

## Introduction

### Purpose of Chapter

This chapter serves as the aviation element of the RFATS 2035 Long-Range Transportation Plan. It describes the existing conditions and trends at the national level, at the statewide/regional level, and within the RFATS study area. It then describes the current and future issues at the same set of levels. Stakeholder input is summarized, followed by a summary of key points and a list of recommendations.

### Relevance to the Transportation System and the Plan

Commercial and general aviation contribute to the transportation system and have particular impacts on other aspects of the transportation system and the wider environment. Commercial aviation allows citizens to travel to other states and internationally for business, personal business, or leisure.

Commercial freight operations—including the major parcel companies—provide a means of delivering commercial goods across the nation. Aviation is the fastest mode of transportation for traveling substantial distances. General aviation supports business travel needs as well as providing for recreational flying. There are also important niche operations, such as medical helicopters.

Larger airports and their associated aviation-related businesses are significant generators of travel demand, not only for air travelers but also for commercial vehicles as well as the commuting needs of airport employees. They can act as intermodal nodes between air and surface transportation as well as between modes of surface transportation for which the airport is simply a convenient meeting-place.

The RFATS study area is fortunate to have its own corporate/business airport in addition to a major international airport. The aviation challenge for the future is to maximize the benefits of having these two complementary facilities.



## Existing Conditions and Trends

### National Conditions and Trends

At the national level, air traffic is expected to more than double by 2025. The Federal Aviation Administration's (FAA's) report titled Capacity Needs in the National Air Space System 2007–2025 identified airports that would require facility improvements or airspace management improvements to meet forecasted demand. The report noted that Charlotte Douglas International Airport would require additional air service capacity by the year 2015, and recommended that further regional air service studies be performed in the Charlotte metropolitan area.

### Statewide and Regional Conditions and Trends

#### *Charlotte Douglas International Airport*

Although Charlotte Douglas International Airport (CLT) is across the border in North Carolina, the airport has a major impact on aviation within the RFATS study area.

- CLT is the main commercial airport serving the study area, offering direct links to nationwide and international destinations.
- CLT is US Airways primary hub for domestic air travel
- In 2011, CLT was the nation's 11<sup>th</sup> busiest airport in the U.S. in terms of enplanements (19,022,535 enplanements, a 2.1% increase from 2010).
- CLT's regional airspace includes the area surrounding Rock Hill / York County Airport, which means that operations at Rock Hill / York County Airport and other facilities may be affected by air traffic and regulatory decisions at CLT.



Charlotte is one of the metropolitan areas that the 2007–2025 FAA study identified as needing additional air service capacity by the year 2015. The FAA study recommended that further regional air service studies be performed in the Charlotte metropolitan area.

CLT currently is in the midst of expansion outlined in its 2015 development program. The expansion projects include accommodations for current and future passenger growth as well as modifications to the airport entrance, parking, and terminal access. The phased construction projects include the following:

- Baggage Claim Renovations – cosmetic improvements (completed)
- Terminal Eastside Expansion – 60,000-square-foot expansion, with public space and security checkpoint (opened in June 2012)
- Hourly Parking Deck and Rental Car Facility – 7,000-space deck to house all rental car facilities (two-phased project with completion in June 2013 and December 2014)
- Airport Entrance Road – new entrance road from I85 via Little Rock Road (anticipated completion in December 2013)
- Curbside Roadway Expansion – 150,000-square-foot expansion of for Ticketing/Departures and Arrival Baggage areas (construction not initiated)

### *South Carolina Airports System Plan*

The 2008 South Carolina Airports System Plan forecasts service demand at both the Charlotte Douglas International Airport and the Rock Hill/York County Airport to double by 2025, in line with the national trend.

The plan classifies South Carolina airports into four categories:

- **Commercial Service Airports** (category SCI) are airports with scheduled services and at least 10,000 passenger boardings annually.
- **Corporate/Business Airports** (category SCII) are urban/multi-jurisdictional airports with a runway of at least 5,000 feet and full services. They are seen as having a high economic impact, and 30 to 50 percent of their activity is in corporate aviation.
- **Business/Recreation Airports** (category SCIII) are rural airports with a runway of at least 3,600 feet and moderate economic impact.

- **Recreational/Local Service Airports** (category SCIV) are low-activity airports with a runway of less than 3,600 feet and limited facilities. They have a low economic impact and may have constraints to expansion.

Rock Hill/York County Airport, located between Mt. Gallant Road and Celanese Road in Rock Hill, is one of the state's fourteen Corporate/Business (category SCII) airports. The state plan includes the following goals for this airport:

- Protect its airspace from being taken by Charlotte Douglas International Airport in connection with the latter's proposed third main runway.
- Protect the surrounding area from incompatible development (essentially residential development).
- Retain the ability to compete with Charlotte Douglas as part of the Charlotte market.
- A longer-term vision to extend the runway by 1,000 feet to accommodate larger aircraft and allow existing users to operate year-round; and to construct hangars.

## Conditions and Trends in the RFATS Study Area

### *Summary of Aviation Facilities serving the RFATS Study Area*

In addition to its publicly-owned airport, the RFATS study area includes one privately-owned heliport. The heliport is at the Piedmont Medical Center in Rock Hill. The very small privately-owned Bethel-Lake Wylie airport is just beyond the western edge of the RFATS Study Area.

Rock Hill/York County Airport provides citizens and businesses in the RFATS Study Area with convenient access to general aviation facilities for both commercial and leisure purposes. As described above, Charlotte Douglas International Airport, although outside the RFATS Study Area, gives citizens and businesses in the RFATS Study Area the benefit of a wide range of scheduled air services. It also has a major impact on both airspace management and the commercial prospects of airports within the RFATS Study Area. The FAA has designated Rock Hill/York County Airport as a reliever for Charlotte-Douglas International Airport.

### *Rock Hill/York County Airport*

Rock Hill/York County Airport (Bryant Field) is a publicly-owned, general aviation SCII classified airport located approximately four miles north of the center of Rock Hill. **Figure 10.1** shows the airport location and proximity of Charlotte Douglas International Airport and **Figure 10.2** highlights planned improvements.

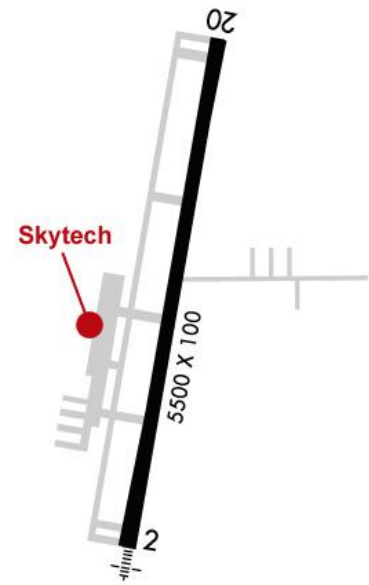
The airport, which is owned and operated by the City of Rock Hill, has a 5,500-foot runway. According to FAA statistics, it had more than 100 based aircraft and 42,500 aircraft operations for the year ending August 10, 2007. The operations include general aviation local aircraft operations, general aviation itinerant operations, and a small number of military operations. Ground transportation includes rental car agencies and taxi service. It has a total employment of 87, with a payroll exceeding \$2 million, and a total economic output of almost \$7 million annually.

In 1956, an Airport Commission was established to develop an airport to serve the Rock Hill area. During the decades that followed, airport facilities expanded under the direction of a series of Master Plans, and with the help of a series of federal grants. During the 1970s and early 1980s in particular, the airport experienced rapid growth in operations and the number of aircraft based there. Subsequent Master Plans in 1983 and 1994 included further development of the airport infrastructure. The current Master Plan was completed in 2003 and is described below.



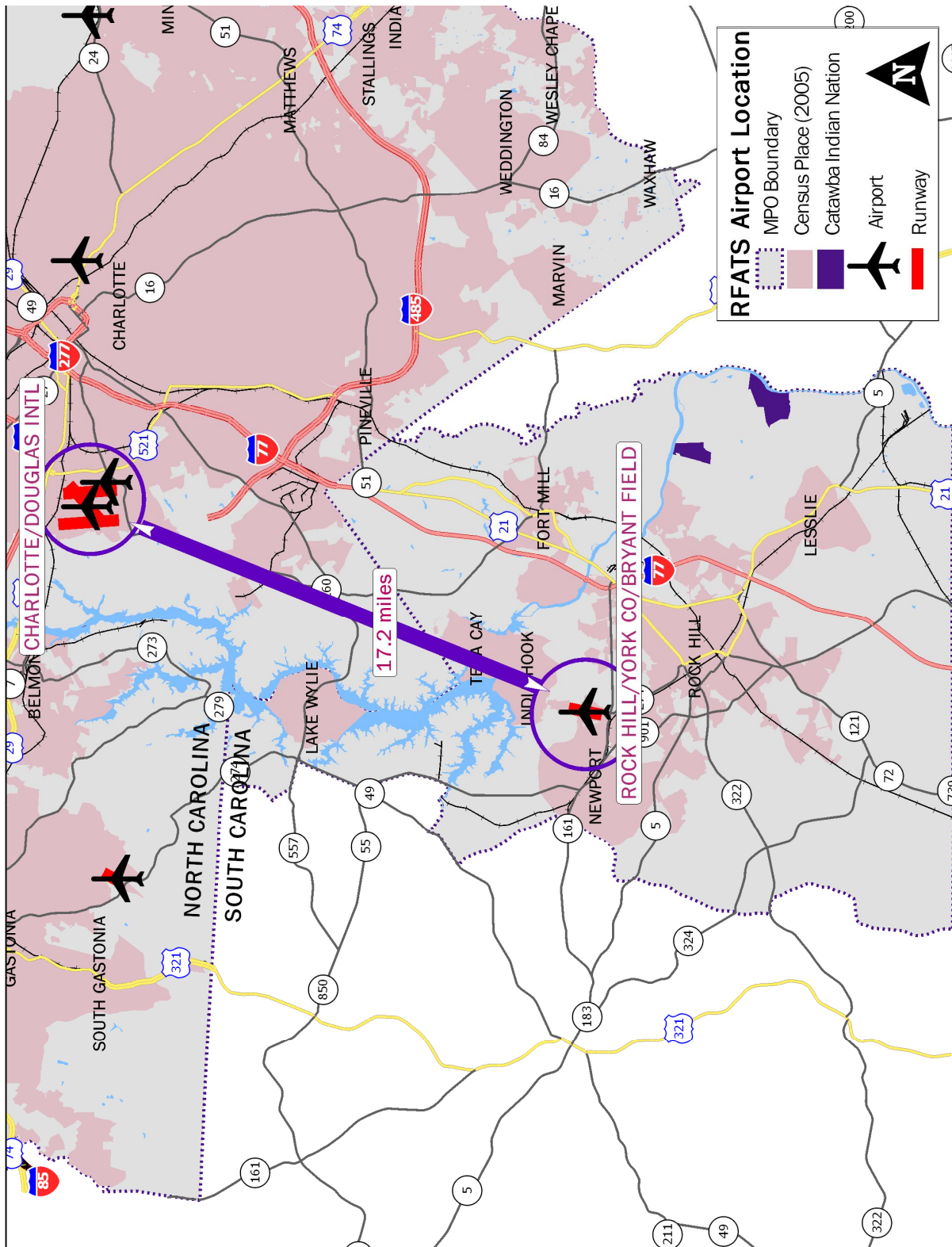
*Aerial image of the Rock Hill/York County Airport with 5,500' runway*

In 1992, the City of Rock Hill and York County entered into an agreement on the airport's management. Under this agreement, the City remains the official sponsor of the airport, but the City and County contribute equally in local funding. An airport commission makes recommendations to the City on the airport's policies and operations as well as advising the City and County on planning matters and capital improvements. Day-to-day airport business is performed by SkyTech, which leases the facilities on the west side of the airport from the City.



*The City and County have contracted with SkyTech to handle day to day management of the airport.*

**Figure 10.1 - Depicting the physical relationship between the Rock Hill / York County Airport and Charlotte Douglas International Airport.**



## Current and Future Issues

### Regional Air Space

The air space around Rock Hill/York County Airport is expected to remain unchanged in the foreseeable future. There have recently been discussions about potential changes relating to Charlotte Douglas International Airport, but those changes have now been dropped.

### Current Master Plan for Rock Hill/York County Airport

The current Airport Master Plan for Rock Hill/York County Airport was completed in 2003. It highlights the airport's role in the area's transportation system and presents plans for future improvements. Its goal is to provide guidelines for future airport development, which will satisfy aviation demand in a cost-effective, feasible manner, while resolving aviation, environmental, and socioeconomic issues raised by the community.

The plan calls for continued airport improvements in three phases to 2022 as follows:

- Phase I (2003-2007),
- Phase II (2008-2012), and
- Phase III (2013-2022).

The Master Plan recognizes that the airport's future growth depends on a range of factors: the extent of development of the airport facilities themselves; the effect of fiscal policy on the relative cost of aircraft ownership between North Carolina and South Carolina, and the potential for diversion of general aviation from other airports in the Charlotte area. The plan was completed in 2003 and forecasts the needs of the subsequent 20-year duration with an identified horizon of 2022. **Table 10.1** presents the Master Plan's forecast of operations at the airport.

Based on these forecast operations, the Master Plan called for a range of improvements including, a 6,500 foot runway, over 12,000 square feet of terminal area, and 216 terminal area parking spaces, as well as a range of incremental improvements to apron areas, the number of aircraft tie-downs, and navigation aids. **Table 10.2** shows these in more detail. **Figure 10.2** shows the main physical improvements.

## Rock Hill/York County Airport Overlay District

The City of Rock Hill and York County have adopted an Airport Overlay District, aimed at protecting the interests of the airport and surrounding areas. This includes land use standards and restrictions for areas around the airport.

Table 10.1 - Forecast Operations at Rock Hill / York County Airport

Forecast Category	Year			
	2003	2008	2013	2022
<b>Aircraft Operations</b>				
<b>Itinerant</b>				
Air Carrier	0	0	0	0
Air Taxi	325	500	900	1,700
General Aviation	11,500	17,700	26,200	39,600
Military	150	200	250	300
Subtotal	11,975	18,400	27,350	41,600
<b>Local</b>				
Civil	25,600	31,900	38,050	46,300
Military	100	100	100	100
Subtotal	25,700	3,200	38,150	46,400
Total	37,675	50,400	65,500	88,000
<b>Aircraft Mix</b>				
Single-Engine Piston	90	104	119	133
Multi-Engine Piston	9	10	11	13
Single-Engine Turboprop	6	11	16	24
Multi-Engine Turboprop	3	5	10	18
Jet	0	2	4	8
Rotorcraft	0	0	1	2
Total	108	132	161	198
<b>Peak Period</b>				
Peak Month Total Operations	4144	5544	7205	9680
Peak Month Itinerant Operations	1317	2024	3009	4576
Peak Month Itinerant Flights	659	1012	1505	2288
Peak Hour Itinerant Flights	4.25	6.53	9.7	14.76
Peak Hour Passengers	15.18	25.34	42.78	72.06

Source: 2003 Airport Master Plan

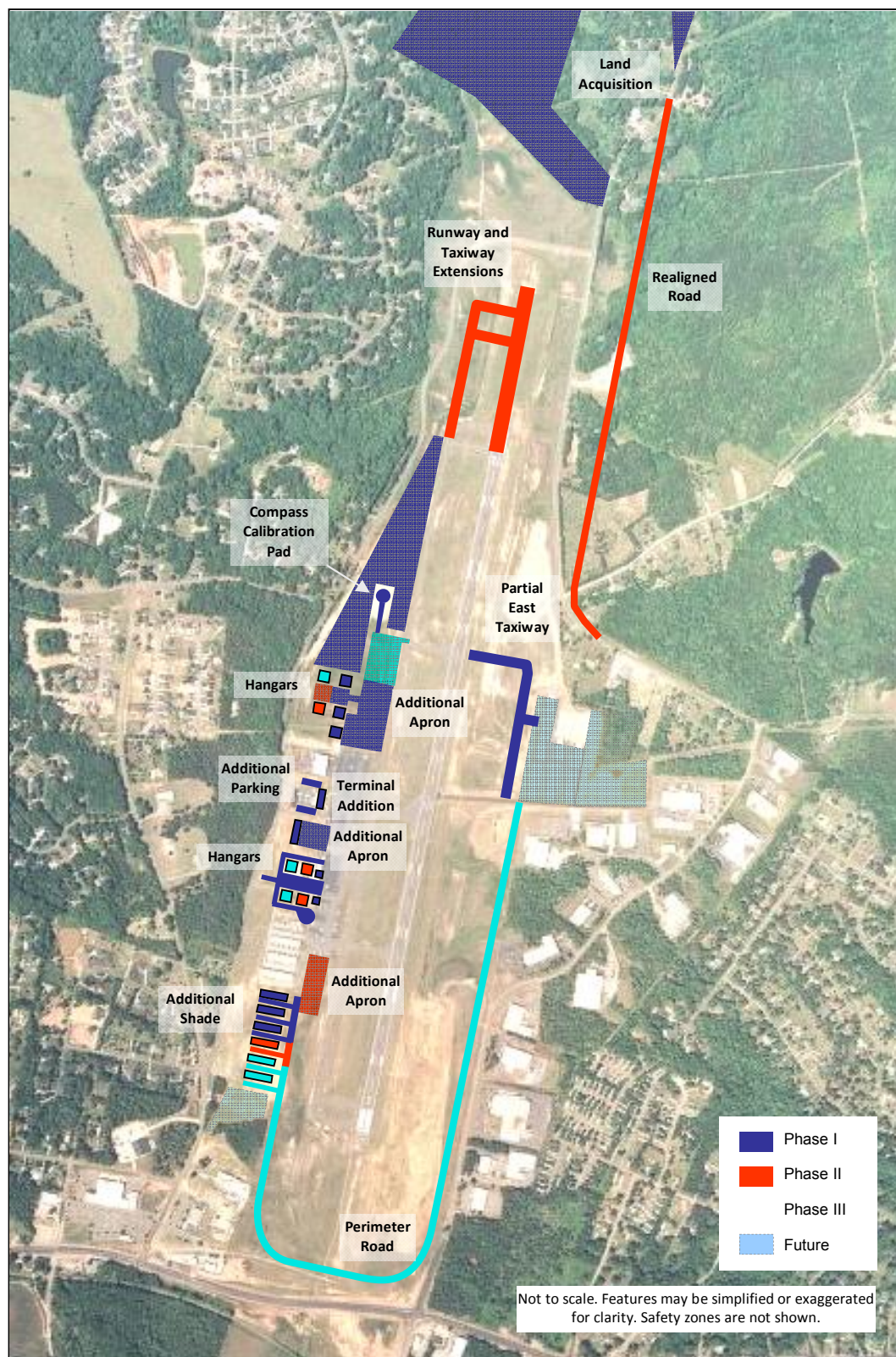
**Table 10.2- Facility Requirements at Rock Hill / York County Airport**

Summary of Facility Requirements						
Rock Hill/York County Airport (Bryant Field)						
Facility	Existing	Forecast Scenarios				
		Phase I II & III	Phase II II	Phase II III	Phase III II	Phase III III
<b>Runway</b>						
Length	5,500'	5,500'	6,500'	6,500'	6,500'	6,500'
Width	100'	100'	100'	100'	100'	100'
Strength (pounds)	60,000-D	60,000-D	60,000-D	60,000-D	60,000-D	60,000-D
<b>Taxiways</b>						
Width	35'	35'	35'	35'	35'	35'
Parallel	west	west	west	west	west	west
Partial Parallel	-	-	-	east	east	east
Strength (pounds)	60,000-D	60,000-D	60,000-D	60,000-D	60,000-D	60,000-D
<b>Apron (square yards)</b>						
Based Aircraft Tie-Down Area	8,439.6	16,879.2	16,879.2	20,774.4	21,423.6	31,810.8
Itinerant Aircraft Tie-Down Area	8,769.2	12,755.2	19,132.8	19,132.8	23,916.0	29,496.4
Total	17,208.8	29,634.4	36,012.0	39,907.2	45,339.6	61,307.2
<b>Aircraft Location</b>						
Based Aircraft – Hangared	95	106	107	129	130	158
Based Aircraft – Tied Down	13	26	26	32	33	40
Itinerant Daily Tie-Downs	16	25	30	36	46	55
Total	124	157	163	197	209	263
<b>Terminal Areas (square feet)</b>						
Lobby	1,352	1,352	1,352		1,352	
Rental Car	-	100	150		150	
Coffee Shop	-	520	880		1,440	
Kitchen	237	237	237		237	
Manager's Office	135	135	135		135	
Conference Rooms	854	854	1,541		1,541	
Tenants	1,507	1,507	1,507		1,507	
Pilot Lounge	265	500	850		1,400	
Gift Shop	325	325	325		325	
Security Office	-	150	150		150	
Restrooms	496	500	840		840	
Other	2,195	2,499	3,297		3,752	
Total	7,366	8,679	11,264		12,829	
<b>Terminal Automobile Parking Spaces</b>						
Regular	61	61	106		183	
Rental Car	3	6	9		15	
Coffee Shop	0	6	10		18	
Total	64	73	125		216	

<b>Navigation Aids</b>				
Beacon	x	x	x	x
Wind Cone and Segmented Circle	x	x	x	x
ASOS	x	x	x	x
VORTAC	x	x	x	x
NDB (Runway 2)	x	x	x	x
Localizer (Runway 2)	x	x	x	x
MALSR (Runway 2)	x	x	x	x
PAPI-2 (Runway 2/20)	x	x	x	x
Glide Slope (Runway 2)	x	x	x	x
Middle Marker (Runway 20)			x	x
Localizer (Runway 20)			x	x
MALSR (Runway 20)			x	x
Glide Slope (Runway 20)			x	x
Source: Talbert & Bright Inc. (July 2003)				

Source: Airport Master Plan, 2003.

**Figure 10.2 - Future Airport Developments**



Source: Airport Master Plan, 2003. Only main physical improvements are shown.

## Stakeholder Input

The Public involvement process generated no major issues relating to aviation. (It should be noted that the proposed Airport Overlay District has generated stakeholder input, but those issues are being addressed as part of the land-use planning process.)

## Summary and Recommendations

### Summary of Key Points

- The RFATS Study Area benefits from proximity to Charlotte Douglas International Airport (a major commercial hub for passengers and freight) as well as its own general aviation airport (Rock Hill/York County Airport).
- Rock Hill/York County Airport is expected to increase its level of operations, and has a Master Plan in place to guide the development of its facilities.
- Air traffic levels and other developments at Charlotte Douglas International Airport may have an impact on the long-term future of Rock Hill/York County Airport. The latter could develop a market niche as a relief valve for congestion at Charlotte Douglas. The RFATS Study Area stakeholders will need to remain involved in the planning of any expansion at Charlotte Douglas.
- The City and County have adopted an Airport Overlay District, to protect the interests of both Rock Hill/York County Airport and residents of surrounding areas.

### Recommendations

- RFATS should study whether, and how, the forecast congestion at Charlotte Douglas International Airport will affect the likely demands on Rock Hill/York County Airport and its potential for growth.
- RFATS stakeholders should remain involved in the planning of any expansion at Charlotte Douglas.