CHARLOTTE'S AIRPORT ENTERS THE JET AGE: CHARLOTTE DOUGLAS, 1954-1983

by

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ABSTRACT

LUCAS CHARLES ROSS. Charlotte's Airport Enters the Jet Age:
Charlotte Douglas, 1954-1983. (Under the direction of DR. MARK WILSON)

The history of airports is a neglected topic despite the incredible economic and social changes the world has seen since their inception in the early twentieth century. This is especially true of large metropolitan airports. The largest airports have greatly affected the cities they serve. Charlotte's airport, Charlotte Douglas International, is one such airport. Charlotte Douglas, despite serving a relatively small city at its inception, has become one of the busiest airports in the country. Many factors contributed to the growth of Charlotte Douglas including location, topography, weather, and demand for air travel, but without the support of key city leaders, federal aid, and most of all professional planning, Charlotte might not enjoy the world class airport it has today. Organized and stalwart public criticism of the airport and its rapid expansion nearly crippled the airport in the 1970's. Only through long term planning and a vigorous public relations campaign was Charlotte Douglas able to complete the key infrastructure projects of the 1970's. This thesis details the support and planning that prepared Charlotte Douglas for the rigors of the jet age and in turn changed the City of Charlotte. Despite some growing pains, Charlotte Douglas has been a boon to the city, attracting businesses and travel enthusiasts from across the country and putting the City of Charlotte on the map.

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CHAPTER 1: CHARLOTTE DOUGLAS LOOKING TOWARD THE JET AGE

During the 1950's and 60's, Charlotte Douglas Municipal Airport was entering the most crucial stage of its development, the jet age. Indicative of airport improvement and expansion, "jets enabled…manufacturers to build bigger, faster, and more productive airliners. Jet technology also enabled airlines to reduce their operating costs and their airfares. The jet age saw the end of airline regulation by the federal government, an act that transformed the industry and produced much upheaval. Passengers benefited from falling fares; "almost anyone who wanted to could now fly."[1] And fly they did, especially through Charlotte.

Charlotte's growing airport was an outstanding example of the meteoric growth of airports in the jet age. In 1952, Charlotte's population was ranked 97th among metropolitan areas in the United States, but in air passengers enplaned it ranked 25th. Even more remarkable, of passengers enplaned per 1000 population, Charlotte's only rival was Dallas.[2] Charlotte's rapid growth continued through the 60's and 70's.

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[1] Smithsonian National Air and Space Museum, "The Jet Age, 1958-Today" *America By Air*, https://airandspace.si.edu/exhibitions/america-by-air/online/jetage/index.cfm (accessed October 24, 2014). Encyclopedia Britannica Online, "History of Flight (aviation), The Jet Age," http://www.britannica.com/EBchecked/topic/210191/history-of-flight/260590/The-jet-age, (Accessed October 24, 2014).

[2] Gotch and Crawford Planning Consultants, "A Survey and Analysis of Air Transportation at Charlotte, North Carolina," Charlotte Aviation Museum Archive, (Washington, D.C., 1954), 5.

Following commercial airline deregulation in 1978, competition increased and mergers ensued, but for the average American, commercial air travel was more accessible than ever. Decreasing ticket prices for consumers resulted in a three-fold increase in passenger miles between 1978 and 2005.[3] From modest beginnings, Charlotte Douglas Municipal Airport navigated the uncertainty of bond referendums, expansion projects, and civic backlash to become an air hub, international destination, and one of the busiest airports in the country.

This thesis is broken into three chapters. The first is introductory and presents primary sources, relevant secondary literature, and my central arguments. Chapters 2 and 3 are chronologically organized. Chapter 2 is the developmental history of Charlotte Douglas. It examines the origin of the airport and the investment facilitating the arrival of the first jet, an important milestone for Charlotte Douglas. Chapter 3 scrutinizes the growing pains that plagued the airport during the 1970's. During this period, local residents challenged airport development as the airport and its growth began to have detrimental effects on adjacent neighborhoods. In essence, chapter one provides a base for examination, chapter two details the development of Charlotte Douglas in its formative years setting the stage for chapter three, which illustrates the backlash from residents based on the consequences of rapid growth. Together, these chapters detail the

[3] G.J. Bamber, J.H. Gittell, T.A. Kochan, and A. von Nordenflytch, Up in the Air: How Airlines Can Improve Performance by Engaging their Employees (Ithaca: Cornell University Press, 2009), 5.

conundrum: the cyclical and escalating nature of growth and resistance to growth at Charlotte Douglas.

Charlotte is an excellent example of what air transportation infrastructure can mean to a burgeoning city based on carefully planned investment and development in a metropolitan airport. Therefore, the primary focus for my thesis will be on the significant period of development for Charlotte Douglas International, 1958-1983, exploring how Charlotte Douglas International became a major air hub and what the implications and results of this process were for the City of Charlotte.

At the most basic level, the development of Charlotte Douglas follows a well-worn path for large metropolitan airports in the United States. Increased flight and passenger traffic necessitated expansion to accommodate passengers and technology (bigger, faster planes). Growth required investment in the form of city-backed bonds for large projects, despite the fact that the airport was, and continues to be, self-sustaining; a referendum was required for the issuance of bonds. Backlash followed from the surrounding community as the airport became larger and more importantly louder. The significance of my findings extend beyond the City of Charlotte. This work will also provide indirect, but vital insights into aspects of urban growth and the critical importance of airports and aviation infrastructure.

Throughout the thesis, I argue that Charlotte Douglas, post-World War II, has been embroiled in a tug of war. There was a push for economic progress and notoriety as

an air hub by the mayor, city council, airport advisory board and the Charlotte Chamber of Commerce. Charlotte residents that resented the noise and constant expansion of the airport facilities opposed them. To be clear, this tug of war did not hamper the progress of the airport significantly until the 1970's. Throughout the history of the airport, city leaders recognized that Charlotte Douglas spurred growth through jobs, direct and indirect investment, and as a transportation hub. By the 1970's a vocal group of Charlotteans argued that the airport did more harm than good, damaging communities on the west side of Charlotte irreparably. Specifically, the residents in the Steele Creek and Berryhill neighborhoods, adjacent to the airport, suffered as the airport expanded and decibel levels rose. Like most progress, the development of Charlotte Douglas was not all positive, but for Charlotte as a whole, the benefits are undeniable in terms of metropolitan investment and regional, if not national, notoriety. Ultimately, through careful long term planning and federal funding, city leaders were successful, transforming Charlotte Douglas from a middling regional airport in the 1950's to a regional hub and international destination.

Established in 1935, two gravel landing strips constituted Charlotte Airport and served a city of less than one hundred thousand people.[4] Today it is one of the busiest airports in the United States, as well as the world. Charlotte Douglas International Airport is an integral part of the Charlotte infrastructure, providing a civilian air hub, military air

[4] United States Census Bureau, *Publications: Census of Population and Housing*, http://www.census.gov/prod/www/decennial.html, (accessed September 12, 2014).

base, and transportation node for the millions of people in the region.[5] The development of air transportation infrastructure in the United States was an epic task, helping the nation to grow economically and socially and connecting the burgeoning urban centers of the country. Likewise, Charlotte, North Carolina prospered as Charlotte Douglas matured from municipal airfield to international air hub. Before deregulation in 1978, the federal government required airlines to apply for commercial air routes. Eastern Airlines acquired federal approval to begin commercial service out of Charlotte Douglas in 1937.[6] Initially, a maximum of 14 people could depart Charlotte daily on an Eastern Airlines DC-2.[7] In 2015, Charlotte Douglas International (CLT) served nearly 45 million travelers featuring four low fare, four legacy, three foreign flag, and fifteen regional carriers. With an average of over 700 daily flights, including 154 nonstop destinations, CLT is fifth nationwide and sixth worldwide in aircraft movements. Even more astounding is the economic impact of the airport. The airport accounts for an estimated 100,000 jobs

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[5] Airports Council International, *Preliminary World Airport Traffic and Rankings 2013*, http://www.aci.aero/News/Releases/Most-Recent/2014/03/31/Preliminary-World-Airport-Traffic-and-Ranking2013--High-Growth-Dubai-Moves-Up-to-7th-Busiest-Airport- (accessed October 24, 2014). Charlotte was ranked 7th in "aircraft movements" and 23rd in passengers worldwide.

[6] Walter Turner, "History of Charlotte Douglas International Airport," Carolinas Aviation Museum Library Archive, Charlotte Douglas History, Charlotte, NC, 2001.

[7] While there is no surviving passenger manifest, the first flight out of Charlotte Douglas was reportedly a DC-2 with 14 seats in the passenger compartment. R.C. Birmingham, "Airport History," Carolinas' Aviation Museum Library Archive.

throughout the region indirectly related to CLT and has a $12 billion impact on the local economy.[8]

How did Charlotte Douglas International become a major air hub and what are the implications and the results of this process for the City of Charlotte? Charlotte's airport managers, mayors, city managers, and Chamber of Commerce played a large role in the development of CLT through support of bond referenda to facilitate long term investment in professional planning. The success of Charlotte Douglas was not a foregone conclusion. The number of airports across the country has dwindled as the novelty of aviation has waned and operating costs have risen, but Charlotte, through development of long-term airport master plans, has achieved the volume to make it successful in the aviation industry.

The jet age, in particular, proved to be a conundrum for growing urban airports. The challenges America's aviation sector faced during the jet age were wide ranging, from neighborhood associations filing suit against local airports for noise pollution, to the long process of federal deregulation of commercial air travel culminating in the Airline Deregulation Act of 1978. The changing face of commercial aviation during this era reflects these two developments. Airports throughout the country faced similar challenges as the majority of urban airports confronted issues of cost, land use, congestion, and

[8] Charlotte Douglas International Airport, Report of Achievement 2015, *http://www.cltairport.com/News/Documents/ReportofAchievement/CLTReportAchievement2015.pdf*, (accessed October 1, 2016).

mounting environmental concerns.[9] This list of issues represented a challenge for the aviation industry. Fiscal, physical, and geographical constraints, greater public use of air travel and, to a great degree, the introduction of jet propulsion meant addressing problems such as congestion and land allocation. As more people used air travel, facilities needed to expand.

Expansion to alleviate these problems inevitably led to environmental concerns, specifically airport noise. This very public point of contention, airport expansion versus the environmental concerns which expansion raised with local residents, characterized Charlotte in the 1960's and 70's.[10] Moreover, Charlotte Douglas relied on publically backed bonds for much of its early expansion. These bonds, approved through public referendum, potentially suffered from wide spread public disapproval that stemmed from environmental and fiscal concerns, which jeopardized funding. In short, the more the airport expanded, the more difficult it became to continue expansion, despite numerous professional surveys to develop long-term plans meant to keep pace with passenger demand.

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[9] As of Jul 21, 1967: FAA established the Office of Noise Abatement, a measure of the importance the agency attached to the problem of aircraft-engine noise. Hitherto, the agency's noise-abatement program had been under the direction of a small noise abatement staff. (See Apr 8, 1966, and Nov 27, 1968 of the "FAA Historical Chronology, 1926-1996"). Bill Noblitt, "Uproar Over Airport Noise Brings Urgent Conference," *The Charlotte News,* March 9, 1966.

[10] Paul David Friedman, "Fear of Flying: Airport Noise, Airport Neighbors," *The Public Historian* 1, no. 4 (July 1, 1979), 63–66. Walter Turner, "History of Charlotte Douglas International Airport," Carolinas Aviation Museum Library Archive, Charlotte Douglas History, Charlotte, NC, 2001, 14.

To understand the success Charlotte Douglas has achieved it is necessary to understand how airport revenue works. Charlotte's airport derives its revenue from fees added to the price of each ticket. Every time a passenger travels to, from, or through Charlotte, the airport gets a small portion of the cost of the ticket in addition to revenue from any services purchased by passengers. Charlotte's world-class airport is a rare jewel, a sophisticated urban terminal servicing a city of less than one million.

In the case of Charlotte Douglas, the cyclical nature of expansion was characterized by the local bond referendums, which, when adopted by voters, led to expansion and ultimately growth, both for the city and the airport. Beginning in the jet age, however, expansion projects faced new scrutiny from neighborhood associations upset with substantially increased decibel levels and turbine exhaust. By the mid 1970's the situation had escalated further and years of litigation and environmental assessment was required before Charlotte Douglas was able to install 18L 36R, a 9000 foot runway (later re-designated 18C 36C and extended to 10,000 feet) capable of handling the largest passenger aircraft. Legal proceedings to block expansion projects and the environmental impact reports that eventually helped to overturn expansion project injunctions can further explain how Charlotte Douglas evolved. Installation of the new 9,000-foot runway in the late 70's was an instrumental in the ascension of Charlotte Douglas from a

regional airport to a major hub with international standing among the world's top airports.[11]

Charlotte Douglas also benefitted from the Airline Deregulation Act of 1978. Deregulation broke commercial monopolies, which existed since the protected airmail routes of the 1920's.[12] The practice of federal assignment of airmail routes characterized the earliest days of aviation and became the foundation of the assignment of commercial routes by the Civil Aeronautics Board (CAB), later the Federal Aeronautics Administration (FAA).[13] As a result, commercial carriers needed approval from the Civil Aeronautics Board (CAB) to carry passengers legally between specific destinations. In effect, the federal government was endorsing limited monopolies for commercial airlines to encourage growth in the burgeoning air industry. After the Airline Deregulation Act of 1978, airlines were free to fly to any destination. Arguably, this was detrimental to smaller carriers as larger airlines could establish service on previously protected air routes. As a result, mergers proliferated as the numerous airlines that composed the commercial aviation sector dwindled and smaller carriers were absorbed into larger carriers or run out of business, a legacy that continues today. Charlotte's geography, continued growth, and modernity made it a logical hub for U.S. Airways based on its

[11] Walter Turner, "History of Charlotte Douglas International Airport," 32-33.
[12] Robert Jay Dilger, *American Transportation Policy*, (Westport, CT: Praeger, 2003), 125.
[13] The CAB prior to 1940 was the Civil Aeronautics Authority (CAA). Many of its duties became the purview of the Federal Aeronautics Administration (FAA) in 1958. The National Transportation Saftey Board (NTSB) became responsible for air accident investigations in 1967.

merger with Piedmont Airlines.[14] U.S. Airway's decision to build on Piedmont's success utilizing Charlotte as a hub It is more appropriate to examine Charlotte in terms of being a "New South" city. This is due in large part, to the rapid urbanization of the region. The regional business growth associated with Charlotte is indicative of cities with a vital transportation industry. Infrastructure is one of the primary considerations made by many businesses when establishing headquarters. Charlotte, which gained prominence as a trucking and rail hub,[16] through planning and foresight, developed itself as an air hub in the 1950's, 60's, and 70's and gleaned the benefits through direct and indirect economic investments from transportation intensive industry worldwide.[17]

The growth of the aviation industry and air infrastructure in the United States was a slow motion revolution spanning fifty years, redefining how Americans traveled commercially and how goods and services were distributed throughout the United States. Trips, which would have taken days, now, only took hours as trains gave way to planes. This thesis explores how Charlotte Douglas navigated its most critical period of transition from a middling regional airport to an international hub. The infrastructure growth which took place at Charlotte Douglas from 1954-1989 was a cornerstone of the Charlotte region both socially and economically. The beginning of this examination,

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[14] Walter Turner, "Building the Piedmont Airlines Hub in Charlotte, North Carolina, 1978-1989," *The North Carolina Historical Review*, Vol. 83, No. 3 (July 2006), 355-380.

[16] Charlotte's importance as a rail hub extends back to the Civil War. The trucking boom in Charlotte, however, did not occur until the 1960's and 70's. Both were the result of Charlotte's central location in the south-eastern region of the United States.

[17] Matthew D. Lassiter, "Searching for Respect: From "New South" to "World Class" at the Crossroads of the Carolinas," in *Charlotte, NC: The Global Evolution of a New South City*, ed. William Graves and Heather A. Smith (Athens, GA: The University of Georgia Press, 2010), 24-50.

1954, marked the completion of Charlotte's new passenger terminal and the beginnings of the runway projects that ushered in commercial jets. By 1983, Charlotte Douglas Municipal had completed its third new passenger terminal to become Charlotte Douglas International, an official hub and, shortly thereafter, an international destination. Supplementary to the benefits of having an international airport for Charlotte region, the rise of Charlotte Douglas had implications for urban air centers nationally, which relied on a vigorous system of air infrastructure.[18]

Currently, Charlotte Douglas International Airport is one of the ten busiest airports in the country.[19] Its importance to the nation as an air hub and international destination should not be understated. However, the symbiotic relationship between the commercial airlines and the airport based on investment in airport infrastructure requires a more critical look. Ultimately, this thesis tells the story of Charlotte Douglas and its development during its most crucial period of growth. By making comparisons between Charlotte Douglas and its most noteworthy regional competition, Atlanta Hartsfield, a more robust assessment of the direct benefits and challenges faced by Charlotte and its airport is possible. Similarities between Charlotte Douglas and Atlanta Hartsfield illustrate the scale and significance of Charlotte Douglas for the City of Charlotte and

[18] John C. Spychalski, "Transportation Policy: Precedent-Breaking Choices over Five Decades," *Transportation Journal*, Vol. 50, No. 1 (Winter 2011), 10-22.
[19] Airports Council International, "Preliminary World Airport Traffic and Rankings 2013."

provide insights into the critical relationship between urban growth, prosperity and modern aviation infrastructure.

A digital project supplements this thesis. Due in large part to The Carolina Aviation Museum Library, it is possible to reconstruct a physical overview of Charlotte Douglas in every major era of its development to convey the exponential growth it has experienced since its humble beginnings. The use of short narratives can contextualize these images to illustrate the obvious physical growth of the airport. A short concise history highlights the significant developments during the airport's race to the jet age. Additionally, it compares and contrasts the size and utility of Charlotte Douglas with its regional rival, Atlanta. This thesis, through a comprehensive examination of documents, records, and clippings highlighting the importance of the airport especially to Charlotte businesses, illuminates the story of the airport's growth and the uncertain future it sometimes faced, as the city and its airport advisory board struggled to raise the funds to keep Charlotte Douglas modern and relevant.

An examination of the history of Charlotte Douglas reveals several distinct eras, which reflect the unique conditions of the airport's development. The origins of Charlotte Douglas, from a Works Progress Administration (W.P.A.) project, to a regional airport of little note, to one of the largest airports in the nation, is a testament to the city government and the residents of Charlotte. Progress was reliant on a forward-looking public, eager for the future of public air transportation, a factor, which was at times in

dispute based on adversely affected neighborhoods in close proximity to the airport, especially during the 1970's. Moreover, civic leaders such as Mayor Benjamin Elbert Douglas, who understood the centrality of comprehensive transportation networks as a necessity for urban growth, played a key role in appropriating and managing the funds for the establishment and continual expansion of Charlotte Douglas.

1.1 Historiography:

There are many facets to an examination of Charlotte Douglas and its transition into the jet age. Walter Turner's article on Charlotte Douglas is the only document to discuss Charlotte's airport at any length and provides a brief overview of the history of the airport through 2001. Unfortunately, it fails to address important details surrounding the dawn of the jet age and the resulting demands placed on the infrastructure at Charlotte Douglas as a result.[20] I have consulted with Dr. Turner, currently at the North Carolina Transportation Museum, as I endeavor to expand upon his work.

I use the secondary sources to construct a developmental framework for Charlotte Douglas and analyze the complex relationship of expansion that was beneficial for the city as a whole and the opposition of local residents exposed to the detrimental effects of noise and jet exhaust in close proximity to the airport. I have drawn on a small body of historiographical sources that indirectly address the factors determining the development of Charlotte Douglas. A historiographical understanding contextualizes the evolution of

[20] Turner, "History of Charlotte Douglas International Airport," 14.

Charlotte Douglas inside the larger sphere of aviation history in the United States. Additionally, it highlights the local opposition to the continued growth of Charlotte Douglas and, consequently, explain why it was able to overcome this opposition to become a successful air transportation hub.

These secondary resources fall into three distinct groups: the history of aviation, analyses of form and function of aviation in the United States (airlines, airports, and their interrelationship), and federal spending on and regulation of the aviation industry. Notably, none of these sources relate directly to Charlotte Douglas. The secondary literature does not address Charlotte Douglas; therefore, I only use it to establish a historiographical platform. Aside from regulatory controls, each airport had a unique set of circumstances. Topography, population, weather, local economy, and location relative to the city all factor heavily into the success of an airport. Many of the aviation histories are in large part chronologies. However, a few standout for integrating the chronology into a narrative that contextualizes these key aspects of aviation, making them invaluable resources and the closest thing to historiographical resources tailored for an examination of Charlotte Douglas. Works on commercial aviation tend to incorporate a perspective more suitable for business and finance with few exceptions. The final aspect, airline regulation, or perhaps more importantly deregulation, is extensive. Similar to the commercial consideration of the aviation industry, scholarly contributions of governmental regulatory measures concentrate on the economic impacts of the regulatory environment, ignoring many of the social considerations that apply to specific regions.

Because of the prevalence of sources dealing with the deregulation of air carriers in 1978, I limit my examination of deregulation, opting instead for a focus on the specifics of Charlotte's airport. However, I do highlight some of the effects of deregulation more specifically in my digital project.[21]

The established body of historical sources is small, but ultimately comes to a historiographical consensus. It is important to stress that this consensus is only applicable to the history of aviation, not Charlotte Douglas. Moreover, several articles that provide significant insights into the history of aviation lack historicization. Much of this seems linked to the portrayal of aviation as a staple of modernity. This is not a hard argument to make. The power of flight has allowed us to become truly global. With this technology, humanity can move people and goods anywhere in the world in less than a day. Moreover, concentration on infrastructure is indicative of public policy, which employs a different paradigm in its scholarship. Therefore, in the vacuum of historicization, the consensus reached by this small body of sources is a simple periodization, early airports (pre-1950), the jet age (1950's-1970's), and post deregulation (1978-present). This significant shortcoming must preface any literature review. Yet this shortcoming only highlights the need for a historical perspective on the airport as an integral and vital part of Charlotte.

[21] A digital supplement can be found at http://fisterloyalty.wixsite.com/charlotte-airport.

The most relevant source in the secondary literature is Nicholas Dagen Bloom's *The Metropolitan Airport: JFK International and Modern New York*. Unfortunately, this source came to my attention after I had completed much of my own research. However, this is the first work that I have found that ties an airport directly to the success of the region it serves. It details the establishment and growth of New York City's most iconic airport. The transformation of Idlewild Airport into JFK International catalogues the growth of the airport and how it came to redefine the city it served. Its benefice to the city was multifaceted, but the impression of modernity for that great city was undeniable. Fortunately for Bloom, there were countless sources that dealt not just with the technical aspects of what makes a great airport, but the political and financial decision makers and their interactions. He was able to identify key figures, Mayor Fiorello La Guardia, Robert Moses, and Austin Tobin as key actors in the development of JFK. Unfortunately, Charlotte's "master builders" are not as accessible as the likes of La Guardia. While the former Mayor of New York City has countless books written about him, Charlotte's Mayors, Ben Douglas and later Stanford R. Brookshire and John M. Belk have had little notoriety in comparison.[22] However, one book did focus on Charlotte's two most influential mayors.

Brookshire & Belk: Businessman in City Hall by Alex Coffin is an overarching look at two of Charlotte's most notable mayors. Each had a significant role to play in the

[22] Nicholas Dagen Bloom, *The Metropolitan Airport: JFK International and Modern New York*, (Philadelphia, PA: University of Pennsylvania Press, 2015), 5-15.

development of the airport as each presided over bond issues that would affect the development of the airport for decades to come. However, the two chapters focused on the airport are only a brief look at significant developments concerning personnel and upgrades. Despite the focus of the book, Coffin does little to detail the relationships between any of the major actors. Therefore, based on a lack of sources, my hope to detail some of the personalities involved in the development of Charlotte Douglas and the interactions they might have had was less attainable that I initially hoped it would be.[23]

Regardless, I must underscore significance of Bloom's work. His ability to weave together the political, fiscal, social, and environmental realities associated with the establishment and continued operation of JFK parallel my intention of examining not just the airport, but how the airport fits within the city of Charlotte. To be clear, I am interested in Bloom's paradigm. Unfortunately, with the exception of explosive demand for air service during the jet age, a factor observed across the aviation sector, the history of JFK is quite different from that of Charlotte Douglas.

The literature is specific to Charlotte Douglas in one key way. The dichotomy of growth and modernity versus ecological activism and fiscal constraint defines the unique history of Charlotte Douglas Airport. Alan Altshuler illustrates this in broad terms in *Current Issues in Transportation Policy*. Published in 1979, Altshuler's examination of this dilemma coincides with the most active opposition to airports. According to

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[23] Alex Coffin, *Brookshire & Belk: Businessman in City Hall* (Charlotte, NC: University of North Carolina Charlotte, 1994).

Altshuler, early on, "communities…perceived airports as centers of growth; as large-scale public works, airport investments were virtually free goods for local economies…but airports are now seen more as a nuisance than as stimulus by their neighbors."[24]

Matthew Lassiter's *Charlotte, NC: The Global Evolution of a New South City* might be the only other text that specifically references Charlotte Douglas directly in any meaningful way. Despite its brevity, it makes several important points. Foremost among these is the support of political and business elites concerning the airport as a method to garner corporate as well as federal investment in the local economy. Moreover, it outlines the rivalry between Charlotte and its larger regional neighbor, Atlanta. This rivalry was responsible for engendering as well as impeding growth. The support of elites and the regional rivalry they encouraged would have far reaching effects on Charlotte and its airport.[25]

The early history of airports is a specialized topic. Much of the literature produced exists as a chapter in a broad aviation history with few exceptions. One such exception is *America's Airports: Airfield Development, 1918-1947* by Janet R. Daly Bednarek. She argues that "until relatively recently historians have failed to pay much attention to

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[24] Alan Altshuler, *Current Issues in Transportation Policy*, (Lexington, MA: Lexington Books, 1979), 22-23.
[25] Lassiter, *Charlotte, NC*, ed. William Graves and Heather A. Smith, 24-50.

airports."[26] Her history on the establishment of airports in the United States considers ownership, management, maintenance, and airport operations as well as federal funding, regulation, and policy. Additionally, the interaction of local and federal policies, urban boosterism, and aviation enthusiasm contributed to the formative years of aviation in the United States, 1918-1947. Bednarek indirectly addresses the origins of Charlotte Douglas as she elaborates on the substantial federal contributions to early airports.[27]

Airfield histories are another important element to a historiographical examination of Charlotte Douglas. An analysis of the regional progenitors of the industry highlighting airports in Chicago, New York City, and Atlanta has already been undertaken. Works such as James Kaplan's *The Airport: Terminal Nights and Runway Days at John F. Kennedy International,* take an in depth look at the inner working of an airport. It examines the administration and the staff as well as the labor and even criminal elements.[28] This is an important perspective to gauge; however, my goal is more closely associated with the work of Betsy Braden and Paul Hagan. Their book, *A Dream Takes Flight: Hartsfield Atlanta International Airport and Aviation in Atlanta*, is more representative of my ultimate goal. They demonstrate how the growth of Atlanta's airport

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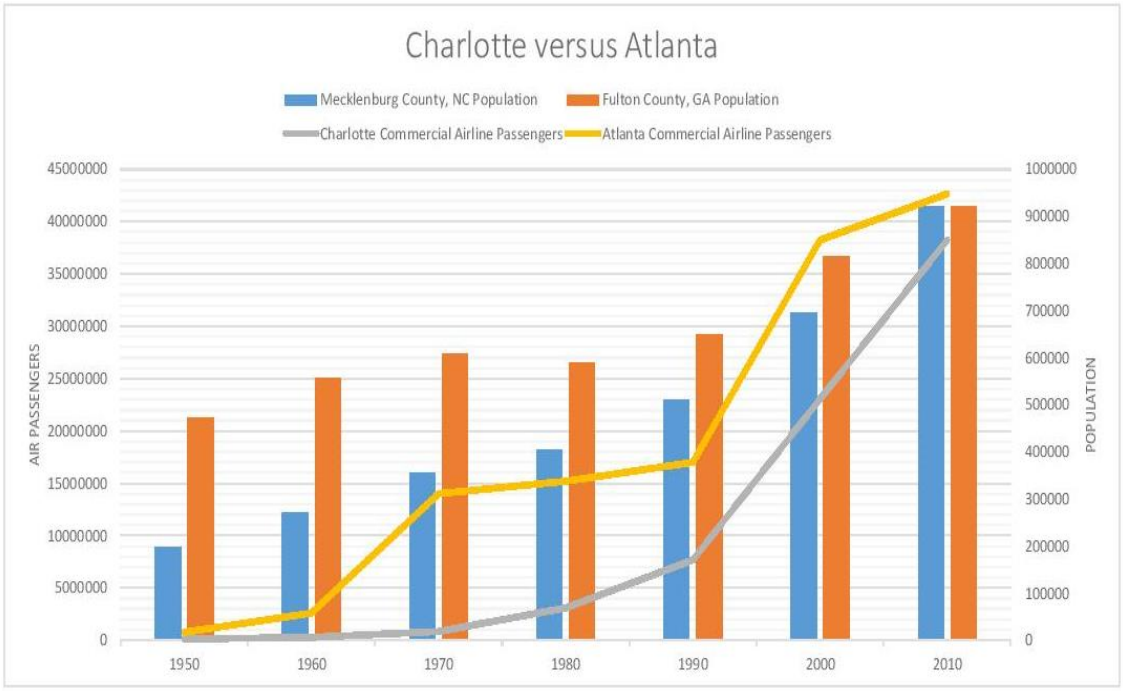
[26] Janet R. Daly Bednarek, *America's Airports: Airfield Development, 1918-1947,* (College Station: Texas A&M University Press, 2001), 3.
[27] Bednarek, *America's Airports,* 3. Betsy Braden and Paul Hagan, *A Dream Takes Flight: Hartsfield Atlanta International Airport and Aviation in Atlanta* (Atlanta; Athens: Atlanta Historical Society; University of Georgia Press, 1989). Karr Pittman, "Austin, Cleared for Takeoff. Aviators, Businessmen, and the Growth of an American City," *East Texas Historical Journal* 44, no. 2 (2006).
[28] James Kaplan, *The Airport: Terminal Nights and Runway Days at John F. Kennedy International* (New York: W. Morrow, 1994).

was a great boon to the city.[29] The story of Atlanta Hartsfield is very similar to Charlotte with one exception. Growth came sooner for Atlanta and its airport. Atlanta started developing air infrastructure approximately 10 years earlier than Charlotte, but both cities benefitted from WPA funds, War Department upgrades during World War II, hub status, deregulation, and regional growth, while battling local residents concerned about noise and ecology. I will incorporate this comparison into a digital supplement to highlight concisely the demographic and economic parallels between these regional neighbors (see Table 1 below).[30]

Table 1: History of Charlotte Douglas and Atlanta Hartsfield



[29] Betsy Braden and Paul Hagan, *A Dream Takes Flight: Hartsfield Atlanta International Airport and Aviation in Atlanta*.
[30] HOLD (link for final site)

Stephen Herman Dew had the distinction of writing one of the few narratives to deal directly with Charlotte Douglas during World War II. *Queen City at War* is an examination of Charlotte during that war and necessarily incorporates the significant transition at the airport as the U.S. Army Air Corps transformed the dirt runways into the broad concrete runways of Morris Field Army Air Base. Although only two chapters are dedicated to the airport, Dew's work details the early development of Charlotte's airfield, which included a $6 million investment by the U.S. War Department.[31]

Robert Jay Dilger stresses the interrelatedness of national defense and aviation, with a broad examination of military influence on aviation in the 1940's, but without Dew's focus on Charlotte.[32] Due to continuing W.P.A. projects as well as other legislative measures adopted based on recommendations by the Civil Aeronautics Administration, Congress appropriated millions of dollars to establish new airports and upgrade existing airports for the purpose of national defense.[33] Therefore, understanding the early history of airports, issues of funding, land use, regulation, as well as political and economic incentive is imperative when considering the paradigm shift that occurred as deregulation was envisioned and enacted in the 50's, 60's, and 70's.

Regulatory concerns came to the forefront with the establishment of the Federal Aviation Administration (FAA) in 1958, as well as technological changes. The

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[31] Stephen Herman Dew, *The Queen City at War*, (Lanham; New York; Oxford; University Press of America Inc., 2001).
[32] Dilger, *American Transportation Policy*, 120-21.
[33] Dilger, *American Transportation Policy*, 121.

introduction of jets and the increased demand for air travel specifically, changed the landscape of commercial aviation. Nawal Taneja focuses on the regulatory framework under which the oligopoly of commercial aviation formed without making note of the oligopoly itself. This element was pivotal to eventual deregulation in 1978.[34] Mark H. Rose, Bruce E. Seely, and Paul F. Barrett, *The Best Transportation System in the World,* offer a more historicized view of events. One crucial aspect of this period is the way in which presidential administrations categorized it, specifically, "commercial aviation remained part of the foundation of America's defense." Although Charlotte was only a small piece of a much larger scheme, federal support for airports nationally, benefitted Charlotte Douglas more than most.[35]

Between 1958 and the late 1970's the political process encompassing deregulation framed by the exponential demand for commercial air travel revealed the stresses put on aviation infrastructure. Both Dilger and Rose make this point.[36] This was especially true in Charlotte as growth in the commercial aviation sector routinely outpaced the national average. This is also the initial focus of innumerable public policy books on airline deregulation and its effects. However, a historical focus can be found in some of these analyses avoiding the inevitable chronology typically produced in works of public policy.

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[34] Nawal K. Taneja, *The Commercial Airline Industry: Managerial Practices and Regulatory Policies* (Lexington, Mass: Lexington Books, 1976).
[35] Mark H. Rose and Bruce E. Seely and Paul F. Barrett, *The Best Transportation System in the World: Railroads, Trucks, Airlines, and American Public Policy in the Twentieth Century,* (Columbus, OH: The Ohio State University, 2006), 83.
[36]Dilger, *American Transportation Policy,* 124. Rose, Seely and Barrett, *The Best Transportation System in the World,* 85.

Airline Executives and Federal Regulation, an edited work by W. David Lewis, is one such volume.[37] One pertinent article, "A Man Born Out of Season: Edward V. Rickenbacker, Eastern Airlines, and the Civil Aeronautics Board," written by Lewis himself, exemplifies the regulatory situation and the paradigm shift that occurred as deregulation came to the forefront. It is especially significant based on Eastern Airlines influence in Charlotte. In addition to Lewis, *Hard Landing* by Thomas Petzinger, Jr. and *Airline Deregulation: The Early Experience* by Meyer, Oster, Morgan, Berman, and Strassmann contribute significantly to the history of deregulation.[38] Public policy experts wrote the latter of the two, published in 1981, while these changes were occurring. On the other hand, Lewis wrote *Hard Landing* 15 years later, after the majority of deregulation had already occurred. Lewis, a journalist by trade, has a clear business and ethics focus. Both, however, contribute to the history of aviation, touching on the regulatory and commercial aspects of aviation in the 1970's.

The mid-1970's through the early 1990's had two significant features. First, this period, similar to earlier eras, is indicative of expansion. The effects of deregulation, the introduction of new technology, and continuing demand in the commercial aviation sector all contributed to a national trend to upgrade and expand airports, especially rapidly growing urban airports. Consequently, the second significant development was

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[37] David W. Lewis, *Airline Executives and Federal Regulation: Case Studies in American Enterprise from the Airmail Era to the Dawn of the Jet Age*, (Columbus: Ohio State University Press, 2000).
[38] John Robert Meyer and Clinton V. Oster, *Airline Deregulation: The Early Experience*, Boston, Mass: Auburn House Pub. Co, 1981. Thomas Petzinger, *Hard Landing: The Epic Contest for Power and Profits That Plunged the Airlines into Chaos*, (New York: Times Business), 1995.

the backlash that accompanied expansion of urban airports. Dilger argues that after the Federal Airport Act of 1970 and the Noise Control Act of 1972 more emphasis was put on the environmental impact of the aviation industry, a growing movement in the United States at the time.[39]

This period in particular was critical to Charlotte Douglas. Walter Turner in, "Building the Piedmont Airlines Hub in Charlotte, North Carolina, 1978-1989," argues that the rise of Piedmont Airlines culminating in its 1989 merger with U.S. Airways was a critical moment for Charlotte Douglas and was responsible for the transition from regional to international airport.[40] Richard E. Eller's work, *Piedmont Airlines: A Complete History, 1948-1989,* expands on Turner's work and presents a more comprehensive study of Piedmont Airlines. Eller's book encompasses operational, regional, regulatory, labor, competition, and safety concerns. Unfortunately, very little is said about Charlotte despite its critical role in Piedmont operations.[41]

Post 1990, Charlotte Douglas has continued to grow and expand. Since the airport began developing long-term master plans in 1961, projected and actual growth has driven demand for airport expansion. The introduction of a "transportation node" has

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[39] Paul David Friedman, "Fear of Flying: Airport Noise, Airport Neighbors," 63–66. Mark H. Rose and Bruce E. Seely and Paul F. Barrett, *The Best Transportation System in the World*. Walter Turner, "History of Charlotte Douglas International Airport." Douglas Karsner, "Aviation and Airports," *Journal of Urban History* 23, no. 4 (1997).
[40] Turner, "Building the Piedmont Airlines Hub in Charlotte, North Carolina, 1978-1989," 355-380.
[41] Richard Eller, *Piedmont Airlines: A Complete History, 1948-1989,* (Jefferson, N.C.: McFarland & Co, 2008).

incorporated air, rail, and road into one comprehensive network centering on Charlotte Douglas. As one of the busiest airports in the country, Charlotte Douglas continues to be an important part of the region, contributing to the transportation needs, economic wellbeing, and the history of Charlotte's metropolitan area.

Charlotte, which is at 35°13′37″N, falls within the northern edge of the Sun Belt, defined as areas south of 36°N. The changing social and economic landscape, which characterized the rise of the Sun Belt, affected the development of Charlotte and its airport. However, it is unclear the degree to which this is true. Understanding the Sun Belt requires a multimodal approach. It is difficult to define exclusively by economics, politics, infrastructure, or demographics. Although, Charlotte's air infrastructure may fall under the Sun Belt topically, it is a mischaracterization to attribute the growth of the airport to that phenomenon. This point is borne out in the literature detailing the regional transition that took place in the Sun Belt, which overlooks the significance of aviation and its contribution to this phenomenon. Without directly referencing the development of the Sun Belt, this thesis adds to our overall understanding of it. Identifying how Charlotte Douglas's transition to the jet age affected the city and the region will partially characterize Charlotte's meteoric growth as part of the Sun Belt.[42]

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[42] Michelle M. Nickerson and Darren Dochuk, *Sunbelt rising: the politics of place, space, and region* (Philadelphia: University of Pennsylvania Press, 2011). Bruce J. Schulman, *From Cotton Belt to Sunbelt: federal policy, economic development, and the transformation of the South, 1938-1980* (New York: Oxford University Press, 1991).

1.2 Review of Sources:

There are numerous qualitative and quantitative primary sources highlighting the direct and indirect benefits of Charlotte Douglas International Airport, for the City of Charlotte, and the region at large. Foremost among these are a rich archive of newspaper articles. The *Charlotte Observer* and the *Charlotte News* covered many of the same stories, highlighting the controversial growth of the airport. The extensive clippings file in the Carolinas Aviation Museum's Dolph Overton Aviation Library Archive is a window into nearly 30 years of operation. The tone and character of the crucial debates of the day are detailed and even editorialized, providing critical insights about public sentiment as well as the position of the airport administration and the city.

The Carolinas Aviation Museum Library Archive, The Carolina Room at the Charlotte-Mecklenburg Public Library, and the University of North Carolina at Charlotte, Special Collections, Mary & Harry L. Dalton Rare Books & Manuscripts Room, contain invaluable newspaper clippings, mayoral papers, and airport planning files.[43] Each sheds light on the considerable impact of the Mayor's office and airport managers throughout the history of the airport. Foremost among these are the planning documents including the Buckley Report, the first long term developmental planning document for Charlotte Douglas. Additionally, the papers of former Charlotte Mayors show the support of city

[43] History of Charlotte Douglas. *North Carolina Aviation Museum Library Archive*. Charlotte, NC.

leaders as Charlotte Douglas Municipal Airport transformed into Charlotte Douglas International Airport.

Each of these sources contains an array of valuable documents, from economic assessments to airport press releases. The holdings of former airport managers are invaluable as well. Internal airport correspondence, speeches, and publicity/marketing documents concerned with airport operations, both short and long term, shed more light on the events that took place at the airport. Recommendations for improvements and airport policy changes incorporate the citation of facts and endorse logical solutions for issues such as congestion, safety risks, and public concerns. The Carolinas Aviation Museum Library Archive, the Carolina Room, and the rare book room at the University of North Carolina Charlotte are outstanding resources and must be included in any serious examination of Charlotte Douglas in the Jet Age.[44] The FAA, the State of North Carolina and the City of Charlotte have additional airport records, including a number of

[44] Bolt, Beranek, and Newman, Inc., *Douglas Municipal Airport New Terminal Complex: Preliminary Physical Environmental Impact Assessment Report*, (Cambridge, Mass.: Bolt, Beranek, and Newman, Inc., 1978). Ed Hauser and Nicholas J. Schwartz, University of North Carolina at Charlotte, Center for Transportation Policy Studies, *Economic Impact Assessment of Charlotte Douglas International Airport*. (Charlotte, N.C.: The Center for Transportation Policy Studies, University of North Carolina at Charlotte, 2005).
North Carolina and Division of Aviation. *North Carolina Airport System Plan: Hub Impact and Reliever Analysis for CLT and RDU Metropolitan Areas*, (Raleigh, N.C.: The Division, 1989).
Odell Associates Inc., *Douglas Municipal Airport New Terminal Facility, Charlotte, North Carolina*, (Charlotte, N.C.: The Associates, 1978).

key capital investment plans, safety evaluations, and numerous other details relating to the internal and external operations of the airport.[45]

[45] "A Master Plan Program for the Long-Term Development of Douglas Municipal Airport of Charlotte, North Carolina: Planning and Development of Charlotte, N.C." http://digitalcollections.uncc.edu/cdm/compoundobject/collection/p16033coll21/id/2993/rec/1 (accessed October 6, 2014).
Howard, Needles, Tammen & Bergendoff, Miller, Miller & Hanson Inc. Harris and Ken Koontz & Associates. *Charlotte/Douglas International Airport Master Plan Update*. (Charlotte, N.C.: Howard, Needles, Tammen & Bergendoff, 1985). Arnold W. Thompson (Firm), *Fixed Base Operations Report: Douglas Municipal Airport, Charlotte, North Carolina*, (Hawthorne, N.Y.: The Firm, 1979). R. C Birmingham and J. B Fennell, *Five Year Airport Expansion and Financial Program*, (Charlotte, N.C.: City of Charlotte, 1979).

CHAPTER 2 FROM COUNTRY FIELD TO METROPOLITAN AIRPORT: THE COMING OF THE JET AGE AT CHARLOTTE DOUGLAS

Charlotte, North Carolina had a queen. On the morning of February 1, 1962, Queen Kenny McCarver, Miss Charlotte of 1962, greeted Eastern Airlines flight 516. After all, the first commercial jet to arrive in Charlotte with regular passenger service deserved the royal treatment. Charlotte's queen advanced and broke a bottle of champagne over the nose of the aircraft, christening it "The City of Charlotte."[46] Considering the W.P.A. project responsible for the construction of Charlotte Douglas was only 25 years old, this was monumental. What was a gravel runway was now an engineering marvel, smooth flat concrete capable of supporting commercial jets. The occasion also symbolized the beginning of a jet service monopoly for Charlotte throughout Virginia and the Carolinas.[47]

Charlotte and its airport had entered the Jet Age. This chapter explores the development of Charlotte Douglas from its inception in 1935, to the introduction of the first commercial jets in 1962. The most critical elements of this development were the

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[46] Emery Wister, "Jet Age Arrives 5 Minutes Early," *Charlotte News,* February 1, 1962.
[47] Dick Rigby, "Quinn Resigns From Airport Manager's Job," *Charlotte News,* January 30, 1962. Harry Snook, "Red Carpet…Brass Band…Whoosh—Jet Age Is Here," *Charlotte Observer,* February 2, 1962.

establishment of the airport, its transition to an army airfield during World War II, and the building projects of the 1950's.

Charlotte Douglas did not follow the model of the earliest airports in the United States, which typically had roots in the 1920's or earlier. Nevertheless, Charlotte did benefit from federal funding that was characteristic late in this period. The approximately one thousand airports in the United States prior to 1918 had virtually no federal funding.[48] However, with the introduction of airmail service in 1918, the United States government began taking a more active role in airport development. The formative years for early airports, 1918-1930's, were characterized by an increasing public interest in aviation and the introduction of government spending and regulation, initially through airmail, but eventually encompassing legislative measures such as the 1926 Air Commerce Act signed by President Calvin Coolidge. This act placed the federal government firmly in a regulatory role over the aviation sector. Federal oversight of aviation began encompassing pilots, planes, and airfields.[49] However, the Air Commerce Act prohibited the use of federal money for building or maintaining airports. As a result, airports remained the domain of private developers. Yet, with the onset of the Great Depression and the implementation of the Works Progress Administration (later the

[48] Bednarek, *America's Airports*, 48.
[49] Bednarek, *America's Airports*, 116.

Works Projects Administration) and the Federal Emergency Relief Administration, federal expenditures earmarked for airport projects amounted to $11.5 million by 1935.[50]

In the early 1930's aviation displayed promising growth. Congress and President Calvin Coolidge left a positive legacy for aviation when they passed the Kelly Act on February 2, 1925. Coolidge signed the bill over a year later on May 20, 1926. The Kelly Act empowered the Postmaster General of the United States to use domestic commercial air carriers to transport the mail. This was a crucial infusion of federal funding as it was permanent and went directly to commercial airlines.[51] As a result, commercial aviation expanded service as it began to subsidize costs using government airmail contracts.

Nevertheless, Charlotte was still developing its aviation industry. Commercial aviation was still new, but at least one man in the city was determined to take advantage of it. In 1935, Charlotte Mayor Ben E. Douglas applied for and received a W.P.A. grant to build an airfield for Charlotte.[52] The seeds he planted at the Juneau site, the future site of Charlotte's airport, would eventually bear fruit and become one of the busiest airports in the country. Today Charlotte's airport continues to provide millions in revenue for the city annually. Eventually, Charlotte's airport would become Charlotte Douglas, in honor of its visionary mayor. However, initially Charlotte Douglas was not without competition.

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[50] Bednarek, *America's Airports*, 123.
[51] Federal Aviation Administration, "FAA Historical Chronology, 1926-1996," https://www.faa.gov/about/media/b-chron.pdf (accessed December 8, 2014).
[52] Walter Turner, "History of the Charlotte Douglas Airport," 2.

In fact, Charlotte Douglas was not the first airport to service Charlotte. Its predecessor, Charlotte Airport, which was later renamed Cannon Airport, had limited service, on weekends only, though it did boast an airmail stop and hosted airshow exhibitions. Despite some fanfare over this part-time airport, Mayor Douglas, an aviation enthusiast, recognized transportation as one of the keys for growth and the inevitable limitations of Cannon Airport based on the topography surrounding it. Charlotte needed a full time airport capable of growth. On September 3, 1935, Douglas and the Charlotte City Council filed an application with the Works Progress Administration. On October 22, 1935, Charlotte voters in support of the Mayor's initiative approved a $50,000 bond by 4,583 to 120 votes. Without voter approval, there would not have been a Charlotte Douglas. This was the first of many bond votes involving Charlotte Douglas and each would have a dramatic impact on the course of events for the airport and the city. W.P.A. approval came shortly thereafter on November 13, 1935. [54]

2.1 Airport Funding:

The critical nature of the first airport bond referendum in 1935 was not immediately apparent. However, bonds would play a critical role in airport development for the next 50 years as the primary fiscal driver of airport development. As a result, it is important to understand how bonds work. Airport bonds use airport revenues to back bonds issued by the city. This is an important distinction since the cost to taxpayers is

[54] Walter Turner, "History of the Charlotte Douglas Airport," 2.

zero, assuming the airport does not default (an eventuality that could only occur if the airport was losing money). An airport revenue bond is tax-exempt. Typically, when a municipality wants to expand its facilities or pay for upgrades it bonds provide the necessary capital, very much like a mortgage loan. Therefore, Charlotte Douglas was reliant upon the voters to approve bonds each time there was a need for costly, but significant improvements. Municipal Bond passage would greatly influence the rate of airport growth, modernization, and the coming of large, jet age, commercial aircraft until the late 1970's.

The Great Depression brought turbulence to Charlotte and the nation. However, it also brought increased federal funding. W.P.A. monies were utilized to build multiple airports nationally in the 1930s with Charlotte being one of those new facilities. The W.P.A. built or improved 943 airports/airfields, establishing 585 as new airports between 1935 and 1943.[55] Originally, the W.P.A. allocated $200,000 for the new airport in Charlotte, but the federal government's share of the project grew to $323,889.47 based on extensive grading, filling and leveling of the site. Combined with bond money raised by the city, which totaled $57,703.28, total construction costs amounted to $381,592.75. After the city secured the funds, construction began immediately in December 1935. This project was a boon for Charlotte in the midst of the Great Depression. When construction started hundreds of unemployed men applied for work on the project. A large portion of

[55] Federal Works Agency, "Final Report on the WPA Program, 1935-1943," (Washington, DC: U.S. Government Printing Office, 1946), 134-36. Nick Taylor, *American-Made: The Enduring Legacy of the WPA, When FDR put the Nation to Work*, (New York: Bantam Books, 2009), 523-24.

the money for the project, $143,334.96, went directly to the workers on site. Even before it was completed, Charlotte Douglas was contributing to the vitality of the city.[56]

The W.P.A funds, besides providing jobs, accounted for an administration/terminal building, a hanger, a beacon tower, and three runways, two 3000-foot and one 2,500-foot long, each 150 feet wide. Additionally, the U.S. Department of Commerce added a "Visual-type Airway Radio-beam" to facilitate blind flying and landing.[57]

Eastern Airlines flew the first plane into Charlotte Municipal airport on May 17, 1937, just prior to the official cessation of construction. The first passenger to arrive was John L. Wilkinson, a member of the Charlotte City Council, with a congratulatory letter from the Mayor of Atlanta.[5859] As one of the largest airlines in the country, Eastern would significantly contribute to the need for expansion at Charlotte Douglas. At its height, Eastern Airlines provided jobs for thousands and dominated the terminal space at the airport.

The massive influx of federal spending on aviation infrastructure was prudent and timely considering U.S. entry into World War II. The war was a watershed moment for aviation in general and Charlotte Douglas embodies this point in terms of aviation

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[56] Ryan Sumner, "Survey and Research Report on the W.P.A./Douglas Airport Hanger," *Charlotte Mecklenburg Historic Landmarks Commission*, http://www.cmhpf.org/S&Rs%20Alphabetical%20Order/Surveys&rwpahangar.htm, (accessed September 23, 2014).
[57] Ryan Sumner, "Survey and Research Report on the W.P.A./Douglas Airport Hanger."
[58] Ryan Sumner, "Survey and Research Report on the W.P.A./Douglas Airport Hanger."
[59] "First Flight Celebrated at Local Airport," *Charlotte Observer*, May 18, 1937.

infrastructure. Charlotte's small airport transformed from a municipal airfield to army air base. As a result Charlotte benefitted from the $40 million in Congressional appropriation under DLAND (Development of Landing Areas for National Defense) to expand national airport infrastructure. Starting in the 1920's. Charlotte was one of nearly a thousand airports to receive direct aid from the U.S. Army Air Corps by 1941. Additionally, the Civil Aeronautics Administration funded the construction, repair, and expansion of airports contributing $363 million.[60]

During World War II, Charlotte Douglas became Morris Field Army Airbase on January 22, 1942, in honor of the late Major William Colb Morris. Morris, a Harrisburg, North Carolina native, was a World War I veteran flier and instructor.[61] In the spring of 1941, two thousand soldiers were stationed at Morris Field, training pilots and maintenance crews for fighters. Between 1941 and 1945, "twenty-five plane crashes, involving the deaths of thirty-two men, took place at Morris Field."[62] After World War II, five hundred airports reverted to their city, county, or state sponsors and Charlotte Douglas was among them.[63] The War Assets Administration signed the more than "$5 million in airfield improvements over to the City [of Charlotte] for $17,500."[64]

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[60] Janet R. Daly Bednarek, *America's Airports*, 117.
[61] Charlotte-Mecklenburg Library, "The Home Front: Morris Field, The Charlotte-Mecklenburg Story," http://www.cmstory.org/content/home-front-morris-field (accessed April 8, 2015).
[62] Walter Turner, "History of the Charlotte Douglas Airport," 5.
[63] The Trinity Pilots Association, "The History of Government Airport Funding," http://www.tcpilots.org/fund_history.html, (accessed September 29, 2014).
[64] Josh Birmingham, "Brief History of Douglas Municipal Airport" (speech, Charlotte, NC 1976), *Carolinas Aviation Museum Library Archive*, (This speech can be found in the Charlotte Douglas History section. The exact date and location of the speech is not known).

Despite the huge government investment in Charlotte Douglas, airport growth during the war years was not exclusively a function of military operations. Atlanta's burgeoning airport remained a civilian operation and doubled in size during World War II. In 1942, Atlanta set a record with more than 1,700 landings in a single day. The same year it was the nation's busiest airport for flight operations. Despite that, federal, state and local development investment totaled only $2.3 million during the war.[65] Already congestion and overcrowding were becoming a serious concern. By the early 1950's Atlanta was ready to build a new terminal with a sizable price tag. Like Charlotte, Atlanta's city leaders and airport administration sought a new terminal in the years following World War II. Like Charlotte, Atlanta's hopes for a new terminal were dashed by funding issues. This particular chapter in the history of Atlanta's airport reflects the tremendous advantage found in long term facility planning. Atlanta's new terminal, first proposed in 1952, had a projected cost of $3 million. Delay and the consequent stopgap measures implemented increased the cost significantly. By the time the terminal was completed in 1961, the cost was an astronomical $18 million.[66] Conversely, Charlotte's second terminal completed in 1954 was only $2 million.

Although Charlotte Douglas would not reach Atlanta's proportions for decades, Army control of Charlotte Douglas would lead to the first major conflict over the airport and its role in Charlotte. In 1941, private citizens that used the airport opposed Army

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[65] Betsy Braden and Paul Hagan, *A Dream Takes Flight*, 109-112.
[66] Betsy Braden and Paul Hagan, *A Dream Takes Flight*, 127-131.

control of the airfield, which prevented them from using private planes. The proposed solution was a $300,000 W.P.A. grant to build a new airport assuming the city could raise the money to buy the land for the new facility. In a close vote, the $60,000 bond measure failed, presumably because the majority of Charlotteans did not see the need for another airport. This was the first failure to pass a bond measure related to the airport, but not the last. Consequently, "Mayor Douglas, surprised by the defeat, withdrew from his re-election campaign for mayor a few weeks before the official dedication of the airport. In a ceremony April 21…the airport's name was changed from Charlotte Municipal Airport to Douglas Municipal Airport," (designation as Morris Field would not come until early 1942).[67]

Although the bond measure failed and Mayor Douglas withdrew, the question of private citizens operating out of Morris Field was still a contentious issue. The U.S. Army Air Corps agreed that if the city provided the land it would fund upgrades that would expand the facilities for the operation of private planes. Unfortunately, the city did not have the capital to invest in more land. Mayor E. McA. Currie, Douglas's successor, suggested a public private partnership. Under his direction the City of Charlotte, backed by the Charlotte Chamber of Commerce and prominent businessmen, secured 100 acres

[67] Walter Turner, "History of the Charlotte Douglas Airport," 4.

for U.S. Army expansion and improvement. Although limited, some civilian operations would continue through the war.[68]

Nevertheless, World War II was a boon for commercial airlines. Throughout the United States, federal spending bolstered air infrastructure and aircraft development and the story of Morris Field is testament to that fact. Due to military service, many Americans also had a chance to become familiar with pilots and their equipment and this familiarity helped the growth of the civilian air sector. Additionally, the surplus of qualified aircrews provided a strong labor base for commercial air operations.[69]

2.2 Charlotte's Post-War Airport, 1946-1956:

When the city completed the airport in 1937, the N.C. General Assembly created the Charlotte Airport Authority to manage Charlotte Municipal. After the City of Charlotte recovered the airport from the Army Air Corps in 1946, the Charlotte City Council formed an Airport Advisory Committee. The members of the old Airport Authority became the new Airport Advisory Committee, which was chaired by the newly appointed airport manager, David M. Rea. Throughout his tenure as manager from 1946 to 1956, Rea was the primary person responsible for airport policy. Beginning with Rea's tenure, airport managers were the most critical element in maintaining airport facilities and determining what improvements were necessary to continue to meet the needs of the

[68] Dew, *The Queen City at War*, 58.
[69] Richard E. Eller, *Piedmont Airlines,* 54.

airport and its patrons. However, without the money obtained through the sale of airport bonds, the airport manager's options were limited.

The bond referendum of April 23, 1946, was a testament to the primacy of airport bonds in the efficacy of airport operations. Charlotteans faced a $12.247 million bond referendum for a number of civic projects; $200,000 was earmarked for the airport.[70] The intention was to build a new passenger terminal and various other airport upgrades. The bond measure relating to Charlotte Douglas was defeated at a critical point in airport development. The main reason for the defeat was a lack of popularity among the public for commercial air travel. In reality, this translated to apathy for the project. In 1946, commercial air travel was still a novelty and Charlotteans rejection of the bond measure reflected a lack of interest rather than opposition. In fact, only a few score people showed up to vote against the bond measure. However, of the 3,103 people registered to vote, only 1,354 Charlotteans showed up to the polls. Registrants that failed to show up automatically voted against the measure. Despite that the referendum only failed by 198 votes.[71] Lack of voter interest did not change the fact that Charlotte Douglas required money to build facilities to keep pace with airline and passenger demands for space. Following the defeat of the 1946 bond measure, a lack of capital hampered development, including critical improvements to the runway and terminal, until the early 1950's. In the interim, the airport was compelled to utilize the wooden National Guard buildings to

[70] "Last Appeals Are Made To Voters In Bond Election," *Charlotte Observer*, April 22, 1946.
[71] Dew, *The Queen City at War*, 28.

supplement the original terminal. However, by 1952, the airport had saved enough revenue, $600,000, to begin construction on the new terminal. J.A. Jones Construction Company, one of the largest in Charlotte, projected a cost of $1 million to build the new terminal and extend the main runway to 8,000 feet, a necessity for National Guard jets to operate at Charlotte Douglas.[72]

This project experienced opposition as well, but the dissent in this instance was new. Whereas in the public perception the cost outweighed the need in the 1946 measure, by the early 1950's, jet noise from military aircraft was becoming a critical issue for Charlotteans living around the airport. For the first time, high decibel levels produced by modern aircraft were affecting the quality of life for local residents. Supported by the Mecklenburg Board of Commissioners, some residents in close proximity to the airport forced the City of Charlotte to seek redress from the courts to finish the runway project of the early 1950's.[73]

This was the case all over the country, not just at Charlotte Douglas. Atlanta's airport is an excellent point of comparison. Like Charlotte, it was in the southeastern United States, was the only major airport to serve the city due to topographical limitations, and experienced above average growth compared to the national average. Atlanta's airport originated earlier than Charlotte's, but they followed similar developmental arcs. In 1925, Atlanta Mayor Walter A. Sims signed a five-year lease on

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[72] Walter Turner, "History of the Charlotte Douglas Airport," 10.
[73] Walter Turner, "History of the Charlotte Douglas Airport," 10-11.

an abandoned auto racetrack and committed the City to developing it into an airfield. During World War II, it became an Army Airfield. As the airport became busier, more than one million people came through the terminal in 1948 and a historic count of 360,082 takeoffs and landings were recorded. During the same year, plans were also developed to build a more accommodating passenger terminal facility. To satisfy increased travel demands airport operations were moved temporarily into a war-surplus hangar.[74]

The main difference between Atlanta and Charlotte up to that point was the earlier origins of Atlanta's airport and the passenger terminal developed there in 1948. City leaders pushed through expansion in Atlanta, while Charlotte's bid for a new terminal was defeated in 1946. By the 1950's Atlanta had become a hub for Delta and by 1957 had become the busiest airport in the world, accommodating 2 million passengers. We can only speculate what would have happened had Charlotte approved bonds for a new terminal in the 1940's. Regardless, the success of Atlanta's airport was apparent to the airport boosters in Charlotte, most notably the mayor's office and the Chamber of Commerce.

The new terminal in Charlotte eventually opened in 1954 at a total construction cost of $2 million. At 70,000 square feet, the terminal housed offices for the U.S.

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[74] Betsy Braden and Paul Hagan, *A Dream Takes Flight*, 27-59.

Weather Bureau, the federal Civil Aeronautics Administration, as well as an observation deck, a coffee shop, and a restaurant in the Dogwood Room on the second level.[75]

The period immediately following World War II was significant in other ways for Charlotte Douglas. Between 1946 and the completion of the new terminal in 1954, the Civil Aeronautics Board (CAB), the governing body of the Civil Aeronautics Administration, made important decisions concerning passenger air service in Charlotte. The CAB determined what airlines would receive rights to fly passenger service between destinations, regulating the routes, prices, and safety of commercial airlines. Heavy regulation by the CAB, an arm of the U.S. Department of Commerce, was responsible for air service routes and carriers to all destinations. Based on growth and an upward trending aviation market, several carriers applied to the CAB to expand their commercial service.

Only two airlines were approved to fly additional commercial air service. This was unfortunate for the carriers applying to the CAB and for the City of Charlotte. More routes meant more fees and more airport revenue. However, Southern Airways, based in Atlanta, and Piedmont Airlines, based in Winston-Salem, were the only two carriers approved by the CAB. Although both had inauspicious beginnings based on heavy,

[75] Walter Turner, "History of the Charlotte Douglas Airport," 11.

federal, regulatory controls by the CAB, Piedmont would come to dominate the Charlotte market along with its big four rival, Eastern.[76]

2.3 Prelude To The Jet Age, 1956-1962:

Al Quinn was the progenitor of the Jet Age in Charlotte. Quinn was formerly the chief engineer with the Civil Aeronautics Administration at the Atlanta Airport, a job he held for twelve years, 1944-1956. He set the stage at Charlotte Douglas for the arrival of commercial jets by overseeing the necessary improvements and finances for Charlotte to accommodate jetliners. As Quinn assumed his duties as airport manager in March 1956, Charlotte Douglas had never been busier.[77] By January, 1957, "fifteen planes an hour, 360 per day, 10,000 a month arrive or depart at the field, which on a basis of departing passengers [was] now one of the top airfields in the nation."[78] Not only were passenger totals up, but flight traffic was increasingly busy as well. The number of takeoffs and landings were up 23-33 percent per month from the previous year.[79] *The Charlotte News* highlighted some of the concerns voiced by pilots and the airport's administration, citing the above statistics to illustrate the inadequacies of the airport's infrastructure. National air traffic increased by 12 percent, while in Charlotte, it increased 17 percent. As a result,

[76] By the 1930s, the Big Four—Eastern Air Lines, United Air Lines, American Airlines, and Trans World Airlines (TWA)—dominated commercial air transport. These companies had garnered exclusive rights from the federal government to fly domestic airmail routes. The hold of these four airlines on their lucrative contracts went virtually unchallenged until deregulation in 1978. Even after the formation of the Civil Aeronautics Board (CAB) in 1938, formed to license new airlines, grant new routes, approve mergers, and investigate accidents, the Big Four continued to be guaranteed permanent rights to these routes. In fact, no new major scheduled airline was licensed for the next four decades.
[77] Dwayne Walls, "Manager Quinn Quits At Airport," *The Charlotte Observer*, January 31, 1962.
[78] "Booming Airplane Traffic Crowds Sky Over Charlotte," *The Charlotte News*, March 16, 1957.
[79] Ibid.

the future of the airport became a central question for the city, the airport administration, and the residents of Charlotte. Specifically, at issue was the need for new facilities. Two competing arguments arose. Should the city build a new airport to alleviate the congestion at Charlotte Douglas or should it continue to expand the overcrowded airport?

Expansion was already well underway after the opening of the new terminal in 1954. Much of the activity at Charlotte Douglas involved preparing airport facilities to accommodate the arrival of commercial jet airliners. As commercial aviation continued to expand, airlines began to shift to bigger, faster jet aircraft such as the 747, DC-10, and L-1011, wide-body aircraft prevalent in commercial aviation during the 1970's and 1980's. However, these aircraft required longer, stronger runways. In 1957, a "1,600 foot stretch of runway was completely rebuilt," according to the *Charlotte News*.[80] The airport also cleared land at the end of runways as a safety buffer.[81] Runway and taxiway lights were installed and upgraded.[82] Another safety concern was airport emergencies. A crash on the runway in the early 1950's, exposed a lack of emergency response at the airport, which at this point in Charlotte's development was still somewhat remote and therefore removed from adequate emergency services. Airport and city officials approved a plan for onsite fire and rescue, including military training and equipment for airport fire crews.[83]

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[80] "Main Runway Repairs Near End At Airport," *The Charlotte News*, May 29, 1957.
[81] "Airport Authorities Seek City Funds," *The Charlotte Observer*, April 3, 1957.
[82] "New Lights Flash Welcome to Municipal Airport," *The Charlotte News*, Dec. 9, 1958.
[83] "Chamber To Back Any Airport Plan," *The Charlotte News*, June 25, 1957.

Unfortunately, limited runway projects were inadequate to handle the needs of the airport. To accommodate commercial jet traffic as well as the upsurge in air traffic in general, Charlotte Douglas needed an additional runway. The implementation of such an elaborate and expansive improvement would require careful planning. The first reported consideration of a new parallel runway occurred in early 1958. *The Charlotte News* pointed out the cost associated with delaying the project due to "runways and taxiways jammed to capacity."[84] The faster the project was completed the more airport administrators could reduce both the cost and the overcrowding associated with improvement projects. The next day, February 5, 1958, a story ran in *The Charlotte Observer*, "Money Is Urged For 2nd Runway." In it, Airport Manager Quinn outlined parts of an upcoming master plan that called for an 8,000-foot parallel runway and a new terminal.[85] However, by the end of 1958, expansion at Charlotte Douglas was uncertain. The Chairman of the Aviation Committee of the Charlotte Chamber of Commerce, McAlister Carson Jr., recommended the establishment of a second airport. Carson described the need for a second airport as being of "vital importance."[86] Meanwhile, Airport Manager Quinn clearly favored the expansion project.

The debate over expanding Charlotte Douglas or building a new airport only lasted as long as it took to estimate the cost of a new airport. The projected expansion cost of $3 million was tame when compared to the projected $5.5 million for a new

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[84] "Report Bares Pinch Of Air Traffic Here," *The Charlotte News*, February 4, 1958.
[85] "Money Is Urged For 2nd Runway," *The Charlotte Observer*, February 5, 1958.
[86] "Second Airport Called Vital," *The Charlotte Observer*, December 11, 1958.

airport. Moreover, no one was certain where a new airport could be located and what it would mean for Charlotte Douglas. The topography in the Charlotte area did not lend itself to airport construction, with rolling hills and other natural impediments. Simultaneously, the newly created Federal Aviation Administration (FAA) was initiating a project to expand the operation of commercial jets. FAA recommendations to install runways capable of handling large commercial jets mentioned ten U.S. airports. Charlotte Douglas was included in this list based on high flight traffic and above average growth. According to *The Charlotte Observer*, the project would require the city to come up with $790,000 by 1962. All of this combined with the FAA's push to upgrade Charlotte Douglas meant that any plan for a new airport never progressed beyond the conceptual stage. Although the debate continued in one form or another until the Buckley Report in 1961, a crucial event which will be detailed later.[87]

With expansion a near certainty, Quinn and the city began acquiring land to accommodate the expansion project. Initially, they ran into trouble because the land required for the project was too expensive. Quinn requested that the city condemn the land required for the project at a cost of $45,000 for the 90 acres in question, which would reduce the total cost of the acquisition.[88] Although the city was unable to negotiate that price, by May, the revised cost for acquiring the acreage needed was a manageable

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[87] Stanford R. Brookshire, 1960, *Stanford R. Brookshire Papers*, University of North Carolina Charlotte Atkins Library Special Collections, Box 1, Folder 1.1. In 1961, a plan was proposed to create a private airport for small planes through the Charlotte Chamber of Commerce.

[88] "City Gets Runway Problem," *The Charlotte Observer*, March 14, 1959. "Council Aid Asked In Runway Project," *Charlotte News*, March 14, 1959.

$80,000. This was just part of the $3 million project of which the city would pay half. Federal funds would account for the other half. However, *The Charlotte Observer* article that reported on this development pointed out how profitable the airport had been up to that point. Charlotte Douglas's income "generally exceeds by several thousand dollars the money appropriated to it by the city council."[89]

This appropriation of land and the mounting noise was the inception of trouble to come and was encompassed by a paradigm put forth by Altschuler. "The three basic sources or citizen protest concerning airport development is expropriation, environmental protection, and participation itself. Expropriation is the most important; the trigger to all other protest…active opposition to airport development always began with the compulsory purchase of private property."[90] Charlotte was no exception. This opposition, while present at an early stage, would not threaten development at the airport in any substantial way for years to come.

As Charlotte Douglas continued to struggle with funding for infrastructure upgrades, the issue of airport noise, another basic source of protest, returned to the forefront. On June 11, 1959, *The Charlotte Observer* ran a story entitled, "Jets And Church Not Incompatible." To date Charlotte Douglas was incapable of handling commercial jets. However, the National Guard had jet aircraft and early that Sunday morning one such aircraft flew over a local church service, disturbing the parishioners'

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[89] "Airport Budget May Soar Nearly $1 Million," *The Charlotte Observer*, May 6, 1959.
[90] Alan Altschuler, *Current Issues in Transportation Policy*, 23.

worship. A letter from the church to the base commander brought assurances that the incident would not happen again, but the day was quickly approaching when jet noise became a concern for the entire community surrounding the airport.[91]

The noise issue had already been a concern prior to the introduction of jets, but by November 1959, the City Council had endorsed the planned upgrades for Charlotte Douglas.[92] The impending arrival of commercial jets only increased airport administration's concerns about airport noise. Based on mounting complaints by Charlotteans, especially those in close proximity to the airport, and the expanding body of FAA regulations, their concerns were warranted. Charlotte had a modified version of the FAA "silencer" regulation whereby commercial planes maintained specific altitudes to reduce noise on the ground. This FAA standard established an "air traffic zone" in which planes maintained an altitude of 2,000 feet within 5 miles of the airport prior to landing. Charlotte's rule was similar, but only called for an altitude of 1,500 feet. Quinn commented on airport noise in *The Charlotte Observer* stating that, "most of our complaints [are] in the summer when windows are open and folks are outdoors." Even more telling are his comments concerning the Steele Creek area. "The people in Steele Creek (southwest of the main runway) have just about given up," Quinn said. "They used

[91] "Jets and Church Not Incompatible," *The Charlotte Observer*, June 11, 1959.
[92] "City Council Endorses Jet Airport Program," *The Charlotte Observer*, November 17 1959.

to gripe a lot….of course we don't have jet airliners coming in here now."[93] Clearly, Quinn was anticipating some push back based on future jet noise.

Cost was also becoming a concern for airport administrators. In an effort to reduce local costs, Charlotte applied for FAA funds for the 1960-61 fiscal year. However, the $1,079,361 request was denied.[94] As a result, plans for the runway expansion and airport upgrades were postponed one year. Although the spotlight was on the runway project, the postponement of runway and taxiway lighting upgrades effected the day-to-day operations of the airport significantly. The interim solution utilized "about 25 directional signs at all taxiway intersections" and large "cans lined with blue reflector tape."[95] Without adequate funds, lighting upgrades were at least two years away.

As costs mounted, airport revenue came to the forefront. Airport administrators and city officials began reviewing airport assets to determine if they were being put to their best use. *The Charlotte News* and *The Charlotte Observer* followed the assessments; a dozen stories about airport revenue were printed in the first half of 1960. After calculating the total income generated by leasing space in the airport, rates were raised to increase revenue. Al Quinn commissioned a number of studies to determine best practices for management and pricing for leased space.[96]

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[93] "Airport Combats Noise," *The Charlotte Observer*, November 23, 1959.
[94] "Charlotte Faces Jet Age With Propeller Age Facilities," *The Charlotte Observer*, March 6, 1960.
[95] "Signs Ease Airport Lighting 'Disgrace,'" *The Charlotte News*, January 28, 1960. "Airport Studies 'Blackout' Solution," *The Charlotte News*, February 5, 1960.
[96] "City Eyes Land At Airport As Added Revenue Source," *The Charlotte News*, May 27, 1960.

2.4 The Buckley Report:

In 1960, the city commissioned James C. Buckley to conduct a survey on the future needs of Charlotte Douglas. Buckley was the head of a transportation-consulting firm in New York, New York. Buckley used airport projections of five, ten, fifteen, and twenty-five years to determine the future needs of the airport.[97] According to his report, "Charlotte will be served best by medium-sized jets." The immediate need, therefore, was an extension of the main runway to facilitate commercial jets like the DC-8 and the Boeing 707. However, Buckley dismissed the need for a second parallel runway, explaining that extending the current runway and adding "high speed turnoffs" would "speed up the handling of airline traffic."[98] Besides suggesting the postponement of a second parallel runway and adding high-speed turnoffs, Buckley and his firm made several other recommendations. Physical improvements such as expanded terminals and additions to the plane and car parking areas as well as fiscal improvements such as proposed revenue bonds and an increase in "one-dollar-a-year" leases to generate more capital for physical infrastructure[99].

Up until this point, leases for government agencies had been one dollar a year for airport property such as the Air National Guard's hanger space. Additionally, based on a

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[97] James C. Buckley, Inc., "A master plan program for the long-term development of Douglas Municipal Airport of Charlotte, North Carolina," (New York: J.C. Buckley, 1961). "Buy Airport Land Now – Consultant," *The Charlotte Observer*, October 7, 1961.
[98] "Runway Space May Be Ample," *The Charlotte Observer*, October 7, 1961.
[99] Dollar a year leases was literal in its terminology. Generally, a feature of public land use, government agencies were permitted to operate, in this case at the airport, for $1/year. This practice was fairly common during this period.

cost analysis, Buckley's recommendation ended any serious consideration given to building an alternate airport. Although the Buckley Report rejected the idea of a second runway in 1961, the future need for a runway was recognized. As a result, Buckley recommended purchasing the land needed for the runway as part of the proposed upgrades at a cost of $1 million for the 600 acres needed. The total cost for the upgrades recommended by the Buckley report was $7,331,882 through 1970.[100] According to the Buckley Report, the local price tag and the bond vote to fulfill it would amount to $4 million.[101]

The Buckley Report represented an important milestone for the airport. It was the first comprehensive analysis outlining the needs of the airport not just in the short term, but in the long term as well. Calculations projecting passenger and flight traffic through 1986 supported a progressive, multi-stage master plan detailing airport upgrades over time. The Buckley Master Plan would determine the development of the airport well into the 1970's, even after supplements were commissioned. Further, it demonstrated the foresight of city leaders and their commitment to Charlotte's growth and regional success.

The communities surrounding the airport had never been fond of airport noise, but the Buckley report changed the tone of their concerns from annoyance to genuine alarm.

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[100] James C. Buckley, Inc., "A master plan program for the long-term development of Douglas Municipal Airport of Charlotte, North Carolina."
[101] Dick Rigby, "$4million Airport Bond Plan May Go To Voters," *The Charlotte News,* September 6, 1961.

Even though the second runway had been postponed, Buckley's plan called for acquiring the land as part of the cost of pending upgrades, partially using local bonds.

Originally, the proposed site of the second runway was southwest of the main runway. This location threatened the Steele Creek community, specifically the two-hundred-year-old Steele Creek Presbyterian Church. On December 14, 1961, more than two-hundred local residents convened to air their grievances before the Airport Advisory Committee. The Charlotte Observer reported, that the most "eloquent appeal came from Price H. Gwynn III." Instead of attacking the report, Gwynn praised it as "a competent professional study," but reminded the committee that what "appeared most logical to their trained minds…[or] impartial observer(s)….would cut out the heart of the Steele Creek community."[102] Speaking on behalf of the "mothers of the community," Mrs. Robert O. Byrum said that, "the new runway would destroy the traditions of the community." J. C. Irvin, the chair of the Airport Advisory Committee reminded the residents that no recommendation had been made to the city yet. With no recourse, but to wait, the residents of Steele Creek would have to be patient as the fate of the airport and their community was determined.

2.5 Charlotte in the Jet Age:

By January 1962, Airport Manager Al Quinn was ready to call it quits. He had been involved in a dispute with the city concerning his salary for over a year. When he

[102] Joe Doster, "'Save Steele Creek,' Airport Unit Is Told," *The Charlotte Observer*, December 15, 1961.

started in 1956, his annual salary was $7,500, but by the beginning of 1961, it was still just over $9,100. Whereas the average American family had an income of $6,000 in 1962 according to the census bureau.[103] Quinn, who was running one of the largest airports in the country with an annual revenue of $500,000, had been lobbying the city for a salary increase, but to no avail. After evaluating several job offers, Quinn announced his decision to leave.

Quinn's departure was inopportune. *The Charlotte Observer* reported that since Quinn arrived in Charlotte the airport had "undergone its greatest period of growth and has been put on a profit-making basis."[104] The same week he announced his resignation, Eastern Airlines began regular jet service to New York, NY.[105] Furthermore, The Buckley Report, still less than a year old, was still in the early stages of implementation. Charlotte Douglas hoped to entice the big airlines into establishing jet service with the prospect of a longer runway or a parallel runway, which would draw more passengers and the revenues they entailed. Although the planned improvements were crucial for expanding jet service, they were not necessary for Charlotte Douglas to handle small and medium sized jets. Yet, runway length was just one aspect of receiving jet service at Charlotte Douglas in 1961. The relationship with the city and its business leaders was also a crucial element. Just two months before announcing his resignation, Quinn

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[103] "Current Population Report," Series P-60, No. 40, Washington D.C., June 26, 1963.
[104] Dwayne Walls, "Manager Quinn Quits At Airport," *The Charlotte Observer*, January 31, 1962.
[105] Dick Rigby, "Quinn Resigns From Airport Manager's Job," *The Charlotte News*, January 30, 1962. Harry Snook, "Red Carpet…Brass Band…Whoosh—Jet Age Is Here," *The Charlotte Observer*, February 2, 1962.

explained that "airlines know whether a city and its business leaders are behind them or not. Airport managers can plead for better service, but if the airlines think the city isn't behind them, you don't get much."[106] It is likely that Quinn's departure, although touted as a salary dispute, also was likely due to the stressed relationship with key figures in Charlotte. Despite any discord between Quinn and the city, and the one year standoff over his salary dispute, Quinn denied any "friction" between him and city management when questioned by the Observer.[107] However, based on the numerous upgrades needed at the airport to keep up with passenger demand, Quinn had clear reasons for leaving. Without a competitive salary and the resources to help the airport manage the influx of people and equipment Quinn may have felt unappreciated.

The 1960's marked an increased interest by the Charlotte Chamber of Commerce concerning Charlotte Douglas. Catering to the business interests in the city, the chamber touted the imminent arrival of commercial jets. The Charlotte Chamber of Commerce launched a campaign depicting Charlotte as the center of a transportation network reaching from New York City to New Orleans and Chicago to Miami. The chamber was also unabashedly competing with Atlanta. *The Charlotte Observer* said simply "like other southern cities, Charlotte has embraced the dream of becoming another Atlanta." The

[106] "Airlines Must OK Jets For Charlotte," *The Charlotte News*, December 9, 1961.
[107] Dwayne Walls, "Manager Quinn Quits At Airport," *The Charlotte Observer*, January 31, 1962.

Charlotte Chamber of Commerce would continue to use the airport as a draw for local investment for decades to come.[108]

Meanwhile, the City of Charlotte, the Charlotte Chamber of Commerce, and the Airport Advisory Committee were discussing the implementation of the Buckley Report. The first three months of 1962 saw several revisions of the $7.2 million project. Certain improvements had already begun. The installation of the long awaited taxiway lighting system and new radar facilities was underway early in the year and slated to be complete by the end of 1962.[109] However, these improvements paled in comparison to future developments. The main issue was the runway upgrades and the associated costs. After much deliberation, the City Council passed a $2.5 million expansion budget, significantly less than the $4 million recommended by the Buckley Report.[110] To finance this, the City initiated a referendum for $1.2 million in airport revenue bonds.[111] Charlotte Douglas and the FAA provided the rest of the money for the project. By the end of March 1962, airport improvement plans included extending the 7,500-foot main strip to 9,000 feet and the 5,200-foot secondary runway to 7,600 feet.[112]

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[108] Matthew D. Lassiter, *Charlotte, NC*, ed., 29-32.
[109] "The Airport Boom," *Charlotte News*, February 6, 1962. "Money Ready For Airport Lights," *The Charlotte News*, January 26, 1962.
[110] "Airport Advisors Offer To Halve Expansion Cost," *The Charlotte News*, March 1, 1962. "Airport Advisors Urge $2,490,000 Expansion," *The Charlotte News*, March 5, 1962. Dick Rigby, "Airport Job To Involve $1.2 million In Bonds," *The Charlotte News*, March 6, 1962. Victor McElheny, "City Oks $2.49 Million Airport Improvements," *The Charlotte Observer*, March 6, 1962.
[111] Airport revenue bonds are distinctly different from municipal bonds in that they do not rely on public tax, but airport revenue.
[112] Dick Rigby, "Airport Runway Plans Changed," *The Charlotte News*, March 20, 1962.

During this period, the City Council reached an agreement on the proposed second runway that threatened the Steele Creek area. On March 5, the council decided to forego purchasing the land for the proposed second runway. Steele Creek residents greeted this announcement with elation.[113] This news came in conjunction with a United States Supreme Court decision that was to have far-reaching consequences for all urban airports, including Charlotte Douglas. Thomas N. Griggs of Allegheny County, Pennsylvania, won a suit against the Greater Pittsburgh Airport for $12,690 in compensation based on aircraft noise. Griggs claimed that planes flew "over his house as low as 1,136 feet above the roof, shook plaster from the ceilings and walls, and made conversation in the house impossible. He said occupants were unable to sleep 'even with ear plugs and sleeping pills.'"[114] The long-term implications for Charlotte Douglas were immediately apparent, as the court ruled that local airports and not the federal government or airlines were responsible for the damages from noise.

During the city's deliberations over the planned expansion, jet service commenced in Charlotte as planned. Eastern Airlines flight 516 from Atlanta to New York City touched down in Charlotte at approximately 8:20 a.m. on February 1, 1962. The flight inaugurated Eastern jet service through Charlotte to Miami, Jacksonville, New Orleans, Pittsburgh, and New York, NY. The additional four flights a day brought Eastern's total daily flights to sixty-five at Charlotte Douglas. Additionally, Delta,

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[113] Victor McElheny, "Steele Creek Family 'Sighs,'" *The Charlotte Observer*, March 7, 1962.
[114] "Man Wins Case Against Noisy, Low-Flying Planes," *The Charlotte News*, March 5, 1962.

Southern, Piedmont, and United-Capital combined twenty-seven daily flights giving Charlotte Douglas a total of ninety-two flights per day.[115]

Eastern's expansion was not limited to expanded service. In addition to jet service, Eastern, "rapidly becoming one of the city's largest employers," installed a computer reservations center, employing hundreds of Charlotteans.[116] Eastern's reservation center was a crucial part of their operation, handling customer reservation and complaint calls and greatly contributing to the economy of the city and the region. Moreover, Eastern was not the only corporation interested in Charlotte based on the rapid growth of its air transportation infrastructure. A plethora of businesses, big and small, took advantage of Charlotte's growing significance as a metropolitan air center. Seventy-seven business and industrial acquisitions translated to "2,167 jobs, $8.2 million in payrolls, and an $11 million investment in the community."[117] This was a clear windfall for the city and, just as significantly, a trend that is still present today.

In late April 1962, the City Council hired forty-six-year-old Oregon native Thomas Raffety as airport manager. Raffety, the former manager in Long Beach, California, with the eighth largest airport in the nation at the time, took over in May with a salary of $13,380, significantly more than his predecessor, Al Quinn. Raffety had been named Airport Manager of the Year for 1961 by the California Association of Airport Executives and understood the challenges that awaited him in Charlotte, specifically, the

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[115] Harry Snook, "Jet Service Starts Today," *The Charlotte Observer*, February 1, 1962.
[116] "Jet Service Highlighted Branch Plans," *The Charlotte News*, February 6, 1962.
[117] Walter Turner, "History of the Charlotte Douglas Airport," 11-12.

importance of the coming vote on the bond issue for airport improvements.[118] Raffety already had experience with bonds, having given many speeches to support bonds for his former airport in Long Beach. When questioned about bonds in Charlotte, Raffety said, "there are no modest bond issues. They are always big. No matter what the amount."[119]

Raffety realized that the September 8 bond vote would determine his ability to effectively manage the airport. Without voter approval, the planned upgrades to Charlotte Douglas would be postponed indefinitely. The improvements would allow large commercial jets and transport planes to use both runways more efficiently. Moreover, bond money was earmarked by the airport to purchase adjacent land, decreasing the possibility of suit over noise or property damages.[120] If Charlotte voters failed to approve the bond money Charlotte Douglas might not recover from a lack of funds that would relegate it to facilities that were quickly becoming obsolete. The future of Charlotte Douglas and Raffety's tenure at the helm was characterized by the success of the bond initiatives of the 1960's and the upgrades they financed.

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[118] Bill Hughes, "Charlotte Names Airport Whiz To Run Douglas," *Charlotte News*, April 24, 1962.
[119] Victor k. McElheny, "He's Been Fighting Airport Problems Since '57," *Charlotte Observer*, April 26, 1962.
[120] "Airport Bond Needed Now, For Future," *The Charlotte News*, August 9, 1962.

CHAPTER 3: BONDS, NOISE, AND BUILDING THE NEW CHARLOTTE DOUGLAS

September 8, 1962, was a pivotal day in the history of Charlotte Douglas Airport, although you might not have known it if you were a passenger. The beginning of jet service in February of that year was only the first step in the expansion of Charlotte Douglas. Now, Charlotteans faced a vote on whether to issue bonds for city projects, including $1.5 million for improvements airport manager Thomas Rafferty had envisioned since his arrival in April. The money would fund airport improvements, most significant of which was a 2,600-foot north-south runway extension, allowing Charlotte Douglas to accommodate jetliners on both runways. The bond money, matched by an FAA grant, was part of a national program totaling $74.3 million, the largest federal-aid-to-airport allocation in history up to that point. Of this total, the FAA allocated just over $1 million for the development of Charlotte Douglas.[121]

This was characteristic of Charlotte Douglas in the 1960's and 70's. Continued federal investment and demand for air travel meant continued expansion at the airport. However, increasing opposition to these expansion projects by Charlotte residents

[121] Douglas Connah Jr., "U.S. Tenatively Oks $1-Million Airport Aid," *The Charlotte* Observer, August 1, 1962. Bill Hughes, "Airport's $1 Million Grant OKd," *The Charlotte News*, August 2, 1962.

resulted in significant delays in important developmental milestones for the airport, including the airport's first parallel runway and the construction of the modern passenger terminal. New, louder jets in tandem with the parallel runway spurred the residents of the Steele Creek Community to file suit, resulting in an injunction delaying construction of a new parallel runway at great cost to the city.

Simultaneously, dissent from communities such as Steele Creek combined with the poor economic conditions of the mid-1970's to thwart plans for a new passenger terminal. Ultimately, city leaders, led by Mayors John Belk, Kenneth Harris, and Edward Knox, mounted a successful campaign to popularize the airport projects of the late 1970's, completing the runway and the terminal. The long-term airport planning that had been present since the Buckley Report required equally adept public relations planning to be successful in the jet age.

Airport manager Thomas Rafferty recognized the significance of the runway extension early on. It would transform Charlotte Douglas into a "two-runway airport, able to handle jets and large aircraft on either runway. It is now a one-runway facility in terms of such large aircraft as the DC-7 and the Boeing 720. The 720 cannot takeoff at all from the north-south runway. The DC-7 must lighten its load by carrying less freight, gas, or passengers. Therefore, when the northeast-southwest runway is closed for repairs or other reasons, the [Boeing] 720s must detour the airport and the DC-7s must detour or lighten their loads." Raffety reported that Eastern and Delta, the two largest carriers at the time,

estimated "that closing the main runway costs them jointly $2,700 a day for such things as bus transportation from other airports to Charlotte for passengers."[122]

Unlike the new terminal bond referendum of the mid 1940's in which the Chamber of Commerce endorsed a new airport, all the key players endorsed the airport bonds based on the Buckley Report's recommendations including the city council, the airport advisory committee, the Chamber of Commerce, the mayor, and the city manager. On September 8, the people of Charlotte added their assent. Once the planned upgrades were completed the headlines read, "Charlotte Joins Jet Age."[123] John Talbert & Associates of Wilmington, North Carolina, secured the engineering consulting contract from the Charlotte City Council 6-1. The firm would eventually oversee the $2 million in improvements for Charlotte Douglas.[124] The importance of securing the bond money and the consequent improvements should not be understated. This project was the first in a long line of improvements and upgrades that would be nearly constant until the 1970's.

In part, this had to do with the physical characteristics of the runway and taxiway improvements, but with these upgrades and growing demand for air service from airlines, pilots, travelers, and the airport administration, further investment was needed in the passenger terminal, airport technology, and surrounding roads to provide for the influx of planes and passengers at Charlotte Douglas. In 1963, work began in earnest on the runway extension. By October, Davie Contractors of Mocksville, NC, had moved

[122] Harry Murphy, "Airport Bonds Needed Now, For Future," *The Charlotte News*, August 1962.
[123] Emery Wister, "Charlotte Joins Jet Age," *The Charlotte News*, February 5, 1963.
[124] Douglas Connah Jr., "Wilmington Firm Gets Contract," *The Charlotte Observer*, November 19, 1962.

1,164,650 cubic yards of earth of the 2.3 million needed to fill the southern extension of the north-south runway.[125] Officially, the runway opened to air traffic July 2, 1965.[126] However, the dedication did not take place until July 7, 1965, at 12:07 p.m. Eastern Airlines Flight 152 coasted down the 7,500-foot north-south runway snapping the ribbon pulled across to dedicate the new extension. In attendance was Mayor Stanford Brookshire, the City Council and department heads, the Chamber of Commerce Aviation Committee, representatives from the FAA, representatives from five airlines, and a representative from the Air National Guard. Even as they enjoyed the steak and champagne at the reception luncheon in the Dogwood Room, Raffety was considering the work yet in front of him. That morning he had opened bids for work on the northeast-southwest runway for consideration by the city council.[127]

Charlotte Douglas' growth during this period was substantial. According to Airport Manager Raffety, during the 1964 fiscal year, "the airport handled 934,240 passengers, a number four times greater than the total population of the city." He also pointed out that this "clearly demonstrated Douglas Airport's character as a regional transportation center….the true service area of the airport and the city encompasses a

[125] Bill Hughes, "Airport Expansion At Halfway Mark," *The Charlotte News*, October 3, 1963.
[126] Emery Wister, "Airliners Start Using Extended Airport Runway," *The Charlotte News*, July 2, 1965.
[127] "Jet Helps Charlotte Dedicate New Runway," *The Charlotte Observer* July 8, 1965, "Jet Cuts Runway's Red Ribbon," *The Charlotte News*, July 7, 1965, "New Runway Opens With A Whoosh," *The Charlotte News*, July 8, 1965.

region with a population exceeding 1,200,000." Revenues totaling $552,690 marked a 15.5% increase over the previous year and a record for the airport.[128]

During the same period, Charlotte became a port of entry into the United States, although exports would not depart Charlotte until 1969. This provided substantial advantages to local business. Instead of overseas shipments stopping in Wilmington, they could go directly into bonded warehouses in Charlotte. By eliminating the need for shipments to go through customs before reaching Charlotte, firms avoided paying the duty until physical delivery to the warehouse. This saved firms from tying up capital, paying the duty in Wilmington and not getting shipments until days later. With the installation of Miss Ann Thagard, deputy collector of U.S. Customs at Charlotte Douglas, the airport received the distinction of being a port of entry hundreds of miles from the U.S. coast, a rare occurrence at the time.[129] The culmination of this five-year effort by the Charlotte Chamber of Commerce created a platform from which the chamber launched a campaign that featured Charlotte as "a full-service international port, the nucleus of a great metropolitan area…recognized throughout the nation and the world as a major trading and population center."[130]

The influx of regional passengers, prompted a call for more infrastructure upgrades from the Chamber of Commerce. Airport accessibility was a priority to accommodate the additional automobile traffic trying to navigate the rudimentary road

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[128] Alex Coffin, "Airport Report Calls Douglas Regional," *The Charlotte News*," October 9, 1964.
[129] "Charlotte Is Now Port Of Entry," *The Charlotte Observer*, September 17, 1963.
[130] Matthew D. Lassiter, *Charlotte, NC,* ed., 32.

network that serviced the airport. One concern in particular, regarding the neighboring community of Rock Hill, South Carolina, took center stage before the runway extension was complete. Highway 160, the only thoroughfare between the city and the airport, was a "hodge-podge" on the North Carolina side of the border. Motorists trying to reach the airport via 160 were forced to drive a "rough, crooked, narrow and dangerous" route and frequently became lost. Additionally, the project would connect 160 with the recently constructed federal project, Interstate 85.[131] West Boulevard would be widened from the airport to South Boulevard. The improvements and supplementary work, paid for with $10 million in state and federal funds, would improve access for regional travelers as well as Charlotteans.[132]

Despite the nearly constant work since the arrival of airport manager Raffety, more was yet to come. When it came to Charlotte Douglas in the 1960's growth only fomented more growth. By 1964, the runway extension and improved airport access meant even more passengers utilizing the near obsolete terminal at Charlotte Douglas. The terminal's capacity to accommodate significant numbers of new passengers was diminishing quickly as overcrowding set in with a record half a million users passing through the airport annually.[133]

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[131] Michael Soper, "Direct Route Asked From Rock Hill To Charlotte's Douglas Airport," *The Charlotte Observer, Rock Hill Bureau*, September 30, 1963.
[132] Paul Jones, "C of C Backs Airport Access," *The Charlotte Observer*, December 22, 1964.
[133] "Airport Boardings Set Record Here," *The Charlotte News*, December 15, 1964.

Similar to Charlotte, Atlanta's airport was going through growing pains as well. In the early 1960's. Atlanta had just finished its new passenger terminal, the largest single building passenger terminal in the country up to that point. The facility was designed to handle 6 million passengers a year, but the building was practically outdated when it opened. In the first twelve months 9.5 million visited Atlanta's airport, including 5.7 million sightseers. These numbers reflect the need for a parallel runway, a feature that Charlotte would not even consider for another ten years. Both Charlotte and Atlanta were doing their best to accommodate the increasing number of modern jets by upgrading runways. Atlanta's project was ambitious with a projected cost of $20 million for a new 10,000-foot runway. Charlotte with substantially less traffic evaluated other options.[134]

In March 1963, the Charlotte City Council was already considering an expansion of the passenger terminal.[135] By July of 1964, the city council had approved $271,000 and granted a contract worth 6.7% of the construction cost to Walter Hook Associates, a local firm responsible for most of the airport terminal projects to date.[136] Despite an inability to secure air cargo leases and late FAA repayments for completed projects causing months of delays, the terminal expansion was eventually completed in 1967. However, the cost was higher than expected. The city provided an additional $60,000 and Eastern Airlines (EAL), which had already advanced $200,000 advanced another

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[134] Betsy Braden and Paul Hagan, *A Dream Takes Flight*, 136-139.
[135] Bill Hughes, "Council To Okay Land Deal," *The Charlotte News*, March 4, 1963.
[136] "Hook Due To Be Airport Designer," *The Charlotte News*, July 11, 1964.

$50,000.[137] This was not surprising considering the addition was exclusively for EAL and Delta and included a new wing in an enclosed concourse, a stand up restaurant, expanded coffee shop, gift shop, lobby, new cargo building, new baggage claim, and "ultra modern equipment for handling cargo."[138] In addition, operators had already begun expanding food service facilities at the airport including improved preparation facilities and an extension of the Dogwood Room Restaurant.[139]

This is demonstrative of the relationship between airports and airlines. Every successful airport manager notes that the more modern the facilities the more marketable the airport and the more marketable the airport the more likely airlines are to include it as a layover or non-stop destination. By the late 1970's, at the pinnacle of master plan development, deregulation of commercial aviation would make the building projects of the 60's and 70's a high value commodity as airlines streamlined operations to compete in what would suddenly become a highly competitive industry. However, for the time being, expansion was necessary just to keep up with demand for air travel into, out of, and through Charlotte. The rate of growth at the airport meant that to ensure basic service, upgrades were necessary. Consequently, these upgrade included amenities that attracted airlines and passengers alike.

Raffety, along with his predecessor knew this all too well. Since he assumed the role of airport manager in 1962, Raffety had done more to ensure Charlotte Douglas was

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[137] "City Will Ante Up $60,000 To Build Airport Concourse," *The Charlotte News,* August 6, 1966.
[138] Emery Wister, "Plans For Airport Terminal Addition Hit Snag," *The Charlotte News,* February 16,1966.
[139] Emery Wister, "Airport Adding To Food Facilities," *The Charlotte News,* July 12, 1965.

prepared for the challenges of the jet age than anyone. On 17 December 1966, Charlotte voters approved $2.9 million in bonds for continuing improvements at the airport. The bond money would be used for land acquisition, runway, road, and terminal improvements, and parking facilities. Nonetheless, after five years of rapid expansion the fifty-year-old Raffety resigned effective February 15, 1967. He left a legacy of growth that made Charlotte Douglas the largest airport in the four adjoining states. Forty-six percent of all North Carolina's air passengers flew into, out of, or through Charlotte Douglas.[140]

The incoming Airport Manager, Ross Knight, had a difficult job ahead of him. The continued development of Charlotte Douglas under Quinn and Raffety was exacerbating the noise issues in the communities of Steele Creek and Berryhill. A significant portion of the bond money secured by Raffety in the 17 December bond vote, nearly half a million dollars, was earmarked to purchase 84 acres of land adjacent to the airport to comply with FAA noise regulations.[141] Knight, a World War II veteran, a naval aviator, and a Virginia native would have to deal with the consequences and face increasing litigation concerning airport noise.[142]

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[140] John Erickson, "Airport Must Have Bonds For Growth," *The Charlotte News,* December 8, 1966.
[141] Douglas Connah Jr., "FAA May Trim Jet-Noise Zone," *The Charlotte Observer,* May 15, 1963. "5 Year Expansion For Bustling Airport Sought," *The Charlotte Observer,* June 7, 1966.
[142] William Chaze, "Virginian Appointed New Airport Manager," *The Charlotte News,* May 16, 1967.

3.1 Jet Noise And Growing

Pains:By the early 1960's, local residents' complaints, concerning airport noise began to mount. Just prior to Raffety's departure, the city had finally settled with Mrs. Ellen R. Spratt, a local resident who owned land adjacent to the airport. The airport, in an effort to comply with noise regulations, wanted to buy 11 of Spratt's 78 acres. The airport offered $42,350 for the 11 acres of land, which had been in the Spratt family for 200 years. Despite a commission ruling granting $56,000, Mrs. Spratt appealed the decision in an effort to get compensation since the 11 acres sought by the airport was in the middle of her 78 acre tract. On June 3, 1965, the Mecklenburg Superior Court awarded Mrs. Spratt $42,350 for the land as well as $35,650 in damages for a total of $78,000. Additionally, the airport was compelled to negotiate for the remaining 57 acres, and Mrs. Spratt moved in with her daughter near Pinehurst, North Carolina. This was the first high profile case involving damages paid by the airport. More importantly, it highlighted the problematic nature of urban airports in the surrounding community which in conjunction with the completion of the runway project, brought more jets than ever before into Charlotte Douglas.[143]

The phenomenal growth of Charlotte Douglas continued to have serious and adverse consequences. Following Mrs. Spratt, Mr. and Mrs. E.L. Winston filed a $60,000 suit against the airport in January 1966. Citing easements and guarantees of property

[143] Lee Stinnett, "The Jets Don't 'Whisper,'" *The Charlotte News*, October 1, 1965. Porter Munn, "Jury Awards Mrs. Spratt $78,000 For 11 Acres," *The Charlotte Observer,* June 4, 1965. Porter Munn, "After Long Battle, Bulldozers Finally Came," *The Charlotte Observer,* April 22, 1966.

under the 14th Amendment, the suit was the result of noise and vibrations from the jets passing overhead and this was simply the tip of the iceberg.[144] The airport routinely got letters, phone calls, and angry visitors complaining about the noise. Now, however, this was devolving into increasingly expensive litigation, an expense that the airport could ill afford, especially considering the plans for additional expansion featuring a new parallel runway. Push back based on land expropriation and environmental protection was mounting.

As early as March 1966, airport manager Raffety said, "things had reached a critical stage." Raffety was referencing the 276 pending suits against 27 different airports across the country. Charlotte was especially sensitive to this phenomenon. Based on the number of residents that predated the airport and the proximity of the airport to the city, court awarded damages had the ability to cripple Charlotte Douglas if certain precedents were set. If the airport became liable for the effects aircraft noise had on the adjacent neighborhoods, compensation would bankrupt the airport. The question of who was ultimately responsible for the effects of the noise emanating from the airport prompted an "urgent" national conference in Dallas. "Sponsored by the National Airport Operators Council, the conference formally dealt with the legal implications of airport noise and operation." The conference itself was as much for debating legal solutions for airports to overcome this dilemma as it was for political lobbying to increase federal subsidies to airlines and airports. During the course of the conference, Raffety remarked in an

[144] "Couple Files Suit Over Air Traffic," *The Charlotte News*, January 12, 1966.

interview, “President [Lyndon B.] Johnson has already taken steps to attack this problem by setting up a committee to seek some solutions. The group will look into the problems of airport noise, land use around the airports with particular emphasis on commercial and industrial development and will recommend legislative action to relieve the problem of the suits.” One of those included the noise abatement measures implemented by the FAA nationwide.[145]

The legal concerns over noise generated by the airport cost money and slowed growth for the airport and the surrounding neighborhoods throughout the 1970’s. This is true in two distinct ways. Airport noise adversely effected property values in the areas surrounding the airport. In turn, those areas experienced slower growth compared with those not adjacent to the airport. Community concerns over the developmental stagnation caused by noise and falling property values hampered airport growth, most directly in opposition to bonds. Further, the direct payments for damages was not the only litigation to worry about for Charlotte Douglas. By May 1966, nine residents in close proximity to the airport formally requested that the local tax assessments against their homes be reduced, lowering the tax base.[146] While this would not affect the airport’s bottom line, it further illustrated the discontent in the surrounding community and foreshadowed the

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[145] As of Jul 21, 1967: FAA established the Office of Noise Abatement, a measure of the importance the agency attached to the problem of aircraft-engine noise. Hitherto, the agency's noise-abatement program had been under the direction of a small noise abatement staff. (See Apr 8, 1966, and Nov 27, 1968 of the “FAA Historical Chronology, 1926-1996”). Bill Noblitt, “Uproar Over Airport Noise Brings Urgent Conference,” *The Charlotte News,* March 9, 1966.

[146] “9 Ask Revaluation, Due To Jet Noise,” *The Charlotte Observer*, May 19, 1966. “Screams Of Jet Aircraft Here Bring Tax Assessment Hassle,” *The Charlotte News,”* May 19, 1966.

coming battle between Charlotte Douglas and the Steele Creek neighborhood. Backlash from airport noise, resulting in legal action against the airport, would continue to slow its growth, specifically in 1975 when a federal injunction halted work on the new parallel runway. As Charlotte prepared to open its new concourse, city and airport leaders as well as residents began to realize what would be good for the city as a whole would be at the expense of neighborhoods around the airport.

Famed singer Andy Williams was the first person through Charlotte's, newly dedicated, west concourse on March 22, 1967. At a dedication ceremony, Mayor Stanford Brookshire, first elected in 1961, dedicated the $500,000 concourse calling the airport a "barometer of city growth."[147] Mayor Brookshire understood the substantial benefits of having an urban airport, fiscal and otherwise. Before leaving office in 1969, Mayor Brookshire urged North Carolina Senator B. Everett Jordan to support the Federal-aid Airport Program. This program was one of many that helped to supplement costs for the city to maintain the airport and fund upgrades.[148] Simultaneously, the city was approving funding for additional parking and a new centerline lighting system for the main runway.[149]Additionally, development of 100 acres adjacent to the airport as an industrial

[147] Emery Wister, "Andy Williams Is First Through West Concourse," *The Charlotte News,* March 22, 1967.
[148] Stanford R. Brookshire, 1960, *Stanford R. Brookshire Papers*, University Of North Carolina Charlotte Atkins Library Special Collections, Box 1, Folder 1.1.
[149] Emery Wister, "Airport's West Concourse To Open March 22," *The Charlotte News,* February 17, 1967.

park was underway, further increasing the economic impact of the airport and attracting transportation intensive business to the Queen City.[150]

In the meantime, developments continued at the airport. Up to this point, improvements had proceeded according to the Master Plan produced in the Buckley Report in 1961. The FAA ruled that this plan needed supplementation by November 1967 based on FAA regulations for continued funding. Ross Knight, Raffety's replacement as airport manager, assumed his duties June 11, 1967[151] and had four short months to commission a new study. Approval for the new study was swift. The airport board granted up to $36,000 to secure a study contract.[152] This was partially a result of an incident in "1966, when a crippling six-week Eastern Air Lines strike paralyzed air travel at the airport….[The Charlotte Chamber of Commerce]…felt that there was urgent need for additional service by other carriers."[153] The Chamber's concerns were somewhat alleviated when Delta announced plans to add direct flights to Charlotte from "Washington, Philadelphia, New York City, Chicago, New Orleans, Houston, Dallas, Los Angeles, and San Francisco."[154]

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[150] "Airport Gaining Industrial Park," *The Charlotte News*, May 16, 1966.
[151] Emery Wister, "Airport Chief Begins Duties," *The Charlotte News*, June 11, 1967.
[152] Emery Wister, "Airport Study Cost May Be $21,000," *The Charlotte News*, September 26, 1967.
[153] Charlotte Chamber of Commerce Annual Report, 1967, *UNCC Digital Collections*. Charlotte: Charlotte Chamber of Commerce, 1968 http://digitalcollections.uncc.edu/cdm/landingpage/collection/p16033coll21, (accessed November 15, 2014).
[154] James K. Batten, "Delta Says It Wants To Greatly Expand Charlotte Services," *The Charlotte Observer*, August 14, 1967. "CAB Judges Public Need In Granting Airline Service," *The Charlotte Observer,* August 24, 1967.

When the new North Concourse opened in November 1969, newly appointed Mayor John M. Belk was there to dedicate it and promote the bonds, which made the airport possible. His short remarks reported by *The Charlotte News* Wednesday, November 26, 1969, sum up the success of the airport nicely:

> Bond issues have played an important part in the development of this facility and as you look around you can see the results. Our first bond issue for this airport was held in 1936 and since that time we have seen the need for continuing expansion. In 1964, a bond issue of $1.5 million was passed and in 1966, an additional $2.9 million issue was approved...None of your tax money has been used to pay for these bonds because this airport is a revenue producing operation, similar to our power and water utilities.[155]

While his comments directly related to an impending bond vote on a possible civic center, Mayor Belk also understood that this would be a necessity for the airport in the near future as well. To that end, Airport Manager Knight commissioned J.E. Grenier of Tampa, Florida to complete a new study to supplement the Buckley Report based on the tremendous growth of Charlotte Douglas. In May 1968, they published their findings. Charlotte Douglas and the Charlotte Chamber of Commerce had to contemplate a price tag of $45.8 million over the next 17 years. The plan called for a new north-south

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[155] Emery Wister, "Belk Opens New Concourse At Airport, Plugs For Bond," *The Charlotte News*, November 26, 1969.

runway, a future extension for the same, and a new passenger terminal. The project, envisioned in three phases, had the greatest cost in the second phase, $27.7 million for a new terminal. Regardless only a small portion would be available from federal sources, approximately $5 million, leaving the city with the lion's share. Bonds would have to play a part once again.[156]

The runway improvement came under fire immediately from residents adjacent to the airport and fiscal conservatives. The same month it was released in May of 1968, a $775,200 suit was brought against the city by twelve local residents, with another 13 filing for damages directly from the airport. Simultaneously, Congress was considering new legislation, which would shift responsibility for airport noise from airports to the federal government. The U.S. Supreme Court had established precedent stating, "if you fly so low over a man's property that it substantially interferes with use of the property, this is a taking of the property in part or whole."[157] The real issue was establishing technical guidelines that defined what decibel levels constituted "substantial interference."

3.2 Airport Manager R.C. Birmingham:

By June 1970, the airport was facing noise complaints, an impending bond vote, over-crowding, and new and expanding federal regulations. This was only complicated

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[156] Porter Munn, "Super-Airport In Works," *The Charlotte Observer*, May 23, 1968. Tom Bradbury, "New Terminal Runway Asked At City Airport," *The Charlotte News,* May 30, 1968. "Airport Needs Include New Terminal, Longer Runway," *The Charlotte Observer,* May 30, 1968.
[157] Tom W. Sesler, "Bill To Cut Plane Noise May Stop Airport Suits," *The Charlotte News,* May 14, 1968.

by the sudden death of Ross Knight on June 6. He died at home of a heart attack at the age of 49.[158] His replacement, Edwin Petro, served as interim manager for less than a year.[159] By that time, the "airport complex of 1,700 acres consisted of 14 gates at the terminal, runways of 7,846 feet and 7,500 feet in length, and parking for 1,500 cars. Larger jets would require longer runways." Specifically, the new commercial jets coming into service, the 747, and eventually the DC-10 and L-1011. Prior to this early jet aircraft such as the 707 and DC-8 seated passengers along either side of a single aisle, with no more than six seats per row and allowed for landings on a 6000-8000-foot runway. In 1971, an updated Master Plan, amending the J.E. Grenier Master Plan of 1968, suggested the construction of a new 10,000-foot north-south parallel runway, long enough to handle the largest commercial aircraft.[160] This was a snapshot in 1971, of what R.C. (Josh) Birmingham Jr. had to consider as the new airport manager at Charlotte Douglas.

The 48-year-old Birmingham was a Charlotte native and had worked as the Assistant Public Works Director in Engineering for the City of Charlotte over the last 23 years. He was already familiar with the airport, having, "designed many of the improvements (to the airport) over the years." Birmingham was a graduate of Belmont Abbey College and had been constructing airfields since his United States Army service in World War II, assisting in the construction of airfields on Guam and Okinawa. Now he

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[158] "Airport Manager Is Dead At 49," *The Charlotte News*, June 6, 1970.
[159] Walter R. Turner, "History of Charlotte Douglas International Airport," 22.
[160] Walter R. Turner, "History of Charlotte Douglas International Airport." Clive Irving, *Wide-body: Making of the 747 Teach Yourself*, (London: Coronet, 1994), 22.

would focus on the updated J.E. Grenier Master Plan, specifically the 10,000-foot parallel runway and the new 60-gate main terminal. These two massive projects represented the future of the airport and would occupy Birmingham for the first twelve years of his seventeen-year tenure.[161]

During his initial twelve-years, Birmingham had to overcome more than just engineering challenges. Less than one month after his appointment as manager, local landowners sued the city for $75 million. The suit itself, dismissed and renewed again in 1975, was inconsequential compared to the message. Local residents were beginning to rally around the Steele Creek Community Association (SCCA). Their common cause was to protect their community from the encroachment of Charlotte Douglas.

Construction crews were already starting the preparations for the new parallel runway. As a result, clearing and land grading had an immediate impact on the surrounding neighborhoods. William R. Grant, one of the originators of the $75 million suit, said that the removal of trees during the initial construction in late 1970, made the neighborhood nosier. He also stated that he lost nearly 90% of his land value.[162] However, despite the problems that private residents could pose individually, they were nothing compared to the problems presented by the Steele Creek Community Association.

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[161] Bill Arthur, "City Appoints New Manager For Municipal Airport," *The Charlotte Observer*, April 24, 1971. Walter R. Turner, "History of Charlotte Douglas International Airport," *Carolinas Aviation Museum Library Archive*, March, 15, 2001.
[162] Ron Alridge and William Ervin, "Airport-Area Landowners Sue City For $75 Million," *The Charlotte Observer*, May 7, 1971.

The first few years of construction on the new parallel runway continued without much fanfare. Despite the legal issues, funding was in place for the runway project and clearing and grading was progressing as planned. Then, in August 1975, things started to unravel. Charlotte Douglas faced a $55 million bond referendum and a federal injunction prohibiting further construction on the new runway.[163]

March 1975 marked the beginning of the bond campaign to raise funds for the new airport terminal. Mayor Belk and airport manager Birmingham were both doing their best to communicate the need for Charlotte voters to approve the upcoming bond referendum for Charlotte Douglas. Both had given interviews and even written editorials for *The Charlotte News* and *The Charlotte Observer*, the two major daily publications in the city, to convince Charlotte residents of the necessity for a new terminal. The bond encapsulated a number of improvements, but foremost among them was the new terminal building.

There was a major push to sell the idea of bonds for the terminal as necessary to the economy of the city. Retrospectively, based on direct and indirect investment spurred by Charlotte Douglas, the airport really was one of the keys to the continued growth of Charlotte. However, in 1975, in the midst of recession, amid rising oil prices, and a

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[163] Steele Creek Community Association, Plaintiff, v. The United States Department of Transportation and Coleman, William T., Jr., Secretary thereof, and Dow, James E., Acting Administrator of the Federal Aviation Administration, and the City of Charlotte, North Carolina, a municipal corporation, and Belk, John, Mayor thereof, and the Charlotte-Mecklenburg Board of Education, and North Carolina Department of Transportation and G. Perry Greene, Secretary, Defendants, United States District Court, W. D. North Carolina, Charlotte Division, As Corrected September 8, 1977, 435 F.Supp. 196 (1977).

growing mistrust of government, the projections of the FAA, the city, and the airport were not enough for many residents. Moreover, one of the methods employed to generate support for the project was the media, specifically newspaper editorials. Yet, they also constituted a powerful means of dissent.

The Charlotte News had a highly circulated editorial section. In the weeks preceding the April 8 bond vote, a battle between proponents and opponents of the airport bond issue took center stage in the editorial sections of *The Charlotte News* and *The Charlotte Observer*. On one side was city government and airport administrators, on the other, Charlotteans that were opposed to the measure, worried about additional taxes if the biggest bond in the city's history to that point was to pass, despite the only way a tax burden could impact to the public was if the airport defaulted.

There was reason for skepticism. In the early 1970's, Charlotte, using city issued bonds, constructed a civic center in uptown. Unfortunately, for project boosters, ranking city officials, and Charlotte's business elite, it was not a success. The civic center did not produce the projected revenue and was considered a failure by most standards. Fear of a similar outcome for the airport was at the heart of the dissent. After a March 12 interview appeared in *The Charlotte News* with Mayor Belk and City Manager Burkhalter, the debate began to heat up.

Editorials repudiating the benefits presented in the Belk and Burkhalter interview appeared in the *News* on 25 March. Kathy Sparrow and Jane Barwick, local residents,

asserted a belief that city government should instead consider something that would benefit the largest number of people, stating, "the airport bond will only benefit a small group of people: The wealthy who fly a great deal, the people passing through Charlotte with no lasting interest in our community, the people who buy bonds to make more money, and the politicians who want more control over state and federal affairs."[164]

Another editorial, appearing the next day, written by Charles Garrison, a candidate for Charlotte City Council in 1973, entitled "Charlotte Doesn't Need Atlanta's Air Traffic," not only opposed the $55 million bond proposal, but also asserted that the city government was self-serving and inept. Mr. Garrison used anecdotal evidence to convince readers that Charlotte had acceptable airport facilities and then went into detail about how transportation in Charlotte was lacking. He suggested fiscal conservatism and pointed out that capital would be put to better use on local infrastructure projects.[165]

A series of editorials followed pointing out the pros and the cons of the project. With the exception of Charles Garrison, a contender for political office, the dissent was from average citizens. The pro position, on the other hand, was comprised entirely of current and former city and airport officials. An editorial titled, "Airport 'Won't Cost One Penny In Taxes,'" was authored by members of the Airport Advisory Committee. Additionally, R.C. Birmingham composed an editorial, as did former Charlotte Mayor

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[164] Kathy Sparrow and Jane Barwick editorial, "City Doesn't Need Bigger Airport," *The Charlotte News,* March 25, 1975.
[165] Charles Garrison editorial, "Charlotte Doesn't Need Atlanta's Air Traffic," *The Charlotte News*, March 26, 1975.

Stanford R. Brookshire. Brookshire, Birmingham, and the Aviation Advisory Committee, did their best to allay the fears of Charlotte voters concerned with airport bonds. A letter written by Mayor Belk in 1977 highlighted what he considered a common misunderstanding among the voting public. The letter was in response to a query by Mr. Sol Gomez who wrote the mayor to ask what effect airport bonds would have on his property taxes. Mayor Belk pointed out, "the airport is and has always been financially self-supporting. No property tax or other General Fund revenues are spent in operating the airport. Rather, the entire operating budget and debt repayment is financed out of 'user charges.' This includes airline landing fees, terminal rental, plus 'concessions' such as rent-a-cars, restaurants and parking."[166] They also gently reminded the public that this had been the plan all along. Prior to completion of the old terminal in 1954, "transportation experts" assured all parties that it would serve the needs of Charlotte for 20 years. Despite projections, which were significantly underestimated in terms of passenger traffic, the terminal, now over crowded, had become woefully inadequate. Moreover, both the Buckley and Grenier master plans projected the need for new or additional terminal facilities to accommodate the increasing number of passengers.[167]

The mood of the public went beyond local concerns and, to a degree, explained the hesitancy of the electorate. The 1973 Oil Crisis had long-term effects on the

[166] Letter from Mayor John Belk, John Belk Papers, Atkins Library Special Collections, University of North Carolina Charlotte, Box 1, Folder 1.1.
[167] Charlotte Airport Advisory Committee editorial, "Airport 'Won't Cost One Penny In Taxes," *The Charlotte News*, April 1, 1975. R.C. Birmingham editorial, "Airport Manager: 'Following Are The Facts,'" *The Charlotte News,* April 7, 1975. Stanford R. Brookshire editorial, "Bonds Bring Dimensions' Goals To Life," *The Charlotte News,* April 7, 1975.

American economy. It triggered a backlash of fiscal conservatism and had the greatest impact on transportation related services as the price of oil quadrupled.[168] This is evident in the dissent that the bond issue faced. Despite reassurances that there would be no additional tax burden for the airport project, other editorials appeared the week prior to the bond vote. Most were still concerned with taxes and the cost of the project. Much of this concern had to do with externalities that were beyond the control of the public or city government such as continued patronage of successful airlines and the costs associated with airport operations. On 10 April 1975, in a follow up story on the airport bond issue, *The Charlotte Observer* reported that, "confidence in government is at a low ebb throughout the country, and Charlotte's City Hall is not excepted." This stance also reflected the opinion of the editors of *The Charlotte Observer* at the time.[169]

Over 32,000 Charlotte residents showed up to vote on the bond referendum, 26% of the approximately 125,000 voters eligible. The final tally of votes was 14,575 for, 16,888 against the issuance of airport bonds.[170] "Charlotte businessman Don Davidson, who headed the bond campaign, blamed the national recession, caused primarily by the increasing cost of oil."[171] For the first time since 1946, Charlotteans had refused to approve airport bonds. Similar to 1946, it placed the future of Charlotte's passenger terminal in doubt. Unlike that bond issue, however, advocates of the bonds were less

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[168] Robert B. Barsky and Lutz Kilian, "Oil and the Macroeconomy Since the 1970s," *Journal of Economic Perspectives*, 18(4) 2004: 115-116.
[169] "The Bond Vote Confidence Was Lacking," *The Charlotte Observer*, April 10, 1975.
[170] "Voters OK Bus Purchase, Turn Down Airport Bonds," *Charlotte Observer*, April 9, 1975.
[171] Walter Turner, "History of the Charlotte Douglas Airport," 14.

willing to take no for an answer. Notably, the day after the bond defeat, in the 9 April edition of *The Charlotte Observer*, "no council member has mentioned the possibility of just forgetting about expanding Douglas Airport and building a new terminal." Regardless of public sentiment, the reasons for airport expansion were becoming undeniable. Air traffic had quadrupled in the United States in the past two decades and Charlotte Douglas routinely recorded increases in passenger and aircraft movements above the national average.[172]

Therefore, it should not have been surprising that by the evening of 9 April when *The Charlotte News* appeared on Charlotteans doorstep, there was already talk of a second vote. Five members of the Charlotte City Council favored a second vote on airport bonds. Although, none was willing to commit to a time, they all cited the recession as the primary reason Charlotte voters rejected the measure.[173]

The *Charlotte Observer* bore out the city council's assessment with the publication of the results of the bond vote by precinct. The demographics of the vote revealed the economic disparities between neighborhoods for and against the bond measure. The airport issue did well in Charlotte's "silk stocking" precincts, winning by large margins in Eastover and Myers Park, high income neighborhoods located too far east to be effected by the airport. Predominantly black neighborhoods and especially those on the west side, all lower income neighborhoods, consistently voted against the

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[172] Susan Jetton, "Voters OK Bus Purchase, Turn Down Airport Bonds," *The Charlotte Observer,* April 9, 1975.
[173] Mark Brock, "5 Councilmen Favor 2nd Vote On Airport," *The Charlotte News,* April 9, 1975.

measure with a combined vote in "black precincts" of 695 against and 412 for the measure. One might be inclined to conclude that race was a factor, yet, even in some of the other "white affluent sections of southeast Charlotte" such as precincts 69 (Olde Providence School, 234 against 220 for) and 65 (Sardis Presbyterian Church, 371 against 362 for) the votes were marginal. A campaign by the Black Political Caucus chaired by Robert Davis certainly played a role in the rejection of the 1975 bond measure in the black communities of Charlotte, but city officials were correct in their retrospective assessments of the public's economic fears.[175]

A more comprehensive analysis of the issue is encapsulated in a *Charlotte Observer* editorial, 14 January 1976. In it, the Airport Advisory Committee outlined the reasons a new terminal was vital to Charlotte. They emphasized planning and corporate investment citing Dallas-Fort Worth's Metroplex as "a textbook example of investor confidence." The Committee closes its professional assessment with assurances that they serve the city and its best interest, studying the "needs and forecasts of the industry."[176]

In a rare confrontation, the editors of the *Observer* responded directly to the Airport Advisory Committee, voicing their dissent. The editors outlined several problems with the planning and development of Charlotte Douglas including: deficiencies in the environmental study relating to the new runway, the possibility of having to use local

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[175] Susan Jetton, "Votes For Bonds Marginal Even In Affluent Sections," *Charlotte Observer*, April 9, 1975.
[176] Charlotte Douglas Airport Advisory Committee editorial, "Airport Committee: Expansion Is Vital To Area," *The Charlotte Observer*, January 14, 1976.

taxes in the event of default, the use of flight and passenger projections determining the need for new facilities, whether the growth of the city is dependent on airport investment, and how the use of smaller aircraft would factor into Charlotte's future. The last point in particular gives real insight into what each side was arguing. The editors went into detail about small aircraft versus larger commercial jets, citing figures in which smaller craft constituted a large part of Charlotte's air traffic. Would Charlotte become a metropolitan airport of the future or one regional airport among many?[177]

The vision of city officials was growth and notoriety for the City of Charlotte with the aim of attracting businesses to invest in the region. Most low income Charlotteans failed to see the benefits of such an investment. They felt the airport was fine the way it was, as Mr. Garrison pointed out in his editorial, however, despite the effect the airport had on residential neighborhoods around it, the kind of businesses that the city and the airport wanted to attract through airport growth would bring jobs along all spectrums of employment. Regardless, it is important to note that in the United States, prior to 1979, "no more than eight percent of the public fl[ew] more than once a year."[178]

Historically, the primary reason the city leadership wanted to invest in the airport was for the economic benefice of a vital transportation infrastructure. Ben Douglas knew that transportation was a business investment in 1937, but by 1975, the benefits of a vital

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[177] Editors of the Charlotte Observer editorial, "Airport Committee: Expansion Is Vital To Area," *The Charlotte Observer*, January 14, 1976.

[178] Alan Altshuler, *Current Issues in Transportation* Policy, 20.

airport had come to dominate the urban economic landscape. Moreover, airports came to define cities in some ways. Atlanta may be the best example. Although convenience was always a goal, the stake the city had in the airport was fueled by the prospect of growth and regional, if not national, relevancy as a major American city and transportation center. Mayor Belk compared the airport to the railroad 100 years ago, calling it "a key factor in a city's growth, development, and economic health."[179] This was not the end of the bond issue, but before city and airport officials could mount another campaign, there was yet another major setback.

In August 1975, the Steele Creek Community Association filed an injunction against further runway construction. U.S. District Court Judge, James B. McMillan, ruled that without additional environmental impact study, specifically for noise, construction must halt. The ruling came after the original study, submitted and approved in 1971, "failed to calculate the project environmental damage." Talbert, Cox and Associates completed the original Environmental Impact Statement (EIS) in 1971. However, there was a conflict of interest. The firm negotiated compensation equal to 5% of the total construction cost before completing the mandatory EIS for the project. This fact, combined with a flurry of new federal environmental regulations would put the runway project on hold until 1977.[180]

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[179] "The Airport Shapes The City's Development," *The Charlotte News*, March 12, 1975.
[180] Mark Ethridge III, "Consulting Firm Had A Stake In Runway," *The Charlotte Observer*, December 29, 1975.

In the meantime, legal costs mounted for both sides. The Steele Creek Community Association raised $19,000 to cover legal costs. The city and the airport, in addition to the work of the city attorney's office, allocated an additional $60,000 to cover 1,200 hours of casework.[181] During the course of 1976, airport administrators commissioned another EIS to satisfy the court. All these developments culminated in a four-day trial in July of 1977. On 25 July, in the case *Steele Creek Community Association v. The United States Department of Transportation,* Judge McMillan rescinded the injunction against construction of the new parallel runway and ruled in favor of the defendants. McMillan's was explicit when providing an explanation for his decision.

> "Fortunately, the court's job is not to decide whether or not to build the runway. If the responsible government authorities are resolved to build a regional airport in Charlotte, this court is not an agency authorized to second-guess that decision. Neither federal nor state defendants are obligated to make a perfect choice, least of all a choice which satisfies plaintiffs or a judge. The only function of the court is to determine whether under the appropriate standards of review defendants have complied with the pertinent statutes. The question is thus whether the

[181] John Vaughan, "City Allocates $60,000 For Airport Legal Defense," *The Charlotte News*, December 23, 1975. Don Bedwell, "McMillan To Rule Monday On Runway," *The Charlotte* Observer, July 22, 1977. Cathy Packer, "Airport Battle Costly To Foes," *The Charlotte News,* July 22, 1977.

decision to proceed with the runway is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."

Under that standard of review, the court is of the opinion that the environmental impact statement and the decision of the Secretary, with all due respect to the objections so clearly made by the plaintiffs, do pass muster; that the function of the court in this situation has been satisfied; and that the injunction should be dissolved.

It should also be noted that the suit has fully accomplished the purposes of the Environmental Protection Act by calling attention to the shortcomings in the original study; by identifying and presenting to the community the harm which the project will cause and thereby showing that the true cost must be measured in terms of destruction or alterations in the character of communities, over and above the mere cost of grading, equipment, paving and navigational aids. Specifically, it appears quite unlikely that the current noise abatement procedures would be under way but for this suit." [183]

[183] Steele Creek Community Association v. The United States Department of Transportation, and Coleman, William T., Jr., Secretary thereof, and Dow, James E., Acting Administrator of the Federal Aviation Administration, and the City of Charlotte, North Carolina, a municipal corporation, and Belk, John, Mayor thereof, and the Charlotte-Mecklenburg Board of Education, and North Carolina Department of Transportation and G. Perry Greene, Secretary, NO. C-C-75-186, 435 F.Supp. 196 (1977), Leagal http://www.leagle.com/decision/1977631435FSupp196_1606 (accessed December 12, 2014).

In August, the Steele Creek Community Association filed an appeal, but nothing ever came of it.[184] By February 1978, the 4th Circuit Court of Appeals in Richmond, Virginia, upheld Judge McMillan's ruling. Although paving could once again resume, delays cost the city and the airport around $2.3 million in supplementary contracts during the two and a half year delay.[185]

McMillan's ruling that construction could once again begin on the parallel runway was a watershed moment for the airport. Construction, which had been halted since August 14, 1975, was free to resume after nearly two years of delay.[186] The terminal project, which was defeated in April 1975 and consequently tabled, was again being considered for a bond referendum. Charlotte Douglas's future, which had been in doubt, now seemed bright and promising.

Both *The Charlotte Observer* and the *Charlotte News* ran stories emphasizing the airport's contributions to the Charlotte community. They highlighted a study done by the Air Transport Association of America. *The Charlotte News* reported:

> The direct economic impact of the airport totaled $82.3 million in 1976. Of that, $21 million was wages paid the 1,342 people who work at the airport. Purchases of goods and services from local merchants by airlines

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[184] Cathy Packer, "Runway Foes To Appeal," *The Charlotte News*, August 23, 1977.
[185] Marilyn Mather and Don Bedwell, "U.S. Court Decides Runway Can Take Off," *The Charlotte Observer*, February 4, 1978.
[186] "FAA Action On Douglas Runway Awaited," *The Charlotte Observer*, March 26, 1977.

> and other Douglas Airport tenants totaled $16.7 million. Airlines and other tenants spent $2.4 million on rent and landing fees last year.
>
> "The ATA study said Douglas Airport indirectly brings $35 million to the local economy through tourists, conventioneers and as a support service for hotels and restaurants here."

Altogether, the airport accounted for $117 million annually. The report went on to say, in an interview with Bob Raynesford, spokesman for the ATA, that "in the last five years scores of companies have established sales offices, service centers, division headquarters, research and development facilities and other administrative units in the area. Today (1977) over 122 firms – each with a net worth exceeding $1 million – are based in Mecklenburg County. They depend upon rapid access to the rest of the world provided by Douglas Airport." This and the consequent state and local taxes collected, caused the *Charlotte Observer* to refer to Charlotte Douglas as "Charlotte's 'Money Machine.'"[187]

Although the evidence suggests that most supporters of airport expansion did so for economic reasons, it is noteworthy that Mayor Belk lobbied the United States Department of Transportation (USDOT) to address the concerns of citizens surrounding the airport. In a letter to the USDOT, Mayor Belk urged the passage of regulations

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[187] Don Bedwell, "Douglas Airport Called Charlotte's 'Money Machine,'" *The Charlotte Observer*, December 1, 1977. "Douglas Airport worth $117 million each year," *The Charlotte News*, November 30, 1977.

requiring airlines to retrofit jet engine nacelles to reduce noise, especially during takeoffs and landings. This is an important point based on criticism that airport expansion was elitist and city leaders were neglecting the concerns of "ordinary" citizens. It also mitigated some of the noise concerns citizens had, based on the financial benefits for the city, including jobs, despite a new noise corridor.[188]

[188] Belk Papers, Box 1, Folder 1.1.

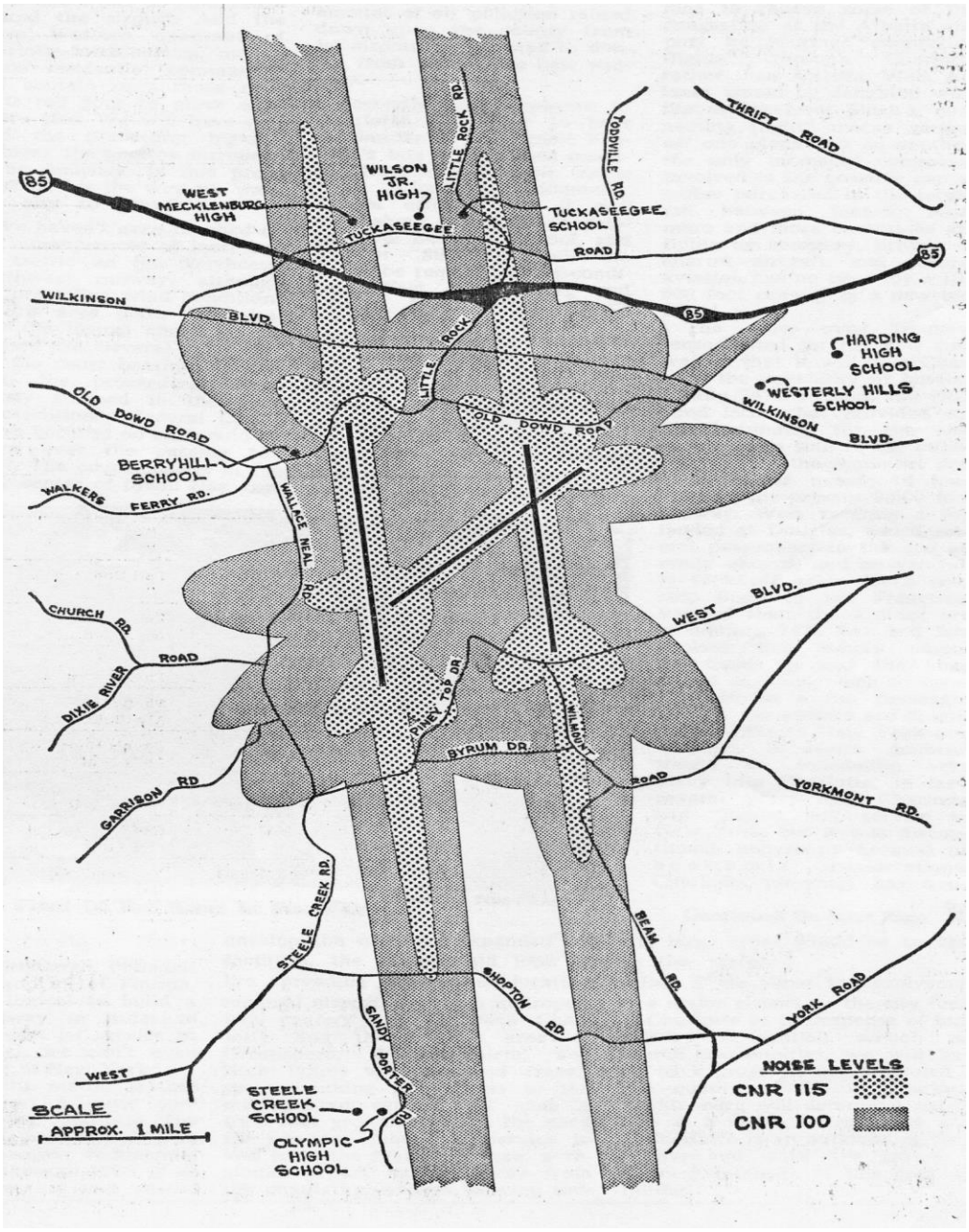

Figure 1: Effects of runways at Charlotte Douglas in the late 1970's.[189]

[189] Airport file, Charlotte Aviation Museum Library Archive.

President Gerald Ford signed more good news, for the development of Charlotte Douglas, into law in 1976. The Airport Airway Development Act (1976), provided $500 million annually for five years to airports nationally. This was a crucial development. It allowed the airport to receive up to an additional $22 million to build the new terminal.[190]

In 1976, R.C. Birmingham aimed to win popular support for the terminal project, which would be reworked with the possibility of additional federal funds. Birmingham gave speeches and made personal appearances endorsing the projects and assuaging fears about the same problems faced in the first bond fight through public appearances and community outreach. His rationale was always the tremendous growth of the airport and the need to support that growth. He understood the complex nature of the relationship between the airport and the surrounding community. Birmingham saw the dualistic nature of the airport, the benefits to the city and detrimental effects on adjacent neighborhoods. He remarked in a speech that:

> The community and the airport have both grown and there is, perhaps, a question of the cause effect relationship between the two. I believe that Charlotte would have grown in population without the growth of the airport just as most communities in the world have grown. I also believe that Charlotte does not need to expand the airport in order to continue to grow, but rather, we need to expand the airport because Charlotte is

[190] Cathy Packer, "$22 Million For Airport," *The Charlotte News*, July 26, 1976.

> growing. But it is apparent that the degree of Charlotte's physical and economic expansion has been spurred by the availability of modern air service with good connections. It is plain to me that Charlotte-Mecklenburg is the type of community that it is today partly due to the effect of the airport on the community. Sadly, this is both good and bad, for our community is engaged in an ideological struggle over the character of our future.[191]

Charlotte Douglas completed its new runway in 1978. The same year the city presented Charlotteans with another bond referendum. However, based on additional federal funds and a slightly scaled down proposal for the terminal itself, the bonds in question amounted to $47 million. Charlotte voters approved the measure by a two-to-one margin. This marked the last time Charlotteans voted on airport bonds. In the future bonds were unnecessary based on Charlotte Douglas's continuing profitability, guaranteeing future financing through revenue bonds. "Such bonds had to be endorsed by the city council, but did not require voter approval."[192]

This represented a paradigm shift in the funding of the airport. This final bond proposal was the last time referendum was necessary to provide funding for the airport. This also marked the end of any major controversy over the airport in the 20th century. In

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[191] Airport Manager File, *Carolinas Aviation Museum Library*, accessed 10/14/14.
[192] Walter Turner, "History of Charlotte Douglas International Airport," 15.

addition to bonds issued by the Charlotte City Council, the airport benefits from publically traded municipal bonds.

Elected in 1977, on an airport improvement platform, Mayor Ken Harris, along with Birmingham and the Airport Advisory Committee, successfully campaigned for the $47 million in bonds to build the new terminal. Roy Johnson, project manager, represented the architectural firm Odell Associates, of Charlotte. Odell had a long history of projects in North Carolina and was responsible for projects such as "the first Charlotte Coliseum (1955), Burlington Industrial Headquarters in Greensboro (1971), and Blue Cross and Blue Shield of North Carolina building in Chapel Hill (1974)."[193]

May 2, 1982, was the first day of official operations at the new Charlotte passenger terminal. Eastern Airlines, the first to offer commercial service into Charlotte, had the honor of operating the last flight out of the old passenger terminal, Flight 856 to Greensboro as well as the first regularly scheduled flight out of the new terminal, Flight 615 to Atlanta, which coincidentally was carrying Ben Douglas Jr., the son of former Mayor Ben Dougals.[194] However, there was some jockeying among the airlines to establish the first flight into the new terminal.[195] Eastern, not leaving anything to chance, launched a "champagne flight." Passengers paid $100 for coach and $150 for first class to circle the city and become the first passengers to depart and arrive at the new terminal on

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[193] Walter Turner, "History of Charlotte Douglas International Airport," 17.
[194] Bill Arthur and James Alexander Jr., "Terminal's First Day Is A Busy One," *Charlotte Observer*," May 3, 1982.
[195] Bill Arthur, "Airlines Jockey For Position At Terminal's Starting Gate,: *Charlotte Observer*, May 1, 1982.

an Eastern Airlines DC-9.[196] Eastern also operated first regularly scheduled flight to arrive, Flight 212 from Columbia, which arrived at 7:22am.[197] This would be the final milestone for Eastern Airlines in Charlotte as the firm, which helped launch the airport and was so integral to its early success, finally became a casualty of deregulation in 1986 when it was sold to Texas Air.

The new terminal, Charlotte Douglas's third since opening in 1937, featured pre-cast concrete construction, twenty-five gates on two concourses, and plans for potential growth to seventy-five gates. When it was completed, the terminal stood three stories, a basement and two two-story concourses, and was a spacious 325,000 square feet. It served four major airlines, Piedmont, Eastern, Delta, and United, as well as seven commuter airlines: Air Virginia, Atlanta Express, Atlantis, Bank Air, Sunbird, Tennessee Airways, and Wheeler Airlines. Charlotte had reached hub status with 200 daily flights and 2 million annual passengers. With the opening of the new terminal in 1982, Charlotte Douglas Airport became Charlotte Douglas International Airport (CLT).[198]

Again, Charlotte and Atlanta share a developmental history. Atlanta's airport, now Atlanta Hartsfield International Airport, named in honor of Atlanta Mayor William B. Hartsfield, had just finished its new passenger terminal in 1981. To do so it issued $305 million in airport bonds, the largest airport bond ever in the United States. The

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[196] Bill Arthur and Lee Weisbecker, "Happy Landing," *Charlotte Observer*, May 2, 1982.
[197] Bill Arthur and James Alexander Jr., "Terminal's First Day Is A Busy One," *Charlotte Observer*," May 3, 1982.
[198] Walter Turner, "History of Charlotte Douglas International Airport," 18.

city's total investment by the end of the project was nearly $450 million. The 378-acre facility was "baptized" by President Jimmy Carter as he officially became the first passenger to depart from the new terminal aboard Air Force One and boasted 138 aircraft gates and the newest technology including an underground people mover. Looked at in comparison to Atlanta Hartsfield, Charlotte Douglas was an extraordinarily cost effective investment. For a fraction of the cost, Charlotte gleaned many of the same benefits Atlanta did without the tremendous price tag. Although Charlotte took time to develop, much of this was by design, incorporating assessment and planning for the needs of the airport. Retrospectively, Charlotte Douglas was never in competition with Atlanta's airport. A more appropriate characterization is that Charlotte Douglas was following the example of its trailblazing neighbor. This was a blessing and a curse. Although Charlotte Douglas was always overshadowed nationally and regionally, when it came to Atlanta, it benefitted from the mistakes made by large prominent airports such as Atlanta. Despite setbacks, professional long-term planning helped to mitigate cost and overcome developmental hurdles to transform Charlotte Douglas into a world class airport, just a step behind its older more developed cousin in Atlanta.[199]

3.3 Charlotte Douglas International Airport:

Since the new terminal opened in 1982, Charlotte Douglas has continued to grow. Concourse A opened in 1985 followed by concourses B and C in the late 80's. In 1990

[199] Betsy Braden and Paul Hagan, *America's Airports,* 195-206.

and 1991, Charlotte added an atrium with moving sidewalks along with the 80,000 square-foot international terminal, Concourse D. Additionally, a local art booster group financed a fifteen-foot statue of Queen Charlotte on a twenty-five-foot pedestal at the terminals main entrance. By 1991, the terminal was 1 million square feet and had sixty-six gates plus additional commuter gates.[200]

By the 1990's, the success of Charlotte Douglas was undeniable. Since Charlotte opened its new terminal, it has gone from the 33rd to the 6th busiest airport in the nation.[201] In 2012, Charlotte Douglas welcomed 41.23 million travelers; it accommodated 552,093 landings and departures to 142 destinations averaging 702 daily departures. Additionally, 15 cargo companies along with 60 freight forwarders shipped and received 137,943 tons of domestic and international cargo.[202]

Charlotte Douglas also continues to be a major employer in the region both directly and indirectly and increasingly has a significant economic impact. In 2012, on-site staff had reached nearly 20,000 workers. Between 1982, when the new terminal opened, and 2012, 7,852 new companies have invested more than $5 billion in Mecklenburg County and created 78,042 new jobs.[203]

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[200] Walter Turner, "History of Charlotte Douglas International Airport," 19.
[201] Airport Assessment, Edward Knox Papers, Atkins Library Special Collections University of North Carolina Charlotte, Box 1, Folder 1.2.
[202] City of Charlotte, "Economic Impact," Charlotte Douglas International Airport, http://charmeck.org/city/charlotte/Airport/AboutCLT/pages/economicimpact.aspx (accessed November 13, 2014)
[203] City of Charlotte, "Economic Impact," (accessed November 13, 2014).

> In many instances, these companies cite the airport as a major reason why they chose to locate within the Charlotte region.
>
> The economic activity that CLT generates is a major contributor to the vitality and growth of the region's economy. The Airport also contributes nearly $10 billion in economic impact to the region, according to a report prepared in November 2005 by the Center for Transportation Policy Studies at the University of North Carolina at Charlotte (UNCC), in partnership with the Charlotte Chamber [of Commerce].
>
> Additionally, more than 100,000 jobs in the region are, directly or indirectly, related to the airport and its services. Those workers earn $5 billion in wages and salaries. To prepare this estimate, the Urban Institute used methodology developed by the Federal Aviation Administration that has become the generally accepted standard for this type of research.[204]

This does not mean Charlotte Douglas has been free from controversy. In 2010, a new $320 million, 9000-foot runway opened. The third parallel north-south runway for the airport. Four dozen Charlotte residents sued the airport.[205] However, planning for expansion continued nevertheless. The first part of a new expansion plan is nearly complete including brand new parking structures. Future

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[204] City of Charlotte, "Economic Impact," (accessed November 13, 2014)
[205] WCNC Staff, "Residents Sue Charlotte Airport Over Noise," WCNC.com, (accessed October 13, 2014), http://www.wcnc.com/story/news/local/2014/06/28/10782982/

plans include a new international terminal, expanded food courts, terminal roadway expansion, a new air traffic control tower, expansion of concourses A, B, and E, as well as a fourth parallel runway.[206]

Charlotte Douglas International Airport has been and continues to be a vital economic and transportation node in the Charlotte region. Since its inception in the 1930's, it has given Charlotte a competitive advantage in the region and provided Charlotteans the opportunity to travel easily around the region and, eventually, the nation and the world. In doing so, it has provided countless jobs and investment for the city of Charlotte. Despite the growing pains, Charlotte Douglas has helped the City of Charlotte to stand out as a growing metropolis and vital business center. Additionally, the communities adjacent to the airport have begun a resurgence. The Steele Creek Community is now the fastest growing in the Charlotte area. The development of quieter planes with continued airport and FAA efforts to enact noise reduction technologies and procedures are all positive signs for this growth to continue. The care and planning that has defined the airport throughout its history adds to the appeal and accessibility of Charlotte and the region for decades to come.

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[206] City of Charlotte, "City Council Dinner Briefing," Charmeck.org, (accessed April 1, 2014), http://charmeck.org/city/charlotte/Airport/News/Documents/AnnualReportCouncilPresentation.pdf

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