	1979	T. A. Wilson
1992	Gerhard Neumann	1978	Senator Jennings Randolph
1991	Senator Jake Garn		

APPENDIX C

W. A. Patterson Lecturers, Northwestern University Transportation Center

Year	Speaker	Title and Sources
2005	Lawrence D. Burns	Vice President Research Development & Planning, GMC
2004	Michael L. Eskew	Chairman and CEO United Parcel Service, Inc.
2003	David Neeleman	Chief Executive Officer and Director JetBlue Airways
2002	Norman Y. Mineta	Secretary U.S. Department of Transportation
2001	Donald Schneider	President Schneider National, Inc.
2000	Frederick W. Smith	Chairman, President and Chief Executive Officer FedEx Corporation
1999	Robert Krebs	Chairman, President, CEO; Burlington Northern Sante FE Railway
1998	Lua Cheng Eng	Deputy Chairman, President and CEO; Neptune Orient Ltd
1997	Herb Kelleher	Chairman, President and CEO Southwest Airline Company
1996	John Welsby	Chairman and Chief Executive Officer British Railways
1995	William ("Gus") Pagonis	Sr. VP, Logistics, Sears, Roebuck
1994	Karel Van Miert	Commissioner of Competition for the European Union
1993	Dr. Robert Herman, L.P.	Gilvin Centennial Professor Emeritus Civil Engineering; University of Texas Austin
1992	J.B. Hunt	Chairman of the Board J.B. Hunt Transport, Inc.
1991	Heinz Ruhnau	Chairman Lufthansa German Airlines
1990	Donald (Deke) K. Slayton	Astronaut, President and Vice Chairman Space Services
1989	Sir Colin Marshall	Chief Executive Officer British Airways

1988	William W. Winpisinger	International President International Association of Machinists and Aerospace Workers
1987	Frank Lorenzo	Chairman, President and Chief Executive Officer Texas Air Corporation
1986	Robert L. Crandall	Chairman and President AMR Corporation and American Airlines, Inc.
1985	Marvin L. Manheim	William A. Patterson Distinguished Professor
1984	Dr. Daryl Wyckoff	James J. Hill Professor of Transportation Harvard U.
1982	Alfred E. Kahn	Professor of Economics Cornell U.
1980	Richard J. Ferris	Chairman and CEO United Airlines

APPENDIX D

CNN Top 25 Influential Business Leaders

1	Bill Gates	co-founder of Microsoft
2	Sam Walton	former CEO of Wal-Mart
3	Jack Welch	former CEO of General Electric
4	Warren Buffett	CEO of Berkshire Hathaway
5	Lee Iacocca	former CEO of Chrysler
6	Steve Jobs	CEO of Apple
7	Herb Kelleher	chairman of Southwest Airlines
8	Michael Dell	founder of Dell Computer
9	Alan Greenspan	chairman of the Federal Reserve Board
10	Carl Icahn	1980s corporate raider
11	Andy Grove	former CEO of Intel
12	Michael Milken	former junk-bond wizard
13	John Reed	former CEO of Citigroup
14	Ted Turner	founder of CNN
15	Jim Clark	former CEO of Netscape
16	Marge Whitman	CEO of eBay
17	Jeff Bezos	founder of Amazon.com
18	Michael Eisner	CEO of Disney
19	Peter Lynch	manager of Fidelity's Magellan Fund
20	Phil Knight	CEO of Nike
21	Katharine Graham	late CEO of Washington Post Co.
22	W. Edwards Deming	influential business consultant
23	Ken Lay	former CEO of Enron
24	Shawn Fanning	founder of Napster
25	Lou Gerstmer	former CEO of IBM

List published June 19, 2005, aviation related individuals **emphasized**.

APPENDIX E

Harvard Business School 20th Century Great American Business Leaders – Transportation

	Name	Aviation Company
1	Bethune, Gordon M.	Continental 1994 - 2004
2	Budd, Ralph	
3	Burr, Donald C.	People Express 1980 - 1986
4	Carlson, Edward E.	United Airlines 1971 - 1979
5	Casey, James E.	UPS 1907 - 1962
6	Clement, Martin W.	
7	Crandall, Robert L.	American Airlines 1985 - 1998
8	Emery, Jr., John C.	Emery Air Freight 1968 - 1987
9	Emery, Sr., John C.	Emery Air Freight 1946 - 1967
10	Flagler, Henry M.	
11	Franklin, John M.	
12	Frye, Jack	Trans World Airlines 1934 - 1947
13	Gray, Carl R.	
14	Hill, James J.	
15	Hill, Louis W.	
16	Holden, Hale	
17	Kelleher, Herbert D.	Southwest Airlines 1967 - 2001
18	Lorenzo, Francisco A.	Texas Air Company 1972 – 1990
19	Luckenbach, Jr., Edgar F.	
20	Ludwig, Daniel K.	
21	Mallory, Clifford D.	
22	Mallory, Henry R.	
23	McLean, Malcolm P.	
24	Norris, Ernest E.	
25	Nyrop, Donald W	Northwest Airlines 1954 - 1978
26	Patterson, William A.	United Airlines 1934 - 1963
27	Rentschler, Frederick B.	United Aircraft 1928 - 1934
28	Rickenbacker, Edward V.	Eastern Airlines 1938 - 1953
29	Shoen, Leonard S.	
30	Six, Robert F.	Continental Airlines 1907 - 1986
31	Sloan, Matthew S.	
32	Smith, Cyrus R.	American Airlines 1934 - 1968
33	Smith, Frederick W.	Federal Express 1973 -
34	Spencer, Samuel	
35	Trippe, Juan T.	Pan American World Airways 1927 - 1969
36	Underwood, Frederick D.	
37	Vauclain, Samuel M.	
38	Wallace, James C.	
39	Warfield, Solomon D.	
40	Wickman, Carl E.	
41	Willard, Daniel	
42	Young, Robert R.	

Aviation related individuals **emphasized**.

APPENDIX F

Harvard Business School 20th Century Great American Business Leaders - Automotive and Aerospace

	Name	Aviation Company
1	Allen, William M.	Boeing 1945 - 1969
2	Beals, Jr., Vaughn L.	
3	Beech, Olive Ann M.	Beech Aircraft Corporation 1950 - 1968
4	Blumenthal, W. Michael	
5	Boeing, William E.	Boeing Company 1916 - 1934
6	Bossidy, Lawrence A.	
7	Braniff, Thomas E.	Braniff Airlines 1930 - 1954
8	Budd, Edward G.	
9	Caldwell, Philip	
10	Chapin, Roy D.	
11	Chrysler, Walter P.	
12	Collyer, John L.	
13	Crawford, Frederick C.	
14	Crosby, Joseph W.	Thiokol Corporation 1947 - 1963
15	Curtice, Harlow H.	
16	Davis, Charles S.	
17	Donner, Frederic G.	
18	Douglas, Donald W.	Douglas Aircraft Company 1928 – 1957
19	Durant, William	
20	Eaton, Robert J.	
21	Emanuel, Victor	AVCO 1939 – 1960 Aircraft and ship manufacturing.
22	Firestone, Harvey S.	
23	Firestone, Jr., Harvey S.	
24	Fisher, Frederick J.	
25	Ford, Henry	
26	Ford II, Henry	
27	Gross, Robert E.	Lockheed Aircraft Corporation 1934 - 1956
28	Hertz, John D.	
29	Hoffman, Paul G.	
30	Hughes, Jr., Howard R.	Hughes Aircraft Company 1933 - 1976
31	Iacocca, Lido (Lee) A.	
32	Joy, Henry B.	
33	Keller, Kaufman T.	
34	Lamm, Harvey H.	
35	Lear, William P.	Lear 1939 - 1967

Continued on next page.

APPENDIX F CONTINUED

36	Litchfield, Paul W.	
37	Martin, Glenn L.	Glenn L. Martin Company 1907 – 1949
38	McDonnell, James S.	McDonnell Aircraft Corporation 1939 - 1967
39	McPherson, Rene C.	
40	Mott, Charles S.	
41	Nash, Charles W.	
42	Northrop, John K.	Northrop Aircraft 1937 - 1959
43	Olds, Ransom E.	
44	Peppiatt, Guy S.	
45	Petersen, Donald E.	
46	Pigott, Charles M.	
47	Prince, Larry L.	
48	Ramo, Simon	Thompson-Ramo-Wooldridge Corp. 1953 – 1958, Military missile and other control systems.
49	Rockwell, Willard F.	
50	Rockwell, Jr., Willard F.	
51	Seiberling, Frank A.	
52	Sikorsky, Igor I.	Sikorsky Aircraft 1923 - 1957
53	Sloan, Jr., Alfred P.	
54	Smith, Roger B.	
55	Stranahan, Jr., Robert A.	
56	Trotman, Alex	
57	Vaughan, Guy W.	Curtiss-Wright Aircraft Company 1935 - 1949
58	Wallace, Dwane L.	Cessna Aircraft Company 1936 - 1975
59	Wilson, Charles Erwin	
60	Wilson, Thornton A.	Boeing Company 1969 - 1986

Aviation related individuals **emphasized**.

APPENDIX G

Top 50 Business Leaders of the 20th Century

1	Samuel M. Walton, Wal-Mart	26	Steven P. Jobs, Apple Computer
2	Walter E. Disney, Walt Disney	27	John T. Dorrance, Campbell Soup
3	William H. Gates III, Microsoft	28	Leon L. Bean, LL Bean
4	Henry Ford, Ford Motor	29	William Levitt, Levitt & Sons
5	John P. Morgan, J.P. Morgan Chase	30	Howard Schultz, Starbucks
6	Alfred P. Sloan Jr., General Motors	31	Michael Dell, Dell Computer
7	John F. Welch Jr., General Electric	32	Robert W. Johnson Jr., Johnson & Johnson
8	Raymond A. Kroc, McDonald's	33	<i>James E. Casey, United Parcel Service</i>
9	William R. Hewlett, Hewlett-Packard	34	<i>Herbert D. Kelleher, Southwest Airlines</i>
10	David Packard, Hewlett-Packard	35	George Eastman, Eastman Kodak
11	Andrew S. Grove, Intel	36	Philip H. Knight, Nike
12	Milton S. Hershey, The Hershey Co.	37	James O. McKinsey, McKinsey & Co.
13	John D. Rockefeller Sr., Standard Oil	38	Charles R. Schwab, Charles Schwab
14	Thomas J. Watson Jr, IBM	39	<i>Frederick W. Smith, Federal Express</i>
15	Henry R. Luce, Time-Life Publications	40	William Wrigley Jr., Wm. Wrigley Jr. Co.
16	Will K. Kellogg, Kellogg	41	Gordon E. Moore, Intel
17	Warren E. Buffett, Berkshire Hathaway	42	Robert (Ted) E. Turner, Turner Broadcasting
18	Harland Sanders, Kentucky Fried Chicken	43	J. Willard Marriott Jr., Marriott Int'l.
19	William C. Procter, Procter & Gamble	44	James E. Burke ,Johnson & Johnson
20	Thomas J. Watson Sr., IBM	45	David Sarnoff, RCA
21	Asa G. Candler, Coca-Cola	46	<i>William E. Boeing, Boeing</i>
22	Estee Lauder, Estee Lauder	47	Walter A. Haas Sr., Levi Strauss
23	Henry J. Heinz, H.J. Heinz	48	Henry J. Kaiser, Kaiser Industries
24	Daniel F. Gerber Jr., Gerber Products	49	Walter A. Haas Jr. ,Levi Strauss
25	James L. Kraft, Kraft Foods	50	Clarence Birdseye, Bird's Eye Foods

Aviation related individuals **emphasized**.