



APPENDIX C

DEMAND CAPACITY ANALYSIS



Appendix C

Demand Capacity Analysis

An essential step in predicting airport needs is the determination of an airport's current capacity to accommodate anticipated demand. Operational demand determines the overall capacity and development at an airport based upon an analysis of the airport's annual service volume (ASV). The ASV determines the airport's annual operational capacity without undue delay based upon historic and forecast aircraft operations and limited fleet mix data. Airports can operate above the ASV but will experience some take-off or landing delays during peak operating periods. ASV does not take into account, however, significant changes in aircraft group categories related to existing and anticipated fleet mix and runway length requirements. This is a deficiency of the traditional FAA Airport Capacity Analysis outlined in **FAA AC 150/5060-5**. ASV only accounts for deficiencies in runway use, aircraft fleet mix, weather conditions, etc. that would be encountered based upon the existing aircraft group category and usage rather than anticipated changes in operations and fleet mix.

Airfield operational capacity is defined as the number of aircraft that can be safely accommodated on the runway-taxiway system at a given point in time. Delay is the difference between "constrained" and "unconstrained" aircraft operating time, usually expressed in minutes. Unacceptable delay will occur when successive hourly demand exceeds the airport's hourly capacity. Further, aircraft delays can occur even when the total hourly demand is less than hourly capacity if demand during a portion of that hour exceeds the capacity of that timeframe.

C.1 Airfield Operational Capacity

Operational demand and capacity analysis of airfield or airside systems and facilities, such as the Airport's runways and taxiways, results in calculated hourly capacities for Visual Flight Rules (VFR) and Instrument Flight Rules (IFR) conditions. Additionally, an ASV, which identifies the total number of aircraft operations that may be accommodated at the airport without excessive delay, was also calculated.

An airport's hourly runway capacity is the maximum number of aircraft that can be accommodated under conditions of continuous demand during a one-hour period. It should be noted that generally this hourly capacity cannot be sustained over long periods

without impacting operations and causing delay. An airport's hourly runway capacity is influenced by a number of factors, as described in the following paragraphs.

Since the magnitude and scheduling of user demand is relatively uncontrollable, especially at a general aviation (GA) airport, reductions in aircraft delay can best be achieved by improving airfield facilities to increase overall capacity. Airfield capacity is quantified by two calculable factors:

- Weighted hourly capacity (Cw): The theoretical number of aircraft that can be accommodated by the airport in an hour, considering all runway use configurations.
- ASV: The airport's theoretical annual operational capacity without undue capacity.

To determine Cw and ASV and conduct the capacity analysis, a number of prime determinates specific to CRG must be identified. These include:

- Meteorological conditions
- Runway use configuration
- Aircraft mix (based upon existing aircraft group demand)
- Percent arrivals
- T&G operations
- Exit taxiways

The FAA defines operational capacity as a reasonable estimate of an airport's annual capacity that would be encountered over a year's time. The parameters, assumptions, and calculations required for this analysis are included in the following sections.

C.1.1 Airfield Characteristics

Runway Configuration

The number of runways at an airport and how they are positioned in relation to one another determines how many arrivals and departures can occur within an hour. For example, if an airport has two runways that are oriented parallel to each other then it is generally possible to have arrivals and departures to both runways at the same time, which is most often referred to as runway independence. However, if the two runways intersect, an aircraft departing on one runway must wait for operations on the other to be completed prior to starting its takeoff, most often referred to as runway dependence. The runway configuration at CRG is dependent since Runway 5-23 and 14-32 cannot operate independently at the same time due to the airfield's triangular runway alignment. In addition, due to the relationship of the runway thresholds on Runway 32 and 23, land and hold short or LAHSO operations are currently in place which impacts the operational capacity of both runways

To accurately measure the ASV, a dependent runway system configuration was used as a benchmark to calculate appropriate capacity levels through operational

utilization. Based upon operational data provided in the approved 2006 FAR Part 150 Study, Runway 14-32 accommodates approximately 55 percent of total operations during both VFR and IFR conditions and Runway 5-23 accommodates the remaining 45 percent. However, all IFR instrument approaches must be made to Runway 14 or 32. Aircraft can transition to land on Runway 5-23 when wind and visibility conditions allow.

Taxiway Configuration and Exits

The number of taxiways at an airport impacts hourly runway capacity by influencing when an arriving aircraft can safely exit the runway. The distance between the taxiway location and the runway ends plays a vital role in calculating runway occupancy time and delay. The longer an aircraft occupies the runway, the more likely delay will impact arriving or departing aircraft.

According to the FAA *Capacity AC*, taxiway exits located approximately 2000 feet from the runway arrival threshold provide the optimum safe distance for aircraft to exit. However, the location and type of exit taxiways (perpendicular or high-speed) is dependent upon not only the length of the runway but also the aircraft fleet using that runway. Conventional taxiways form right angles with the runway, while high-speed connectors or taxiways form an acute angle with the runway. The provision of high-speed exits increases capacity by decreasing roll out time and thus decreasing the time it takes for the aircraft to vacate the runway environment. In other words, smaller and lighter aircraft may be able to safely exit 2,000 feet from the runway threshold whereas a larger and heavier business jet will require a greater roll-out distance and the use of high-speed taxiway exits.

Taxiways A and B provide full parallel access to Runways 14-32 and 5-23, respectively, and are equipped with five (5) conventional connector taxiways. **Table C.1** designates the connector taxiways associated with Runways 5-23 and 14-32.

Table C.1 Taxiway Exit Locations		
Taxiway Exit	Distance from Runway 14 Threshold	Distance from Runway 32 Threshold
A	-	3,955 ft
A3	1,143 ft	2,801 ft
A5	2,083 ft	1,855 ft
C	3,804 ft	169 ft
E	3,506 ft	450 ft
	Distance from Runway 5 Threshold	Distance from Runway 23 Threshold
B	-	3,979 ft
B2	1,053 ft	2,929 ft
B4	2,093 ft	1,878 ft
C	3,690 ft	237 ft
F	3,419 ft	552 ft

Source: The LPA Group Incorporated 2007

C.1.2 Aircraft Mix Index

In the *Capacity AC*, the FAA classifies aircraft at an airport based on their maximum certified operational weight. The mix index is a calculated ratio of the aircraft fleet based upon a weight classification system. As the number of heavier aircraft increases, so does the mix index. The hourly runway capacity decreases as the mix index increases because the FAA requires that heavier aircraft be spaced further apart from other aircraft for safety reasons. Because the runways at Craig are limited to aircraft operations at 60,000 lbs. or less and because these operations are projected to be a relatively small percentage of the total operations at Craig, there will be no change in the mix index over the planning period.

Knowing the operational fleet mix, it is possible to establish the mix index required to compute the airfield's capacity. The aircraft mix index is calculated based on the type or class of aircraft expected to serve an airfield. The aircraft mix index is a mathematical expression that refers to a ratio of aircraft classified by weight and is calculated with the following formula: $\%(C+3D)$, where class C are large aircraft with gross weight 12,500 to 300,000 lbs. and class D are large aircraft with a gross weight over 300,000 lbs as shown in **Table C.2**.

Aircraft Class	Max. Cert. Takeoff Weight (lb)	Number of Engines	Wake Turbulence Classification
A	12,500 or less	Single	Small (S)
B		Multi	
C	12,500 – 300,000	Multi	Large (L)
D	Over 300,000	Multi	Heavy (H)

Source: FAA AC 150/5300-13

The majority of aircraft operating at CRG consists of Class A, B aircraft and C aircraft but no Class D aircraft. The FAA has three classifications for aircraft operations. The first two, based on wingspan and aircraft approach speed, outlined in the forecast, facility requirements and alternatives chapters indicates an increase in turboprop and jet traffic (Class B-I, B-II, C-I and C-II) over the planning period. The Demand/Capacity Analysis also classifies aircraft based on weight as discussed in Table C.2. Jet aircraft operating at CRG are typically considered Class C aircraft for the Demand/Capacity analysis. These aircraft currently represent approximately two (2) percent of total operations at the airport. Projecting forward, the 20-year forecast estimates an increase of jet traffic to seven (7) percent of total operational activity at CRG. This increase remains within the 0 to 20 percent aircraft mix index and does not affect the calculation for ASV over the planning period. Therefore, the practical capacity of the airfield will remain the same under current and future operational levels. The mix index over the entire planning period is depicted in **Table C.3**.

Year	Mix Index: %(C+3D)
2006	2.06%
2011	4.82%
2016	6.64%
2021	7.00%
2026	7.00%

Source: The LPA Group, Inc, 2007

C.2 Operational Characteristics

Significant operational characteristics that can affect an airfield’s overall capacity include: the percentage of aircraft arrivals, the sequencing of aircraft departures, and the percentage of touch and go operations. Moreover, runway utilization percentages, both during VFR and IFR, facilitate in assigning appropriate weighting factors in the calculation of hourly capacity.

C.2.1 Percentage of Aircraft Arrivals

The percentage of aircraft arrivals is the ratio of landing operations to the total operations of the airport. This percentage is considered due to the fact that aircraft approaching an airport for landing require greater runway occupancy time than departing aircraft. The FAA methodology used herein provides for computing airfield capacity with a 40, 50, or 60 percent of arrivals figure. For general planning purposes, the 50 percent of arrivals value was employed as an average or impartial effect to determine the overall capacity at CRG.

C.2.2 Sequencing of Aircraft Departures

All runways at CRG are equipped with dedicated run-up areas sufficient to allow for taxiing aircraft to pass simultaneously. Since areas dedicated for run-up activity or a lack thereof cannot be modeled using the FAA's airfield capacity methodology, the airfield is considered to have no aircraft departure constraints.

C.2.3 Percentage of Touch and Go Operations

The percentage of total operations that consist of touch and go operations plays a significant role in the determination of airport capacity. Touch and go operations are counted as one landing and one takeoff (i.e., two operations). These types of operations are normally associated with flight training activities. FAA guidelines for calculating ASV require an estimate of the percent of touch and go operations occurring at the airport. Conversations with the tower chief and other tower personnel indicated that approximately 30 percent of operations were associated with touch-and-go's. This percentage was used to calculate ASV and was assumed to remain consistent throughout the planning period.

C.2.4 Runway Utilization Percentage

Runway utilization rates are an important input into the model used to calculate hourly runway capacity and ASV. The spread of runway usage during all types of weather conditions helps determine the most efficient use of the airfield by maximizing capacity and minimizing delay. Based upon operating information provided by CRG Air Traffic Control personnel and 2006 FAR Part 150 Noise Study, VFR and IFR runway utilization percentages are provided in **Tables C.4** and **C.5**, respectfully. In addition, the airport experiences weather minimums below IFR capabilities less than 1 percent of the time when the airport is considered closed.

Table C.4 VFR Runway Utilization	
Runway	Runway Utilization Percentage
14	25.0%
32	30.0%
5	21.0%
23	24.0%
<i>Source: 2006 FAR Part 150 Study</i>	

Table C.5 IFR Runway Utilization	
Runway	Runway Utilization Percentage
14	25%
32	30%
5	21%
23	24%
<i>Note: Instrument approaches are to Runways 14 or 32; a circle approach to land on Runways 5 or 23 when wind and visibility conditions allow.</i>	
<i>Source: 2006 FAR Part 150 Study</i>	

C.2.5 Meteorological Conditions

Meteorological conditions influence the decision as to which runway end a pilot will choose in making an approach based on wind and other weather related conditions. Thus, these conditions can influence hourly airfield capacity. Runway utilization is normally determined by wind conditions while the cloud ceiling and visibility dictates spacing requirements. There are three measures of cloud ceiling and visibility conditions recognized by the FAA in calculating the capacity of an airport. These include:

- ➔ **Visual Flight Rules (VFR)** – Cloud ceiling is greater than 1,000 feet above ground level (AGL) and the visibility is at least three statute miles.
- ➔ **Instrument Flight Rules (IFR)** – Cloud ceiling is at least 600 feet AGL but less than 1,000 feet AGL and/or the visibility is at least half a statute mile but less than three statute miles.
- ➔ **Poor Visibility and Ceiling (PVC)** – Cloud ceiling is less than 500 feet AGL and/or the visibility is less than half a statute mile.

CRG has three published instrument approaches. There is an ILS approach to Runway 32 with a minimum decision height of 241 feet MSL and horizontal visibility of ½ statute mile. Runway 32 also has a GPS approach with a minimum decision height of 460 feet MSL and a horizontal visibility of ¾ statute mile. Runway 14 also has a GPS approach

with a minimum decision height of 800 feet MSL and a horizontal visibility of 1 statute mile.

CRG experiences VFR conditions approximately 95 percent of the time, IFR conditions 4 percent of the time and below minimums less than 1 percent of the time. When the meteorological conditions are below these minimums, the airport is closed to landing aircraft.

C.3 Airfield Capacity Analysis

The preceding airfield characteristics were used in conjunction with the methodology developed by the FAA to determine airfield capacity. As mentioned, the FAA methodology generates the hourly capacity of runways and the annual service volume for measuring airfield capacity.

C.3.1 Hourly Capacity of Runway

Hourly capacity of the runways measures the maximum number of aircraft operations that can be accommodated by the airport's runway configuration in one hour. Based on the FAA methodology, hourly capacity for runways is calculated by analyzing the appropriate VFR and IFR figures for the airport's runway configuration. From these figures, the aircraft mix index and percent of aircraft arrivals are assessed to calculate the hourly capacity base, C . A touch and go factor, T , is also determined based on the percentage of touch and go operations combined with the aircraft mix index. Moreover, these figures complement the taxiway exit factor, E , which determines how many taxiway exits are available, separated by at least 750 feet.

For both VFR and IFR conditions, the hourly capacity for runways is calculated by multiplying the hourly capacity base, touch and go factor, and exit factor. This equation is:

$$\text{Hourly Capacity} = C^* \times T \times E$$

where:

C^*	=	hourly capacity base
T	=	touch and go factor
E	=	exit factor

Diagram 44 in the *Capacity AC* was selected as the figure that best represents the airfield configuration and usage. Since no physical changes are expected to be made to the runway configuration over the planning period, **Figure 3-28** in this AC was used for the hourly capacity calculations for **Diagram 44** throughout the entire planning period.

The mix index for this runway configuration, based upon information provided in **Table C.6**, was calculated in order to determine the hourly capacity. The mix index is calculated as follows: $Mix\ Index = \%(C + 3D)$. The hourly capacity for the key years of the planning period is shown in **Table C.7**. The weighted hourly capacities shown were calculated using the percentages that these conditions occurred at the airport.

Runway Use Condition	Hourly Capacity Base (C*)	Touch and Go Factor (T)	Exit Rating (E)	Hourly Capacity	Weight Factor (W)	Percentage Use (VFR)	Percentage Use (IFR)
14 VFR	97	1.17	0.94	106.68	1	25.0%	
14 IFR	59	1	1	59	3		24.6%
32 VFR	97	1.17	0.94	106.68	1	30.0%	
32 IFR	59	1	1	59	3		29.8%
5 VFR	97	1.17	0.94	106.68	1	21.0%	
5 IFR	59	1	1	59	3		20.8%
23 VFR	97	1.17	0.94	106.68	1	24.0%	
23 IFR	59	1	1	59	3		23.8%
Closed	0	0	0	0	25		1.0%
TOTAL						100%	100%
Notes:	<i>Maximum Hourly Capacity = 106.68 ops</i> <i>Weighted Hourly Capacity $C_w = \sum (Column\ 5 \times Column\ 6 \times Column\ 7) / \sum (Column\ 6 \times Column\ 7) =$</i> <i>o 278 = Annual Demand/ADPM</i> <i>Hourly Demand Ratio (H) with Aircraft Mix Index of 0% to 20%</i> <i>o 11 = APDM/Peak Hour ops</i> <i>Annual Service Volume ($C_w \times D \times H$) =</i> <i>The weight factor calculation for both IFR and VFR conditions is as outlined in the methodology found in FAA AC 150/5060-5, Airport Capacity and Delay, Table 3-1</i> <i>Since Runway 32 is equipped with an ILS, the majority of IFR operations are performed on this runway</i>						
<i>Source: CRG FAR Part 150 Stud, 2006 and The LPA Group Incorporated, 2007</i>							

Year	VFR Operations/Hour	IFR Operations/Hour	Weighted Hourly Capacity (C _w)
<i>Base Year</i>			
2006	106.68	59	63.718
<i>Forecast</i>			
2007	106.68	59	63.718
2012	106.68	59	63.718
2017	106.68	59	63.718
2026	106.68	59	63.718
<i>Source: The LPA Group Incorporated 2007</i>			

Hourly capacity is expected to remain constant over the planning period with the assumption that no modifications to the airfield or runway system will occur. The weighted hourly capacity of the airfield was considerably less than the operational

capacity under VFR due to the moderate utilization of both runways under these conditions, depending on wind favorability. Currently, since both runways intersect, the operational dependency imposed by this relationship limits the number of hourly aircraft throughput due to safety issues.

C.3.2 Annual Service Volume

Under the FAA methodology, the most important value that must be computed in order to evaluate the throughput at an airport is the annual service volume. ASV represents a measure of the approximate number of total operations that the airport can support annually without undue delay. In other words, the ASV represents the theoretical throughput in aircraft operations that the airport can safely accommodate with minimal delay. Annual service volume is not a capacity limit for the airport but an indication of operations where delay will start to increase eventually reaching unacceptable levels. Annual service volume is calculated by multiplying the weighted hourly capacity for each runway configuration, C_w , with average daily demand during the peak month, D , and average peak hour demand during the peak month, H . This equation is:

$$\text{Annual Service Volume} = C_w \times D \times H$$

where:

- C_w = weighted hourly capacity
- D = ratio of annual operations to average daily operations during the peak month
- H = ratio of average daily operations to average peak hour operations during the peak month

Due to the integrated nature of the calculation of ASV, precise methodologies were followed as outlined in the *Capacity AC* to obtain a theoretical airfield capacity of **197,449 annual operations**. This figure is close to the published capacity of an airfield with a similar runway configuration and operational activity for CRG, but is below the theoretical limit due to two crossing runways, one precision approach capability, and the operational fleet mix.

Although the 2000 Master Plan Update stated that the CRG long range airport service volume was 230,000, we have determined in reviewing current operations, runway utilization and aircraft fleet mix as outlined in **FAA AC 150/5060-5, Change 9**, that 197,449 is the correct weighted ASV calculation. Based upon information provided in Appendix B of the previous master plan update, it appeared that the ASV was not calculated but based upon **Sketch 9** of the **AC 150/5060-5, Change 2**, only. Without additional information, it is not possible to conclusively determine how that ASV was determined.

Accordingly, subsequent recommendations for facility requirements will consult upon this calculation for reference as well as those previously outlined in the forecast chapter. The average peak month operations were determined to be approximately 10.91 percent of total annual operations. The demand ratio components used in the calculation of ASV are reflected in **Table C.8**.

	2006	2011	2016	2021	2026
Annual Operations	163,988	183,325	200,790	216,325	237,049
Average Peak Month Operations	17,891	19,642	21,502	23,601	25,862
Average Daily Operations – Peak Month	588	646	707	776	850
Daily Demand Ratio (D)	278.89	278.64	278.74	278.81	278.94
Average Peak Hour – Peak Month	88	97	106	116	128
Hourly Demand Ratio (H)	11.11	11.11	11.11	11.11	11.11

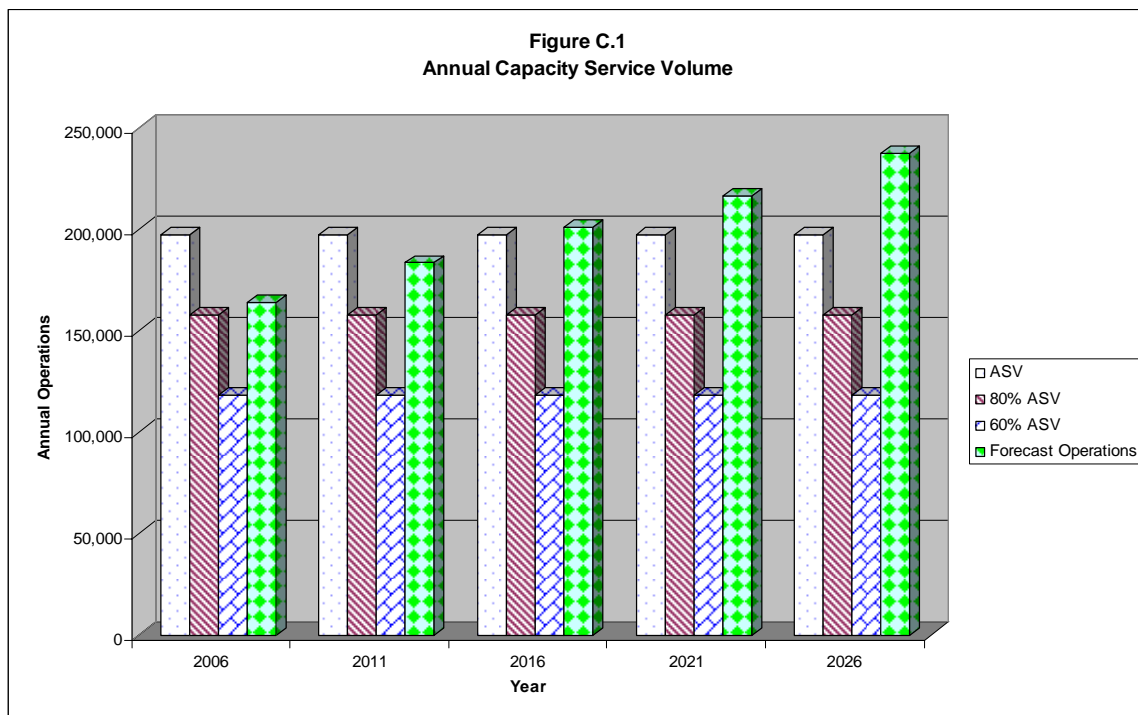
Source: The LPA Group Incorporated 2007

The final ASV calculations are reflected in **Table C.9**. This value was then compared to the existing and forecast level of annual operations for Craig Municipal Airport. According to the FAA methodology, a demand that exceeds the ASV will result in delays on the airfield. However, no matter how substantial an airport’s capacity may appear, it should be realized that delays could occur even before an airport reaches its stated capacity. In fact, a number of projects that would increase the capacity at an airport are eligible for funding from the FAA. According to FAA **Order 5090.3C**, *Field Formulation of the National Plan of Integrated Airport Systems (NPIAS)*, this eligibility is achieved once the airfield has reached 60 percent of its current capacity. This allows improvements to be made before demand levels exceed the capacity of the facility in order to avoid lengthy delays. Future capacity levels for the airport have been calculated based on the forecasted annual operations and the calculated ASV for the airport. These levels are depicted in **Table C.9** and are shown graphically in **Figure C.1**.

Year	Annual Operations	Annual Service Volume	Capacity Level
<i>Base Year</i>			
2006	163,988	197,449	83.05%
<i>Forecast</i>			
2011	180,038	197,449	92.85%
2016	197,084	197,449	101.69%
2021	216,325	197,449	109.56%
2026	237,049	197,449	120.06%

Source: The LPA Group Incorporated 2007

The capacity level increases from 83.05 percent in 2006 to 120.06 percent in 2026. This increase is attributed to the increase of operational activity at the airport without any changes in airfield capacity. Based on capacity levels as presented in **Table C.9**, the airfield capacity at CRG is constrained. Existing capacity levels exceed the point beyond which planning is required for additional capacity enhancement projects as well as when construction on those projects should begin. Since CRG is constrained by encroachment surrounding the airport’s property boundary and is sensitive to community goodwill, any additional capacity projects will relate closely to preserving and enhancing existing airfield infrastructure elements. **Chapter 5, Airport Alternatives Analyses**, will outline in more detail projects that are associated with enhancing capacity at CRG.



Source: The LPA Group Incorporated 2007

C.4 Annual Aircraft Delay

As an airport’s level of annual operations increase, so do the times when the airfield experiences periods of delay. Calculating the average delay for each aircraft allows a total to be estimated for all of the delay incurred at the airport over a year. FAA AC **150/5060-5** also provides a method by which the annual delay can be quantified. This estimate includes arriving and departing aircraft operations under both VFR and IFR conditions. Essentially the ratio of annual demand to ASV is utilized in FAA charts to determine the average delay per aircraft. This value is then applied to the actual or

forecasted annual demand to calculate the total hours of annual delay for the airport. The results of these calculations are included in **Table C.10**.

Table C.10 Annual Aircraft Delay		
Year	Average Delay per Aircraft (Minutes)	Total Annual Delay (Hours)
<i>Base Year</i>		
2006	0.85	51.19
<i>Forecast</i>		
2007	0.86	51.67
2011	0.94	56.74
2016	1.03	61.80
2021	1.10	66.00
2026	1.19	71.80
<i>Source: The LPA Group Incorporated, 2007</i>		

As indicated in **Table C.10**, the average delays per aircraft remain relatively low throughout the planning period. However, the delay projection at CRG considers an average delay based on hours the airport is operationally capable to accommodate aircraft, but may not reflect delay imposed to arriving and departing aircraft during peak periods. Average delay per aircraft operating during these times may be significantly higher, upwards of two to four minutes. The impact that increasing delay imposes upon the airport is such that constraints, both on the ground and in the air, are compounded with increasing operational activity. Arrival and departure delays can be mitigated by decreasing aircraft runway occupancy time. This can be achieved by constructing high-speed taxiway exits at critical points along the runway. When aircraft are required to continue taxiing down the runway for the next available taxiway exit, this increases occupancy time and thus decreases the throughput capability of the runway on an hourly basis. A more detailed analysis of potential resolutions will be further presented in the next chapter.

C.5 Summary

In estimating the capacity of the existing CRG operational areas, the primary elements of airfield capacity were examined to determine the airport's ability to accommodate anticipated levels of aviation activity. The results indicate that:

- ➔ Existing operations as a percent of total airfield capacity will grow from 83 percent to 120 percent over the planning period, indicating that the airfield has constrained capacity to handle forecast operations.
- ➔ Airspace in the vicinity of the airport does have limitations for additional instrument approach procedures, but will likely accommodate future aviation activity through coordination with local military authorities and the surrounding community as a whole.

- Runway orientation is adequate, based on existing and historical wind characteristics, although dependency issues may need to be addressed as traffic increases.
- Aircraft circulation areas via the taxiway system will likely be constrained without modifications including high-speed exits and additional connector taxiways in the future.
- There is excess regional capacity at other airports in the JAA system particularly at Cecil Field that will be utilized to accommodate growth as Craig reaches the constrained capacity of the existing two runway system.

Table C.11 Summary of Airfield Capacity Analysis					
	2006	2011	2016	2021	2026
Hourly Runway Capacity					
VFR Capacity Base (Operations/Hour)	106.68	106.68	106.68	106.68	106.68
IFR Capacity Base (Operations/Hour)	59	59	59	59	59
Weighted Hourly Capacity	63.718	63.718	63.718	63.718	63.718
Annual Airfield Capacity					
Annual Operations	163,988	180,038	197,084	216,325	237,049
Annual Service Volume	197,449	197,449	197,449	197,449	197,449
Capacity Level	83.05%	92.85%	101.69%	109.56%	120.06%
Delay per Aircraft					
Average delay (minutes)	0.85	0.94	1.03	1.10	1.19
Total Annual Operational Delay					
Average total delay (hours)	51.19	56.74	61.80	66.00	71.80
<i>Source: The LPA Group Incorporated 2007</i>					

Capacity and demand requirements have been determined for all aspects of CRG's operations. These calculations, which are based on various components, should be regarded as generalized planning tools, which assume attainment of forecast levels as described in **Chapter 3** as well as demand associated with potential general aviation and business jet operations. Should the forecasts prove conservative, proposed development recommended as a result of the demand/capacity analysis should be advanced in schedule. Likewise, if traffic growth materializes at a slower rate than forecast, deferral of expansion would be prudent.