NORTHWEST FLORIDA BEACHES INTERNATIONAL AIRPORT

MASTER PLAN UPDATE

Working Paper #2 - Forecasts

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DRAFT

Prepared by:

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3 FORECASTS OF AVIATION ACTIVITY

3.1 INTRODUCTION

This chapter of the Master Plan Update projects aviation demand over a 20-year planning horizon for Northwest Florida Beaches International Airport (ECP). Facility sizing and capacity recommendations, both airside and landside, are directly impacted by the projected aviation activity levels presented in this chapter. The projections are derived from approved methodologies in accordance with the requirements provided in Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*.

To develop the most realistic forecasts possible, an understanding of current and historical airport operations, industry trends, and economic conditions within ECP's primary catchment area (i.e., market) is necessary. These variables must be detailed and factored into individual forecast scenarios that will comprise the commercial passenger and operations forecasts.

The assumptions, methodologies, and data used to create the various projections are presented and analyzed in the sections to follow. The specific activity elements to be forecasted are limited to passenger and operational activity that directly affect the terminal and immediately adjacent land use associated with passenger and general aviation (GA) activity. As such, the evaluations presented in this chapter include:

- Enplaned Passengers
  - 5-, 10-, and 20-year forecasts
  - Load Factors
- Air Carrier Activity
  - Operations
  - Fleet Mix
- Air Cargo Activity
  - Operations
  - Cargo Volume
- General Aviation Activity (GA)
  - Based Aircraft
  - Operations
- Military Aviation Activity
  - Operations
- Peak Activity
  - Enplaned Passengers
  - Operations

3.2 AIRPORT CATEGORIZATION

Based on FAA guidelines, ECP is categorized as a Commercial Service Airport – Primary, within the National Plan of Integrated Airport Systems (NPIAS). Primary airports are grouped into four categories defined as: large, medium, small, and non-hub airports. Primary airports receive an annual apportionment of federal grants based on the number of enplaned passengers at the airport. Based on the 2018 enplanements (528,431) at ECP, the Airport qualifies as a primary, small-hub airport.

Small-hub airports are defined as airports that enplane 0.5 to 0.25 percent of the total U.S. passenger enplanements annually. Additionally, at the end of FAA CY 2017, ECP was ranked the 130th largest airport in the United States by total number of enplanements. This qualifies ECP as a small-hub airport within the NPIAS. **Table 3-1** below breaks down the categories of airport activities by classification and percentage of annual passenger boardings.

Based on the information shown below, and the FAA National Forecast for all commercial service airports, ECP is expected to remain in the small-hub category throughout the forecast period.

Table 3-1 – NPIAS Airport Classifications

<table>
<tr><th colspan="2">Airport Classifications</th><th>Hub Type: Percentage of Annual Passenger Boardings</th><th>Common Name</th></tr>
<tr><td rowspan="4">Commercial Service:
Publicly owned airports that have at least 2,500 passenger boardings each calendar year and receive scheduled passenger service
§47102(7)</td><td rowspan="3">Primary:
Have more than 10,000 passenger boardings each year
§47102(16)</td><td>Large:
1% or more</td><td>Large-Hub</td></tr>
<tr><td>Medium:
At least 0.25 %
but less than 1%</td><td>Medium-Hub</td></tr>
<tr><td>Small:
At least 0.05%
but less than 0.25%</td><td>Small-Hub</td></tr>
<tr><td>Non-hub:
More than 10,000
but less than 0.05%</td><td>Non-hub Primary</td></tr>
<tr><td>Nonprimary</td><td>Non-hub:
At least 2,500 and
no more than 10,000</td><td>Non-primary Commercial Service</td></tr>
<tr><td colspan="2" rowspan="2">Nonprimary
(Except Commercial Service)</td><td rowspan="2">Not Applicable</td><td>Reliever § (47102(23))</td></tr>
<tr><td>General Aviation § (47102(8))</td></tr>
</table>

Source: FAA, CHA, 2019.

3.3 FORECAST RATIONALE

A critical component of an Airport Master Plan is the preparation of detailed passenger and operations forecasts required for airport planning purposes. Traditional forecasting efforts, as previously stated, are based on requirements set forth in AC 150/5070-6B, *Airport Master Plans*. The process of developing the recommended activity forecasts consists of identifying aviation activity measures, reviewing previous Airport forecasts, gathering data, selecting forecast methodologies, applying forecast methods and comparing forecast results with the FAA's Terminal Area Forecast (TAF). The general requirement for FAA approval of forecasts is that the forecasts are supported by an acceptable forecasting analysis and are consistent with the FAA TAF. The enplanements, activity, and based aircraft forecasts for small-hub airports, such as ECP, must meet the following criteria:

- Forecasts differ by less than 10 percent in the 5-year forecast (and by 15 percent in 10-year period, if applicable); or
- Forecasts do not affect the timing or scale of an airport project.

3.3.1 Factors Affecting Forecasts

Several factors should be considered when preparing activity forecasts or when updating existing forecasts. When developing the forecasts herein, socioeconomic data (demographics, etc.), geographic attributes (catchment and core areas), and external factors (tourism activity, fuel costs, and local attitudes towards aviation) were considered. Nearby airports and their routes were also evaluated.

Commercial Activity Region and Destinations

As of the March 2019 published schedule and per seasonal destination announcements by the airlines, ECP has non-stop service to 14 destinations as of June 2019, shown in **Figure 3-1**, via four air carriers: American Airlines (AA), Delta Air Lines (DL), Southwest (WN), and United Airlines (UA). Delta was the largest airline at ECP in terms of seats per departure in 2018, followed by Southwest, American, and United, respectively.

Nearby Airports

As discussed in **Chapter 1**, ECP is located 60 nautical miles (nm) and a one-hour drive time from Destin-Fort Walton Beach Airport (VPS), approximately two-hours and 100 nm from Pensacola International Airport (PNS), and 85 nm and a two-hour drive from Tallahassee International Airport (TLH). ECP, VPS, and PNS are all small-hub airports, while TLH is a non-hub airport.

As shown in **Table 3-2**, ECP, VPS, PNS, and TLH have varied numbers of destinations and non-stop domestic flights.

Table 3-2 – Comparison of Airports in the Region

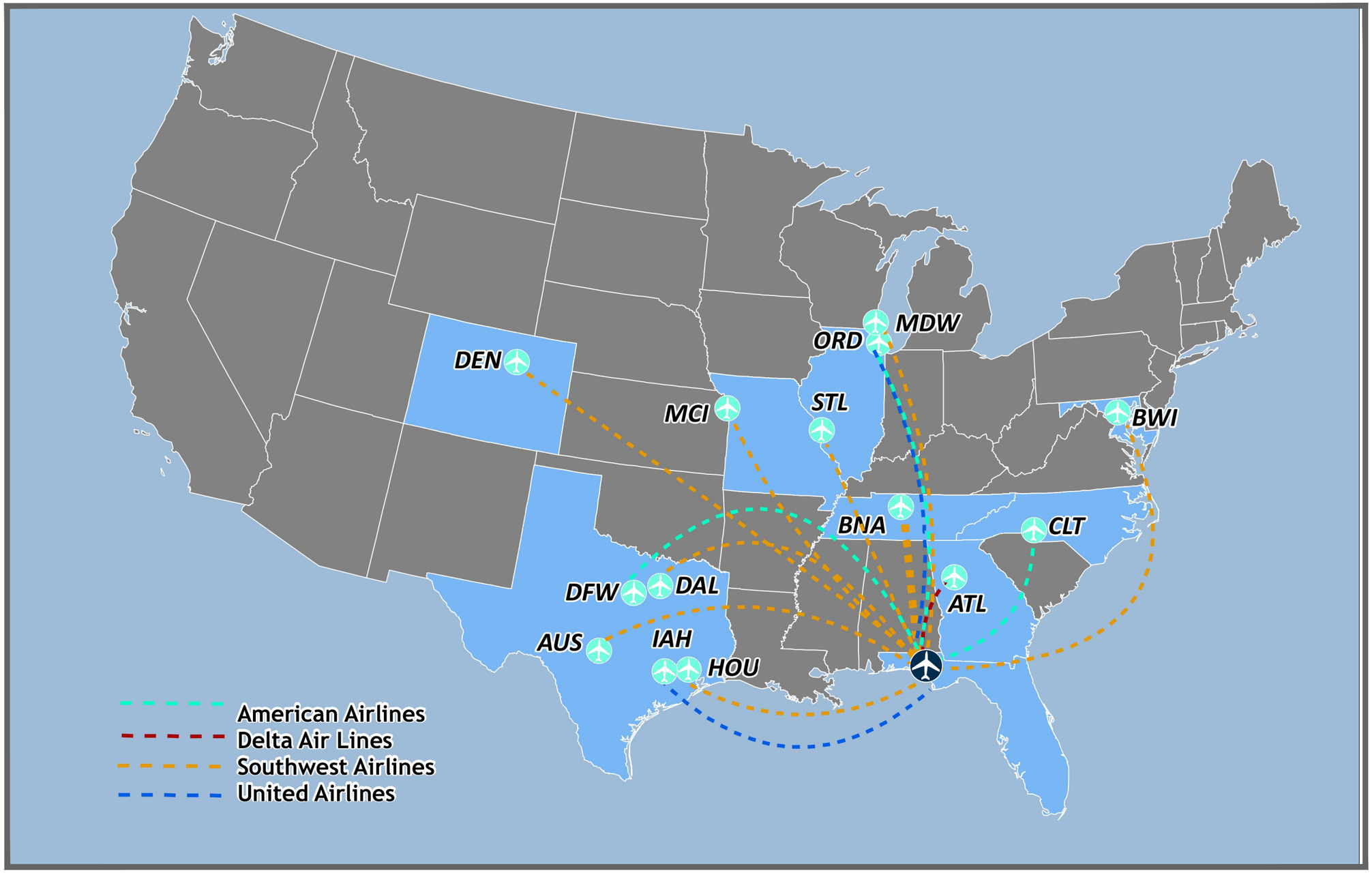
Flights	ECP	VPS	PNS	TLH
Nonstop Destinations	14	37	20	7
Avg. Daily Flights	39	50	46	23

Source: Airport Websites (ECP, VPS, PNS, TLH), ECP, CHA, 2019.

Catchment and Core Areas

An airport's catchment area, or market, is defined as the area in which an airport captures the majority of its airport users. To determine the catchment area, an evaluation using socioeconomic factors was conducted to identify which airports the local area population are most likely to use, based on the proximity with respect to other airports in the region, drive-time, and demographics. For the purposes of this forecast, the catchment area for ECP traffic exists primarily in the following Florida Counties: Bay, Calhoun, Gulf, Holmes, Jackson, Liberty, Walton, and Washington. The catchment area also extends partially into Alabama to include Geneva and Houston Counties.

Based on its location relative to major airports in Florida and drive times associated with the surrounding roadway network, ECP depends on a core region within its catchment area for a large portion of its passenger activity. The core region consists of areas located within a 30-minute drive-time. This region includes portions of Bay, Walton, and Washington County. **Figure 3-2** shows the catchment area, as well as the core area. The larger catchment area includes an additional five counties in Florida (Calhoun, Gulf, Homes, Jackson, and Liberty), as well as two counties in Alabama (Geneva, and Houston).



NOT TO SCALE

Source: CHA, 2019.

Figure 3-1
ECP Non-Stop Route Map
(September 2019)

GRAPHIC SCALE (FEET)
0 10 20

Source: CHA, 2019.

Figure 3-2
Core and Catchment Area

3.3.2 Forecast Data Sources

Information factored into both the planning and the forecasting efforts include commercial air carrier industry trends, airframe orders and retirement programs, cargo operational trends, GA operational trends, and anticipated changes in the aircraft fleet mix operating at ECP. The data and assumptions used to define baseline conditions and future activity trends were derived from the following data sources:

- Airport Management – Airport management representatives typically provide the most accurate historical data and future assumptions at the Airport. This includes passenger and operational activity, facility needs, gate requirements, fleet mix transition, and anticipated service growth.
- FAA Terminal Area Forecast (TAF)[1] – TAF activity estimates are derived by the FAA from national estimates of aviation activity. These estimates are then assigned to individual airports based upon multiple market and forecast factors. The FAA looks at local and national economic conditions, as well as trends within the aviation industry, to develop each forecast.
- Airline Management – Airline representatives provide insight on planned and future airline routes and airframe changes, which are directly factored into the assumptions and methodologies of the demand projections.
- FAA Aerospace Forecast FY 2019-2039 – This forecast provides an overview of aviation industry trends and expected growth for the commercial passenger air carrier activity segments. National growth rates in enplanements and operations, as well as growth and mix for commercial fleets, are provided over a 20-year forecast horizon. This forecast also provides an overview of trends regarding general aviation (GA) activity and aircraft. For the purposes of this forecast, the FAA Aerospace Forecasts were used as comparisons for the basis of determining the growth of the ECP general aviation and commercial fleet. This forecast also provides insight into future air cargo growth trends on a national and international basis.
- The Boeing Commercial Market Outlook 2019-2038 – This market outlook provides information detailing future fleet mix transitions, such as new aircraft entering the market and future equipment retirements, for commercial carriers.
- Airbus Global Market Forecast 2018-2037 & Boeing World Air Cargo Forecast 2018-2037 – These forecasts provide insight into future cargo fleet growth and anticipated fleet mix of both domestic and foreign airlines. These insights are used to assist in developing and confirming the validity of future ECP carrier fleet mix and projected activity and volume assumptions.

[1] Note, the 'FAA 2018 TAF', which was retrieved in February 2019, represents the TAF containing all data from FY 2018.

- Woods & Poole Economics, Inc. – Woods & Poole Economics, Inc. is an independent firm that specializes in developing long-term economic and demographic projections. Their database includes every State, Metropolitan Statistical Area (MSA), and county in the United States (U.S.) and contains historical data and projections from 1970 through 2050, utilizing more than 900 economic and demographic variables.
- Bureau of Transportation Statistics (Air Carriers: T-100) – The Bureau of Transportation Statistics (BTS), part of the Department of Transportation (DOT), provides statistical data relating to commercial aviation, multimodal freight activity, and transportation economics. The T-100 data contains market data reported by U.S. carriers, including the air carrier, flight origin and destination, equipment type and seat information, and number of enplaned passengers.

3.4 SOCIOECONOMIC DATA

The factors that have the greatest impact on the growth prospects of an airport are the socioeconomic characteristics, such as population, income, and employment, present within the Airport's catchment, or market, area. The economic and demographic growth patterns for this core area will have major impacts on future demand for air service at ECP.

In addition to the common demographic factors, the ECP area has a large contingent of tourism activity and personnel. As such, changes in tourism activities highly impact employment rates and per capita income in the area around ECP, as well as air carrier services at the Airport.

For the purposes of this Study, further evaluation was conducted regarding population and tourism within the ECP area and within the state of Florida, as these two factors are the main drivers of enplanements at the Airport.

3.4.1 Population

In 2018, the Panama City Metropolitan Statistical Area (MSA), consisting of Bay and Gulf Counties, had a population of approximately 201,400 while the ECP catchment area had a population of approximately 517,400 thousand. The Average Annual Growth Rate (AAGR) for the Panama City MSA and ECP catchment area were 0.9 percent and 0.7 percent, respectively, which were above the AAGR for the Unites States (0.6 percent).

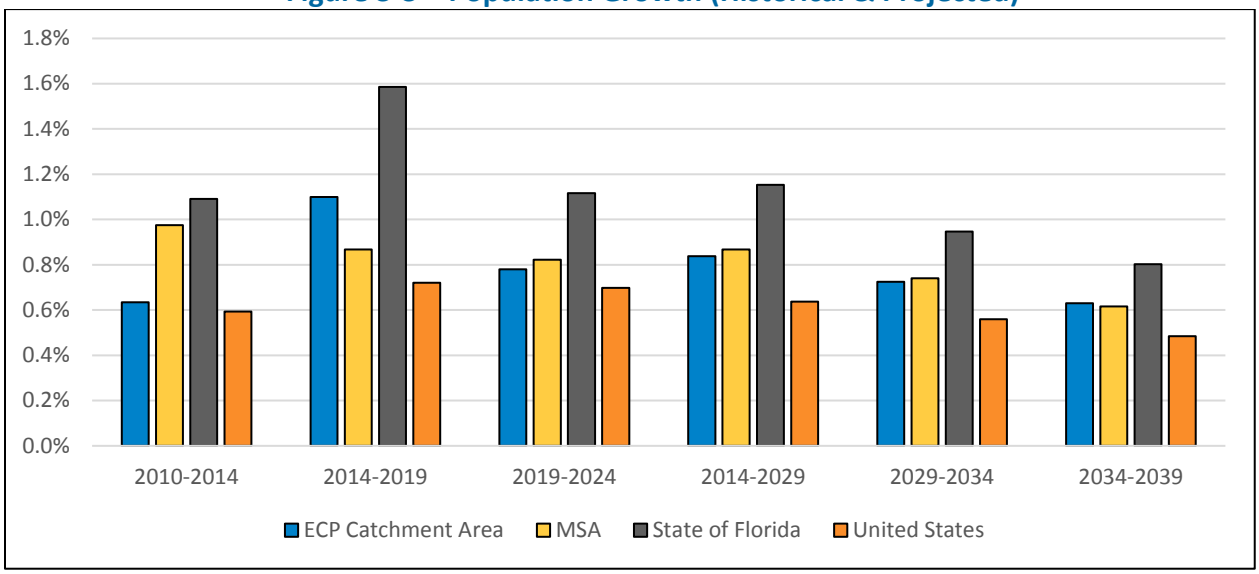
The catchment area and the MSA have a lower growth rate than the State, which indicates that the Airport is dependent upon more than resident travelers for passenger activity growth, relying on leakage from nearby airports in the surrounding area. Passenger leakage occurs when travelers choose to utilize airports outside their core area when flying. The lesser growth rate also indicates that the Airport is heavily impacted by tourism activity. Despite this, there is a higher growth rate at the regional and state level than at the national level, largely attributed to the significant population growth seen statewide in the past ten years.

Table 3-3 – Population Growth (Historical & Projected)

Year	ECP Catchment Area	AAGR	MSA	AAGR	State of Florida	AAGR	United States	AAGR
2010	486,023	-	185,031	-	18,846,461	-	309,338,421	-
2014	501,640	0.6%	194,227	1.0%	19,897,747	1.1%	318,622,525	0.6%
2018	517,422	0.6%	201,429	0.7%	21,299,325	1.4%	327,167,434	0.5%
AAGR 2010-2018	**0.7%**	-	**0.9%**	-	**1.4%**	-	**0.6%**	-
2019	529,847	2.4%	202,800	0.7%	21,526,500	1.1%	330,268,840	0.9%
2024	550,825	0.8%	211,280	0.8%	22,754,820	1.1%	341,963,408	0.7%
2029	574,294	0.8%	220,600	0.9%	24,097,980	1.2%	353,008,224	0.6%
2034	595,419	0.7%	228,880	0.7%	25,259,880	0.9%	363,003,410	0.6%
2039	614,422	0.6%	236,020	0.6%	26,290,720	0.8%	371,871,238	0.5%
AAGR 2019-2039	**0.7%**	-	**0.8%**	-	**1.0%**	-	**0.6%**	-

Source: The United States Census Bureau, Bureau of Economic and Business Research, Center for Business and Economic Research (The University of Alabama), CHA, 2019.

Figure 3-3 – Population Growth (Historical & Projected)



Source: The United States Census Bureau, Bureau of Economic and Business Research, Center for Business and Economic Research (The University of Alabama), CHA, 2019.

3.4.2 Tourism in Florida

The Visit Florida Research Department[2] prepares and issues a Florida Visitor Study for use as a reference guide for statistics on visitors to the State. As depicted in **Table 3-4** and **Figure 3-4**, tourism in Florida has shown continuous growth when looking at historical tourism activity within the state, with an AAGR of approximately 4.9 percent in total visitors, as well as approximately a 53.2 percent total increase in visitors since 2010.

[2] Visit Florida Research. Estimates of Visitors to Florida by Quarter [2010-2018]. Available from https://www.visitflorida.org/resources/research/

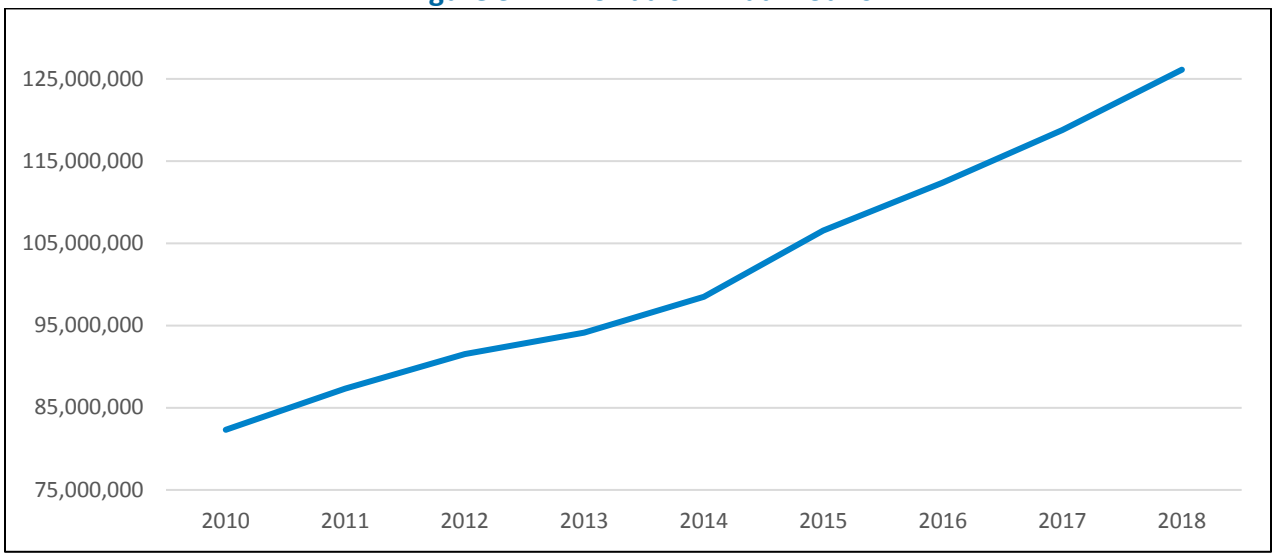
Various local economic and development factors have caused this significant growth in the region, particularly within Panama City Beach and the neighboring beach communities in Bay and Walton Counties.

Table 3-4 – Florida's Annual Tourism

Year	Domestic	Overseas	Canada	Total Visitors
2010	71.181	8.032	3.102	82.315
2011	74.667	9.321	3.319	87.307
2012	77.596	10.369	3.559	91.524
2013	78.767	11.190	4.187	94.144
2014	83.160	11.316	4.015	98.492
2015	91.319	11.439	3.797	106.555
2016	97.895	11.157	3.346	112.398
2017	104.377	10.931	3.447	118.756
2018	111.789	10.818	3.512	126.119

Source: Visit Florida Research, CHA, 2019.

Figure 3-4 – Florida's Annual Tourism



Source: Visit Florida Research, CHA, 2019.

Tourism in Florida also serves as a driver for employment and per capita income, as tourism creates direct and indirect impacts to economic value through spending, recreation, and transportation. According to Oxford Economics'[3] publication, *The Economic Impact of Out-of-State Spending in Florida*, out-of-state spending in the State for 2016 was approximately $112 million. Out-of-state visitor spending also directly impacted Florida's GDP, as it generated approximately $45 billion.

[3] Oxford Economics. (2018). The Economic Impact of Out-of-State Visitors in Florida: 2016 Calendar Year Analysis [PDF file]. Retrieved from https://www.visitflorida.org/media/30679/florida-visitor-economic-impact-study.pdf

3.5 COMMERCIAL AVIATION FORECAST

To determine the facility sizing requirements necessary to adequately accommodate the current and future activity demand, a forecast of annual enplaned passengers and annual commercial aircraft operations was developed. The most basic indicator of activity demand for a commercial service airport is the number of annual enplaned passengers. It is the number of forecast enplanements that will drive passenger terminal sizing requirements, and to a lesser extent, commercial air carrier operations and fleet mix. Historical and forecast enplanement data can provide relevant evidence that improvements and/or expansions to an airport may be necessary. Commercial aircraft operations and fleet mix will influence the requirements for passenger terminal and airside infrastructure.

This section provides the methodology for the development of the forecasts of commercial enplanements and operations at ECP, as well as the methodologies analyzed for developing the commercial forecast, and details the final recommendation for commercial passengers and operations through 2039.

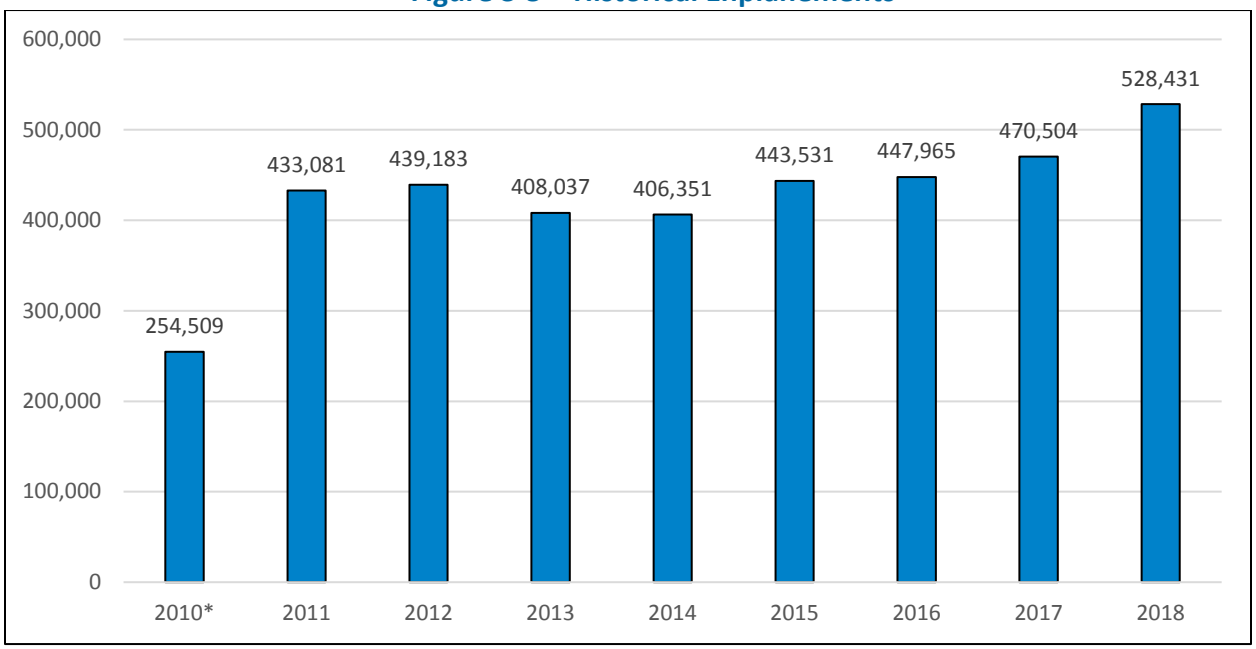
3.5.1 Passenger Enplanements

An enplanement is defined as a revenue-paying passenger boarding an aircraft at a given airport. Enplanements are the primary measure of a commercial service airport's passenger activity and are key factors for terminal building and parking facility requirements. In addition to being an important trend-tracking tool for airport management, an airport's reported annual enplanements are also used by the FAA to calculate Airport Improvement Program (AIP) passenger entitlement funding through its apportionment formula. For the purposes of this Study, forecast enplanements will serve as the basis for the Airport's facility requirements and financial projections. These include:

- Airfield Requirements
- Airline Support Functions
- Secured Public Areas
- Concessions
- Non-Secured Public Areas (Including Landside Facilities)
- Non-Public Areas

Historical enplanements at ECP have been shown to ebb and flow, seeing a steady decline from 2012 to 2014, followed by gradual annual inclines from 2014 through 2018. In 2018, ECP reached a record high of enplanements since opening in May 2010, with 528,431 enplaned passengers, as shown in **Figure 3-5**. One factor attributing to the high number of enplanements in 2018 is the introduction of a new service provider (American Airlines), which began operating at ECP in June 2018. Increased services from the airlines on various routes also contributed to the increase in enplanements.

Figure 3-5 – Historical Enplanements



Source: ECP, CHA, 2019.
*Note: Denotes the year the Airport opened.

Forecasts

Various methodologies were considered and analyzed in the development of the recommended ECP enplanement forecast. Each of the methodologies, along with accompanying enplanement forecasts, are shown below and then compared to each other.

Methodologies

- Market Share Scenario – A "top-down" method where projected growth rates of larger aggregates (e.g., the nation, the state, and/or the region) are used to derive forecasts for smaller areas (e.g., airports). In other words, a market share forecast essentially applies national, state, and/or regional forecast growth rates to airport-specific market areas. For this analysis, future ECP enplanements were estimated by applying the future share trend and the FAA's National TAF enplanement numbers.
- Regression Scenario – An examination of aviation and passenger activity through the scope of current and historical activity levels, seeking to find a relationship between the activity levels and the socioeconomic conditions prevalent during that period (population, economy, tourism). For the purposes of this Study, the causal relationship between population and enplanements at ECP was examined to determine if there is a statistically valid correlation that may assist in projecting future activity. Demographic projections for the catchment area, provided by the Bureau of Economic and Business Research, as well as by the Center for Business and Economic Research (The University of Alabama), were used to estimate growth at ECP.

- Trend Scenario – A method to predict the future based on past results. The five- and eight-year[4] annual growth rates were calculated and used to estimate growth at ECP.
- TAF Based Growth Scenario – Takes the FAA's average annual growth rate (AAGR) for the forecast period and applies that variable to actual airport-reported data.
- Air Service Analysis – ECP enplanements and operations were estimated based on FY 2019 schedules filed by the air carriers and include expected service changes, as well as the potential for additional air carriers and service routes, for FY 2019 through FY 2039. Key forecast assumptions were developed to include expected schedule changes, average seats per departure, and percentage of seats filled (load factor). This methodology includes multiple facets, such as air service growth in varying market sectors including the Ultra Low-Cost Carrier (ULCC), Legacy Carrier, and International market segments. Although this methodology is a singular methodology, it is linear in nature as varying air service scenarios can be combined to determine a service analysis across multiple market platforms.

Appendix A presents detailed findings of all the previously described methodologies.

Forecast Summary

Table 3-5 below provides a summary of projected enplanements given the various methodologies described. For the purposes of this Study, only traditional forecasting scenarios are included within the table. Note, additional market share scenarios, as well as tourism trend scenarios and tourism-based regressions, were performed and can be found (along with comparisons to the FAA TAF) in **Appendix B** & **Appendix C**.

Table 3-5 – Enplanement Forecast Summary

Year	TAF-Based Growth	TAF Variable Growth	Historical Trends			Market Share			Regression (Population-Based)	Air Service
			3-Year	5-Year	8-Year	Average National	Static State	Static Regional		
2018	528,431	528,431	528,431	528,431	528,431	528,431	528,431	528,431	528,431	528,431
2019	540,367	704,430	558,346	556,936	541,740	528,732	531,582	617,371	513,373	679,100
2024	604,218	800,081	735,321	724,257	613,483	589,323	637,825	694,289	565,019	823,553
2029	675,613	888,172	968,390	941,845	694,728	645,263	710,762	763,536	622,796	923,351
2034	755,444	991,615	1,275,334	1,224,804	786,732	707,205	791,171	844,396	674,803	1,022,076
2039	844,708	1,101,173	1,679,568	1,592,772	890,920	772,113	874,367	929,204	721,586	1,126,637
AAGR 2019-2039	**2.3%**	**2.3%**	**5.7%**	**5.4%**	**2.5%**	**1.9%**	**2.5%**	**2.1%**	**0.0%**	**2.6%**
Growth 2019-2039	**56.3%**	**56.3%**	**200.8%**	**186.0%**	**64.5%**	**46.0%**	**64.5%**	**50.5%**	**0.0%**	**65.9%**

Source: FAA 2018 TAF, The United States Census Bureau, Bureau of Economic and Business Research, Center for Business and Economic Research (The University of Alabama), Visit Florida Research, CHA, 2019.

[4] An eight-year, rather than a 10-year, annual growth rate was used in this scenario because the Airport did not open until 2010; therefore, annual enplanements for a 12-month calendar year are only available from 2011 to 2018.

Recommended Enplanement Forecast - Air Service Scenario

The air service analysis acknowledges historic market share growth and recent airline activity trends including new routes, increased airframes on specific routes, and high load factors. In addition, this scenario accounts for new service announcements made during the previous 12-month period and anticipated service announcements within the next 12-month period, as discussed with airline representatives at ECP. The following describes the methodology and development of the air service analysis in further detail.

As mentioned previously, the TAF considers socioeconomic and demographic factors, local industry growth, and regional commercial service growth on market basis. This scenario utilizes the 2018 FAA TAF for baseline short-term growth (which at the time of the development of these forecasts, was the most recent TAF available) and applies additional airline service that has recently been announced, not included in the FAA TAF, and includes these new service operations for the first five years of the forecast period.

The new service routes and the increase in airframe size and fleet mix transitions currently underway are anticipated to result in ECP capturing a larger percentage of travelers within the Airport's core market area. The air service assumptions that were used in this analysis were then developed by applying historical load factor assumptions projected through the forecast period. The additional load factor assumptions were made based on fleet mix restructuring by individual airlines transitioning from smaller regional jets to larger regional and narrow-body jets.

Furthermore, recent additions to air service at ECP have come since the publication and update of the most recent FAA TAF, thus this growth is not taken into consideration. To account for it, these more recent expansions to service have been included in the air service announcement, factoring their frequency and fleet mix as announced.

The following sections provide the assumptions applied to develop the air service growth, assuming no loss in frequencies. It is assumed that the load factors will grow consistent with the overall airport load factors. Scenarios 1, 2, and 3 are existing or upcoming service that have not been reflected in the most recent TAF, thus are accounted for in this analysis.

- Scenario 1 - *Existing service on Southwest Airlines to MCI*
  - Service added in June 2019 with a once weekly departure, seasonally, on 143-seat 737-700 aircraft
- Scenario 2 - *Upcoming service on American Airlines to DCA*
  - Service beginning in January 2020 with two daily departures on 50-seat CRJ-200 aircraft
- Scenario 3 - *Existing service on United Airlines to ORD*
  - Service added in June 2019 with twice weekly service, seasonally, on 50-seat ERJ-145 aircraft

- Scenario 4 - *Addition of service to a Northeast hub*
  - This scenario accounts for the impact of a legacy carrier adding service to a hub in the Northeastern United States within the short-term forecast period. For this scenario, 50-seat aircraft are assumed, with seasonal service transitioning to year-round daily service within the mid-term forecast period.
- Scenario 5 - *Addition of service to a Midwest hub*
  - This scenario factors the impact of a legacy carrier adding service to a hub in the Midwestern United States within the short-term forecast period. For this scenario, 50-seat aircraft are assumed, with seasonal service transitioning to year-round daily service within the mid-term forecast period.

The results of the Air Service scenario are presented in **Table 3-6**.

Table 3-6 – Air Service Scenario Forecast

Year	Air Service Forecast
2018	528,431
2019	679,100
2024	823,553
2029	923,351
2034	1,022,076
2039	1,126,637
AAGR 2019-2039	**2.6%**
Growth 2019-2039	**65.9%**

Source: FAA 2019 TAF, ECP, CHA, 2019

Recommended Enplanements Forecast and Comparison to the FAA TAF

For planning purposes, the Air Service scenario will be used as the recommended commercial enplanement forecast in the Master Plan Update. **Table 3-7** details the recommended enplanement forecast against the FAA TAF for the 20-year forecast period.

Table 3-7 – Recommended Commercial Enplanements Forecast vs. FAA TAF

Year	FAA TAF	Enplanements Forecast	Recommended vs. FAA TAF
2018	504,330	528,431	4.8%
2019	672,302	679,100	1.0%
2024	763,590	823,553	7.9%
2029	847,664	923,351	8.9%
2034	946,389	1,022,076	8.0%
2039	1,050,950	1,126,637	7.2%
AAGR 2019-2039	**2.3%**	**2.6%**	-
Growth 2019-2039	**56.3%**	**65.9%**	-

Source: FAA 2018 TAF, ECP, CHA, 2019.

3.5.2 Commercial Operations

Commercial operations include those performed by scheduled air carriers and their regional partners.

Historical Data

This describes the baseline activity used to establish the forecast.

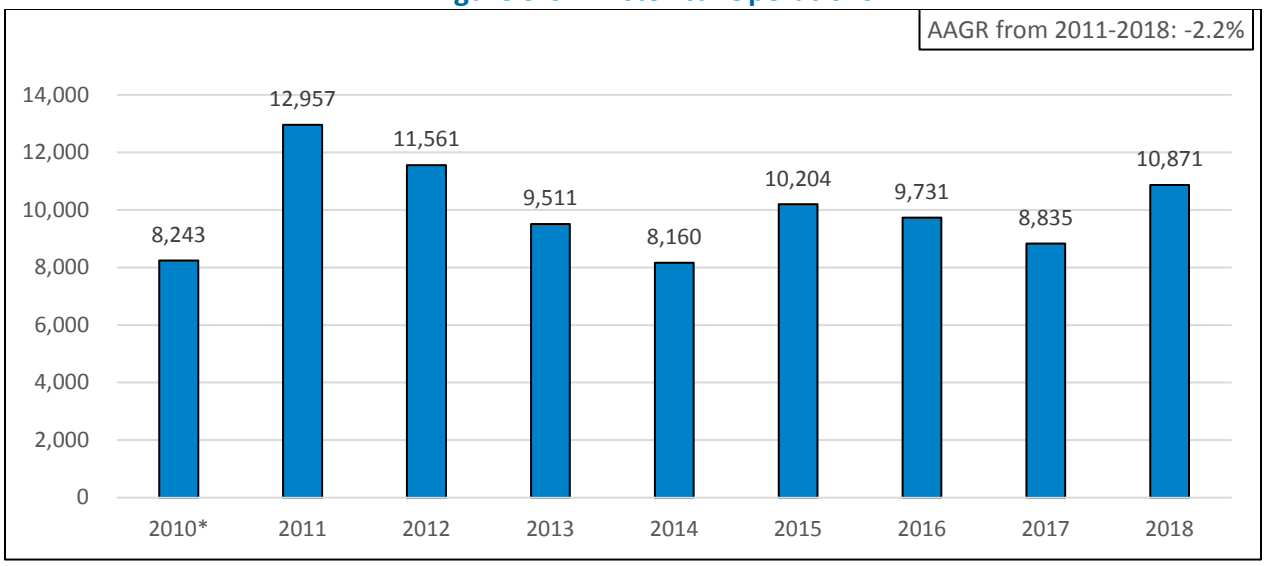
Operations

ECP experienced a 37 percent decline in operations from 2011 through 2014, followed by an incline of 25 percent in 2015 and then another decline of 13.4 percent from 2015 through 2017. See **Figure 3-9**.

Both declines in air carrier operations can be attributed to a number of factors including airline bankruptcies and consolidation, and airlines transitioning their fleets from smaller 50-seat regional jets to larger 60-90 seat regional jets and narrow-body aircraft. On the surface, the decrease is significant, resulting in less destinations, or lower flight frequencies on some routes; however, this is not the primarily derivative of passenger activity at ECP.

Although operations are still below their peaks in 2011 and 2012, with the recent airline transitions to larger aircraft equipment, as shown on **Figure 3-6** passenger enplanements have increased; however, the number of operations necessary to accommodate the increased demand is lesser with larger 90-177 seat aircraft. In 2018, ECP reached its highest number of operations since 2013 (14.3 percent increase from 2013 to 2018).

Figure 3-6 – Historical Operations



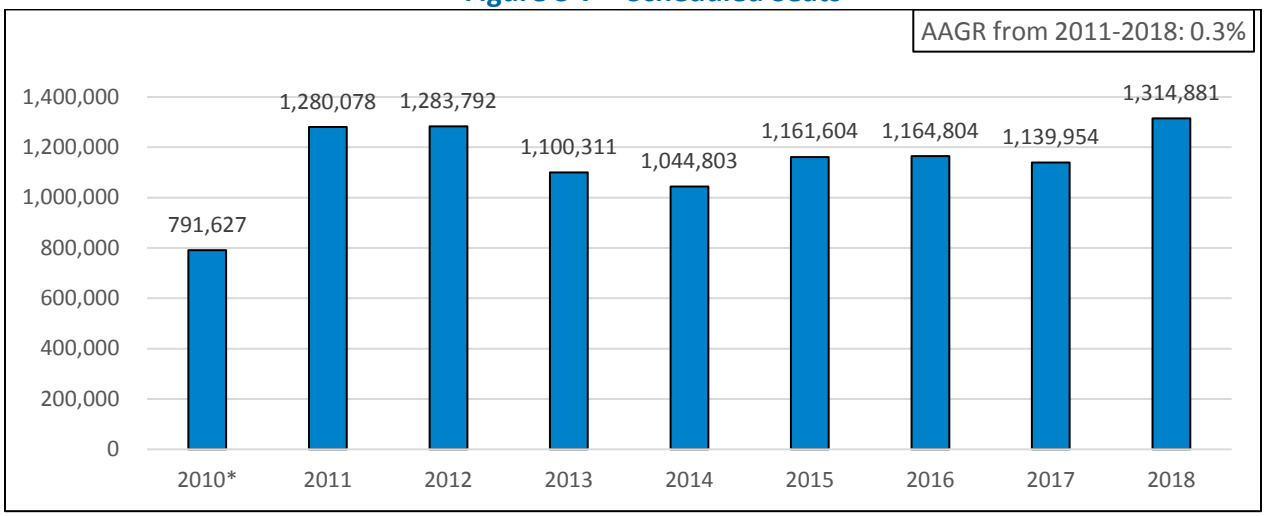
Source: BTS T-100 Data, CHA, 2019.
*Note: Denotes the year the Airport opened.

Commercial Seats and Average Aircraft Size

ECP'S scheduled seats have been relatively consistent over the last eight years (2011-2018), with fluctuations between approximately 1.0 million and 1.3 million. As shown in **Figure 3-7**, 2018 was the peak year with approximately 1.3 million seats. The number of seats decreased between 2012 and 2014, averaging 1.1 million.

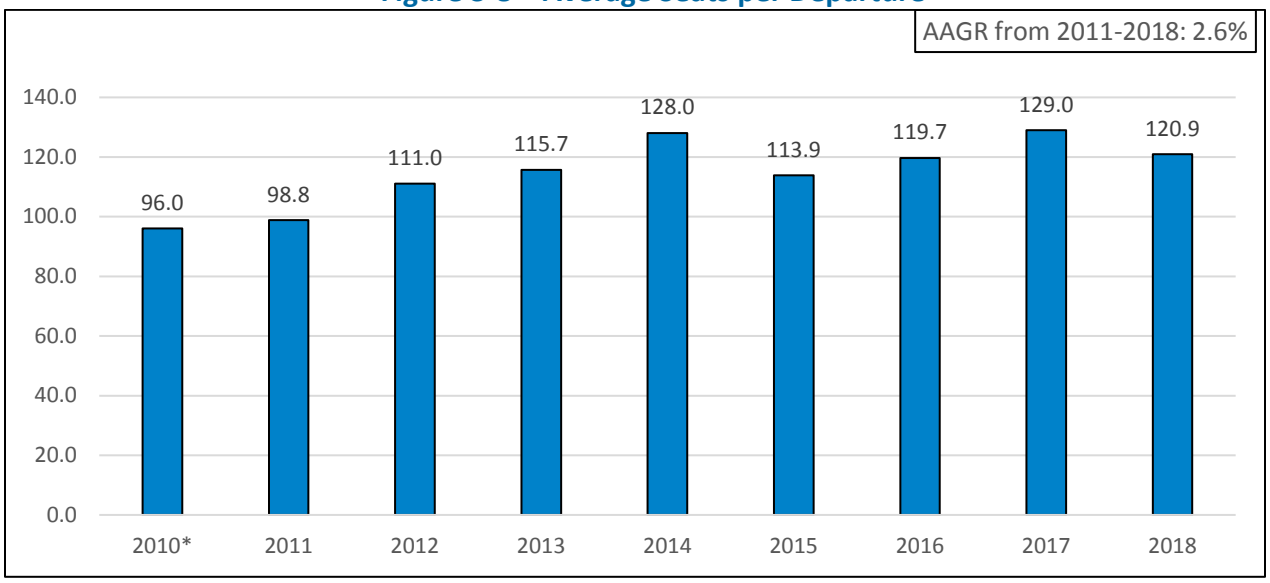
During the eight-year period, ECP's scheduled seats reached its lowest count in 2014 with 1.0 million seats. This can be attributed to the previously mentioned transition in airframe from smaller 50-seat aircraft with increased frequency to larger regional jets (RJs) and narrow-body aircraft. See **Figure 3-8** for average seats per departure.

Figure 3-7 – Scheduled Seats



Source: BTS T-100 Data, CHA, 2019.
Note: Includes departure and arrival seats. *Denotes year the Airport opened.

Figure 3-8 – Average Seats per Departure

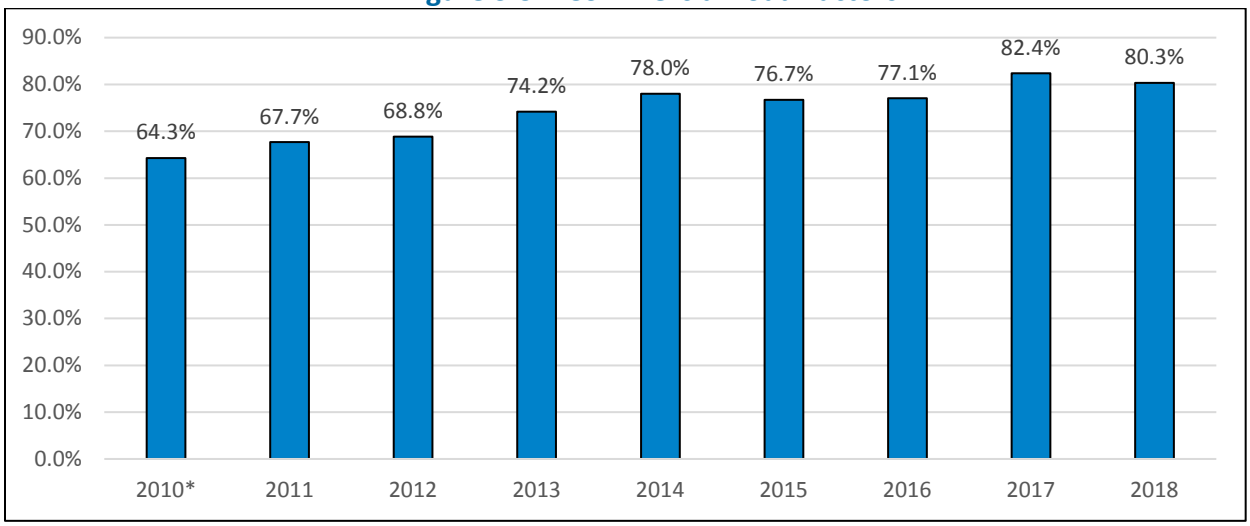


Source: BTS T-100 Data, CHA, 2019.
*Note: Denotes the year the Airport opened.

Load Factors

Load factor (LF) measures the capacity utilization and is used to measure efficiency in filling air carrier seats and in generating revenue. LF is calculated by dividing the total number of seats filled by total available seats. The LF at ECP, as depicted in **Figure 3-9**, has been somewhat cyclical since the Airport opened in 2010, partially due to the changing seasonal nature of certain airline's schedules. Decreases in LF can be attributed to the airlines' transitions in fleet mixes. Currently, airlines are increasing aircraft seating capacities at a quicker rate than what is dictated by demand. Load factors are broken down by destination in **Table 3-8**.

Figure 3-9 – Commercial Load Factors



Source: BTS T-100 Data, ECP, CHA, 2019.
*Note: Denotes the year the Airport opened.

Table 3-8 – Historical Load Factor Percentages by Destination

Destination	2010*	2011	2012	2013	2014	2015	2016	2017	2018
ATL	72.3%	74.2%	72.4%	71.2%	75.8%	74.5%	74.2%	82.5%	80.2%
AUS	-		43.1%		80.4%	55.9%	93.7%	89.5%	86.7%
BNA	71.7%	72.5%	75.1%	71.8%	78.8%	75.8%	77.3%	75.2%	78.3%
BWI	-	64.0%	65.0%	76.8%	77.5%	80.4%	81.7%	85.1%	67.2%
CLT	-	-	-	-	-	-	-	-	77.0%
DAL	-	28.5%	-	-	-	89.1%	91.3%	85.4%	88.5%
DEN	-	-	-	-	-	-	-	-	88.0%
DFW	-	-	-	-	-	-	-	-	73.8%
HOU	76.2%	79.1%	71.8%	69.7%	76.2%	69.3%	71.5%	76.7%	72.5%
IAH	-	-	-	-	-	80.7%	81.5%	81.7%	79.1%
MDW	-	-	-	-	-	-	-	91.8%	87.0%
STL	5.1%		83.0%	80.1%	81.1%	78.2%	80.5%	87.5%	86.7%

Source: BTS T-100 Data, CHA, 2019.

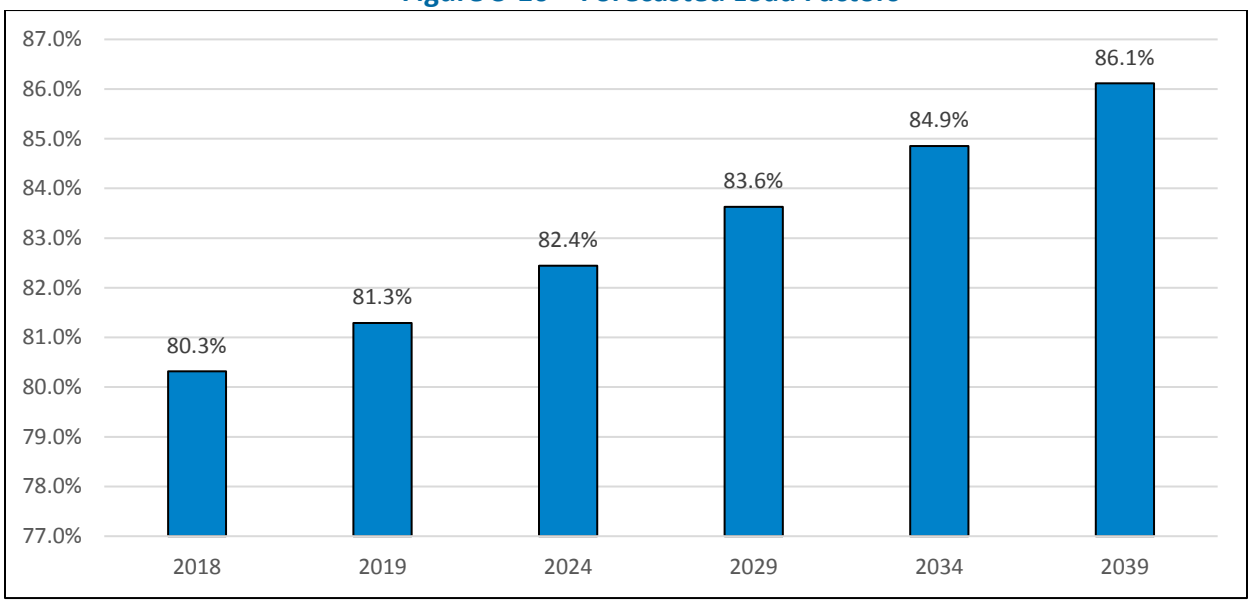
Forecasts

The commercial operations forecast (i.e. scheduled airlines) was derived using the recommended enplanement forecast, growth trends in percentage of seats filled, and average seats per departure, as described below. Aircraft size, as well as service routes, were considered during the development of this forecast. The commercial operations forecast was determined using the following calculations:

- Commercial Load Factors
  - For each non-stop destination, divide the number of passengers in 2018 by the total available seats in 2018 to determine the percentage of seats filled for each destination.
  - Increase the percentage of seats filled by 0.6 percent per year for each destination until the percentage reaches 85.0 percent. When the percentage of seats filled reaches 85.0 percent, it is capped[5] for the remaining years.
  - For each year, determine the average of the percentage of seats filled for all destinations. This results in the Airport's annual percentage of seats filled (load factor) per forecasted year. See **Figure 3-10**.
- Departure Seats
  - Determine annual departure seats by dividing the forecasted enplaned passengers per year by the annual load factor per forecasted year.
- Seats both Ways
  - Multiply the number of departure seats per year by two to determine the total number of seats each way, as departure seats contribute to half of the total seats.
- Operations
  - Divide the total seats per year by the average number of seats per departure to determine the total commercial operations for each forecasted year. See **Figure 3-11**.

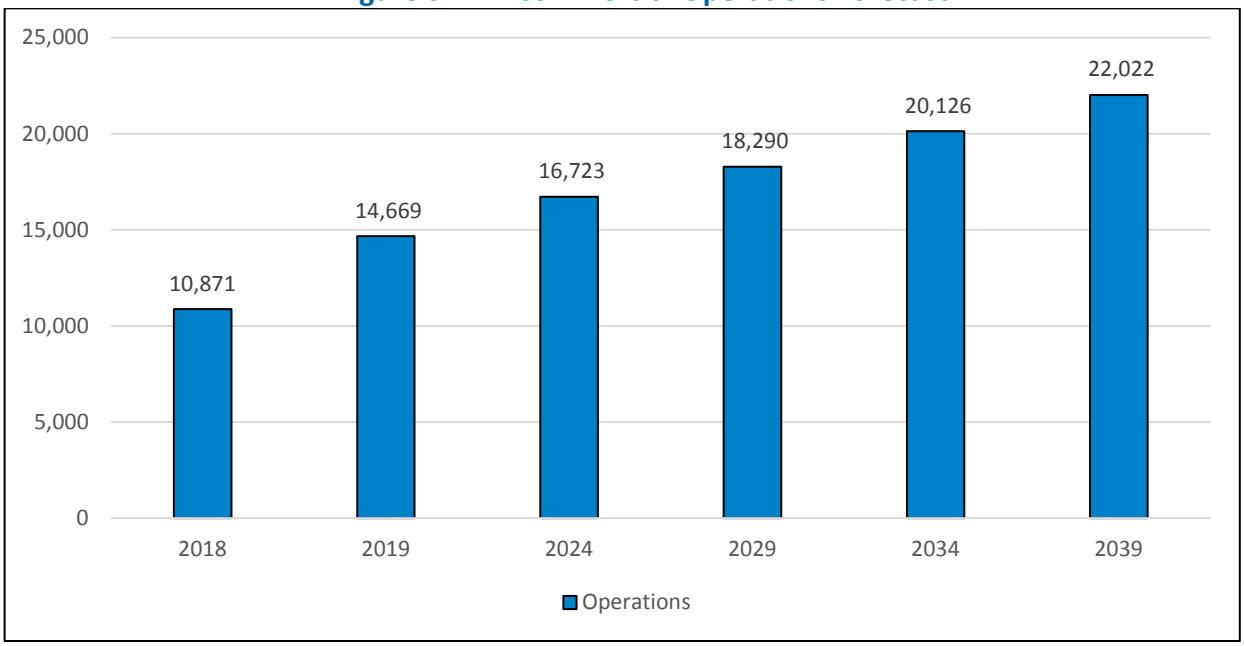
[5] The 85 percent is a proxy, or benchmark, as airlines approach an 85 (or higher) percent load factor, they typically evaluate the cost and benefits of either increasing frequency of that route or upgrading to larger aircraft for the high-load factor routes. As such, for the purposes of this forecast, it was assumed that airlines would up-gauge aircraft.

Figure 3-10 – Forecasted Load Factors



Source: BTS T-100 Data, CHA, 2019.

Figure 3-11 – Commercial Operations Forecast



Source: BTS T-100 Data, CHA, 2019.

3.5.3 Summary of Recommended Commercial Activity Forecasts

Table 3-9 shows a summary of the recommended commercial enplanements and operations forecast, with details pertaining to average seats per departure and percent of seats filled.

The average aircraft size is expected to grow at a rate of 1.5 percent per year after 2022, resulting in approximately 86.1 percent of seats filled in 2039 and in a total growth of 50.1 percent over the forecast period.

Table 3-9 – Recommended Commercial Operations Forecast

Year	Enplanements	Load Factor	Avg. Seats Per Departure	Operations
2018	528,431	80.3%	121	10,871
2019	704,430	81.3%	118	14,669
2024	800,081	82.4%	116	16,723
2029	888,172	83.6%	116	18,290
2034	991,615	84.9%	116	20,126
2039	1,101,173	86.1%	116	22,022
AAGR 2019-2025	**2.3%**	**0.3%**	**-0.1%**	**2.1%**
Growth 2019-2025	**56.3%**	**5.9%**	**-1.7%**	**50.1%**

Source: BTS T-100 Data, ECP, CHA, 2019.

Effective Enplanements Range

The purpose of this forecast is to reasonably predict future airport activity to support development at the Airport throughout the forecast period and to provide a realistic range of annual enplanements which drive all other aspects of commercial activity at the Airport. This range will be considered during the demand capacity and facility requirements evaluation in the subsequent chapters of this Study. The purpose of this range is to provide the Airport Authority with a basis from which to plan future development at the Airport. The range (used in the successive chapter for facility demand capacity calculations), provides varying Planning Activity Levels (PALs), described in subsequent chapters, which are used as benchmarks for future development.

The Low-Growth scenario is derived from the Static State Market Share forecast described in **Section 3.5.1** and in **Appendix C**. For the recommended forecast, the Air Service Scenario was determined to best represent projected enplanements at the Airport.

3.5.4 Commercial Fleet Mix Forecast

Historical

The types of commercial aircraft serving ECP in a typical week in July (the Airport's peak month) are shown in **Table 3-10** below. July was chosen because it has shown to have schedule continuity. See **Appendix F** and **Appendix I** for airline scheduling data.

Table 3-10 – Aircraft Serving ECP (July)

Aircraft	2010*	2011	2012	2013	2014	2015	2016	2017	2018
BOEING 737-700/700LR/MAX 7	353	229	308	213	216	278	277	238	458
CANADAIR RJ-700	17	-	32	36	42	70	-	-	246
MCDONNELL DOUGLAS 80/81/82/83/88	54	124	71	94	192	120	256	344	244
AIRBUS INDUSTRIE A320-100/200	-	-	-	6	8	-	-	-	118
EMBRAER ERJ-175	-	-	-	-	-	-	20	-	84
EMBRAER-145	-	-	-	-	-	123	114	132	47
BOEING 737-800	-	-	47	-	-	8	-	81	16
BOEING 717-200	-	-	-	-	150	228	86	24	4
MCDONNELL DOUGLAS MD-90	-	-	-	-	-	-	2	-	4
CANADAIR RJ-200ER /RJ-440	464	486	320	334	20	-	2	-	-
BOEING 737-300	145	255	269	225	190	156	136	136	-
SAAB-FAIRCHILD 340/B	-	-	-	0	-	123	82	-	-
CANADAIR CRJ 900	88	-	62	4	8	2	18	-	-
AIRBUS INDUSTRIE A319	-	-	2	64	-	-	8	-	-
MCDONNELL DOUGLAS DC-9-50	-	-	2	8	-	-	-	-	-
BOEING 737-500	-	8	2	-	-	-	-	-	-
BEECH 1900 A/B/C/D	-	-	1	-	-	-	-	-	-

Source: BTS T-100 Data, CHA, 2019.

Note: Includes departure and arrival operations; *Denotes the year the Airport opened.

Future

The commercial aircraft fleet mix projections are a function of the scheduled commercial air carriers that operate (or are expected to operate) at the Airport during the forecast period. Each carrier's anticipated future fleet mix (i.e., aircraft acquisitions, aircraft phase-outs, retirements, route demand, etc.) and forecast enplanement levels influence a carrier's aircraft type and level of operations. This data is then coupled with the forecasted commercial air carrier operations to determine the number of annual departures by aircraft type to the greatest extent practical. It is important to note that the assumptions provided within this section are a function of seats per departure and annual seats applied to an assumed LF.

The operational fleet mix forecast provided within this section will serve as practical planning activity levels for the purposes of developing airside and terminal development initiatives.

The first step in determining ECP's future commercial carrier fleet mix was to identify the overall market trends that will drive future airline fleets, as well as aircraft fleet mix decisions specific to each airline operating at the Airport and its demand associated with individual routes by load factor. It is important to reiterate that overall passenger enplanements are projected to grow incrementally and maintain a positive, stable growth throughout the planning period. With the increase in the number of short to medium haul, low-cost air carriers, and the replacement of older larger aircraft, such as early versions of the Boeing B737, Boeing 757, Airbus A320, and the MD80, the demand for smaller single-aisle aircraft has grown within the past two decades, trending the industry toward aircraft with fewer seats, peaking in 2007. In general, this has translated to a higher passenger load factor per flight; however, per the Boeing Commercial Market Outlook (2019-2038), domestic air carriers have begun trending away from regional jet aircraft and retiring smaller 50-seat aircraft at an accelerated rate.

These 50-seat aircraft are being replaced with larger 70- and 90-plus seat regional jets, as well as larger narrow-body aircraft; however, replacements will not keep pace with retirements. Boeing predicts that the fleet of regional jets in the United States will consist of 1,680 aircraft in 2038, down from 1,840 in 2018. Single aisle aircraft will continue to comprise much of the domestic fleet and will increase market share in the United States from 55 percent in 2018 to 65 percent in 2038.

As with the predicted national fleet shift toward newer, larger, and more efficient aircraft, ECP-specific fleet mix characteristics and trends were identified and applied directly to the preferred passenger carrier forecasts through 2039. To provide a detailed picture of future ECP operations, the following assumptions are based upon airline-specific fleet plans and aircraft orders, as well as overall industry trends:

- As announced in 2016 (Delta.com), Delta is currently planning an aggressive overhaul of their small-plane fleet both through the mainline carrier and Delta Connection carriers. According to Delta.com, the airline plans to buy larger regional jets with a list value up to $2.3 billion, pending pilot union approval. This will provide Delta the option of adding 50 aircraft, each with 70-76 seats. This is indicative of the airline progressing towards eliminating their fleet of 50-seat aircraft. As part of this transitional period, in June 2018, the airline announced that they had entered a purchase agreement with Bombardier for 20 70-seat CRJ900 aircraft, which will be replacing older, RJs. Deliveries began in 2018 and are expected to conclude in 2020.
- Delta Air Lines regional jet aircraft with a passenger capacity of 50-seats or under (CRJ200, ERJ145, ERJ140, etc.) will be gradually phased out of service and replaced with larger 70-seat plus regional jet aircraft (CRJ700/900) and larger narrow-body B717s, which were leased from Southwest after the Southwest/Air Tran merger.
- In addition to transitioning from RJs, Delta Air Lines has ordered 90 A220-100 aircraft (formerly Bombardier CS100s) airplanes, which are expected to replace 20 percent of the airline's older, less efficient aircraft by 2020. Delta expects to utilize these aircraft on the short- and medium-haul routes replacing MD80 series and Boeing 717s. The first aircraft of its type owned by Delta took flight in February 2019. It is likely this airframe will serve the ECP-ATL route within the forecast period. It is important to note, however, that Delta would need to increase the number of daily flights to eight or nine in order to maintain the number of seats currently provided by the six daily MD-88 flights. Thus, they may elect to maintain the six daily flights with the existing larger aircraft.
- In November 2018, Delta Air Lines announced that they had increased their purchase order for A330-900neo from 25 to 35 aircraft, with service anticipated to begin in 2019. These aircraft are expected to replace the airline's fleet of B767-300ERs.
- In January 2019, Delta Air Lines also announced their order of 90 Airbus A220 (formally Bombardier C-Series) aircraft (deliveries through 2023), configured with 130 seats.

- Delta is also phasing out the MD-88 and MD-90 aircraft, which are being replaced with B737-900ER (deliveries through 2019) and A321-200 aircraft (deliveries through 2021). The A321s will also be replacing Delta's B757-200.
- United Airlines is currently phasing out its B777-200, B777-200ER, and B757-200 aircraft. The B777s will be replaced with A350-900, while the B757-200s will be replaced by B737 Max 10 aircraft. Between 2020 and 2021, the airline will also be receiving 34 A319-100s, 14 of which are being acquired from China Southern Airlines.
- American Airlines is currently phasing out its Embraer 190s, B757-200s, MD-83s, B737-800s, A330-300s, and older B777-200ERs. Although many aircraft are being phased out, the airline is adding A319-100s, A321neos, B737 Max 8s, B767-300ERs, and B787-9s to its fleet mix, with all deliveries expected to be complete by 2023.

Using ECP's commercial air carrier schedule data provided by the Bureau of Transportation Statistics and supplemented by ECP, the commercial air carrier fleet mix forecast considers the assumptions listed above, as well as the projected annual departures for the Airport associated with the enplanement projections listed in the recommended forecast. A departure is considered a single operation, while an arrival is another. Simply put, departures equal one-half of total operations. For future facility planning purposes, annual commercial operations are converted to operations by aircraft type for select years. The 2018 fleet mix was taken as the baseline, with adjustments for retiring fleet types (e.g. MD80s, 50-seat regional jets) and reasonable replacement aircraft types through the forecast period. **Table 3-11** shows the fleet mix and departures for 2019, 2024, 2029, 2034, and 2039.

Table 3-11 – Commercial Fleet Mix

Aircraft	Seats	Commercial Operations	
		2018	2039
A319	132	1	370
A220	150	0	449
A320-100/200	157	324	2,921
B717-200	110	453	0
B737-700/700LR/MAX7	143	3,459	6,728
B737-800	168	504	980
B737-900ER	180	118	1,088
CRJ900	74	7	4,166
CRJ-700	65	1,565	3,451
ERJ-175	76	216	1,870
ERJ-135	37	2	0
ERJ-145	50	1360	0
MD-80	149	2,844	0
MD-90	158	18	0
Total	-	**10,871**	**22,022**

Source: BTS T-100 Data, CHA, 2019.
Note: Route announcements can be found in **Appendix H**.

3.6 AIR CARGO FORECAST

Air cargo traffic is comprised of freight, express, and airmail. Air cargo is typically transported via three different methods: commercial air carrier "belly cargo", dedicated commercial cargo carriers (integrators), or all-cargo charter services.

Air cargo activity and demand is cyclical in nature and fluctuates based on national and global economic trends. Factors that affect air cargo growth are fuel price volatility, movement of real yields, and globalization.

3.6.1 Historical Data

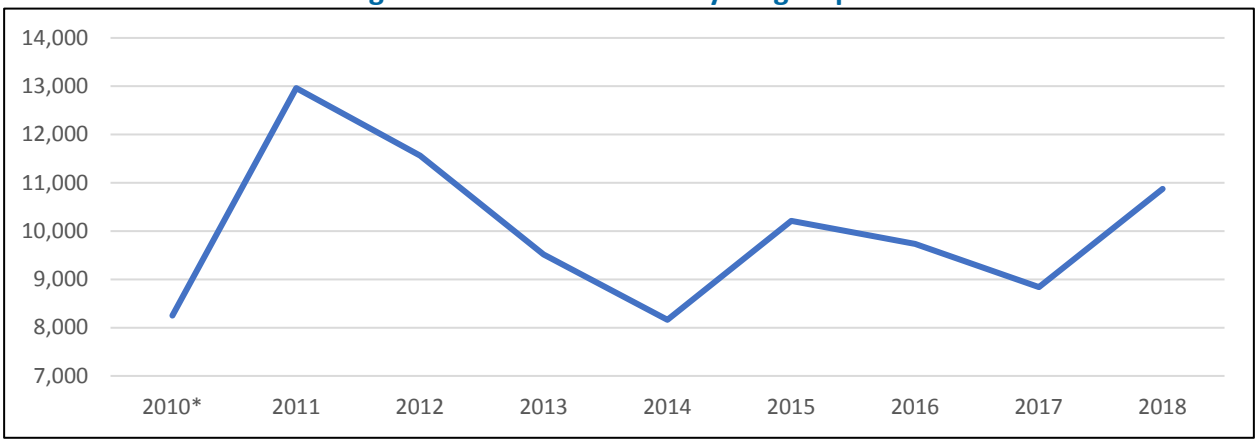
The Airport has received belly cargo freight and mail via the airlines, as shown below in **Table 3-12**. Belly cargo operations are further depicted in **Figure 3-12**, while belly cargo volume is shown in **Figure 3-13**.

Table 3-12 – Historical Belly Cargo Volume

Year	Operations	Enplaned Volume (tons)		Deplaned Volume (tons)		Total Volume (tons)
		Freight	Mail	Freight	Mail	
2010*	8,249	2.0	0.5	5.1	0.0	7.6
2011	12,961	6.9	0.0	10.4	0.2	17.6
2012	11,564	28.1	0.0	25.2	0.0	53.3
2013	9,512	65.6	0.0	48.1	0.0	113.7
2014	8,162	19.5	0.0	31.8	0.0	51.3
2015	10,208	16.0	0.3	23.9	0.3	40.5
2016	9,737	4.2	0.0	16.5	0.0	20.7
2017	8,841	4.7	0.0	17.5	0.0	22.3
2018	10,877	4.4	0.1	14.1	0.1	18.7

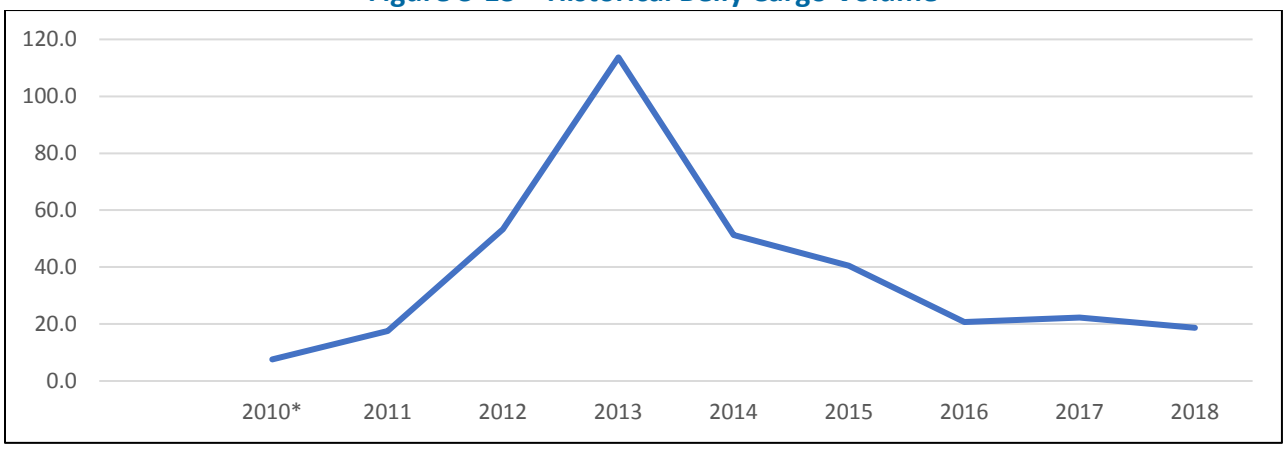
Source: FAA 2018 TAF, BTS T-100 Data, CHA, 2019.

Figure 3-12 – Historical Belly Cargo Operations



Source: FAA 2018 TAF, BTS T-100 Data, CHA, 2019.

Figure 3-13 – Historical Belly Cargo Volume



Source: FAA 2018 TAF, BTS T-100 Data, CHA, 2019.

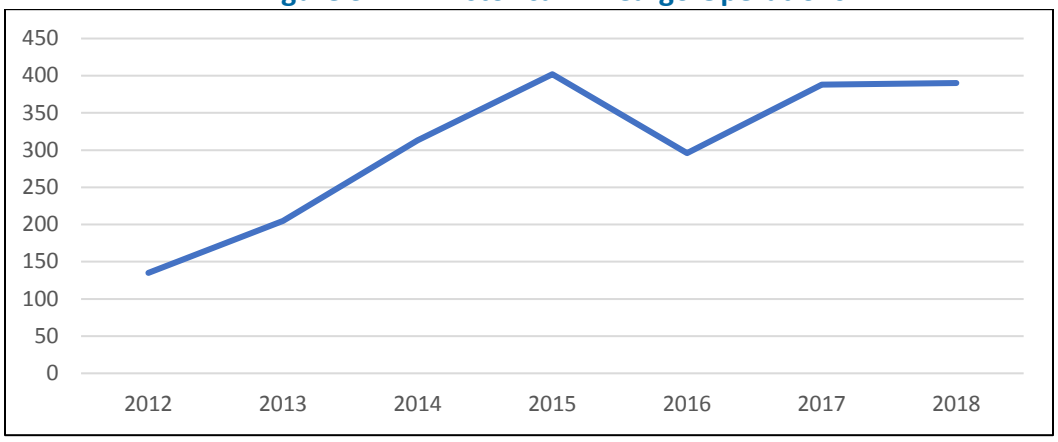
Historically, cargo feeders have also provided services to and from ECP via Cessna 208 aircraft. At the time of this Study, historical all-cargo volume was not available; however, historical all-cargo operations via feeder carrier(s) is provided in **Table 3-13** and **Figure 3-14**.

Table 3-13 – Historical All-Cargo Operations

Year	Operations
2010	0
2011	0
2012	135
2013	205
2014	313
2015	402
2016	296
2017	388
2018	390

Source: TFMSC, CHA, 2019.

Figure 3-14 – Historical All-Cargo Operations



Source: TFMSC, CHA, 2019

3.6.2 Forecast

Although ECP does not currently received scheduled cargo services via integrated carriers, UPS does provide service via a contracted feeder carrier (Martin Aviation, LLC) with one daily scheduled flight five days a week (Monday through Friday) seasonally (through September/39 weeks), which consists of two operations each day (take-off and landing) or 390 annual flights. When evaluating the potential for additional service, it was determined that the likelihood of an integrator to begin scheduled service is unlikely due to ECP's proximity to other airports providing such services (i.e., Pensacola International Airport and Tallahassee International Airport). Rather, it would be more likely that additional cargo services would be provided via cargo feeder carriers, similar to current operations. Accounting for such activity is pertinent when planning for space contingency related to cargo.

The cargo forecasts were based on research and findings by industry experts, such as those found in the FAA Aerospace Forecast (FY 2019-2039), the Boeing World Air Cargo Forecast (2018-2037), and the Airbus Global Market Forecast (2018-2037). The resulting operations and volume forecasts are presented in **Table 3-14** and **Table 3-15**, respectively. The cargo feeder operations and volume forecasts based on growth rates and trends addressed in the Boeing World Air Cargo Forecast will serve as the high-growth scenarios for cargo feeder activity.

For the purposes of the forecasting effort, an additional assumption-based scenario was performed. In the forecast, it was assumed that in the next five years, service will transition from seasonal service (39 weeks) to year-round service (52 weeks) while still maintaining the schedule of one daily scheduled flight Monday through Friday. It was further assumed that in 10 years, service will increase to two daily flights five days a week year-round. Within 15 years, it was assumed that a feeder carrier will begin one daily operation on weekends (Saturday and Sunday) year-round. It is assumed that the projected cargo feeder operations will be serviced via smaller aircraft such as the Cessna 208 Caravan, which has a maximum cargo pad payload capacity of 3,185 pounds.

Table 3-14 – Summary of Cargo Feeder Operations Forecasts

Year	FAA Aerospace	National Boeing	National Airbus	Assumption Based
2018	390	390	390	390
2019	397	399	396	412
2024	437	447	426	520
2029	480	501	461	1,040
2034	527	561	499	1,248
2039	579	629	540	1,248
AAGR 2024-2039	**1.9%**	**2.3%**	**1.6%**	**6.0%**
Growth 2024-2039	**32.6%**	**40.6%**	**26.6%**	**140.0%**

Source: FAA Aerospace Forecast (FY 2019-2039), Boeing World Air Cargo Forecast (2018-2037), Airbus Global Market Forecast (2018-2037), CHA, 2019.

Table 3-15 – Summary of Cargo Feeder Volume Forecasts

Year	FAA Aerospace	National Boeing	National Airbus	Assumption Based
2018	621	621	621	621
2019	633	635	630	656
2024	695	712	679	828
2029	764	798	734	1,656
2034	839	894	794	1,987
2039	922	1,001	860	1,987
AAGR 2024-2039	**1.9%**	**2.3%**	**1.6%**	**6.0%**
Growth 2024-2039	**32.6%**	**40.6%**	**26.6%**	**140.0%**

Source: FAA Aerospace Forecast (FY 2019-2039), Boeing World Air Cargo Forecast (2018-2037), Airbus Global Market Forecast (2018-2037), CHA, 2019.
Note: Units in tons

3.6.3 Summary of Recommended Cargo Forecasts

The recommended cargo feeder forecasts (shown in **Table 3-16**) are the average of the three national forecasts. The average annual growth for operations and volume were approximately 16.0 percent from 2024 through 2029 and approximately 1.3 percent from 2029 to the end of the forecast period (2039). Additionally, the High-Growth Feeder Forecasts are shown in **Table 3-17**.

Table 3-16 – Recommended Cargo Feeder Operations and Volume Forecasts

Year	Operations	Volume (tons)
2018	390	621
2019	397	633
2024	437	695
2029	480	765
2034	512	815
2039	546	869
AAGR 2024-2039	**1.5%**	**1.5%**
Growth 2024-2039	**24.9%**	**24.9%**

FAA Aerospace Forecast (FY 2019-2039), Boeing World Air Cargo Forecast (2018-2037), Airbus Global Market Forecast (2018-2037), CHA, 2019.

Table 3-17 – High-Growth Cargo Feeder Operations and Volume Forecasts

Year	Operations	Volume (tons)
2018	390	621
2019	412	656
2024	520	828
2029	1,040	1,656
2034	1,248	1,987
2039	1,248	1,987
AAGR 2024-2039	**6.0%**	**6.0%**
Growth 2024-2039	**140.0%**	**140.0%**

Source: TFMSC, CHA, 2019.

3.7 GENERAL AVIATION FORECAST

General aviation (GA) includes all segments of the aviation industry except commercial air carriers/regional/commuter service, scheduled cargo, and military operations. General aviation represents the largest percentage of civil aircraft in the U.S. and accounts for most operations handled by towered and non-towered airports. Its activities include flight training, sightseeing, recreational, aerial photography, law enforcement, and medical flights, as well as business, corporate, and personal travel via air taxi charter operations.

General aviation aircraft encompass a broad range of types, from single-engine piston aircraft to large corporate jets, as well as helicopters, gliders, and amateur-built aircraft.

General aviation and military operations are further categorized as either itinerant or local operations. Local operations are those performed by aircraft that remain in the local traffic pattern or within a 20-mile radius of the tower. Local operations are commonly associated with training activity and flight instruction and include touch and go operations. Itinerant operations are arrivals or departures, other than local operations, performed by either based or transient aircraft that do not remain in the airport traffic pattern or within a 20-nautical mile radius. It is important to note that as shown in **Table 3-18**, the 2018 TAF indicates very little growth in GA operations at ECP, with an AAGR of 0.1 percent and 1.2 percent growth from 2019 through 2039. For GA operations at FAA facilities, the FAA TAF uses trend models to project growth in the future. Projections and will be detailed in subsequent sections.

Table 3-18 – FAA TAF (Condensed to GA and Military Only)

Fiscal Year	Itinerant Operations			Local Operations			Total Operations	Based Aircraft
	GA	Military	Total	Civil	Military	Total		
2018	25,155	6,088	31,243	11,541	9,241	20,782	52,025	111
2019	26,226	6,088	32,314	11,889	9,241	21,130	53,444	111
2024	26,331	6,088	32,419	11,949	9,241	21,190	53,609	111
2029	26,436	6,088	32,524	12,009	9,241	21,250	53,774	111
2034	26,541	6,088	32,629	12,069	9,241	21,310	53,939	111
2039	26,646	6,088	32,734	12,129	9,241	21,370	54,104	111
AAGR 2019-2039	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%
Growth 2019-2039	1.6%	0.0%	1.3%	2.0%	0.0%	1.1%	1.2%	0.0%

Source: FAA 2018 TAF, CHA, 2019.

3.7.1 Based Aircraft

Historical Data

Since July 2010, Sheltair (the Airport's FBO) has been operating at ECP. Based on the Airport Master Record, as of May 5, 2011, no aircraft were based at ECP; however, by May 31, 2012, the Airport had 72 based aircraft, as a result of the closure of PFN. As shown in **Table 3-19**, the Airport experienced approximately 52.8 percent growth in based aircraft from 2012 to 2013, increasing from 72 based aircraft to 110 aircraft. Despite the sharp increase from 2012 to 2013, based aircraft at ECP remained static through 2016.

In 2017, the Airport lost two single-engine based aircraft but was compensated for by the introduction of one multi-engine, one jet, and one helicopter, which resulted in approximately a 0.9 percent increase in based aircraft. From 2018 to 2017, ECP had six fewer based aircraft. Although the Airport appears to have fewer based aircraft, the loss is due to single- and multi-engine aircraft being replaced with jets, which is evidenced by a cumulative loss of 13 single- and multi-engine aircraft and an increase of seven jets.

Table 3-19 – ECP's Historical Based Aircraft

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
Single-Engine	0	0	55	86	86	86	86	84	76
Multi-Engine	0	0	12	15	15	15	15	16	11
Jet	0	0	5	9	9	9	9	10	17
Total Fixed Wing (SE+ME+J)	0	0	72	110	110	110	110	110	104
Helicopters	0	0	0	0	0	0	0	1	0
Gliders	0	0	0	0	0	0	0	0	0
Military	0	0	0	0	0	0	0	0	0
Ultra-Light	0	0	0	0	0	0	0	0	0
Total Based Aircraft	0	0	72	110	110	110	110	111	104

Source: Airport Master Record (05/05/2011 through 03/01/2018), ECP, CHA, 2019.

Forecasts

Like commercial operations forecasts, the FAA provides multiple methodologies to be used to forecast GA based aircraft. To determine the most reasonable scenario for ECP, it is necessary to compare and eliminate those forecasts that do not support the key factors and variables that comprise the specific direction of the Airport and its market. This section provides the methodology used, as well as methodologies that were analyzed, for the development of the forecast of GA based aircraft at ECP. The following methodologies, and results therein, are described in the following sections and the results are shown in **Table 3-20**. See **Appendix D** for the full scenario results.

Methodologies

- FAA Aerospace Forecast Scenario – A forecasting approach that analyzes data provided in the FAA Aerospace Forecasts (FY 2019-2039), such as annual based aircraft projections by category, and then projects growth for based aircraft at the Airport based on these growth rates. This assumes that the Airport's GA based aircraft will grow at the FAA projected national rates while maintaining their respective share of fleet throughout the forecast period. As shown in **Table 3-20**, the growth is conservative compared to the TAF. However, detailed evaluation of the Aerospace methodology identified the single- and multi-engine market at ECP decreasing (76 single-engine and 11 multi-engine aircraft in 2018 to 61 and 10, respectively, by 2039), while the jet market has much more significant growth (10 additional Jet aircraft by 2039). See **Appendix D** for a breakdown by aircraft type.

- TAF Based Growth Forecast Scenario – Takes the FAA's projected based aircraft annual growth for 2019-2039 and applies that assumption to actual airport-reported data. In other words, the TAF growth is applied to an actual 2018 based aircraft count and projected throughout the forecast period. For example, the 2018 TAF has an estimated 2018 based aircraft count of 111. According to airport records, the actual number of based aircraft was 104. The year to year TAF growth rate was then applied to the actual 104 based aircraft and projected from 2019 through 2039. The result of this methodology was 104 based aircraft in 2039, approximately 6.3 percent below the 111 reported in the TAF. **Table 3-20** depicts the results of this evaluation. This scenario was not considered reasonable for the recommended based aircraft forecast. As shown below, the FAA TAF does not project any changes to based aircraft over the forecast period, even though the TAF does predict increased levels of GA activity. This scenario was not chosen as the recommended based aircraft forecast.

- Market Share Scenario (Static)[6] – Similar to enplanements, a Market Share forecast is a "top-down" method where projected growth rates of larger aggregates (e.g., the nation) are used to derive forecasts for smaller areas (e.g., airports). Future ECP based aircraft were estimated by multiplying the future share trend and the Federal Aviation Administration's (FAA) Terminal Area Forecast (TAF) for National, Southern Region, and State based aircraft numbers. **Table 3-20** and **Appendix D** (same table and Appendix as above) depict the results of this evaluation. As shown, between the State, Southern Region, and National projections, ECP ranges from 104 to 138 based aircraft, resulting in relatively conservative growths within the ECP market for based aircraft. The Regional Market Share scenario was believed to be the most reasonable scenario for projecting based aircraft at ECP.

Table 3-20 – Based Aircraft Forecast Comparisons

Year	TAF	FAA Aerospace Forecast	TAF-Based Growth	Market Share		
				National	Regional	State
2018	111	104	104	104	104	104
2019	111	104	104	105	105	105
2024	111	102	104	109	110	113
2029	111	101	104	114	114	121
2034	111	99	104	118	119	129
2039	111	**98**	104	123	124	138
AAGR 2019-2039	**0.0%**	**-0.3%**	**0.0%**	**0.8%**	**0.9%**	**1.3%**
Growth 2019-2039	**0.0%**	**-5.2%**	**0.0%**	**17.2%**	**18.5%**	**30.6%**

Source: FAA 2018 TAF, FAA Aerospace Forecast (FY 2019-2039), ECP[7], CHA, 2019.

[6] ECP's GA Based Aircraft Percent Market Shares in 2018: National (0.1), Eastern Region (0.3), and State (0.9).

[7] The Airport Authority provided historical, as well as the current (as effective 03/13/2019) Airport Master Record (Form 5010) data. Per the Airport Authority, these datasets have been used in the formulation of the based aircraft forecasts [which tie into the operations forecasts (OPBA)].

Recommended Based Aircraft Forecast

As previously mentioned, the results produced by the Regional Market Share (Static) analysis will serve as the recommended GA based aircraft forecast at the Airport, as shown in **Table 3-21**.

Table 3-21 – Recommended Based Aircraft Forecast

Year	Recommended
2018	104
2019	105
2024	110
2029	114
2034	119
2039	124
AAGR 2019-2039	**0.9%**
Growth 2019-2039	**18.5%**

Source: FAA 2018 TAF, ECP, CHA, 2019.

When determining the future mix of GA aircraft that will be operating at the Airport, assumptions from the FAA Aerospace were utilized. It was assumed that the current mix of GA aircraft will change at the rates indicated in the FAA Aerospace Forecast. The future breakdown of GA aircraft by time is shown in **Table 3-22**. Reference **Appendix D** for FAA Aerospace growth rates.

Table 3-22 – Based Aircraft by Aircraft Type

Year	Single-Engine Piston	Multi-Engine Piston	Jet	Total
2018	76	11	17	104
2019	76	11	18	105
2024	77	12	21	110
2029	77	12	25	114
2034	77	13	30	119
2039	78	13	34	124

Source: FAA Aerospace Forecast (FY 2019-2039), ECP, CHA, 2019.

3.7.2 GA Operations

Historical Data

National trends in general aviation activity have shown a decrease in itinerant and local operations. The Great Recession, which occurred from 2007-2009, impacted GA activity trends. During this time, the aviation industry saw an increase in the cost of aviation fuel.

According to the U.S. Energy Information Administration (EIA), the cost of aviation fuel[8] increased by 39.9 percent from 2007 to 2014. From 2007 to 2018, aviation fuel suppliers[9] experienced an 18.9 percent decrease in sales and deliveries. The recession also resulted in individuals having less disposable income.

[8] U.S. Energy Information Administration (EIA), Independent Statistics & Analysis (2019). Petrolium & Other Liquids. Retrieved from https://www.eia.gov/dnav/pet/PET_SUM_MKT_DCU_NUS_A.htm

[9] U.S. Energy Information Administration (EIA), Independent Statistics & Analysis (2019). Petrolium & Other Liquids. Retrieved from https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=c400000001&f=a

As fuel prices increase and less disposable income is available, recreational GA users become less likely to travel long distance, hence resulting in a decrease of itinerant GA activity at ECP from 2010 until 2013.

ECP has experienced intermittent periods of decreased itinerant and local GA activity at the Airport. Itinerant activity began to decrease in 2011 but began increasing in 2013 and has continued growing ever sense (28.1 percent growth since 2013). Local GA activity decreased from 2010 until 2013. After increasing in 2013, local GA activity has steadily decreased with approximately a 30.9 percent decrease in operations. Historical GA operational activity is shown in **Table 3-23**.

Table 3-23 – ECP's Historical General Aviation Activity

Year	Itinerant	Local	Total
2010	27,942	14,172	42,114
2011	22,791	12,209	35,000
2012	21,929	11,986	33,915
2013	23,886	14,452	38,338
2014	25,281	13,654	38,935
2015	27,591	12,506	40,097
2016	27,933	12,730	40,663
2017	29,086	11,982	41,068
2018	30,598	9,981	40,579

Source: ECP, ECP ATCT, CHA, 2019.

Forecasts

According to the FAA, the "Air Taxi & Commuter" category of FAA reported operations data includes both scheduled Air Carrier operations with 60-seats or less (i.e., this will include all 50-seat regional jet operations) and Part 135 business and charter operations. As such, the Air Taxi & Commuter category of the FAA 2018 TAF includes both scheduled airlines and business/charter and general aviation operations. The following describes the difference between Air Carrier and Air Taxi & Commuter operations, as defined by the FAA.

- Air Carrier – Operations with aircraft designed to have a seating capacity of more than 60 seats or a maximum payload capacity of more than 18,000 pounds carrying passengers or cargo for hire or compensation. This includes US and foreign flagged carriers.
- Air Taxi & Commuter – Operations with aircraft designed to have a maximum seating capacity of 60 seats or less or a maximum payload capacity of 18,000 pounds or less carrying passengers or cargo for hire or compensation.

To accurately gauge commercial air carrier operations in comparison to GA operations when examining air taxi & commuter operations data, it is necessary to split GA Air Taxi operations from the Commercial Air Carrier operations to account for the scheduled air carrier operations using regional jet aircraft less than 60-seats.

This is accomplished by calculating the total scheduled commercial air carrier operations at ECP and applying the split to account for Air Carrier operations categorized under Air Taxi & Commuter operations and reclassifying those operations as commercial airline operations. By removing the scheduled commercial operations from the Air Taxi & Commuter operations (which contributes to the steep decline in operations due to 50-seat aircraft phasing out) and categorizing operations at the Airport by Air Carrier and GA, both categories then project growth throughout the forecast period.

Table 3-24 shows a comparison between ECP-reported GA operations with the previously described split, as well as the FAA-reported operations numbers for 2018. Based on schedule data and commercial aircraft operations counts, these operations were performed by scheduled air carriers utilizing 50-seat regional jet aircraft; therefore, they were counted in the Air Carrier category.

Table 3-24 – FAA TAF vs. ECP-Reported Operations (With Split)

Source	Year	Itinerant					Local			Total Operations
		Air Carrier	Air Taxi	GA	Military	Total Itinerant	GA	Military	Total Local	
FAA TAF	**2018**	9,370	5,338	25,155	6,088	45,951	11,541	9,241	20,782	66,733
ECP (Adjusted)	**2018**	10,871	-	30,988	5,116	46,975	9,981	7,357	17,338	64,313

Source: FAA 2018 TAF, BTS T-100 Data, Airport Master Record (FAA Form 5010)[10], ECP, CHA, 2019.

Adjustment calculation example: (All numbers provided by ECP[11], as shown in **Appendix E**.)

- Air Carrier + Air Taxi = Total Air Carrier and Air Taxi Operations
  10,075 + 5,872 = **15,947**
- Total Air Carrier and Air Taxi Operations – Actual Air Carrier Operations = Adjusted Air Taxi
  15,947 – 10,871 = **5,076**
- Adjusted Air Taxi + Airport Reported Itinerant GA = Actual Itinerant GA
  5,076 + 25,912 = **30,988**
- Actual Itinerant GA + Local GA = Actual Air Taxi and GA
  30,988 + 9,981**= 40,969 (Combined GA Itinerant and Local Operations)**[12]

[10] Per the Airport Authority, the Airport Master Record (FAA Form 5010) was used for historical based aircraft data; therefore, the forecasts herein are based on these records. See **Appendix G** for FAA 5010 forms, as provided by the Airport.

[11] The Airport Authority: Panama City-Bay County Airport and Industrial District

[12] Cargo operations via carriers with less than 18,000 pound payload are included in these calculations.

Methodologies

Like commercial operations forecasts and GA based aircraft forecasts, several methodologies exist that could be used to forecast GA operations. To determine the most plausible and reasonable scenario for ECP, it is necessary to compare and eliminate those forecasts that do not support the key factors and variables that comprise the specific operational direction of the Airport. This section provides the methodology used, as well as methodologies that were analyzed, for the development of the forecasts of general aviation operations at ECP.

- Historical Growth Scenario – Historical Growth is a time trend analysis that uses the airport's historical activity as a metric to provide future growth projections. These historical trends are typically developed as three-, five- and ten-year historical trends. These historical growth rates are then extrapolated over the forecast horizon (20 years). For the purposes of this forecast, ten-year data was not available, as the Airport did not open until 2010; therefore, data from 2010 through 2018 was analyzed. Historically, ECP has experienced fluctuations in GA activity, ranging between a low of 33,915 in 2012 and a high of 42,114 in 2010. In 2018, the Airport received 30,598 itinerant GA operations and 9,981 local GA operations, for a total of 40,579 GA operations. The results of the historical growth scenarios were not chosen as the recommended GA operations forecast. As years pass, it cannot be assumed that operations will reflect past trends since factors affecting growth in the future will be different than those in the past given that the Airport is relatively new (less than 10 years).

- Operations Per Based Aircraft (OPBA) Scenario – A straightforward forecasting methodology which assumes the total number of annual operations is representative of the number of aircraft based at ECP. At ECP, itinerant traffic makes up approximately 75.6 percent of all GA activity at the Airport. These operations are typically performed by aircraft based at ECP flying charter and corporate aviation operations or flight training (where the flights leave the local airport airspace and return, i.e., cross country flight training). When projecting operations using OPBA for ECP, it is assumed that OPBA will remain static throughout the forecast period (390 OPBA). See **Table 3-25** and **Appendix D** (includes a breakdown between itinerant and local GA operations.) The results of this scenario were not chosen to serve as the recommended GA operations forecast for ECP, as they are believed to be too aggressive. Unless a flight school or new tenant (i.e., a new FBO) were to be based at ECP, it is not likely that GA operations will grow to the extent shown in this scenario.

- Market Share Scenario (Static)[13] – Compares local GA activity levels with aggregate level trends. This methodology assumes that the activity of any one airport is regular and predictable in accordance with the average of airports within the market. An evaluation of local, regional, State, and national FAA GA projections was performed and is detailed in **Table 3-25**. (See **Appendix D** for the full results of the methodology). The results of the Regional Market Share (Static) scenario were chosen to serve as the recommended GA operations forecast at ECP. This scenario results in relatively conservative growth (approximately 0.3 percent growth annually and 6.9 percent over the 20-year planning horizon) and reflects regional trends impacting the Airport.

Table 3-25 – General Aviation Operations Forecast Comparisons

Year	TAF	TAF-Based	Historical Trends			Market Share			OPBA
			3-Year Time Series	5-Year Time Series	8-Year Time Series	National	Regional	State	
2018	36,696	40,579	40,579	40,579	40,579	40,579	40,579	40,579	40,579
2019	38,115	40,614	40,551	40,916	41,336	40,846	40,970	41,400	40,951
2024	38,280	40,789	40,412	42,644	45,339	41,554	41,604	42,613	42,775
2029	38,445	40,964	40,272	44,444	49,730	42,310	42,281	43,916	44,574
2034	38,610	41,140	40,134	46,321	54,547	43,123	43,007	45,318	46,502
2039	38,775	41,317	39,996	48,277	59,829	44,002	43,784	46,829	48,541
AAGR 2019-2039	**0.1%**	**0.1%**	**-0.1%**	**0.8%**	**1.9%**	**0.4%**	**0.3%**	**0.6%**	**0.9%**
Growth 2019-2039	**1.7%**	**1.7%**	**-1.4%**	**18.0%**	**44.7%**	**7.7%**	**6.9%**	**13.1%**	**18.5%**

Source: ECP, CHA, 2018.

Recommended GA Operations Forecast

As mentioned, the results of the Regional Market Share scenario have been chosen to represent the recommended GA operations forecast for ECP.

To determine the break-down of GA operations by itinerant versus local, an average five-year split was applied to each forecast year. On average over the past five years, GA activity has consisted of approximately 69.8 percent itinerant and 30.2 percent local operations. It was assumed that this average will continue throughout the forecast. The recommended GA operations forecast, with the applied split between itinerant and local operations, is depicted in **Table 3-26**.

[13] ECP's GA Operations Percent Market Shares in 2018: National (Itinerant 0.1) (Local 0.03), Regional (Itinerant 0.4) (Local 0.1), State (Itinerant 1.0) (Local 0.3).

Table 3-26 – Recommended General Aviation Operations Forecasts

Year	Itinerant	Local	Total
2018	28,315	12,264	40,579
2019	28,587	12,383	40,970
2024	29,029	12,574	41,604
2029	29,502	12,779	42,281
2034	30,009	12,998	43,007
2039	30,551	13,233	43,784
AAGR 2019-2039	**0.3%**	**0.3%**	**0.3%**
Growth 2019-2039	**6.9%**	**6.9%**	**6.9%**

Source: ECP, CHA, 2018.

3.7.3 General Aviation Recommended Forecast Summary

The following table presents a summary of the recommended GA activity forecasts for based aircraft and operations, as detailed in the previous sections. The results of the Regional Market Share analysis have been chosen as the recommended based aircraft forecast and the GA operations forecast. **Table 3-27** presents the complete summary of the preferred GA forecast for based aircraft and operations by type.

Table 3-27 – Recommended GA Forecast

Year	Based Aircraft	Operations		
		Itinerant	Local	Total
2018	104	28,315	12,264	40,579
2019	105	28,587	12,383	40,970
2024	110	29,029	12,574	41,604
2029	114	29,502	12,779	42,281
2034	119	30,009	12,998	43,007
2039	124	30,551	13,233	43,784
AAGR 2019-2039	**0.9%**	**0.3%**	**0.3%**	**0.3%**
Growth 2019-2039	**18.5%**	**6.9%**	**6.9%**	**6.9%**

Source: ECP, ECP ATCT, CHA, 2018.

3.8 MILITARY FORECAST

Military activity is often included in the based aircraft and operations projections but are not forecast in the same manner as general aviation activity since their number, location, and activity levels are not a function of anticipated market and economic conditions, but are rather a function of military decisions, national security priorities, and budget pressures that cannot be predicted over the course of the forecast period. Typically, military based aircraft and military operations, for forecasting purposes, remain static at baseline year levels throughout the forecast period.

3.8.1 Historical Data

Military activity at ECP has drastically increased since the Airport opened in 2010, depicted in **Table 3-28**. From 2011 to 2018, the AAGRs for itinerant and local military operations were 3.4 percent and 6.2 percent, respectively, resulting in an overall growth in total operations of approximately 47.7 percent.

Table 3-28 – Historical Military Operations

Year	Itinerant	Local	Total
2010	4,310	3,926	8,236
2011	3,905	4,541	8,446
2012	4,965	6,285	11,250
2013	4,215	7,613	11,828
2014	3,797	5,861	9,658
2015	5,995	8,084	14,079
2016	6,277	8,668	14,945
2017	6,467	10,438	16,905
2018	5,116	7,357	12,473

Source: ECP ATCT, CHA, 2019.

Although ECP has experienced growth in military operations since 2010, military operations at the Airport decreased by approximately 26.2 percent from 2017 to 2018, a result of federal sequestration.

On October 10, 2018, Hurricane Michael (Category 5) impacted Florida and military operations within the state. Tyndall Air Force Base, located 20.8 nautical miles southeast of ECP, suffered severe damages. According to a press release on October 11, 2018, every building had severe damage, with many buildings at a complete loss, and the flight line devastated. The loss of military activity in the vicinity of ECP may be a contributing factor to the loss in military operations at the Airport. This is evidenced by the fact that military operations at ECP dropped from 1,154 operations in September 2018 to 126 operations by December, approximately an 89.1 percent decrease. As evidenced by the year-over-year comparison for 2017 and 2018 from September (the month prior to the hurricane) through December 2018 (Table 3-x), the decrease in military operations can be attributed to the hurricane's impact on Panama City, Florida and the nearby Air Force base. **Table 3-29** depicts previous year (2017) Military activity.

Table 3-29 – Historical Military Operations

Month	2017	% Difference (2017-2018)	2018
September	1,159	-0.4%	1,154
October	1,135	-51.1%	555
November	1,696	-93.6%	109
December	976	-87.1%	126

Source: Air Traffic Advisory System (ATADS), CHA, 2019.

3.8.2 Forecast

As previously mentioned, military operations are not forecast using the same methodologies as the operations presented earlier in this chapter. Due to the inability to predict military activity and decisions, it was assumed that the military operations at ECP will remain static over the forecast period. Given the historical growth in military, it is not foreseen that operations would likely decrease. Based on these assumptions, military operations are expected to consist of 5,116 itinerant operations and 7,357 local operations, for a total of 12,473 annual military operations throughout the forecast horizon, which is approximately 18.6 percent below the FAA TAF's military forecast of 15,329 operations (6,088 itinerant and 9,241 local). Unlike the military forecast presented herein, the FAA TAF does not account for loss of activity resulting from a recent natural disaster (Hurricane Michael), thus resulting in the TAF being higher.

3.9 RECOMMENDED FORECAST SUMMARY

The following tables present a summary of the preferred aviation activity forecasts for air carrier activity (operations and enplanements), air cargo via cargo feeders (operations and volume), GA activity (based aircraft and operations), and military activity as detailed in the previous sections. Additionally, direct comparisons to the FAA's TAF for ECP are provided for evaluation purposes. The recommended forecasts are the preferred projections on which future planning for the Airport will be based. **Table 3-30** presents the complete summary of the preferred forecast for based aircraft, enplanements, and operations by type.

Table 3-31 details the recommended forecast of enplanements and total airport operations (all activity types) in comparison to the FAA 2018 TAF forecast. At the end of the planning period, the recommended forecast predicts a level of enplanements 7.2 percent above the ECP TAF and total Airport operations 3.5 percent below what is reported in the TAF. Per FAA requirements, forecasts should be within 10 percent of the TAF in the first 5 years and 15 percent in 10 years, as set forth by the FAA in AC 150/5070-6B*, Airport Master Plans,* for approval of Master Plan forecasts.

In **Table 3-31**, the recommended forecasts for enplanements and total Airport operations are compared to the FAA 2018 TAF, which shows both recommended enplanements and operations to be within acceptable range of FAA criteria.

Table 3-30 – Recommended Forecast Summary

Year	Based Aircraft	Enplanements	Operations				
			Air Carrier	Cargo	GA	Military	Total
2018	104	528,431	10,871	390	40,579	12,473	64,313
2019	105	679,100	14,669	397	40,970	12,473	68,509
2024	110	823,553	16,723	437	41,604	12,473	71,236
2029	114	923,351	18,290	480	42,281	12,473	73,524
2034	119	1,022,076	20,126	512	43,007	12,473	76,117
2039	124	1,126,637	22,022	546	43,784	12,473	78,825
AAGR 2019-2039	**0.9%**	**2.6%**	**2.1%**	**-**	**0.3%**	**0.0%**	**0.7%**
Growth 2019-2039	**18.5%**	**65.9%**	**50.1%**	**-**	**6.9%**	**0.0%**	**15.1%**

Source: FAA 2018 TAF, BTS T-100 Data, ECP, ECP ATCT, CHA, 2019.

Table 3-31 – Recommended Forecast vs. FAA TAF

Year	Enplanements			Operations		
	FAA TAF	Recommended	Recommended vs. FAA TAF	FAA TAF	Recommended	Recommended vs. FAA TAF
2018	504,330	528,431	4.8%	66,733	64,313	-3.6%
2019	672,302	679,100	1.0%	72,593	68,509	-5.6%
2024	763,590	823,553	7.9%	74,399	71,236	-4.3%
2029	847,664	923,351	8.9%	76,582	73,524	-4.0%
2034	946,389	1,022,076	8.0%	79,086	76,117	-3.8%
2039	1,050,950	1,126,637	7.2%	81,721	78,825	-3.5%
AAGR 2019-2039	**2.3%**	**2.6%**	-	**0.6%**	**0.7%**	-
Growth 2019-2039	**56.3%**	**65.9%**	-	**12.6%**	**15.1%**	-

Source: FAA 2018 TAF, BTS T-100 Data, ECP, ECP ATCT, CHA, 2019.

FAA required appendices can be found in **Appendix G**.

3.10 PEAK ACTIVITY FORECAST

Commercial service airports experience peaks in enplanements, commercial air carrier operations, and total airport operations that drive demand for various areas of airport infrastructure. To properly plan, size, and design passenger terminal facilities, an understanding of peak month-average day (PMAD) and peak hour enplanement demand is necessary. The peak month, PMAD, and peak hour forecasts are key elements in defining the future facility requirements needed to accommodate above average levels of utilization (i.e., peak activity).

The peak month is the calendar month of the year when the highest level of enplanements and commercial aircraft operations typically occur. Peak month-average day is simply the total commercial operations, or total enplanements, divided by the number of days in the peak month. To provide the necessary metrics for the demand/capacity analysis, PMAD is forecast for the following:

- Enplanements, Deplanements, and Total Passengers
- Commercial Air Carrier Aircraft Operations
- Total Aircraft Operations

Each element must be presented separately:

- Peak enplanements, deplanements, and total passengers - direct impact on terminal (e.g., ticketing and baggage claim) and landside (e.g., curbside access roads, curbside, and parking) facilities
- Peak commercial air carrier operations- define the demand for airside facilities (gates and ramp)
- Peak hour airport operations- determine runway capacity and airfield needs

Terminal facilities are generally designed to accommodate enplanements on the average day during the peak month, rather than the absolute peak level of activity.

3.10.1 Peak Passengers

Enplanements

Historical Peak Enplanements

A review of historical enplanements at ECP was performed to identify the peak month for commercial activity, shown in **Table 3-32**.

Table 3-32 – Historical Peak Enplanements

Year	Annual Enplanements	Peak Month	Peak Month Enplanements	PMAD Enplanements
2010	254,509	July	42,209	1,362
2011	433,081	July	43,507	1,403
2012	439,183	June	47,227	1,574
2013	408,037	June	45,954	1,532
2014	406,351	July	44,916	1,449
2015	443,531	July	49,211	1,587
2016	447,965	July	49,172	1,586
2017	470,504	July	56,460	1,821
2018	528,431	July	63,893	2,061

Source: FAA 2018 TAF, BTS T-100 Data, ECP, CHA, 2019.
Note: See **Appendix E** for Airport Data.

When developing the forecast, July was determined to be the peak month in 2018.

Peak Month – Average Day Enplanements

During the month of July in 2018, ECP experienced approximately 63,893 enplanements, or approximately 12.1 percent of the total annual enplaned passengers (528,431). To calculate the PMAD, the peak month enplanements (63,893) were divided by the number of days in the peak month of July (31) to define the PMAD. The PMAD enplanements (2,061) make up approximately 3.2 percent of the enplanements in the peak month. This breakdown is shown in **Table 3-33**.

Peak Hour Enplanements

Peak hour passenger enplanements in July were calculated by using the following methodology:

- Analyze ECP commercial air carrier schedule data to determine the average air carrier departures.
- Apply average load factors per route destination to peak hour enplanements, then divide peak hour enplanements by the PMAD enplanements to determine the peak hour percentage of enplanements.

It was determined that the peak hour for enplanements is between 4:40 pm and 6:10 pm (16:40 and 18:10), with approximately 31.3 percent of enplanements occurring during this time frame. To generate a forecast of peak hour enplanements, the percentage was applied to the PMAD enplanements, depicted in **Table 3-34**.

Table 3-33 – Peak Month Average Day Enplanements

Fiscal Year	Enplanements	Peak Month Percent	Peak Month Enplanements	PMAD Percent	PMAD
2018	528,431	12.09%	63,893	3.2%	2,061
2019	704,430	12.09%	85,173	3.2%	2,748
2024	800,081	12.09%	96,738	3.2%	3,121
2029	888,172	12.09%	107,390	3.2%	3,464
2034	991,615	12.09%	119,897	3.2%	3,868
2039	1,101,173	12.09%	133,144	3.2%	4,295

Source: ECP, CHA, 2019.

Table 3-34 – Peak Hour Enplanements

Fiscal Year	PMAD	Peak Hour Percent	Peak Hour Enplanements
2018	2,061	31.3%	644
2019	2,748	31.3%	859
2024	3,121	31.3%	976
2029	3,464	31.3%	1,083
2034	3,868	31.3%	1,209
2039	4,295	31.3%	1,343

Source: ECP, CHA, 2019.

Peak Deplanements

Although not as impactful as peak hour enplanements, it is still necessary to evaluate and identify the peak hour passengers for deplanements. Deplaned passengers are those that are arriving at the airport via an air carrier.

The purpose of determining the peak hour deplanement projections is the future impact deplanements have on passengers exiting the airport, passenger circulation, baggage claim demand, and parking facility needs.

Table 3-35 shows the results of this analysis. Using the same methodology and assumptions provided in the peak hour evaluation for enplanements, the peak deplanements were analyzed and the peak hour was determined to be between 3:45 pm and 5:15 pm (15:45 and 17:15).

Table 3-35 – Peak Hour Deplanements

Year	PMAD	Peak Hour Percent	Peak Hour
2018	2,076	30.9%	642
2019	2,772	30.9%	857
2024	3,148	30.9%	974
2029	3,495	30.9%	1,081
2034	3,902	30.9%	1,207
2039	4,333	30.9%	1,340

Source: ECP, CHA, 2019.

Total Passengers

Peak Month – Average Day Passengers

During the month of July in 2018, ECP had approximately 128,254 passengers, or approximately 12.1 percent of the total annual passengers (1,056,101). To calculate the PMAD, the peak month passengers (128,254) were divided by the number of days in the peak month of July (31) to define the PMAD. The PMAD passengers make up approximately 3.2 percent of the passengers in the peak month.

Peak Hour Passengers

Total peak hour passengers in July was calculated by using a methodology similar to as when calculating peak passenger enplanements, except that data for enplanements and deplanements are compiled. It was determined that the peak hour for passengers was between approximately 4:40 pm and 6:10 pm (16:40 and 18:10), with approximately 29.6 percent of total passengers occurring during this time frame. To generate a forecast of peak hour passengers, the percentage was applied to the PMAD passengers.

For the PMAD Passengers, and the Peak Hour Passengers, refer to **Table 3-36** and **3-37**, respectively.

Table 3-36 – Peak Month- Average Day Passengers

Fiscal Year	Total Passengers	Peak Month Percent	Peak Month Passengers	PMAD Percent	PMAD
2018	1,056,101	12.1%	128,254	3.2%	4,137
2019	1,408,860	12.1%	171,093	3.2%	5,519
2024	1,600,161	12.1%	194,325	3.2%	6,269
2029	1,776,345	12.1%	215,721	3.2%	6,959
2034	1,983,230	12.1%	240,846	3.2%	7,769
2039	2,202,346	12.1%	267,455	3.2%	8,628

Source: ECP, CHA, 2019.

Table 3-37 – Peak Hour Passengers

Fiscal Year	PMAD	Peak Hour Percent	Peak Hour Passengers
2018	4,137	29.6%	1,224
2019	5,519	29.6%	1,633
2024	6,269	29.6%	1,855
2029	6,959	29.6%	2,060
2034	7,769	29.6%	2,299
2039	8,628	29.6%	2,553

Source: ECP, CHA, 2019.

3.10.2 Peak Operations

Commercial Operations

Peak Month – Average Day Commercial Operations

The PMAD for commercial air carrier operations is calculated in the same manner as PMAD for enplanements. For the purposes of this forecast, the month of July was used for commercial operations at ECP, yielding approximately 1,221 commercial operations, or 11.2 percent of the total annual commercial operations. To compute PMAD, the peak month commercial operations (1,221) are divided by the number of days in the peak month (31) to represent the PMAD for the forecast period. The PMAD commercial operations make up approximately 3.2 percent of commercial operations in the peak month, shown in **Table 3-38**.

Peak Hour Commercial Operations

As discussed previously, it was assumed the month of July averaged the greatest number of total Airport and commercial carrier operations in 2018. Before calculating the peak hour for commercial operations, it is first necessary to analyze the Authority-provided commercial carrier schedule data for arrivals and departures during the peak month of July. This analysis determined, based on a 90-minute rolling basis, the peak hour for operations is 4:40 pm to 6:10 pm (16:40 to 18:10), with 11 operations, or 27.9 percent of the PMAD commercial operations. This percentage was then applied to the PMAD operations, as depicted in **Table 3-39**.

Table 3-38 – Peak Month Average Day Commercial Operations

Fiscal Year	Annual Commercial Operations	Peak Month Percent	Peak Month Operations	PMAD Percent	PMAD
2018	10,871	11.2%	1,221	3.2%	39
2019	14,669	11.2%	1,648	3.2%	53
2024	16,723	11.2%	1,878	3.2%	61
2029	18,290	11.2%	2,054	3.2%	66
2034	20,126	11.2%	2,260	3.2%	73
2039	22,022	11.2%	2,473	3.2%	80

Source: ECP, CHA, 2019.

Table 3-39 – Peak Hour Commercial Operations

Fiscal Year	PMAD	Peak Hour Percent	Peak Hour Enplanements
2018	39	27.9%	11
2019	53	27.9%	15
2024	61	27.9%	17
2029	66	27.9%	19
2034	73	27.9%	20
2039	80	27.9%	22

Source: ECP, CHA, 2019.

All Airport Operations

Peak Month – Average Day All Airport Operations

Table 3-40 shows the results of the PMAD for total annual airport operations, calculated in the same manner as PMAD for commercial air carrier. For the purposes of this forecast, the month of July was used for operations at ECP, yielding approximately 6,980 operations, or 10.9 percent of the total annual operations. To compute PMAD, the peak month operations (6,980) are divided by the number of days in the peak month (31) to represent the PMAD for the forecast period. The PMAD operations make up approximately 3.2 percent of operations in the peak month.

Table 3-40 – Peak Month Average Day Total Airport Operations

Fiscal Year	Total Annual Operations	Peak Month Percent	Peak Month Operations	PMAD Percent	PMAD
2018	64,313	10.9%	6,980	3.2%	225
2019	68,509	10.9%	7,435	3.2%	240
2024	71,236	10.9%	7,731	3.2%	249
2029	73,524	10.9%	7,980	3.2%	257
2034	76,117	10.9%	8,261	3.2%	266
2039	78,825	10.9%	8,555	3.2%	276

Source: ECP, CHA, 2019.

3.10.3 ECP Peak Activity Forecast Summary

Table 3-41 provides a summary of PMAD enplanements, passengers, commercial operations, and annual airport operations, as well as a summary of peak hour enplanements, total passengers, and commercial operations.

Table 3-41 – Peak Activity Forecast Summary

Fiscal Year	Enplanements		Total Passengers		Commercial Operations		Annual Airport Operations
	PMAD	Peak Hour	PMAD	Peak Hour	PMAD	Peak Hour	PMAD
2018	2,061	644	4,137	1,224	39	11	225
2019	2,748	859	5,519	1,633	53	15	240
2024	3,121	976	6,269	1,855	61	17	249
2029	3,464	1,083	6,959	2,060	66	19	257
2034	3,868	1,209	7,769	2,299	73	20	266
2039	4,295	1,343	8,628	2,553	80	22	276

Source: ECP, CHA, 2019.

3.11 CURRENT AND FUTURE CRITICAL AIRCRAFT

Evaluating the Airport's current fleet mix and determining the current design aircraft, as well as the projected design aircraft, are important aspects of the Master Plan Study. The design aircraft (commonly referred to as the "critical aircraft") determination is a key consideration in FAA decision making on project justification. The "design aircraft" or "design aircraft family" represent the most demanding aircraft or grouping of aircraft with similar characteristics (relative to AAC, ADG, TDG)[14], that are currently using or are anticipated to use an airport on a regular[15] basis.

Upon review of the FAA's TFMSC and OPSNET data, BTS's T-100 data, and forecast fleet assumptions described in this chapter, the design aircraft family identified for ECP is presented in **Table 3-42**. This grouping represents the typical commercial aircraft anticipated to operate at ECP over the planning horizon. These aircraft generally have higher AAC, ADG, and TDG classifications than the other regularly scheduled commercial aircraft. While the Study is not limited to planning for design aircraft, they must still be considered when planning airfield and landside facilities, as they may require specific facility design accommodations within their designated areas of operation.

The Airport's previous 2015 Airport Layout Plan (ALP) update identified the Boeing 737-800 (ARC[16] D-III, TDG 4) as the critical aircraft for airfield and pavement design, with the ultimate ARC and critical aircraft being the Boeing 777-300. As shown in **Table 3-42**, the current ARC is C-III; however, the future ARC is expected to be the D-III.

[14] AAC (Aircraft Approach Category), ADG (Airplane Design Group), TDG (Taxiway Design Group).

[15] According to FAA AC 150/500017, *Critical Aircraft and Regular Use Determination*, the terminology of "regular use" is defined as 500 annual operations, including itinerant and local operations but excluding touch-and-go operations. An operation is either a takeoff or landing.

[16] ARC (Airport Reference Code)

Table 3-42 – Fleet Mix and Design Aircraft Families

Aircraft		2018	2039	AAC	ADG	TDG
B737-700/700LR/MAX7		3,459	6,728	C	III	3
CRJ900		7	4,166	D	III	2
CRJ-700		1,565	3,451	C	II	2
A320-100/200		324	2,921	C	III	3
P8 - Boeing P-8 Poseidon		2,586	2,586	D	IV	3
ERJ-175		216	1,870	C	III	3
B737-900ER		118	1,088	D	III	3
B737-800		504	980	D	III	3
LJ45 - Bombardier Learjet 45		621	670	C	I	1B
A220		0	449	C	III	3
A319		1	370	C	III	3
GLF4 - Gulfstream IV/G400		212	229	D	II	2
K35R - Boeing KC-135 Stratotanker		229	229	D	IV	3
LJ60 - Bombardier Learjet 60		197	212	C	I	1B
LJ31 - Bombardier Learjet 31/A/B		162	175	C	I	1B
LJ40 - Learjet 40; Gates Learjet		152	164	C	I	1B
LJ35 - Bombardier Learjet 35/36		134	142	D	I	1B
GLF5 - Gulfstream V/G500		105	113	D	III	2
G280 - Gulfstream G280		94	102	C	II	1B
E545 - Embraer EMB-545 Legacy 450		99	99	C	II	1B
G150 - Gulfstream G150		84	90	C	II	1B
LJ75 - Learjet 75		84	90	C	II	1B
GLF2 - Gulfstream II/G200		63	68	C	II	1B
B703 - Boeing 707-300		60	60	C	IV	4
C130 - Lockheed 130 Hercules		60	60	C	IV	2
B752 - Boeing 757-200		50	50	C	IV	4
P3 - Lockheed P-3C Orion		50	50	D	III	5
CL60 - Bombardier Challenger 600/601/604		26	28	C	II	1B
GLF6 - Gulfstream		24	25	D	III	2
GLF3 - Gulfstream III/G300		21	23	C	II	2
C17 - Boeing Globemaster 3		20	20	D	IV	5
ERJ-135		22	20	C	II	2
H25B - BAe HS 125/700-800/Hawker 800		5	6	C	II	1B
B717-200		453	0	C	III	2
ERJ-145		1,360	0	C	II	2
MD-80		2,844	0	C	III	4
MD-90		18	0	C	III	4
Total		**16,028**	**27,333**	**-**	**-**	**-**
Subtotal by AAC	**C**	14,862	25,727	-	-	-
	D	1,166	1,606	-	-	-
Subtotal by ADG	**I**	5,209	14,536	-	-	-
	II	7,723	8,757	-	-	-
	III	2,380	3,291	-	-	-
	IV	716	749	-	-	-

Source: TFMSC, ECP, CHA, 2019.

APPENDIX A – HISTORICAL DATA SETS

A. Socioeconomic Factors (ECP Catchment Area)

Fiscal Year	Population
2010	486,023
2011	486,602
2012	491,495
2013	495,907
2014	501,640
2015	506,373
2016	510,050
2017	514,046
2018	517,422

Source: Woods & Poole Economics, Inc., CHA, 2019.

B. Commercial Activity

Fiscal Year	Enplanements	Operations	Scheduled Seats	Average Seats Per Departure	Load Factors
2010*	254,509	8,243	395,796	96.0	64.3%
2011	433,081	12,957	640,141	98.8	67.7%
2012	439,183	11,561	641,373	111.0	68.8%
2013	408,037	9,511	550,195	115.7	74.2%
2014	406,351	8,160	522,277	128.0	78.0%
2015	443,531	10,204	580,269	113.9	76.7%
2016	447,965	9,731	581,898	119.7	77.1%
2017	470,504	8,835	569,803	129.0	82.4%
2018	528,431	10,871	655,786	120.9	80.3%

Source: ECP, CHA, 2019.

C. FAA TAFs: Enplanements

Fiscal Year	National	Regional			State
		VPS	PNS	TLH	
2010*	702,818,621	348,437	713,492	331,766	65,366,623
2011	722,926,202	432,661	754,750	311,579	69,094,117
2012	731,053,513	370,755	738,013	320,343	69,848,049
2013	734,336,521	358,718	744,947	335,410	70,267,688
2014	753,529,877	356,891	756,102	340,114	71,564,866
2015	786,384,586	369,853	776,139	332,325	76,216,675
2016	822,586,152	417,858	788,517	337,417	80,699,802
2017	846,556,739	547,338	822,161	344,416	83,174,825
2018	887,027,038	655,978	931,698	377,354	88,613,565

Source: ECP, CHA, 2019.

D. ECP Percent Market Shares: Enplanements

Fiscal Year	National Market Share	State Market Share	Regional Market Share
2010*	702,818,621	65,366,623	1,648,204
2011	722,926,202	69,094,117	1,932,071
2012	731,053,513	69,848,049	1,868,294
2013	734,336,521	70,267,688	1,847,112
2014	753,529,877	71,564,866	1,859,458
2015	786,384,586	76,216,675	1,921,848
2016	822,586,152	80,699,802	1,991,757
2017	846,556,739	83,174,825	2,184,419
2018	887,027,038	88,613,565	2,493,461
Growth	**26.2%**	**35.6%**	**51.3%**

Source: ECP, CHA, 2019.

E. ECP General Aviation and Military Activity [17]

Fiscal Year	General Aviation Operations			Military Operations		
	Itinerant	Local	Total	Itinerant	Local	Total
2010*	27,942	14,172	42,114	4,310	3,926	**8,236**
2011	22,791	12,209	35,000	3,905	4,541	**8,446**
2012	21,929	11,986	33,915	4,965	6,285	**11,250**
2013	23,886	14,452	38,338	4,215	7,613	**11,828**
2014	25,281	13,654	38,935	3,797	5,861	**9,658**
2015	27,591	12,506	40,097	5,995	8,084	**14,079**
2016	27,933	12,730	40,663	6,277	8,668	**14,945**
2017	29,086	11,982	41,068	6,467	10,438	**16,905**
2018	30,598	9,981	40,579	5,116	7,357	**12,473**

Source: ECP, CHA, 2019.

[17] Cargo activity not included due to lack of scheduled cargo operations at ECP.

APPENDIX B – NATIONAL TAF AND PROJECTED ENPLANEMENTS[18]

Fiscal Year	TAF (National)	TAF (ECP)	Historical Trends			Market Shares				Regressions		Air Service
			3-Year	5-Year	10-Year	Average National	Static State	Static Regional	Adjusted Static Regional	Population Based	Population and Tourism Based	
2018	730,627,709	504,330	528,431	528,431	528,431	528,431	528,431	528,431	528,431	528,431	504,270	528,431
2019	764,661,939	672,302	558,346	556,936	541,740	528,732	531,582	617,371	602,599	513,373	511,602	679,100
2020	784,673,089	692,513	589,953	586,980	555,384	541,652	577,163	634,526	618,933	513,373	518,934	714,781
2021	803,443,422	711,772	623,351	618,644	569,371	554,323	593,119	650,865	634,486	526,284	526,267	744,413
2022	821,493,003	729,805	658,639	652,015	583,711	566,526	608,475	666,118	648,992	539,196	533,599	772,819
2023	838,910,957	747,261	695,924	687,187	598,412	578,351	623,452	680,703	662,805	552,107	540,931	795,228
2024	855,264,125	763,590	735,321	724,257	613,483	589,323	637,825	694,289	675,653	565,019	548,263	823,553
2025	871,457,198	779,505	776,947	763,326	628,934	600,126	652,029	707,476	688,106	577,931	555,596	839,468
2026	887,643,863	795,357	820,930	804,503	644,774	610,929	666,158	720,516	700,390	589,147	562,928	863,673
2027	904,305,506	812,346	867,403	847,900	661,013	622,056	680,807	734,492	713,556	600,363	570,260	888,033
2028	921,422,496	829,694	916,507	893,639	677,661	633,495	695,571	748,738	726,967	611,580	577,593	905,381
2029	939,024,562	847,664	968,390	941,845	694,728	645,263	710,762	763,536	740,913	622,796	584,925	923,351
2030	956,986,161	866,548	1,023,211	992,652	712,225	657,253	726,154	778,855	755,273	634,012	592,257	942,235
2031	975,399,577	885,545	1,081,135	1,046,199	730,162	669,534	742,076	794,636	770,188	644,210	599,590	961,232
2032	994,062,765	905,674	1,142,338	1,102,635	748,552	681,969	758,398	811,141	785,720	654,408	606,922	981,361
2033	1,012,817,894	925,975	1,207,006	1,162,115	767,404	694,467	774,748	827,735	801,317	664,605	614,254	1,001,662
2034	1,031,927,723	946,389	1,275,334	1,224,804	786,732	707,205	791,171	844,396	816,969	674,803	621,586	1,022,076
2035	1,051,076,048	966,800	1,347,531	1,290,874	806,546	719,977	807,505	860,988	832,533	685,000	628,919	1,042,487
2036	1,070,426,663	987,561	1,423,815	1,360,509	826,859	732,880	824,059	877,877	848,380	694,147	636,251	1,063,248
2037	1,089,904,988	1,008,149	1,504,417	1,433,900	847,684	745,871	840,534	894,564	864,019	703,293	643,583	1,083,836
2038	1,109,570,302	1,029,371	1,589,582	1,511,249	869,033	758,985	857,371	911,752	880,122	712,440	650,916	1,105,058
2039	1,129,254,053	1,050,950	1,679,568	1,592,772	890,920	772,113	874,367	929,204	896,465	721,586	504,270	1,126,637
AAGR 2019-2039	**3.4%**	**2.3%**	**5.7%**	**5.4%**	**2.5%**	**1.9%**	**2.5%**	**2.1%**	**2.0%**	**1.7%**	**1.3%**	**2.6%**
Growth 2019-2039	**34.6%**	**56.3%**	**200.8%**	**186.0%**	**64.5%**	**46.0%**	**64.5%**	**50.5%**	**48.8%**	**40.6%**	**29.1%**	**65.9%**
% Above TAF (ECP)	**-**	**-**	**59.8%**	**51.6%**	**-15.2%**	**-26.5%**	**-16.8%**	**-11.6%**	**-14.7%**	**-31.3%**	**-38.06%**	**7.2%**

Source: FAA 2019 TAF, ECP, CHA, 2019.

[18] Note: Projected enplanements take into consideration recently announced, as well as potential, non-stop service routes from ECP throughout the forecast horizon.

APPENDIX C – FORECAST METHODOLOGIES

TAF Based Growth Scenario

During the forecasting process, the FAA's TAF was reviewed and used to develop two separate TAF Based Growth scenarios: TAF and Variable TAF.

The Static TAF Based Growth takes the FAA's AAGR for 2019 to 2039 and applies that rate to actual airport-reported data. In other words, the TAF annual growth (2.3 percent) is applied to an actual 2018 enplanement count (528,431) and projected throughout the forecast period.

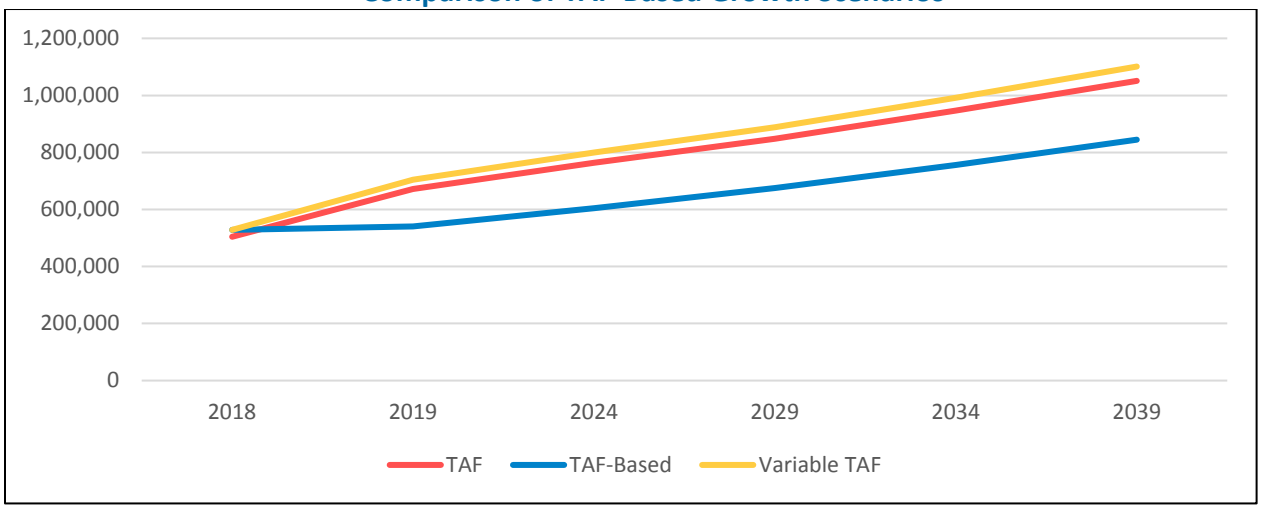
The Variable TAF takes the FAA's year-over-year growth for 2019 to 2039 and applies that variable to the Airport's previous year enplanements. In other words, the TAF growth from 2018 to 2019 (33.3 percent) is applied to the enplanements in 2018 (528,431) to project the enplanements in 2019 (704,430), followed by taking the TAF growth from 2019 to 2020 (3.0 percent) and applying that rate to the Airport's 2019 enplanements (704,430) to project the enplanements in 2020 (725,607), and so-forth. For the purposes of this Study, the Variable TAF scenario was chosen as the recommended forecast for commercial enplanements at ECP.

Comparison of TAF-Based Growth Scenarios

Year	TAF	TAF-Based	Variable TAF
2018	504,330	528,431	528,431
2019	672,302	540,367	704,430
2024	763,590	604,218	800,081
2029	847,664	675,613	888,172
2034	946,389	755,444	991,615
2039	1,050,950	844,708	1,101,173
AAGR 2019-2039	**2.3%**	**2.3%**	**2.3%**
Growth 2019-2039	**56.3%**	**56.3%**	**56.3%**

Source: FAA 2018 TAF, ECP, CHA, 2019.

Comparison of TAF-Based Growth Scenarios



Source: FAA 2018 TAF, ECP, CHA, 2019.

Historical Trend Scenario

A historical trend forecast is a simple time-series model that relies on extrapolating historical enplanements and operations growth, specific to the Airport, into the future. Examining the historical growth rates and projecting them forward provides a picture of growth, assuming the market area and the state of the commercial passenger airline industry reflect past trends through the forecast period. For the historical trend scenario, the historical enplanement data was projected forward through the forecast horizon. It is important to note that, for the purpose of this Study, only historical trends from 2011 through 2018 were evaluated. Since the Airport began operation in May 2010, only eight months of historical data were recorded that year; therefore, enplanement levels in 2010 were not considered in the analysis because, if used, comparisons would not be based on consistent criteria.

As previously mentioned, ECP's historical trend of passenger enplanements have shown to ebb and flow consistent with most small-hub commercial service airports since 2010, showing fluctuating enplanement levels over the historical period. In 2018, ECP reached its highest-ever level of enplanements (528,431).

The AAGR from 2011 to 2018 was 2.5 percent. For the purposes of the Historical Trend Analysis, three scenarios were identified in the evaluation of the time series model (five-, and eight-year).

The historical time trend analysis results in varying degrees of growth rates. The following details the AAGR within the various time periods included in this evaluation:

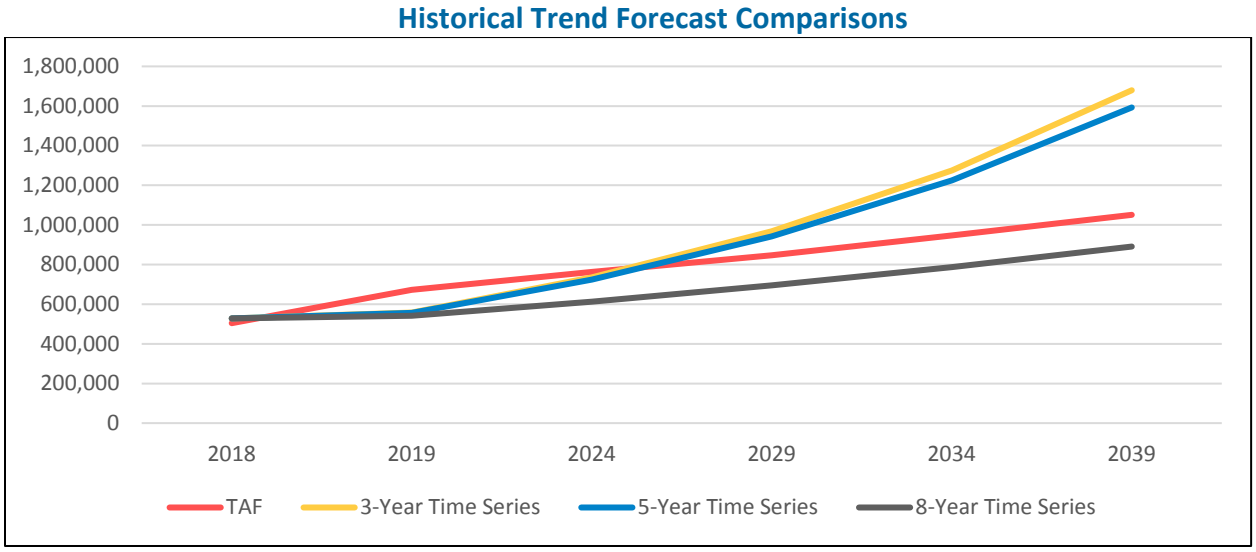
- Three-Year Historical Trend – resulted in a 5.7 percent AAGR 2016-2018
- Five-Year Historical Trend – resulted in a 5.4 percent AAGR 2014-2018
- Eight-Year Historical Trend – resulted in a negative 2.5 percent AAGR 2011-2018

Historical Trend Forecast Comparisons

Year	TAF	3-Year Time Series	5-Year Time Series	8-Year Time Series
2018	504,330	528,431	528,431	528,431
2019	672,302	558,346	556,936	541,740
2024	763,590	735,321	724,257	613,483
2029	847,664	968,390	941,845	694,728
2034	946,389	1,275,334	1,224,804	786,732
2039	1,050,950	1,679,568	1,592,772	890,920
AAGR 2019-2039	**2.3%**	**5.7%**	**5.4%**	**2.5%**
Growth 2019-2039	**56.3%**	**200.8%**	**186.0%**	**64.5%**

Source: FAA 2018 TAF, ECP, CHA, 2019.

The five-year and eight-year time trend scenarios represent projections that are significantly different than the TAF (51.6 percent higher and 15.2 percent lower, respectively); therefore, based on recent growth trends, these scenarios are not considered to be reliable projections; however, the three-year historical trend forecast has been chosen to represent the high-end range for effective enplanements (**Section 3.5.3**).



Source: FAA 2018 TAF, ECP, CHA, 2019.

Market Share Scenario

In a market share forecast, the dependent variables of the item being forecast (i.e., airport specific operations or enplanements) are compared to independent variables of a larger aggregate (i.e., region, state, or national operations or enplanements). For example, ECP has an identified enplanement level within each fiscal year. When this level is compared to a total of a larger whole (national enplanements), a percentage (i.e., market share) can be determined. This analysis has shown that growth in an airport's market can be correlated to aviation activity on a larger scale. Through a direct comparison of various levels of enplanement projections versus ECP market area growth rates, the forecasts can be adjusted to reflect differing larger scale markets to local growth trends.

- Average National Market Share – This methodology uses the aggregate, national level forecast of commercial enplanements identified in the FAA's 2018 TAF to derive forecasts for the Airport based on market share. This forecast assumes that ECP will maintain a level market share based on its eight-year[19] average (2011-2018), or static market share, of commercial enplanements (0.06 percent) relative to national activity projections throughout the planning period.
- Static State Market Share – While similar to the National Market Share methodology, this forecast uses State activity projections derived from the 2018 TAF and airport-reported enplanement levels as the basis for determining market share. This forecast assumes that ECP will maintain its current 2018 level of commercial enplanements (0.6 percent) relative to State market activity projections throughout the planning period.

[19] Enplanements in 2010 were not included in the Average National Market Share calculations, as 2010 did not have a full year of statistical data; therefore, it is an outlier and would not represent a typical year of activity at the Airport.

The Static State Market Share forecast is considered to have a conservative range of potential commercial activity based on market conditions within the State; therefore, for the purposes of this forecast, this scenario was chosen to represent the low-end range of possible enplanements for ECP. See **Section 3.5.3** for further details regarding the effective enplanements range.

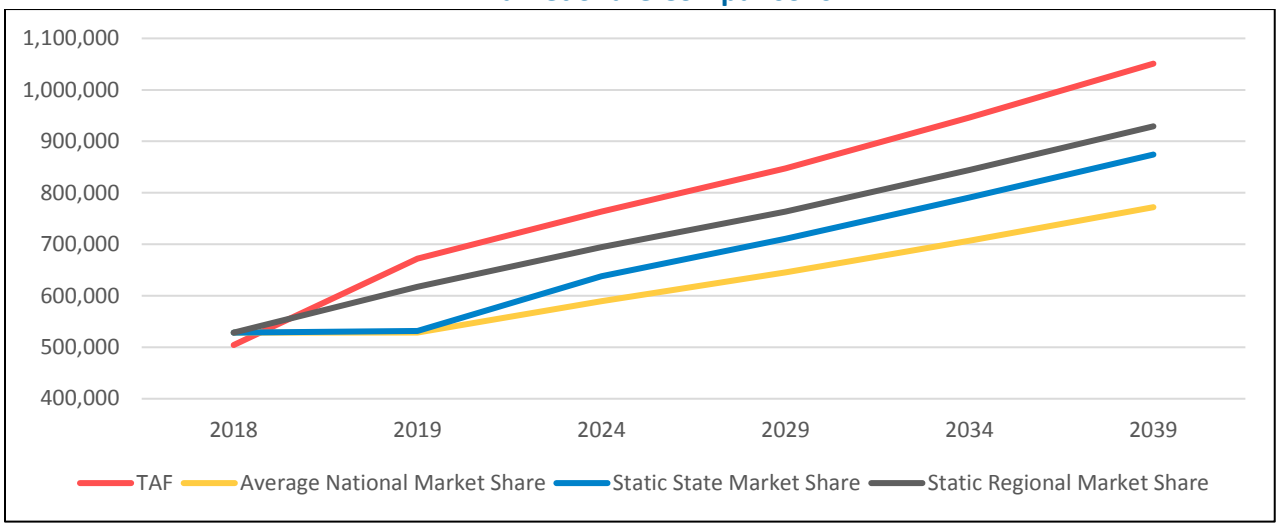
- Static Regional Market Share – This methodology uses the aggregate, regional level forecast of commercial activity projections from the FAA's 2018 TAF for the individual commercial service airports in the northwest Florida region, which includes ECP, VPS, PNS, and TLH, to derive forecasts for the Airport based on market share. This forecast assumes that ECP will maintain its current level, or static market share (21.2 percent), of commercial enplanements relative to regional activity projections throughout the planning period.

Market Share Comparisons

Year	TAF	Average National Market Share	Static State Market Share	Static Regional Market Share
2018	504,330	528,431	528,431	528,431
2019	672,302	528,732	531,582	617,371
2024	763,590	589,323	637,825	694,289
2029	847,664	645,263	710,762	763,536
2034	946,389	707,205	791,171	844,396
2039	1,050,950	772,113	874,367	929,204
AAGR 2019-2039	**2.3%**	**1.9%**	**2.5%**	**2.1%**
Growth 2019-2039	**56.3%**	**46.0%**	**64.5%**	**50.5%**

Source: FAA 2018 TAF, ECP, CHA, 2019.

Market Share Comparisons



Source: FAA 2018 TAF, ECP, CHA, 2019.

Regression Scenario

Regression-based forecasts examine aviation and passenger activity to determine if there is a causal relationship between the activity levels and the socioeconomic conditions prevalent during that period. For this Study, a population-based regression analysis was performed.

The first step is to conduct a regression analysis to determine if there is a relationship between the socioeconomic factor (i.e., population) and the historical level of enplanements. The output is the 'coefficient of determination', or R^2, which ranges from 0 to 1.0. If the R^2 of an analysis falls between 0.85 and 1.0, there is a statistical correlation; if it falls below 0.85, there is not a statistical correlation. Thus, the higher the R^2 value, the stronger the correlation is between the variables; however, if the R^2 of an analysis is above 1.0, an anomaly, or outlier, has been detected.

The population-based regression analysis performed resulted in a R^2-value of 0.48; therefore, it is evident that there may be poor correlation between this activity and the relatively stable population in the study area. See **Appendix C (Sub-Sections A & B)** for the Regression output.

Population-Based Regression

Year	TAF	Population Based
2018	504,330	528,431
2019	672,302	513,373
2024	763,590	565,019
2029	847,664	622,796
2034	946,389	674,803
2039	1,050,950	721,586
AAGR 2019-2039	**2.3%**	**1.7%**
Growth 2019-2039	**56.3%**	**40.6%**

Source: The United States Census Bureau, Bureau of Economic and Business Research, Center for Business and Economic Research (The University of Alabama), CHA, 2019.

Tourism Activity and Commercial Enplanements Scenario

Given Florida's high levels of tourism activity; therefore, it was pertinent to evaluate how tourism affects activity at ECP. As detailed in **Section 3.4.2**, there was an increase of approximately 53.2 visitors since 2010. For the purposes of this study, two tourism-based scenarios were evaluated: historical trend analysis (three-, five-, and eight-year) and regression analysis, neither of which were chosen to represent the recommended forecast.

Tourism Based Trend Forecast

Year	3-Year		5-Year		8-Year	
2018	528,431	4.8%	528,431	4.8%	528,431	4.8%
2019	549,114	-18.3%	555,219	-17.4%	553,292	-17.7%
2024	665,322	-12.9%	710,958	-6.9%	696,285	-8.8%
2029	806,124	-4.9%	910,381	7.4%	876,232	3.4%
2034	976,724	3.2%	1,165,743	23.2%	1,102,684	16.5%
2039	1,183,428	12.6%	1,492,734	42.0%	1,387,661	32.0%
AAGR 2019-2039	**3.9%**	**-**	**5.1%**	**-**	**4.7%**	**-**
Growth 2019-2039	**115.5%**	**-**	**168.9%**	**-**	**150.8%**	**-**

Source: Visit Florida Research, CHA, 2019.

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A. Socioeconomic Regressions

- Input Variables (All data inputs were for 2009-2018)
  - Independent Variables: Data pertaining to what the regression base is (ex, population data for the Population Based Regression), Dependent Variable: Always Enplanements
- See Appendix A for Regression Results

Population Based Regression

Regression Statistics	
Multiple R	0.694170532
R Square	0.481872728
Adjusted R Square	0.395518183
Standard Error	30285.647
Observations	8

ANOVA

-	*df*	*SS*	*MS*	*F*	*Significance F*
Regression	1	5118242488	5118242488	5.580166348	0.056112318
Residual	6	5503322484	917220414	-	-
Total	7	10621564972	-	-	-

-	*Coefficients*	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-791048.3001	524266.4908	-1.508866796	0.182066711	-2073882.19	491785.5894	-2073882.19	491785.5894
X Variable 1	2.461882388	1.042182386	2.362237572	0.056112318	-0.088246042	5.012010819	-0.088246042	5.012010819

Source: CHA, 2019.

B. Tourism/Population-Based Regressions

Tourism and Population Based Regression

Regression Statistics	
Multiple R	0.978038426
R Square	0.956559163
Adjusted R Square	0.939182828
Standard Error	9606.348643
Observations	8

ANOVA

-	*df*	*SS*	*MS*	*F*	*Significance F*
Regression	2	10160155301	5080077650	55.04953587	0.000393319
Residual	5	461409671.3	92281934.26	-	-
Total	7	10621564972	-	-	-

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	4300466.438	708611.6957	6.068861782	0.00175412	2478922.085	6122011	2478922	6122011
X Variable 1	0.009833692	0.001330385	7.391614713	0.000712855	0.006413829	0.013254	0.006414	0.013254
X Variable 2	-9.703080531	1.678649855	-5.780288547	0.002180141	-14.01818736	-5.38797	-14.0182	-5.38797

Tourism Based Regression

Regression Statistics	
Multiple R	0.816255114
R Square	0.666272411
Adjusted R Square	0.610651146
Standard Error	24306.06669
Observations	8

ANOVA

-	*df*	*SS*	*MS*	*F*	*Significance F*
Regression	1	7076855705	7076855705	11.9787354	0.01345033
Residual	6	3544709267	590784877.9	-	-
Total	9	5.18549E+11	-	-	-

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	207586.5288	69744.59027	2.976381795	0.02475222	36927.6643	378245.393	36927.6643	378245.393
X Variable 1	0.002294268	0.000662886	3.461030967	0.01345033	0.000672245	0.00391629	0.000672245	0.00391629

Source: Visit Florida, CHA, 2019.

APPENDIX D – GENERAL AVIATION FORECASTS

A. Based Aircraft Forecast Methodologies

TAF-Based Growth

Fiscal Year	TAF	TAF Based Growth	Percent Difference from TAF
2018	111	104	-6.3%
2019	111	104	-6.3%
2020	111	104	-6.3%
2021	111	104	-6.3%
2022	111	104	-6.3%
2023	111	104	-6.3%
2024	111	104	-6.3%
2025	111	104	-6.3%
2026	111	104	-6.3%
2027	111	104	-6.3%
2028	111	104	-6.3%
2029	111	104	-6.3%
2030	111	104	-6.3%
2031	111	104	-6.3%
2032	111	104	-6.3%
2033	111	104	-6.3%
2034	111	104	-6.3%
2035	111	104	-6.3%
2036	111	104	-6.3%
2037	111	104	-6.3%
2038	111	104	-6.3%
2039	111	104	-6.3%
AAGR 2019-2039	**0.0%**	**0.0%**	-
Growth 2019-2039	**0.0%**	**0.0%**	-

Source: FAA 2019 TAF, ECP, CHA, 2019.

FAA Aerospace Forecast Scenario

a. FAA National Average Annual Growth Rates for GA Aircraft

Fiscal Year	Single Engine	Multi-Engine Piston	Turbo-Prop	Jet	Rotor-craft
AAGR 2019-2024	-1.0%	-0.3%	0.4%	2.6%	1.7%
AAGR 2024-2029	-1.1%	-0.4%	1.2%	2.3%	1.6%
AAGR 2029-2034	-1.1%	-0.4%	1.6%	2.0%	1.7%
AAGR 2034-2038	-0.9%	-0.4%	1.9%	1.8%	1.7%
AAGR 2018-2038	**-1.0%**	**-0.4%**	-	**2.2%**	**0.0%**

Source: FAA Aerospace Forecast FY 2019-2039, CHA, 2018.

b. FAA Aerospace Forecast

Fiscal Year	Single Engine	Multi-Engine Piston	Turbo-Prop	Jet	Rotor-craft	Military	Total Based Aircraft
2018	76	11	0	17	0	0	104
2019	75	11	0	17	0	0	**104**
2020	75	11	0	18	0	0	**103**
2021	74	11	0	18	0	0	**103**
2022	73	11	0	19	0	0	**103**
2023	72	11	0	19	0	0	**103**
2024	72	11	0	20	0	0	**102**
2025	71	11	0	20	0	0	**102**
2026	70	11	0	21	0	0	**102**
2027	69	11	0	21	0	0	**101**
2028	69	11	0	22	0	0	**101**
2029	68	11	0	22	0	0	**101**
2030	67	11	0	23	0	0	**100**
2031	66	11	0	23	0	0	**100**
2032	66	10	0	24	0	0	**100**
2033	65	10	0	24	0	0	**99**
2034	64	10	0	25	0	0	**99**
2035	64	10	0	25	0	0	**99**
2036	63	10	0	25	0	0	**99**
2037	62	10	0	26	0	0	**99**
2038	62	10	0	26	0	0	**98**
2039	61	10	0	27	0	0	**98**
AAGR 2019-2039	**-1.0%**	**-0.4%**	**0.0%**	**2.2%**	**0.0%**	**0.0%**	**-0.3%**
Growth 2019-2039	**-18.6%**	**-7.1%**	**0.0%**	**54.0%**	**0.0%**	**0.0%**	**-5.2%**

Source: FAA Aerospace Forecast FY 2019-2039, ECP, CHA, 2019.

c. Market Share Scenario

Fiscal Year	Market Share			TAF	
	Static National	Static Regional	Static State	TAF	Percent Difference from TAF (Static Regional)
2018	104	104	104	**111**	-6.3%
2019	105	105	105	**111**	-5.4%
2020	106	106	107	**111**	-4.7%
2021	107	107	108	**111**	-3.9%
2022	107	108	110	**111**	-3.0%
2023	108	109	112	**111**	-2.2%
2024	109	110	113	**111**	-1.2%
2025	110	111	115	**111**	-0.4%
2026	111	111	116	**111**	0.4%
2027	112	112	118	**111**	1.2%
2028	113	113	119	**111**	2.0%
2029	114	114	121	**111**	2.9%
2030	115	115	122	**111**	3.8%
2031	115	116	124	**111**	4.7%
2032	116	117	126	**111**	5.6%
2033	117	118	127	**111**	6.5%
2034	118	119	129	**111**	7.4%
2035	119	120	131	**111**	8.3%
2036	120	121	132	**111**	9.3%
2037	121	122	134	**111**	10.2%
2038	122	123	136	**111**	11.1%
2039	123	124	138	**111**	12.1%
AAGR 2019-2039	**0.8%**	**0.9%**	**1.3%**	**0.0%**	-
Growth 2019-2039	**17.2%**	**18.5%**	**30.6%**	**0.0%**	-

Source: FAA 2019 TAF, ECP, CHA, 2019.

B. GA Operations Forecast Methodologies

OPBA Scenario

Fiscal Year	Based Aircraft	OPBA
2018	104	390
2019	105	390
2020	106	390
2021	107	390
2022	108	390
2023	109	390
2024	110	390
2025	111	390
2026	111	390
2027	112	390
2028	113	390
2029	114	390
2030	115	390
2031	116	390
2032	117	390
2033	118	390
2034	119	390
2035	120	390
2036	121	390
2037	122	390
2038	123	390
2039	124	390

Source: ECP, CHA, 2019.

Market Share Scenario

Fiscal Year	Static National			Static State			Static Regional		
	Itinerant GA	Local GA	Total GA Operations	Itinerant GA	Local GA	Total GA Operations	Itinerant GA	Local GA	Total GA Operations
2018	30,598	9,981	40,579	30,598	9,981	40,579	30,598	9,981	40,579
2019	30,753	10,093	40,846	31,112	10,288	41,400	30,818	10,153	40,970
2020	30,858	10,127	40,985	31,281	10,355	41,636	30,904	10,189	41,093
2021	30,962	10,163	41,126	31,452	10,423	41,875	30,991	10,227	41,218
2022	31,067	10,200	41,267	31,626	10,491	42,117	31,080	10,265	41,345
2023	31,173	10,236	41,410	31,802	10,561	42,363	31,170	10,303	41,473
2024	31,281	10,274	41,554	31,981	10,632	42,613	31,261	10,342	41,604
2025	31,390	10,311	41,701	32,162	10,704	42,866	31,354	10,382	41,735
2026	31,500	10,349	41,850	32,346	10,777	43,123	31,447	10,422	41,869
2027	31,613	10,388	42,001	32,532	10,851	43,384	31,542	10,462	42,004
2028	31,727	10,427	42,154	32,721	10,926	43,648	31,638	10,504	42,142
2029	31,843	10,467	42,310	32,913	11,003	43,916	31,736	10,545	42,281
2030	31,960	10,508	42,468	33,108	11,080	44,188	31,834	10,588	42,422
2031	32,079	10,549	42,627	33,305	11,159	44,464	31,935	10,631	42,565
2032	32,199	10,591	42,790	33,506	11,239	44,745	32,036	10,675	42,711
2033	32,322	10,633	42,955	33,709	11,320	45,029	32,139	10,719	42,858
2034	32,446	10,676	43,123	33,915	11,403	45,318	32,243	10,764	43,007
2035	32,573	10,720	43,293	34,125	11,487	45,611	32,349	10,809	43,158
2036	32,702	10,764	43,466	34,337	11,572	45,909	32,456	10,856	43,311
2037	32,832	10,810	43,642	34,553	11,658	46,211	32,564	10,903	43,467
2038	32,965	10,856	43,821	34,772	11,746	46,518	32,674	10,950	43,624
2039	33,100	10,902	44,002	34,994	11,835	46,829	32,785	10,999	43,784
AAGR 2019-2039	**0.37%**	**0.39%**	**0.37%**	**0.59%**	**0.70%**	**0.62%**	**0.31%**	**0.40%**	**0.71%**
Growth 2019-2039	**7.63%**	**8.02%**	**7.73%**	**12.48%**	**15.04%**	**13.12%**	**6.39%**	**8.33%**	**14.72%**

Note: Excludes Military Operations.
Source: FAA 2019 TAF, ECP, CHA, 2019.

C. Recommended GA Forecast and Based Aircraft

a. Recommended GA Forecast

Fiscal Year	Based Aircraft	Operations		Total GA Operations
		Itinerant	Local	
2018	104	30,598	9,981	40,579
2019	105	30,818	10,153	40,970
2020	106	30,904	10,189	41,093
2021	107	30,991	10,227	41,218
2022	108	31,080	10,265	41,345
2023	109	31,170	10,303	41,473
2024	110	31,261	10,342	41,604
2025	111	31,354	10,382	41,735
2026	111	31,447	10,422	41,869
2027	112	31,542	10,462	42,004
2028	113	31,638	10,504	42,142
2029	114	31,736	10,545	42,281
2030	115	31,834	10,588	42,422
2031	116	31,935	10,631	42,565
2032	117	32,036	10,675	42,711
2033	118	32,139	10,719	42,858
2034	119	32,243	10,764	43,007
2035	120	32,349	10,809	43,158
2036	121	32,456	10,856	43,311
2037	122	32,564	10,903	43,467
2038	123	32,674	10,950	43,624
2039	124	32,785	10,999	43,784
AAGR 2019-2039	**0.9%**	**0.31%**	**0.40%**	**0.71%**
Growth 2019-2039	**18.5%**	**6.39%**	**8.33%**	**14.72%**

Source: FAA 2019 TAF, ECP, CHA, 2019.

b. Based Aircraft by Aircraft Type

Fiscal Year	Single Engine	Multi-Engine Piston	Jet	Total
2018	76	11	17	104
2019	76	11	18	105
2020	76	11	18	106
2021	76	11	19	107
2022	77	11	20	108
2023	77	11	20	109
2024	77	12	21	110
2025	77	12	22	111
2026	77	12	23	111
2027	77	12	24	112
2028	77	12	24	113
2029	77	12	25	114
2030	77	12	26	115
2031	77	12	27	116
2032	77	12	28	117
2033	77	12	29	118
2034	77	13	30	119
2035	77	13	30	120
2036	77	13	31	121
2037	77	13	32	122
2038	77	13	33	123
2039	78	13	34	124

Source: ECP, CHA, 2019.

APPENDIX E – AIRPORT-PROVIDED DATA

NORTHWEST FLORIDA BEACHES INTERNATIONAL AIRPORT

ACTIVITY REPORT

July 2018

	CURRENT MONTH			YEAR-TO-DATE		
AIRCRAFT OPERATIONS:	**2017**	**2018**	**PERCENT CHANGE**	**2017**	**2018**	**PERCENT CHANGE**
AIRLINES	1,362	1,586	16.45%	8,075	9,053	12.11%
MILITARY	1,246	1,123	-9.87%	9,985	9,162	-8.24%
GENERAL AVIATION	4,398	4,271	-2.89%	22,652	22,518	-0.59%
TOTAL OPERATIONS:	**7,006**	**6,980**	**-0.37%**	**40,712**	**40,733**	**0.05%**
PASSENGER ENPLANEMENTS:						
AMERICAN	0	6,545	100.00%	0	11,670	100.00%
DELTA	24,884	24,420	-1.86%	141,584	145,893	3.04%
SOUTHWEST	28,635	29,242	2.12%	131,860	142,119	7.78%
UNITED	2,941	3,686	25.33%	16,409	19,156	16.74%
TOTAL ENPLANEMENTS:	**56,460**	**63,893**	**13.17%**	**289,853**	**318,838**	**10.00%**
PASSENGER DEPLANEMENTS:						
AMERICAN	0	6,522	100.00%	0	11,963	100.00%
DELTA	23,476	24,327	3.62%	140,060	145,834	4.12%
SOUTHWEST	28,602	29,809	4.22%	133,882	146,240	9.23%
UNITED	2,924	3,703	26.64%	16,529	19,524	18.12%
TOTAL DEPLANEMENTS:	**55,002**	**64,361**	**17.02%**	**290,471**	**323,561**	**11.39%**
TOTAL PASSENGERS:	**111,462**	**128,254**	**15.07%**	**580,324**	**642,399**	**10.70%**

	CURRENT MONTH			YEAR-TO-DATE		
LOAD FACTOR:	(OUTBOUND ONLY)					
AMERICAN	0	82.53%	100.00%	0	83.14%	100.00%
DELTA (includes regional carriers)	92.34%	88.07%	-4.63%	86.17%	86.49%	0.37%
SOUTHWEST	85.46%	86.08%	0.73%	78.52%	78.32%	-0.26%
UNITED	89.12%	84.89%	-4.75%	86.23%	83.54%	-3.11%

NORTHWEST FLORIDA BEACHES INTERNATIONAL AIRPORT

ACTIVITY REPORT

December 2018

	CURRENT MONTH			YEAR-TO-DATE		
AIRCRAFT OPERATIONS:	**2017**	**2018**	**PERCENT CHANGE**	**2017**	**2018**	**PERCENT CHANGE**
AIRLINES	837	1,121	33.93%	13,217	15,947	20.66%
MILITARY	976	126	-87.09%	18,137	12,473	-31.23%
GENERAL AVIATION	1,908	1,557	-18.40%	35,842	35,893	0.14%
TOTAL OPERATIONS:	**3,721**	**2,804**	**-24.64%**	**67,196**	**64,313**	**-4.29%**
PASSENGER ENPLANEMENTS:						
AMERICAN	0	6,205	100.00%	0	39,544	100.00%
DELTA	14,006	15,846	13.14%	242,260	242,666	0.17%
SOUTHWEST	8,950	9,053	1.15%	199,595	211,754	6.09%
UNITED	2,478	2,435	-1.74%	28,649	34,467	20.31%
TOTAL ENPLANEMENTS	**25,434**	**33,539**	**31.87%**	**470,504**	**528,431**	**12.31%**
PASSENGER DEPLANEMENTS:						
AMERICAN	0	6,181	100.00%	0	39,197	100.00%
DELTA	14,390	15,129	5.14%	239,487	239,198	-0.12%
SOUTHWEST	9,525	9,541	0.17%	200,762	214,818	7.00%
UNITED	2,719	2,385	-12.28%	28,684	34,457	20.13%
TOTAL DEPLANEMENTS	**26,634**	**33,236**	**24.79%**	**468,933**	**527,670**	**12.53%**
TOTAL PASSENGERS	**52,068**	**66,775**	**28.25%**	**939,437**	**1,056,101**	**12.42%**

	CURRENT MONTH			YEAR-TO-DATE		
LOAD FACTOR: (OUTBOUND ONLY)						
AMERICAN	0.00%	76.37%	100.00%	0.00%	77.90%	100.00%
DELTA (includes regional carriers)	80.86%	77.11%	-4.64%	85.76%	82.59%	-3.69%
SOUTHWEST	65.95%	63.66%	-3.47%	80.19%	77.83%	-2.94%
UNITED	71.04%	78.55%	10.57%	84.20%	81.35%	-3.39%

APPENDIX F – ECP SCHEDULING DATA

ARRIVALS			
Origin	Flight Number	Arrival Time	Airline
DAL	3122	7:50	WN
CLT	5136	8:01	AA
ATL	613	8:17	DL
ATL	2029	9:25	DL
BWI	5768	9:40	WN
DAL	5771	9:50	WN
BNA	994	10:36	WN
ATL	1733	11:13	DL
ORD	5988	11:27	UA
STL	5722	12:15	WN
IAH	4472	12:30	UA
DAL	3535	13:30	WN
BNA	3915	13:45	WN
CLT	5283	13:47	AA
ATL	2506	13:53	DL
STL	1079	14:35	WN
DFW	5734	14:52	AA
HOU	4845	15:10	WN
DAL	3380	15:56	WN
MCI	1546	16:10	WN
DFW	5732	16:38	AA
DEN	2812	16:45	WN
ATL	1403	17:01	DL
BWI	4096	17:10	WN
BNA	1514	17:35	WN
MDW	2899	18:05	WN
STL	3485	18:25	WN
CLT	5356	18:40	AA
ATL	2431	20:00	DL
HOU	3079	21:10	WN
IAH	4190	21:45	UA
ATL	2083	22:21	DL
DFW	5770	22:24	AA
ORD	3153	23:41	AA

DEPARTURES			
Destination	Flight Number	Departure Time	Airline
ATL	1751	6:00	DL
DFW	5856	6:00	AA
IAH	3979	7:00	UA
CLT	5357	7:24	AA
DAL	2856	7:35	WN
ATL	2430	8:00	DL
BNA	3122	8:35	WN
ATL	613	9:04	DL
CLT	5136	9:09	AA
ATL	2029	10:10	DL
HOU	5768	10:15	WN
BWI	994	11:05	WN
ORD	5989	11:57	UA
ATL	1733	12:00	DL
ORD	3153	12:15	AA
DAL	5722	12:55	WN
STL	4510	13:25	WN
IAH	4134	13:30	UA
MCI	3535	14:05	WN
CLT	5283	14:17	AA
ATL	2506	14:36	DL
AUS	1079	15:10	WN
DFW	5734	15:23	AA
DAL	4847	15:45	WN
DEN	1545	16:40	WN
DFW	5732	17:09	AA
MDW	4096	17:45	WN
BNA	1643	18:06	WN
ATL	1403	18:11	DL
DAL	2899	18:40	WN
HOU	3485	19:05	WN

Note: Schedule for a standard Friday in July (2019).
Source: FlightAware, ECP, CHA, 2019.

APPENDIX G – FAA REQUIRED APPENDICES[20]

FAA APPENDIX B

Summarizing and Documenting Airport Planning Forecasts

A. Forecast Levels and Growth Rates

Specified Base Year: 2018	Forecast Levels						Average Annual Compound Growth Rates				
	Base Year Level	Base Year + 1-Year	Base Year + 6-Years	Base Year + 11-Years	Base Year + 16-Years	Base Year + 21-Years	Base Year to + 1	Base Year to + 6	Base Year to +11	Base Year to +16	Base Year to +21
Passenger Enplanements											
Air Carrier	528,431	679,100	823,553	923,351	1,022,076	1,126,637	28.5%	7.7%	5.2%	4.2%	3.7%
Operations											
Itinerant											
Air Carrier	10,871	14,669	16,723	18,290	20,126	22,022	34.9%	7.4%	4.8%	3.9%	3.4%
General Aviation (Includes Cargo)	30,988	31,215	31,698	32,216	32,755	33,331	0.7%	0.4%	0.4%	0.3%	0.3%
Military	5,116	5,116	5,116	5,116	5,116	5,116	0.0%	0.0%	0.0%	0.0%	0.0%
Local											
General Aviation	9,981	10,153	10,342	10,545	10,764	10,999	1.7%	0.6%	0.5%	0.5%	0.5%
Military	7,357	7,357	7,357	7,357	7,357	7,357	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL OPERATIONS	**64,313**	**68,509**	**71,236**	**73,524**	**76,117**	**78,825**	**6.5%**	**1.7%**	**1.2%**	**1.1%**	**1.0%**
Peak Hour Operations	11	15	17	19	20	22	34.9%	7.4%	4.8%	3.9%	3.4%
Cargo/mail enplaned + deplaned tons)	0	0	1,163	2,441	2,602	2,773	-	-	-	-	-
Based Aircraft											
Single Engine (Nonjet)	76	76	77	77	77	78	0.3%	0.2%	0.1%	0.1%	0.1%
Multi Engine (Nonjet)	11	11	12	12	13	13	0.9%	0.9%	0.8%	0.8%	0.8%
Turbo-Prop	0	0	0	0	0	0	-	-	-	-	-
Jet Engine	17	18	21	25	30	34	3.9%	3.8%	3.7%	3.5%	3.4%
Helicopter	0	0	0	0	0	0	-	-	-	-	-
TOTAL	**104**	**105**	**110**	**114**	**119**	**124**	**0.9%**	**0.9%**	**0.9%**	**0.9%**	**0.9%**

Source: FAA 2019 TAF, ECP, CHA, 2019.

B. Operational Factors

Specified Base Year: 2018	Base Year Level	Base Year + 1-Year	Base Year + 6-Years	Base Year + 11-Years	Base Year + 16-Years	Base Year + 21-Years
Average Aircraft Size (Seats) - Air Carrier	121	118	116	116	116	116
Average Enplaning Load Factor - Air Carrier	80.3%	81.3%	82.4%	83.6%	84.9%	86.1%
GA Operations Per Based Aircraft	394	394	383	374	364	355

Source: FAA 2019 TAF, ECP, CHA, 2019.

[20] Note: The projected enplanements and operations that are found within the FAA Required Appendices take into consideration recently announced, as well as potential, non-stop service routes from ECP throughout the forecast horizon.

FAA APPENDIX C

Comparing Airport Planning and TAF Forecasts

Specified Base Year: 2017	Year	Airport Forecast	TAF	AF/TAF (% Difference)
Passenger Enplanements				
Base Year Level	2018	528,431	504,330	4.8%
Base Year + 1-Year	2019	679,100	672,302	1.0%
Base Year + 6-Years	2024	823,553	763,590	7.9%
Base Year + 11-Years	2029	923,351	847,664	8.9%
Base Year + 16-Years	2034	1,022,076	946,389	8.0%
Base Year + 21-Years	2039	1,126,637	1,050,950	7.2%
Commercial Operations				
Base Year Level	2018	10,871	9,370	16.0%
Base Year + 1-Year	2019	14,669	13,684	7.2%
Base Year + 6-Years	2024	16,723	16,491	1.4%
Base Year + 11-Years	2029	18,290	18,290	0.0%
Base Year + 16-Years	2034	20,126	20,398	-1.3%
Base Year + 21-Years	2039	22,022	22,627	-2.7%
Total Operations				
Base Year Level	2018	64,313	66,733	-3.6%
Base Year + 1-Year	2019	68,509	72,593	-5.6%
Base Year + 6-Years	2024	71,236	74,399	-4.3%
Base Year + 11-Years	2029	73,524	76,582	-4.0%
Base Year + 16-Years	2034	76,117	79,086	-3.8%
Base Year + 21-Years	2039	78,825	81,721	-3.5%

Source: FAA 2018 TAF, Signature, NAA, CHA, 2019.

APPENDIX H – NEW AIR SERVICE ROUTE ANNOUNCEMENTS

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For Immediate Release:

NORTHWEST FLORIDA BEACHES INTERNATIONAL AIRPORT (ECP) GEARS UP FOR 2019 SUMMER FLIGHT SCHEDULE

BRAND NEW NON-STOP SERVICE TO KANSAS CITY, RETURN NON-STOP SERVICE TO POPULAR AUSTIN, BALTIMORE, CHICAGO, DALLAS, DENVER

PANAMA CITY BEACH, FL (May 20, 2018) – Northwest Florida Beaches International Airport (ECP) gears up for another enhanced summer flight schedule slated to begin on Saturday, June 8.

Southwest Airlines will include a brand-new non-stop flight on Saturdays from ECP to Kansas City International Airport (MCI) running through August 5.

Returning Southwest Airlines summer service will include non-stop flights on Saturdays from ECP to popular destinations like Austin (AUS), Chicago (MDW), Denver (DEN) and St. Louis (STL), in addition to year-round non-stop service on Southwest Airlines from ECP to Dallas (DAL), Houston (HOU), Nashville (BNA) and Baltimore (BWI). Additionally, Sundays now provide enhanced service to Austin, Baltimore, Dallas (DAL), Nashville and St. Louis.

United Airlines has also added new non-stop weekend service to Chicago (ORD) this summer.

American Airlines will be enhancing their DFW service and adding Chicago (ORD) this summer too.

Delta Airlines will be adding to their ATL service this summer as well.

“ECP continues to see passenger activity significantly increase during the summer months,” said Parker W. McClellan, Jr., airport Executive Director. “Last summer, more than 362,000 passengers traveled through ECP and there will be even more activity this year with the most active summer flight schedule we’ve ever had.”

For more information and to book your flight this summer, visit iflybeaches.com.

Flight schedules are subject to change.

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For Immediate Release:

NORTHWEST FLORIDA BEACHES INTERNATIONAL AIRPORT (ECP) ANNOUNCES SOUTHWEST AIRLINES 2019 SUMMER FLIGHT SCHEDULE

BRAND NEW NON-STOP SERVICE TO KANSAS CITY, RETURN NON-STOP SERVICE TO POPULAR AUSTIN, CHICAGO, DENVER

PANAMA CITY, FL (November 14, 2018) – Northwest Florida Beaches International Airport (ECP) announces brand new non-stop and returning Southwest Airlines service starting next summer. Brand new service on Southwest Airlines will include a non-stop flight on Saturdays from ECP to Kansas City International Airport (MCI) beginning on June 8 and running through August 5.

Returning Southwest Airlines summer service will include non-stop flights on Saturdays from ECP to popular destinations like Austin (AUS), Chicago (MDW), Denver (DEN) and St. Louis (STL), in addition to year-round non-stop service on Southwest Airlines from ECP to Dallas (DAL), Houston (HOU), Nashville (BNA) and Baltimore (BWI).

"ECP continues to see passenger activity significantly increase during the summer months," said Parker W. McClellan, Jr., airport Executive Director. "In the summer of 2018, an estimated number of 7,200 passengers traveled through the airport on any given Saturday, and there will be more activity next summer with more flights from Southwest on Saturdays than we've ever had before."

All ECP airline partners including American Airlines, Delta Air Lines and United Airlines are expected to increase flight activity or add larger aircraft through the summer season.

Information on all flight markets can be found by visiting iflybeaches.com, featuring airline ticket links to directly book a flight.

Flight schedules are subject to change.

###

About Northwest Florida Beaches International Airport

Northwest Florida Beaches International Airport (ECP) offers some of the region's lowest average airfares and is located less than 30 minutes from Panama City Beach, Panama City and the beaches of South Walton. Today, with service from American Airlines, Delta Air Lines, Southwest Airlines, and United Airlines, ECP provides daily flights to worldwide destinations,

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For Immediate Release:

NORTHWEST FLORIDA BEACHES INTERNATIONAL AIRPORT (ECP) ANNOUNCES NON-STOP SERVICE FROM UNITED AIRLINES TO CHICAGO (ORD) SUMMER 2019

PANAMA CITY, FL (December 19, 2018) – Northwest Florida Beaches International Airport (ECP) announces brand new non-stop weekend service next summer on United Airlines to Chicago O'Hare International Airport (ORD) starting June 8.

"ECP is excited to announce United Airlines will now service non-stop to Chicago (ORD) on weekends next summer," said Parker McClellan, Jr., airport Executive Director. "This new non-stop service adds to our impressive lineup of enhanced summer service and is meeting the demands of our passengers during peak travel months."

The new Chicago flights in and out of ECP were among 11 summer routes United announced nationwide in a press release last week.

All ECP airline partners including American Airlines, Delta Air Lines and Southwest Airlines are increasing flight activity or adding larger aircraft through the 2019 summer season.

Information on all flight markets can be found by visiting iflybeaches.com, featuring airline ticket links to directly book a flight.

Flight schedules are subject to change.

###

About Northwest Florida Beaches International Airport
Northwest Florida Beaches International Airport (ECP) offers some of the region's lowest average airfares and is located less than 30 minutes from Panama City Beach, Panama City and the beaches of South Walton. Today, with service from American Airlines, Delta Air Lines, Southwest Airlines, and United Airlines, ECP provides daily flights to worldwide destinations, including nonstop flights to Atlanta (ATL), Baltimore (BWI), Charlotte (CLT), Dallas (DAL/DFW), Denver (DEN), Houston (HOU/IAH), Nashville (BNA), St. Louis (STL), Austin (AUS), and Chicago (MDW). The first international airport to be built in more than a decade, ECP provides Northwest Florida communities with first-class facilities and was strategically developed for major economic development opportunities. ECP is the gateway to visitors seeking Northwest Florida's famous beaches.

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For Immediate Release:

AMERICAN AIRLINES TO LAUNCH NON-STOP DAILY SERVICE BETWEEN PANAMA CITY BEACH AND WASHINGTON, DC

Non-Stop Daily Service Between ECP and DCA to Begin January 2020

PANAMA CITY BEACH, FL (June 6, 2019) – Northwest Florida Beaches International Airport (ECP) and American Airlines announce brand new non-stop daily service between ECP and Ronald Reagan Washington National Airport (DCA) beginning January 7, 2020.

“With the addition of American Airlines service at ECP starting last summer, we’ve seen even more passenger growth at our Airport,” said Parker W. McClellan, Jr., A.A.E., Airport Executive Director. “The new non-stop daily flight to Washington not only serves the needs of our Region’s business, military and leisure passengers, but it expands options for travelers up north looking to visit Northwest Florida.”

This new route will be American Airlines’ fourth non-stop flight option at ECP. The airline currently provides non-stop service between ECP and Charlotte Douglas (CLT), Chicago (ORD) and Dallas/Fort Worth (DFW).

"This is great day for us at American Airlines and our nonstop service between Panama City Beach and our nation’s capital,” said Radney Robertson, Managing Director for American at DCA. “We look forward to connecting Floridians to the over 250 daily flights we operate from DCA .”

The flight will be operated by a 50 seat CRJ-200. Passengers may begin booking flights between ECP and DCA right now by visiting aa.com.

Schedule effective on January 7, 2020.

- Depart DCA 7:40 a.m. EST Arrive ECP 9:17 a.m. CST
- Depart ECP 9:43 a.m. CST Arrive DCA 1:00 p.m. EST

Flight schedules are subject to change.

APPENDIX I – AIRLINE SCHEDULES (JULY 2019)

Northwest Florida Beaches International Airport (ECP)

American Airlines Schedule of Flights

Month of July 2019

Carrier	Flight No.	TO/FROM	Depart	Arrive	Frequency S	M	T	W	T	F	S	Aircraft/Seats
Monday - Friday												
AAL	5856	Dallas	6:00 AM	ORIG		x	x	x	x	x		CE7
AAL	5357	Charlotte	7:24 AM	ORIG		x	x	x	x	x		CE7
AAL	5283	Charlotte	1st-5th	1:47 PM		x	x	x	x	x		CE7
AAL	5283	Charlotte	2:17 PM	1st-5th		x	x	x	x	x		CE7
AAL	5283	Charlotte		1:52 PM		x	x	x	x	x		CE7
AAL	5283	Charlotte	2:22 PM			x	x	x	x	x		CE7
AAL	5734	Dallas		2:50 PM		x	x	x	x	x		CE7
AAL	5734	Dallas	3:27 PM	1st-5th		x	x	x	x	x		CE7
AAL	5734	Dallas	3:30 PM			x	x	x	x	x		CE7
AAL	5356	Charlotte	1st-5th RON	6:40 PM		x	x	x	x	x		CE7
AAL	5356	Charlotte	RON	6:51 PM		x	x	x	x	x		CE7
AAL	5770	Dallas	1st-5th RON	10:24 PM		x	x	NO	NO	x		CE7
AAL	5770	Dallas	RON	10:38 PM		x	x	x	x	x		CE7
Saturdays												
AAL	5856	Dallas	6:00 AM	ORIG							x	CE7
AAL	5357	Charlotte	7:24 AM	ORIG							x	CE7
AAL	5136	Charlotte		8:03 AM							x	CE7
AAL	5136	Charlotte	9:09 AM								x	CE7
AAL	3153	Chicago		11:43 AM							x	CE7
AAL	3153	Chicago	12:15 PM								x	CE7
AAL	5283	Charlotte		1:47 PM							x	CE7
AAL	5283	Charlotte	2:17 PM								x	CE7
AAL	5734	Dallas		2:50 PM							x	CE7
AAL	5734	Dallas	3:27 PM								x	CE7
AAL	5732	Dallas		4:38 PM							x	CE7
AAL	5732	Dallas	5:09 PM								x	CE7
AAL	5356	Charlotte	RON	6:40 PM							x	CE7
AAL	5770	Dallas	RON	10:25 PM							x	CE7
Sundays												
AAL	5856	Dallas	6:00 AM	ORIG	x							CE7
AAL	5357	Charlotte	7:22 AM	ORIG	x							CE7
	5357	Charlotte	6:57 AM	ORIG	7th only							CE7
AAL	5283	Charlotte		1:52 PM	x							CE7
AAL	5283	Charlotte	2:22 PM		x							CE7
AAL	5734	Dallas		2:50 PM	x							CE7
AAL	5734	Dallas	3:30 PM		x							CE7
AAL	5356	Charlotte	RON	8:05 PM	x							CE7
AAL	5770	Dallas	RON	10:38 PM	x							CE7

NORTHWEST FLORIDA
BEACHES INTERNATIONAL AIRPORT

Northwest Florida Beaches International Airport (ECP)

Delta Airlines Schedule of Flights

Month of July 2019

					Frequency							
Carrier	**FLT NO**	**TO/FROM**	**Depart**	**Arrive**	**S**	**M**	**T**	**W**	**T**	**F**	**S**	**Aircraft/Seats**
Delta	1751	Atlanta	6:00 AM	ORIG	x	x	x	x	x	x	x	MD88/149
Delta	2430	Atlanta	8:00 AM	ORIG	x	x	x	x	x	x	x	MD88/149
Delta	2029	Atlanta		9:25 AM	x	x	x	x	x	x	x	MD88/149
Delta	2029	Atlanta	10:10 AM		x	x	x	x	x	x	x	MD88/149
Delta	1733	Atlanta		11:13 AM	x	x	x	x	x	x	x	MD88/149
Delta	1733	Atlanta	12:00 PM		x	x	x	x	x	x	x	MD88/149
Delta	2506	Atlanta		1:53 PM	x	x	x	x	x	x	x	MD88/149
Delta	2506	Atlanta	2:39 PM		x	x	x	x	x	x	x	MD88/149
Delta	1403*	Atlanta		5:01 PM	x	x	x	x	x	x	x	MD88/149
Delta	1403*	Atlanta	5:54 PM		x	x	x	x	x	x	x	MD88/149
Delta	2431	Atlanta	RON	8:11 PM	x	x	x	x	x	x	x	MD88/149
Delta	2108	Atlanta	RON	10:45 PM	x	x	x	x	x	x	x	MD88/149

NORTHWEST FLORIDA
BEACHES INTERNATIONAL AIRPORT

Northwest Florida Beaches International Airport (ECP)

Southwest Airlines Schedule of Flights

June 9th - Aug 5th

Carrier	Flight No.	TO/FROM	Depart	Arrive	Frequency S	M	T	W	T	F	S	Aircraft/Seats
Monday Through Friday beginning 6/10												
SWA	211	Nahsville	6:25 AM	ORIG		x	x	x	x	x		737-700/143 Seats
SWA	690	Nahsville		9:30 AM		x	x	x	x	x		737-700/143 Seats
SWA	690	Dallas	10:00 AM			x	x	x	x	x		737-700/143 Seats
SWA	311	Dallas		10:20 AM		x	x	x	x	x		737-800/175 Seats
SWA	311	St.Louis	11:05 AM			x	x	x	x	x		737-800/175 Seats
SWA	1489	St.Louis		11:35 AM		x	x	x	x	x		737-700/143 Seats
SWA	1489	Baltimore	12:15 PM			x	x	x	x	x		737-700/143 Seats
SWA	2590	Baltimore		3:40 PM		x	x	x	x	x		737-700/143 Seats
SWA	2590	Houston	4:20 PM			x	x	x	x	x		737-700/143 Seats
SWA	539	Houston		4:40 PM		x	x	x	x	x		737-700/143 Seats
SWA	312	Dallas	5:15 PM			x	x	x	x	x		737-700/143 Seats
SWA	34	Dallas		6:15 PM		x	x	x	x	x		737-700/143 Seats
SWA	34	Nahsville	6:50 PM			x	x	x	x	x		737-700/143 Seats
SWA	941	Nahsville	RON	8:40 PM		x	x	x	x	x		737-700/143 Seats
Saturday's beginning 6/15												
SWA	2856	Dallas	7:35 AM	ORIG							x	737-700/143 Seats
SWA	3122	Dallas		7:50 AM							x	737-800/175 Seats/7M8
SWA	3122	Nahsville	8:35 AM								x	737-800/175 Seats/7M8
SWA	5768	Baltimore		9:40 AM							x	737-700/143 Seats
SWA	5768	Houston	10:15 AM								x	737-700/143 Seats
SWA	5771	Dallas		9:50 AM							x	737-700/143 Seats
SWA	5771	St.Louis	10:20 AM								x	737-700/143 Seats
SWA	994	Nahsville		10:36 AM							x	737-700/143 Seats
SWA	994	Baltimore	11:05 AM								x	737-700/143 Seats
SWA	5722	St.Louis		12:15 PM							x	737-700/143 Seats
SWA	5722	Dallas	12:55 PM								x	737-700/143 Seats
SWA	4510	Austin		12:55 PM							x	737-700/143 Seats
SWA	4510	St.Louis	1:25 PM								x	737-700/143 Seats
SWA	3535	Dallas		1:30 PM							x	737-700/143 Seats
SWA	3535	Kansas	2:05 PM								x	737-700/143 Seats
SWA	3915	Nahsville		1:45 PM							x	737-700/143 Seats
SWA	3916	Nahsville	2:20 PM								x	737-700/143 Seats
SWA	1079	St.Louis		2:35 PM							x	737-700/143 Seats
SWA	1079	Austin	3:10 PM								x	737-700/143 Seats
SWA	4845	Houston		3:10 PM							x	737-700/143 Seats
SWA	4847	Dallas	3:45 PM								x	737-700/143 Seats
SWA	3380	Dallas		3:56 PM							x	737-700/143 Seats
SWA	3380	Baltimore	4:25 PM								x	737-700/143 Seats
SWA	1546	Kansas		4:10 PM							x	737-700/143 Seats
SWA	1545	Denver	4:40 PM								x	737-700/143 Seats
SWA	2812	Denver		4:45 PM							x	737-700/143 Seats
SWA	2812	St.Louis	5:15 PM								x	737-700/143 Seats
SWA	4096	Baltimore		5:10 PM							x	737-700/143 Seats
SWA	4096	Chicago	5:45 PM								x	737-700/143 Seats
SWA	1514	Nahsville		5:35 PM							x	737-700/143 Seats
SWA	1643	Nahsville	6:06 PM								x	737-700/143 Seats
SWA	2899	Chicago		6:05 PM							x	737-700/143 Seats
SWA	2899	Dallas	6:40 PM								x	737-700/143 Seats
SWA	3485	St.Louis		6:25 PM							x	737-700/143 Seats
SWA	3485	Houston	7:05 PM								x	737-700/143 Seats
SWA	3079	Houston		9:10 PM							x	737-700/143 Seats
Sunday's beginning 6/9												
SWA	4636	Dallas	8:30 AM	ORIG	x							737-700/143 Seats
SWA	2623	Chicago		10:00 AM	x							737-700/143 Seats
SWA	4254	St.Louis	10:30 AM		x							737-700/143 Seats
SWA	3928	Nahsville		10:05 AM	x							737-700/143 Seats
SWA	3392	Nahsville	10:35 AM		x							737-700/143 Seats
SWA	4272	St.Louis		11:55 AM	x							737-700/143 Seats
SWA	4272	Baltimore	12:25 PM		x							737-700/143 Seats
SWA	57	Dallas		1:00 PM	x							737-700/143 Seats
SWA	67	Nahsville	1:35 PM		x							737-700/143 Seats
SWA	5022	Baltimore		4:15 PM	x							737-700/143 Seats
SWA	5022	Austin	4:45 PM		x							737-700/143 Seats
SWA	5586	Nahsville		5:35 PM	x							737-700/143 Seats
SWA	5586	Dallas	6:05 PM		x							737-700/143 Seats
SWA	3895	Houston		6:15 PM	x							737-700/143 Seats
SWA	3895	Chicago	6:45 PM		x							737-700/143 Seats
SWA	4745	Austin		6:40 PM	x							737-700/143 Seats
SWA	4746	Houston	7:20 PM		x							737-700/143 Seats
SWA	3821	Dallas		7:20 PM	x							737-700/143 Seats
SWA	3821	Nahsville	7:55 PM		x							737-700/143 Seats
SWA	3359	Nahsville		9.55 PM	x							737-700/143 Seats

NORTHWEST FLORIDA
BEACHES INTERNATIONAL AIRPORT

Northwest Florida Beaches International Airport (ECP)

United Airlines Schedule of Flights

Month of July, 2019

Carrier	Flight No.	TO/FROM	Depart	Arrive	Frequency S	M	T	W	T	F	S	Aircraft/Seats
The following flights will be for 1-7 Jul												
United	3979	Houston	7:00AM		x	x	x	x	x			135 or 145
United	6039	Houston	7:00AM							x	x	175
United	5988	Chicago (ORD)		11:27AM							x	200
United	4860	Chicago (ORD)		11:27AM	x							200
United	4472	Houston		11:50AM		x	x	x	x	x		135 or 145
United	5989	Chicago (ORD)	11:57AM								x	200
United	4838	Chicago (ORD)	11:57AM		x							200
United	4472	Houston		12:25PM	x						x	135 or 145
United	4134	Houston	1:30PM		x	x	x	x	x	x	x	135 or 145
United	6024	Houston		9:43PM	x				x	x		175
United	4190	Houston		9:45PM		x	x	x			x	135 or 145
The following flights will be for 8-14 Jul												
United	3979	Houston	7:00AM		x			x				135 or 145
United	6039	Houston	7:00AM			x	x		x	x	x	175
United	5988	Chicago (ORD)		11:27AM							x	200
United	4860	Chicago (ORD)		11:27AM	x							200
United	4472	Houston		11:50AM		x	x	x	x	x		135 or 145
United	5989	Chicago (ORD)	11:57AM								x	200
United	4838	Chicago (ORD)	11:57AM		x							200
United	4472	Houston		12:25PM	x						x	135 or 145
United	4134	Houston	1:30PM		x	x	x	x	x	x	x	135 or 145
United	6024	Houston		9:43PM	x	x		x	x	x		175
United	4190	Houston		9:45PM			x				x	135 or 145
The following flights will be for 15-28 Jul												
United	3979	Houston	7:00AM		x							135 or 145
United	6039	Houston	7:00AM			x	x	x	x	x	x	175
United	5988	Chicago (ORD)		11:27AM							x	200
United	4860	Chicago (ORD)		11:27AM	x							200
United	4472	Houston		11:50AM		x	x	x	x	x		135 or 145
United	5989	Chicago (ORD)	11:57AM								x	200
United	4838	Chicago (ORD)	11:57AM		x							200
United	4472	Houston		12:25PM	x						x	135 or 145
United	4134	Houston	1:30PM		x	x	x	x	x	x	x	135 or 145
United	6024	Houston		9:43PM	x	x	x	x	x	x		175
United	4190	Houston		9:45PM							x	135 or 145
The following flights will be for 29-31 Jul												
United	3979	Houston	7:00AM					x				135 or 145
United	6039	Houston	7:00AM			x	x					175
United	4472	Houston		11:50AM		x	x	x				135 or 145
United	4134	Houston	1:30PM			x	x	x				135 or 145
United	6024	Houston		9:43PM		x		x				175
United	4190	Houston		9:45PM			x					135 or 145

Note: Aircraft 135-37 seats, 145-50 seats, 200-50 seats and E175-75 seats.

NORTHWEST FLORIDA
BEACHES INTERNATIONAL AIRPORT