Winter Haven Regional Airport
Master Plan Report

Working Paper 2 – Aviation Forecasts

Winter Haven, Florida

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EST. 1942

Winter Haven
REGIONAL AIRPORT
GILBERT FIELD

Prepared by

HANSON™

Table of Contents

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2. Aviation Forecast

2.1. Introduction

This chapter presents aviation activity projections that form the basis of future development needs for Winter Haven Regional Airport, also known as Gilbert Field (GIF). Previous activity forecasts, industry trends, local socioeconomic conditions and historical data were analyzed and applied to methods accepted by the Federal Aviation Administration (FAA) and Florida Department of Transportation (FDOT) to develop these forecasts. The standard planning period for an airport master plan is 20 years, and the key planning period milestones include the five-, 10- and 20-year horizons. Because these forecasts were developed using data through fiscal year (FY) 2025, the projections are presented for 2030, 2035 and 2045.

2.2. Recent Projections of Aviation Activity

The most recent local, state and national forecasts for GIF include those prepared for the 2016 airport master plan, FDOT's Florida Aviation System Plan (FASP) and the FAA's Terminal Area Forecast. Each previous forecast includes annual operations and based aircraft for the airport, as summarized in the following sections. As required by the FAA, because GIF is a nontowered airport, a direct comparison of the recommended forecasts must be made relative to the current FAA aerospace forecast, which is at the end of this chapter.

2016 Airport Master Plan

The 2016 airport master plan included forecasts for annual operations and based aircraft, which are projected over a 20-year planning period using 2013 as the base year. These forecasts are in **Table 2.1** and have been extrapolated to provide a basis of comparison with the long-term forecasts of this study.

TABLE 2.1: 2016 AIRPORT MASTER PLAN FORECASTS

	Annual Operations	Based Aircraft
Base Year		
2013	60,000	151
Forecast		
2018	67,100	177
2023	75,100	209
2033	94,100	285
Average Annual Change (2013–33)	**2.3%**	**3.2%**
Extrapolations		
2035	98,431	304
2045	123,269	417

Source: 2016 GIF airport master plan and Environmental Science Associates (ESA) analysis, 2026.

Florida Aviation System Plan (FASP)

The FASP is a comprehensive planning and development guide for the state's public airports. The FASP ensures that Florida has an effective statewide aviation transportation system that links to the global air transportation network and effectively interfaces with regional surface transportation systems. In support of these goals, FDOT's

Aviation Office provides regular updates of historical aviation data and prepares forecasts of passenger enplanements as applicable, annual operations and based aircraft for each public airport in the state.

The 2024 update to FDOT's system plan, FASP 2043, primarily focuses on district-level forecasts. Its individual airport profiles provide base (2023) and future (2043) year figures for annual operations and based aircraft, which are in **Table 2.2,** and extrapolated to 2045 for comparison with the projections of this study.

TABLE 2.2: FLORIDA AVIATION SYSTEM PLAN 2043

	Annual Operations	Based Aircraft
Base Year		
2023	80,523	145
Forecast		
2043	112.173	183
Average Annual Change (2023–43)	**1.7%**	**1.2%**
Extrapolations		
2045	115,954	187

Source: FASP 2043 and ESA analysis, 2026.

FAA Terminal Area Forecast

A terminal area forecast (TAF) is prepared annually by the FAA to meet the budget and planning needs of the agency, as well as to provide information for use by state agencies, local authorities, the aviation industry and the general public. Each airport in the National Plan of Integrated Airport Systems (NPIAS) is in the TAF; however, as noted in the FAA's Forecast Review and Approval Instructions memorandum from August 2024, "The TAF does not develop an active forecast for future operations, enplanements, or based aircraft at non-towered airports. The TAF only ingests data from the Airport Master Record for archival purposes."

The 2025 TAF, issued in February 2026, has 2024 as the most recent base year, for which it documents 77,998 annual operations and 172 based aircraft for GIF.[1] A copy of the GIF TAF is included in **Appendix D**.

2.3. Industry Background

To guide the forecasting effort, understanding the relationship between industry trends and the airport operating environment is essential. Using historical information and data, it is possible to compare how changes in the general aviation (GA) industry and area economics may have impacted activity at GIF. The analysis of recent trends also allows for educated assumptions as to how the airport's activity will be affected in the future. National, regional and local trends that may impact existing, expanded or new aviation activity were identified from several sources. In addition to the historical data and recent activity forecasts, information was collected from a number of reports, studies and industry articles, including:

- *FAA Aerospace Forecast Fiscal Years 2025–2045*
- FAA monthly Business Jet Report
- General Aviation Manufacturers Association (GAMA) annual aircraft shipment reports
- 2024 State Profile – Florida from Woods & Poole Economics Inc.
- FDOT 2022 Florida Statewide Economic Impact Study

[1] FAA Terminal Area Forecast, issued Feb. 27, 2026. https://taf.faa.gov/, access Feb. 27, 2026.

Noteworthy information from these sources is summarized in the following sections.

State of the General Aviation Industry

General aviation encompasses all segments of the aviation industry, except for activity conducted by commercial airlines or the military. Examples include pilot training, law enforcement flights, medical transportation, aerial surveys, aerial photography, agricultural spraying, advertising and various forms of recreation, not to mention business, corporate and personal travel. Historically, the industry has experienced significant fluctuations, both positive and negative.

As a result of the Great Recession, data from GAMA showed that GA aircraft manufactured in the U.S. fell from a high of 3,279 aircraft in 2007 to 1,334 in 2010. The number of new GA shipments has increased almost every year since, with an average of 2,200 being delivered between 2023 and 2025.[2]

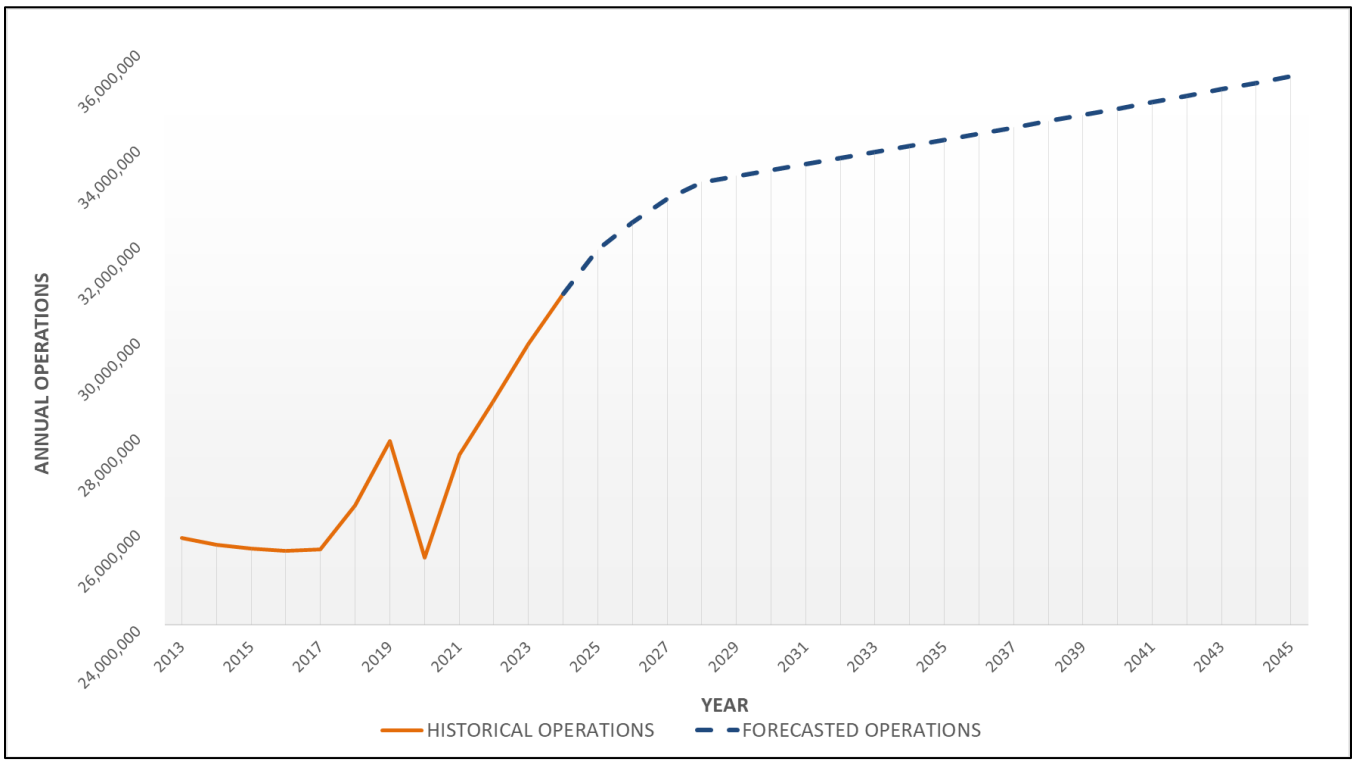
Considering the manufacturing rates and aircraft retirements, the FAA tracks and projects the nation's active GA fleet. Overall, the *FAA Aerospace Forecast Fiscal Years 2025–2045* (2025 FAA aerospace forecast) projects the number of active GA aircraft to increase through 2045; however, this trend is not evenly distributed across the different aircraft types. For example, the number of the most common single-engine piston aircraft are expected to decline slightly an average of 0.1% annually through 2045, while the number of active jet aircraft are projected to increase an average of 2.7% each year.[3]

The FAA also tracks and projects the number of hours flown by GA aircraft, which is expected to increase overall at a rate of 0.9% each year through 2045. Similar to the fleet projections, the growth is not evenly distributed, because piston aircraft show a decline in activity of 0.4% each year, while the hours flown by jets are forecast to grow 2.4% annually.[4] The jet aircraft projections are supported by figures in the FAA's monthly Business Jet Reports, which show that operations conducted by GA jet aircraft consistently increased between 2009 and 2019. In 2020, annual jet activity dropped 21% at the beginning of the COVID-19 pandemic but quickly rebounded 46% in 2021 to an all-time high. Since then, the nation's jet activity has increased all but one year (2023) through 2025.[5]

Using the fleet size, hours flown, utilization rates, as well as other industry factors, each year, the FAA projects the GA operations expected to be handled by the nation's towered airports. **Figure 2.1** depicts the historical trend and illustrates how GA activity rebounded within two years from the impacts of the COVID-19 pandemic. Between 2021 and 2024, GA activity increased an average of 3.9% each year. The 2025 FAA aerospace forecast projects this growth to slow with an overall average growth of just under 0.5% from 2025 to 2045.[6]

[2] GAMA Quarterly Shipments and Billings, https://gama.aero/facts-and-statistics/quarterly-shipments-and-billings/, accessed Feb. 27, 2026.
[3] FAA Aerospace Forecast 2025-2045, https://www.faa.gov/data_research/aviation/aerospace_forecasts/FY-2025-2045-Full-Forecast-Document-and-Tables.pdf, accessed Feb. 27, 2026.
[4] FAA Aerospace Forecast 2025-2045, https://www.faa.gov/data_research/aviation/aerospace_forecasts/FY-2025-2045-Full-Forecast-Document-and-Tables.pdf, accessed Feb. 27, 2026.
[5] FAA Monthly Business Jet Report, https://www.aspm.faa.gov/apmd/sys/bj-intro.asp?page=1, accessed Feb. 27, 2026.
[6] FAA Aerospace Forecast 2025-2045, https://www.faa.gov/data_research/aviation/aerospace_forecasts/FY-2025-2045-Full-Forecast-Document-and-Tables.pdf, accessed Feb. 27, 2026.

FIGURE 2.1: U.S. GENERAL AVIATION OPERATIONS (ALL TOWERED AIRPORTS)



Source: *FAA Aerospace Forecast Fiscal Years 2025–2045*.

Local Socioeconomic Trends

A number of socioeconomic indicators were evaluated that typically have a direct relationship to the use of aviation and, therefore, airport activity. Overall and average annual growth rates for Polk County, Florida and the U.S. are presented based on data obtained from Woods & Poole Economics Inc.

Each year, the Woods & Poole projections are updated using models that consider specific local conditions based on historical data back to 1969. While the current historical data sets from Woods & Poole cover the period between 1969 to 2022 and include projections out to 2060, only historical data from 2013 onward are shown in the tables that follow, reflecting the general trends over the past 10 years.

Population

Historically, Polk County has had overall and average annual population growth considerably higher than the state and nation. The growth is likely attributed to the fact that Polk County sits between the Tampa and Orlando job markets and offers more affordable housing than both. Strong domestic migration, expanding logistics and service industries, and large-scale residential development have made it one of Central Florida's fastest-growing population centers.

The population of Polk County is expected to continue growing slightly ahead of Florida's overall population and double the nation's rate through 2045, though at a slower rate in the future. While continued growth is anticipated, that rate is expected to be much lower as the population density in urban and suburban centers over the next 20 years decreases reduces growth opportunities and increases congestion make the areas less attractive.

TABLE 2.3: SUMMARY OF POPULATION

	Polk County	Florida	United States
Historical Data			
2013	618,765	19,510,365	316,765,062
2014	629,195	19,798,068	319,294,716
2015	641,940	20,148,144	321,850,521
2016	657,793	20,539,843	324,377,907
2017	675,623	20,872,368	326,611,185
2018	695,141	21,134,065	328,525,933
2019	711,242	21,354,226	330,222,008
2020	730,158	21,591,299	331,526,933
2021	755,598	21,830,708	332,048,977
2022	788,382	22,245,521	333,271,411
Overall Growth (2013–22)	27.4%	14%	5.2%
Average Annual Growth Rate (2013–22)	**2.7%**	**1.5%**	**0.6%**
Forecast			
2030	884,449	24,457,873	350,794,062
2035	931,809	25,795,152	361,600,435
2045	1,025,477	28,503,980	381,832,668
Average Annual Growth Rate (2022–45)	**1.2%**	**1.1%**	**0.6%**

Source: Woods & Poole Economics Inc., 2024 profiles.

Employment

Employment data provides an indication of the economic stability of a geographic area. As shown in the table below, Polk County employment has increased every year since 2013 and outpaced the state and U.S. in overall job growth and on an annual average basis.

As the county continues to grow its population, so too will employment to support the area's growth initially (such as real estate, banking, construction, etc.) as well as afterward (to include retail, healthcare, education, etc.). Woods & Poole's long-term projections show employment levels continuing to increase for Polk County; however, this growth is at much lower rate and below the projected growth for Florida and the U.S.

TABLE 2.4: SUMMARY OF EMPLOYMENT

	Polk County	Florida	United States
Historical Data			
2013	267,005	10,539,525	182,328,052
2014	273,868	10,937,536	186,239,823
2015	281,071	11,367,165	190,325,850
2016	287,241	11,682,264	193,425,865
2017	300,183	12,098,381	196,394,051
2018	312,758	12,556,221	200,292,212
2019	323,517	12,761,156	201,635,228
2020	336,051	12,719,592	195,286,641
2021	362,866	13,458,023	202,752,136
2022	379,656	14,227,260	212,442,020
Overall Growth (2013–22)	42.2%	35%	16.5%
Average Annual Growth Rate (2013–22)	**4%**	**3.4%**	**1.7%**
Forecast			
2030	419,582	16,156,176	235,602,509
2035	438,577	17,355,173	249,077,315
2045	471,325	19,838,041	275,809,581
Average Annual Growth Rate (2022–45)	**0.9%**	**1.5%**	**1.1%**

Source: Woods & Poole Economics Inc., 2024 profiles.

Income

Personal income per capita represents the ratio of total personal income (before taxes) to the total resident population. Adjustments are also made if the income was earned in a different area than where the person resides. Over the last 10 years, the county, state, and nation have experienced growth in personal income per capita. While the county had the lowest overall growth, it still resulted in double-digit growth. For the 20-year planning horizon of this study, the Woods & Poole data projects higher-than-average annual growth for the county, but it is still lower than the expected increases for Florida and the nation over the same period.

TABLE 2.5: SUMMARY OF PER-CAPITA PERSONAL INCOME

	Polk County	Florida	United States
Historical Data			
2013	$33,356	$40,727	$44,397
2014	$33,837	$42,860	$46,284
2015	$34,711	$44,940	$48,057
2016	$34,302	$45,715	$48,970
2017	$35,304	$48,437	$51,005
2018	$35,495	$51,008	$53,312
2019	$36,516	$53,641	$55,549
2020	$38,997	$56,556	$59,151
2021	$40,266	$63,071	$64,427
2022	$37,201	$64,804	$65,473
Overall Growth (2013–22)	11.5%	59.1%	47.5%
Average Annual Growth Rate (2013–22)	**1.2%**	**5.3%**	**4.4%**
Forecast			
2030	$43,076	$95,116	$96,457
2035	$43,782	$99,363	$100,728
2045	$44,496	$103,790	$105,179
Average Annual Growth Rate (2022–45)	**1.6%**	**4.6%**	**4.6%**

Source: Woods & Poole Economics Inc., 2024 profiles.

Households

Households represent the number of occupied housing units, including homes, apartments, and groups of rooms or single rooms occupied as separate living quarters. The number of households does not include facilities such as retirement homes, college dormitories, military barracks, or prisons. The growth rate in the number of households for Polk County has been consistently higher than that of the state and nation. Similarly, the projection over the next 20 years is that the number of households will continue to increase for the county, state and nation, but at slightly lower rates than what was experienced over the last 10 years. This parallels with and is likely influenced by the historical and anticipated growth in population and employment.

TABLE 2.6: SUMMARY OF HOUSEHOLDS

	Polk County	Florida	United States
Historical Data			
2013	243,648	7,858,336	121,589,256
2014	247,334	7,943,577	122,277,582
2015	252,167	8,070,069	123,555,351
2016	256,645	8,195,743	124,710,793
2017	259,574	8,269,553	125,043,009
2018	264,894	8,402,089	126,335,290
2019	270,241	8,516,588	127,262,015
2020	273,458	8,555,914	127,131,123
2021	290,221	8,734,365	128,000,764
2022	306,389	9,006,267	129,848,072
Overall Growth (2013–22)	25.8%	14.6%	6.8%
Average Annual Growth Rate (2013–22)	**2.6%**	**1.5%**	**0.7%**
Forecast			
2030	346,650	10,070,256	139,706,188
2035	364,309	10,591,837	143,654,042
2045	395,716	11,554,416	149,850,035
Average Annual Growth Rate (2022–45)	**1.1%**	**1.1%**	**0.6%**

Source: Woods & Poole Economics Inc., 2024 profiles.

Gross Regional Product

The gross regional product (GRP) is based on the U.S. Bureau of Economic Analysis data for each state. The nation's figures represent the total for all states, while the individual city data has been estimated by Woods & Poole. It is interesting to note that the state and nation were impacted in 2020 by the COVID-19 pandemic, while Polk County seemingly was not. This is attributed to the economic stability of the county driven by the recent growth in the primary business and services associated with advanced manufacturing, logistics and distribution. Agriculture remains significant, maintaining the county's historical economic foundation, even as these sectors modernize.

Over the last 10 years, the county's GRP has grown significantly overall and at a rate higher than that of the state and nation. This trend is expected to continue, albeit at a lower average growth rate in the future.

TABLE 2.7: SUMMARY OF GROSS REGIONAL PRODUCT (IN MILLIONS OF DOLLARS)

	Polk County	Florida	United States
Historic Data			
2013	$21,845	$847,508	$17,466,806
2014	$21,925	$876,939	$17,953,808
2015	$23,488	$933,740	$18,596,359
2016	$24,175	$969,998	$18,910,750
2017	$25,549	$1,003,144	$19,368,509
2018	$26,237	$1,036,048	$19,999,274
2019	$27,333	$1,073,674	$20,529,773
2020	$28,398	$1,067,259	$19,998,314
2021	$30,407	$1,151,878	$21,264,626
2022	$31,684	$1,204,749	$21,788,014
Overall Growth (2013–22)	45%	42.2%	24.7%
Average Annual Growth Rate (2013–22)	**4.2%**	**4%**	**2.5%**
Forecast			
2030	$38,166	$1,493,964	$25,999,436
2035	$38,879	$1,529,482	$26,495,363
2045	$39,590	$1,565,589	$26,995,687
Average Annual Growth Rate (2022–45)	**1.9%**	**2.4%**	**2%**

Source: Woods & Poole Economics Inc., 2024 profiles.

2.4. Annual Operations Forecasts

The FAA defines an aircraft operation as either a single aircraft landing or takeoff. Further, a touch-and-go procedure is counted as two operations, because the aircraft lands and immediately takes off. Aircraft operations are classified by the FAA into the following categories:

- Air carrier: an aircraft with a seating capacity of greater than 60 or a maximum payload capacity of over 18,000 pounds that carries passengers or cargo for hire or compensation.
- Air taxi: an aircraft with a maximum seating capacity of 60 or fewer or a maximum payload capacity of 18,000 pounds or less that carries passengers or cargo for hire or compensation.
- General aviation: all civil aircraft not classified as air carriers or air taxis.
- Military: all classes of military aircraft.

General aviation encompasses all segments of the aviation industry, except for the activity conducted by commercial air carriers or the military. GIF almost exclusively serves GA activity, except for a few military operations each year. Examples of activities include pilot training, law enforcement, medical transportation, aerial surveys, aerial photography, agricultural spraying, advertising and various forms of recreation, not to mention business, corporate and personal travel.

As a nontowered airport, historical reports on aircraft operations are limited to estimates from years past when such were made as part of FDOT's annual airport licensing inspection. The absence of consistent, verifiable historical operations data is the primary reason the FAA does not develop forecasts for nontowered airports.

However, over the past couple of years, airport operations began being documented at GIF by Virtower. Virtower is a remote air traffic monitoring and digital tower services provider that uses cameras, sensors and data from aircraft automatic dependent surveillance–broadcast (ADS-B) transponders to observe and log aircraft movements. This technology generates accurate operations counts, independent of air traffic control facilities. **Table 2.8** summarizes the annual operations documented since the Virtower system began recording activity at GIF in 2022.

TABLE 2.8: HISTORICAL ANNUAL OPERATIONS

Year	Aircraft Operations
2022	40,072
2023	39,096
2024	60,372
2025	86,119

Source: Virtower operations reports (fiscal year).

The FY 2025 level of annual operations shown will be applied as the base year in the different projections considered in the following sections. These projections have been rounded to the nearest hundred and are summarized in **Table 2.9**.

Projection of Historical Growth Rate

When available, historical activity is important to evaluate given the cyclical nature of the aviation industry. As discussed previously and shown in **Table 2.8**, there were some fluctuations and significant increases in the

operations recorded by Virtower. For the initial years, this is somewhat attributed to the fact that it takes some time to properly adjust the hardware and software capturing the operations at an airport. The ability to identify touch-and-go operations was unavailable in 2022; however, since 2023, the level of flight training at GIF substantially increased. Regardless, the historical figures could not be used to develop an estimated projection for the future level of activity.

Previous Projections

Overall annual operations in the 2016 airport master plan were projected to have an average growth rate of 2.3% through 2033. When applied to the 2025 level of operations, the result is a projection of approximately 135,100 annual operations by 2045. Similarly, using the 2025 base year, the most recent system plan projection from FDOT projects activity at the airport to increase an average rate of 1.7% each year through 2043. Extrapolating out for 2045, this would result in approximately 120,000 annual operations.

General Aviation Operations at Towered Airports

Each year as part of its aerospace forecast, the FAA provides historical data and projections for the number of GA operations recorded at the nation's towered airports. These counts include airports with an FAA or contract air traffic control tower. As previously noted, the 2025 FAA aerospace forecast shows that the GA operations handled by towered airports were expected to increase from 2025 to 2045 at an average annual rate just under 0.5%. Even though GIF is a nontowered airport, it is common to apply the general aviation growth expected at the nation's towered airports to create an alternative forecast. Applying this growth to the base year operations for GIF results in a projection of approximately 98,100 annual operations by the end of the planning period.

Regression Analysis

Typically, a regression analysis using different independent or indicator variables can be used to assess whether any correlations with annual aircraft operations exist. Unfortunately, due to the lack of confidence in pre-2025 historical operations data collection efforts for GIF, no linear or multiple regression models were identified or developed for use of this methodology.

Recommended Forecast of Annual Operations

Each of the projections summarized in **Table 2.9** was generated by applying different rates of growth from other analyses. As such, the recommended forecast should best balance the general assumptions, recent activity levels and industry trends.

Florida has led the nation in not only rebounding from the short-term COVID-19 impact but also continuing to outpace the nation in overall GA growth For these reasons, the significantly low 0.5% average annual growth in activity expected at the nation's towered airports for GA was not considered further. Interestingly, while the source of the base year (2023) operations data in the FASP 2043 is not certain, when the 20-year projection is interpolated, the 2025 figure is within 3% of the Virtower count that year.

As noted in the inventory chapter, there are many aviation tenants at GIF, including three flight schools; maintenance, repair and overhaul (MRO) facilities; and an aircraft mechanic certification testing facility. This is in addition to the more than 140 tenants in the various hangar facilities on the airfield. The flight training operations are the most significant in regard to potential growth. Much of the recent increases in activity at GIF is attributed to flight training. From the individual interviews, the inventory chapter documented that Blue Line Aviation has significant plans to expand its facilities (with construction beginning in 2026) to ultimately relocate its corporate

headquarters from North Carolina to GIF. Similarly, Synergy Aero has immediate plans to increase its single training aircraft to three. The newest tenant, Sunrise Aviation, has a well-established training program in Florida and just partnered with Polk State College as a flight training partner.

Given the above, it is believed that annual operations in the short-term planning period will increase at a slightly higher rate than the FASP 2043 projection, but not as much as the 2016 airport master plan forecast. Therefore, it is expected that for the short-term planning period, the airport will sustain an average annual growth rate of 2.0% through 2030 as the flight schools' training programs mature. Afterward, a 1.7% annual growth (from 2030 to 2045) is considered a reasonable projection of what the airport could expect for increases in annual operations. This recommended forecast is in **Table 2.9** and results in an overall average annual growth rate of 1.8% for the 20-year planning horizon.

TABLE 2.9: COMPARISON OF PROJECTIONS FOR ANNUAL OPERATIONS

	2016 Master Plan	FASP 2043	Nation's GA Operations	Recommended Forecast
Base Year				
2025	86,119	86,119	86,119	**86,119**
Forecast				
2030	96,400	93,600	89,000	**95,100**
2035	107,900	101,600	91,900	**105,000**
2045	135,100	120,000	98,100	**124,300**
Average Annual Growth Rate (2025–45)	2.3%	1.7%	0.7%	**1.8%**

Source: ESA analysis, 2026.

Finally, it should be noted that the potential of advanced air mobility (AAM) was considered as part of the recommended forecast of annual operations. The FAA categorizes AAM as a derivative of urban air mobility, which focuses on moving goods at low altitudes in a local urban or regional area. While AAM encompasses electric, hybrid-electric, hydrogen and even uncrewed aerial systems, the most common form in development are aircraft that can take off and land vertically using distributed electrical propulsion systems. As such, AAM is associated primarily with the advances in developing electric vertical takeoff and landing (eVTOL) aircraft. . It is worth noting that FDOT's modern transportation innovation hub, SunTrax, is located in Polk County, and near-term phased vertiport development and eVTOL operations are planned at the facility. Estimates for when the first AAM aircraft will receive FAA Type certification vary and the timing of their deployment to different markets and the establishment of routes is even more subjective. For the purposes of forecasting operations at GIF, it is assumed that the potential activity by AAM aircraft will be accommodated in the annual operations projection. In other words, there is not enough information or evidence to suggest that a separate forecast for this newer type of aircraft is needed.

2.5. Based Aircraft Forecasts

As a GA airport in the NPIAS, GIF reports its based aircraft counts in the FAA's National Based Aircraft Inventory Program (NBAIP). The NBAIP validates an aircraft as based at an airport if it is only claimed by one airport, is registered and is airworthy. The NBAIP categorizes aircraft as single-engine, multiengine, jet, rotorcraft, or other models. The historical total number of aircraft documented in the NBAIP for GIF is in **Table 2.10**.

TABLE 2.10: HISTORICAL BASED AIRCRAFT 2016–2025

Date	Based Aircraft
January 2016	133
January 2017	131
January 2018	131
January 2019	110
January 2020	87
January 2021	148
January 2022	151
January 2023	150
January 2024	171
January 2025	177
December 2025	223

Source: NBAIP records, December 2025.

The number of aircraft owners expected to base their aircraft at GIF is an important consideration for airfield planning because it is a key gauge of the demand for aircraft storage and parking facilities. The following sections provide different projections on the level of based aircraft over the 20-year planning horizon.

Historical Growth

Given the continued increase in the number of aircraft being brought to Florida, historical changes in the number of based aircraft are important to consider when analyzing future growth. Unfortunately, while the NBAIP provides a validated based aircraft count at GIF, it is only reliable if updated on at least an annual basis. As shown in Table 2.10, at the beginning of 2025, only 177 aircraft were validated versus 223 at the end of the year. The airport did not obtain 46 new based aircraft over the year; rather this simply reflects new airport management updating the information previously submitted to the FAA. Missing updates in prior years skews the data. For example, it could be inferred that the airport has increased its based aircraft by 6% each year since 2016, which is not the case. Accordingly, historical growth could not be used to estimate the future level of activity; however, the December 2025 annual based aircraft count of 223 will be used as the base year in the forecast projections considered in the following sections..

Previous Projections

The 2016 airport master plan projected the based aircraft at GIF to increase at an average annual rate of 3.2%. When applied to the current count of 223, the resulting projection is 421 based aircraft by 2045. The most recent system plan forecast from FDOT projects based aircraft at GIF will increase at an average rate 1.2% each year through 2043. Applied to the current number, this growth results in a potential count of 281 based aircraft by 2045.

Regression Analysis

As with the annual operations, due to the lack of substantiated historical data, no linear or multiple regression models could be developed to project based aircraft levels.

Recommended Forecast of Based Aircraft

The recommended based aircraft forecast from the 2016 airport master plan was based on the 2015 FAA TAF projection. While the 2015 TAF showed an overall average annual growth of 3.2%, the actual growth between the forecast horizons in the 2016 airport master plan was not linear. Regardless, it is interesting to note that when the figures from the master plan forecast are interpolated, they project 223 aircraft at GIF in 2025, the same number validated in the December 2025 NBAIP.

With a hangar wait list of nearly 200 applicants and the three flight schools planning to expand their fleets, it is not reasonable to assume that the based aircraft would continue to increase 3.2% each year. Such growth would represent nearly 40 new based aircraft at the airport by 2030. Conversely, the growth projected in the current FASP would only result in only 13 additional aircraft by 2030. For comparison, a projection using the average of the two previous studies was made and is reflected in **Table 2.11**. With an average annual growth of 2.2%, the expected number of new based aircraft by 2030 would be 26. This is more reasonable, especially given the plans in place for one of the flight schools to expand its apron space to accommodate additional training aircraft. It is also realistic to expect some additional hangar space will be constructed by 2030.

Beyond the five-year planning horizon, it is not certain whether even the 2.2% annual growth could be sustained, given the time and costs associated with constructing new hangar facilities. As such, a composite growth rate was applied. The short-term would increase at a 2.2% average annual growth rate, while the remaining years of the 20-year planning period would be more realistic, adopting the growth expected in the current FASP (1.2% average). The resulting recommended based aircraft forecast is in **Table 2.11** and would result in an overall average annual growth rate of 1.4% for the 20-year planning period.

TABLE 2.11: COMPARISON OF BASED AIRCRAFT PROJECTIONS

	2016 Master Plan	FASP 2043	Average of Past Studies	Recommended Forecast
Base Year				
2025	223	223	223	**223**
Forecast				
2030	261	236	249	**249**
2035	306	251	277	**264**
2045	421	281	345	**297**
Average Annual Growth Rate (2025–45)	3.2%	1.2%	2.2%	**1.4%**

Source: ESA analysis, 2026.

Forecast of Based Aircraft Fleet Mix

Projecting the types of based aircraft is necessary, because different aircraft require different facilities. For the 20-year planning horizon, the FAA's projections for the active GA fleet were evaluated and compared to the aircraft types at GIF. While the overall growth in the nation's active fleet was not used to forecast based aircraft, the individual projections of aircraft types are useful in predicting the based aircraft fleet mix. In addition, information

obtained during the master plan interviews and production data from the aircraft manufacturers were used to estimate the future based aircraft mix.

Nation's Active General Aviation Fleet

According to the 2025 FAA aerospace forecast, the number of active GA aircraft in the nation was 214,940 in 2024. The FAA expects this figure to grow to 238,350 by 2045.[7] Despite the limited growth, the aerospace forecast provides detail on how the individual aircraft categories are expected to evolve during the next 20 years. Additionally, while the FAA provides a number of aircraft categories, they have been simplified into the five major categories shown in **Table 2.12**. Within the single-engine group are the single-engine piston, experimental and light sport aircraft categories. The multiengine and rotorcraft groups contain piston and turbine models. It is also assumed that single-engine turboprops are included in the multiengine group, because there is no separate category for this small segment of the fleet. The jet category covers all turbojet GA aircraft, from very light jets to the heaviest business jets.

As previously noted, the FAA projects a 2.7% annual growth in the number of jet aircraft in the GA fleet. In addition to the aircraft manufacturing and retirement trends, the demand for jet aircraft is up as companies continue to increase their use of these through various charter, lease, time-share, partnership and fractional ownership agreements. More businesses rely on GA because it provides safe, efficient, flexible and reliable transportation. Additionally, fractional ownership offers consumers a more efficient use of time by providing faster point-to-point travel, the ability to conduct business while flying and more convenient enplaning and deplaning of flights compared to commercial airlines. During the COVID-19 pandemic, the industry saw increased private business travel as commercial airline options were reduced.

TABLE 2.12: FAA FORECAST OF NATIONAL ACTIVE GA FLEET

	2024 Fleet Mix	2045 Fleet Mix	Average Annual Growth Rate
Single-Engine	74.7%	69.0%	0.1%
Multiengine	10.5%	10.3%	0.4%
Jet	7.9%	12.5%	2.7%
Rotorcraft	4.8%	6.2%	1.7%
Other (gliders, balloons, etc.)	2.1%	2.0%	0.4%

Source: *FAA Aerospace Forecast Fiscal Years 2025–2045*

In the FAA's projections, growth in the U.S. gross domestic product and corporate profits were also identified as catalysts for the increase in active jet aircraft. As shown in the table above, jets are expected to represent 12.5% of the active GA fleet by 2045, up from 7.9% in 2024. The reasons for the decline in the overall share of single-engine and multiengine piston categories include the cost of ownership and new aircraft deliveries not keeping pace with retirements in the fleet. If it were not for the inclusion of the light sport aircraft, the single-engine piston category would decline in the FAA's projection.

[7] FAA Aerospace Forecast 2025-2045, https://www.faa.gov/data_research/aviation/aerospace_forecasts/FY-2025-2045-Full-Forecast-Document-and-Tables.pdf, accessed Feb. 27, 2026.

Expected Based Aircraft Fleet Mix

The 2025 based aircraft fleet mix GIF comprises 87.9% single-engine, 8.5% multiengine and 3.6% rotorcraft. Throughout the planning period, the mix of based aircraft is expected to remain predominately single-engine; however, in the future, this category will account for a slightly lower overall percentage. While a Beechcraft Hawker 400A jet was based at GIF in 2025, the NBAIP did not include it in the validated listing of aircraft because it is also reported by Auburn University Regional Airport. Regardless, it frequently uses GIF, and it is anticipated that additional jets will be based at GIF over the forecast period. This is reasonable, considering that turbojet technology has developed to the point that it is a feasible replacement for the more traditional piston-powered fleet. The expected based aircraft fleet mix for each milestone throughout the planning horizon is in **Table 2.13.**

TABLE 2.13: FORECAST OF BASED AIRCRAFT FLEET MIX

	Base Year 2025	Forecast		
		2030	2035	2045
Single-Engine	196	213	218	229
Multiengine	19	22	26	34
Jet	0	4	8	16
Rotorcraft	8	10	12	18
Other (gliders, balloons, etc.)	0	0	0	0
Total	**223**	**249**	**264**	**297**

Source: NBAIP December 2025 and ESA analysis, 2026.

As with most airports, the single-engine category predominantly comprises Beechcraft, Cessna, Cirrus, Mooney and Piper models. Multiengine aircraft tend to include the Cessna 300 and 400 series models and Piper aircraft, including the Navajo, Seminole and Seneca series. The types of additional single-engine aircraft are expected to be similar to those already operating at GIF with some additional light sport aircraft, while those in the multiengine category will continue to include a mix of the piston models for training and turboprops for private or business use.

Future based jets are expected to include a range of the light- to medium-sized aircraft flying today (a maximum allowable takeoff weight of up to 60,000 pounds). These include popular models from the Beechcraft Hawker, Bombardier Challenger and Learjet, Cessna Citation, Dassault Falcon and Embraer Phenom and Legacy families. It is worth noting that most of these are included within the FAA's 75% of the fleet category for determining runway lengths for aircraft weighing up to 60,000 pounds. *FAA Advisory Circular (AC) 150/5325-4B: Runway Length Requirements for Airport Design* states that aircraft in this group require less runway than under standard atmospheric conditions. The 5,005 feet of runway at GIF allows these aircraft to be accommodated at other-than-standard atmospheric conditions, such as hotter temperatures. This will be analyzed in more detail as part of the facility requirements chapter. Rotorcraft will include piston- and turbine-powered models, such as the Bell 206B and OH-58 helicopters or Eurocopter models currently based at GIF, as well as other popular models from Robinson in the future.

With respect for the potential of any future AAM aircraft based at GIF, it is assumed they will fall within the FAA aircraft categories. The AAM aircraft under development are powered by batteries and electric motors, using various combinations of rotors and wings. While most of the AAM industry is focused on eVTOL aircraft, which would likely be included under the FAA's rotorcraft category, AAM also includes electric conventional takeoff and landing (eCTOL) aircraft that, depending on configuration, may be categorized as single-engine or multiengine.

2.6. Categories of Aircraft Operations

The following sections present different categories or types of activity that will make up the forecasted operations. This includes a breakout of the local, itinerant and instrument operations, as well as estimating the operational aircraft fleet mix and activity peaks.

Local and Itinerant Operations

The FAA categorizes aircraft operations as local or itinerant. Local operations are typically defined as the landings and takeoffs conducted by aircraft that remain in the airport traffic pattern or are within sight of the airfield. These are most often associated with training activity and flight instruction. Itinerant operations are arrivals or departures other than local operations.

Unfortunately, the Virtower data does not categorize the operations as local or itinerant; however, it does have the ability to identify touch-and-go operations. While this was not available in 2022, the percentage of touch-and-go operations in 2023 was 12.2, which increased to 15.4 in 2024 and 19.7 in 2025. This clearly represents the increasing level of flight training that continues to occur at GIF. Therefore, it is assumed that the 2025 level of local operations will continue to increase as a result of the plans by all three of the flight schools to expand their fleets and training activity. Therefore, it is estimated that the local share will increase to 25% by 2030, 30% by 2035 and 35% at the end of the 20-year planning horizon. The resulting annual operations for these local versus itinerant splits are included in **Table 2.21**. It is worth noting that the previous master plan had the local versus itinerant split closer to 50/50, which has not materialized.

Instrument Operations

A separate estimate of instrument operations is important when evaluating future facility requirements. In its Traffic Flow Management System Counts (TFMSC) database, the FAA documents the number of instrument flight rule (IFR) plans that were filed to and from each NPIAS airport. Using this TFMSC data with the Virtower data, the operations under an instrument flight plan for GIF have averaged 5% over the last four years. 2025 had the lowest level (3.1%) of annual operations conducted under IFR plans. Regardless, the average of 5% was used to estimate the future number of instrument operations in the short-term, increasing to 10% by the end of the 20-year planning period. While higher than the current count, it is believed this is a reasonable expectation, given the anticipated growth in jet operations (see the following section), all of which operate under IFR flight plans, as well as additional flight training. The resulting projection of annual instrument operations are in **Table 2.21**.

It should be noted that the estimate of instrument operations differs from the actual percentage of the year that the airport experiences IFR conditions. Unlike the weather observations, the count and subsequent estimate of instrument operations include those conducted during actual instrument meteorological conditions, as well as those simply under an IFR flight plan.

Operational Fleet Mix

Operational fleet mix is an important factor in determining the needs for airfield improvements. The operational fleet mix percentages were based on the Virtower data. In 2025, the operational fleet mix comprised 89.4% single-engine, 9.9% multiengine, 0.3% jet and 0.4% rotorcraft. The annual operations for each category are in **Table 2.14**.

TABLE 2.14: PROJECTED OPERATIONAL FLEET MIX

	Base Year 2025	Forecast		
		2030	2035	2045
Single-Engine	77,009	83,300	88,700	95,700
Multiengine	8,508	9,200	10,500	13,700
Jet	289	1,200	2,600	6,200
Rotorcraft (includes eVTOLs)	313	1,400	3,200	8,700
Total	**86,119**	**95,100**	**105,000**	**124,300**

Source: Virtower and ESA analysis, 2026.

Information from the 2025 FAA aerospace forecast, tenant interviews and discussions with airport management was used to predict how the operational fleet mix would change over the next 20 years. The FAA anticipates growth and increased use for every aircraft category, except the single-engine piston and multiengine piston types. As described previously, the most significant growth and use is expected to occur in the jet aircraft category. Likewise, the FAA predicts growth in the number and use of rotorcraft. Regardless, as shown in **Table 2.14**, activity by single- and multiengine aircraft at GIF is expected to increase, given the large number of these aircraft at the airport and in Florida overall, as well as the fact that a number of single and multiengine models are used at the airport for flight training.

Jet operations at the airport are also expected to increase throughout the planning period by the light- to medium-sized class aircraft, which includes the Beechcraft Hawker, Bombardier Challenger and Learjet, Cessna Citation, Dassault Falcon and Embraer Phenom and Legacy type of jets. Rotorcraft operations will continue to include piston- and turbine-powered models from Bell, Eurocopter, Robinson and others. Finally, given the general configurations of the AAM aircraft under development, operations by eCTOL AAM aircraft will fall under the single- or multiengine category, while the eVTOL AAM aircraft are expected to be under the rotorcraft category.

Peak Activity Projections

Annual projections provide a good overview of the activity at an airport, but may not reflect certain operational characteristics of the facility. In many cases, facility requirements are not driven by annual demand but by the capacity shortfalls and delays experienced during peak times. Therefore, it is useful to estimate the peak month, the average day in the peak month and the peak hour demand for aircraft operations.

A review of the historical Virtower data from recent years reveals that operations peaked in May or July, with a range of 9.5% to 12.5% of the annual operations. The average (11%) was applied to each of the future planning years. For the average number of days in the peak month, 31 was applied, because the past peaking occurred in months with 31 days. No historical data was available to determine the peak hour operations. Therefore, a typical industry average of 15% of the peak month average day was identified to represent the number of peak hour operations. With the exception of the peak hour, the resulting estimates in **Table 2.15** have been rounded to the nearest 10 for the forecast years.

TABLE 2.15: PEAKS IN AIRCRAFT OPERATIONS

	Total Annual Operations	Peak Month	Average Day of Peak Month	Peak Hour of Average Day
Base Year				
2025	86,119	8,161	272	41
Forecast				
2030	95,100	10,460	340	51
2035	105,000	11,550	370	56
2045	124,300	13,670	440	66

Source: ESA analysis, 2026.

2.7. Critical Aircraft

The airport planning criteria and design standards for various airfield elements are based on the critical aircraft that make regular use of the airport. “Regular use” is defined as 500 annual operations, including itinerant and local operations but excluding touch-and-go operations. These aircraft classify airport facilities based on approach reference codes (APRC), departure reference codes (DPRC), runway design codes (RDC) and taxiway design groups defined in *FAA AC 150/5300-13B, Change 1: Airport Design*.

Runway Reference and Design Codes

Approach and departure codes identify the operational capabilities for each runway with a parallel taxiway, where no special procedures are required for landing or takeoff operations. As such, runways can have more than one APRC or DPRC code for different aircraft groups, and these codes may change as airfield improvements are made. In practice, the APRC defines the largest aircraft group (under a set visibility condition) that can land on a runway while an aircraft in the same group simultaneously operates on the parallel taxiway. The DPRC defines the largest aircraft group that can depart a runway under any conditions and with any size aircraft on the parallel taxiway. While the APRC and DPRC designations identify the operational limitations for each runway, the RDC is used to establish runway standards.

For all three codes, the first component is the aircraft approach category (AAC), which is depicted by a letter and relates to the aircraft’s landing approach speed (operational characteristic). The second component is the airplane design group (ADG), which uses Roman numerals to identify the critical aircraft wingspan or tail height (physical characteristics). For APRC and RDC, a third component relates to the visibility minimums associated with the runway, or group of runways, expressed in the runway visual range (RVR) values. For runways with only existing and future visual approaches, the third component should be visibility (VIS) in lieu of visibility minimums. The ranges for these three components are in **Table 2.16**[8].

Runway 5-23

The 2016 airport master plan and airport layout plan include the Dassault Falcon 900 as the representative critical aircraft for the existing and future conditions of Runway 5-23. Based on the 2025 Virtower data (see **Appendix E**), the most demanding aircraft regularly operating at GIF include the runway design components of B-I. Aircraft like the multiengine prop or turboprop Beechcraft, Cessna and Piper models, as well as Cessna 525 CitationJets and other similar B-I aircraft, conducted 535 operations in 2025. For the master planning effort, the Cessna 525

[8] FAA AC 150/5300-13B, Change 1, Airport Design. https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC-150-5300-13B-Airport-Design-Chg1-w-errata.pdf, access Feb. 27, 2026.

CitationJet is the representative existing critical aircraft for Runway 5/23. This aircraft is one of the largest and heaviest of the B-I aircraft conducting regular operations at the airport. It should be noted that the Cessna 525 CitationJet and other similar aircraft in this group have a maximum takeoff weight (MTOW) of 12,500 pounds or less. Within the FAA design standards, aircraft with this weight category are designated as "small."

With an overall length of 5,005 feet, Runway 5/23 is capable of supporting a large portion of the general aviation fleet, including jet aircraft up to up to 60,000 pounds. The Virtower data shows that 239 operations were conducted in 2025 by aircraft in the B-II category and having MTOWs greater than 12,500 pounds. Additionally, larger jet activity on Runway 5/23 in 2025 included 26 operations by C-I (to include the Beechcraft Hawker 400A jet based at GIF for part of the year) and 47 operations by C-II aircraft. For the future, the Dassault Falcon 900 is the representative critical aircraft expected to regularly use the runway. Not only is it one of the largest aircraft in the B-II category, but it is also representative of the newer business jet aircraft that will continue to increase activity at GIF throughout the 20-year planning period. Additionally, unless the instrument minimums established to Runway 5/23 change (which is addressed in the facility requirements chapter and evaluated in the alternatives chapter), the future RDC for the runway would be B-II/5000.

With respect to the future critical aircraft, it should be noted that Runway 5/23 and its associated parallel taxiways have been designed and constructed to B-II standards. Given the anticipated increase in activity by the larger B-II aircraft in the first half of the planning period, the design and safety standards for Runway 5/23 and its parallel taxiway systems should be maintained to meet the B-II requirements. This will be addressed further as part of the facility requirements chapter.

TABLE 2.16: RUNWAY DESIGN CODE

Aircraft Approach Category (AAC)		
Category	**Approach Speed**	
A	< 91 knots	
B	91 - < 121 knots	
C	121 - < 141 knots	
D	141 - < 166 knots	
E	166 knots or more	
Airplane Design Group (ADG)		
Group	**Wingspan**	**Tail Height**
I	< 49'	<20'
II	49' - < 79'	20'-<30'
III	79' - < 118'	30' - < 45'
IV	118' - < 171'	45' - < 60'
V	171' - < 214'	60' - < 66'
VI	214' – 262'	66' - < 80'
Visibility Minimums		
RVR	**Instrument Flight Visibility Category (statue mile)**	
5,000 ft	Not lower than 1 mile	
4,000 ft	Lower than 1 mile but not lower than 3/4 mile	
2,400 ft	Lower than 1 mile but not lower than 1/2 mile	
1,600 ft	Lower than 1 mile but not lower than 1/4 mile	
1,200 ft	Lower than 1/4 mile	

TABLE 2.17: EXISTING AND FUTURE RUNWAY 5/23 CODES

Runway	Critical Aircraft	APRC	DPRC	RDC
5/23 Existing	B-I Small (Cessna 525 CitationJet)	B/III/4000 D/II/4000	B/III D/II	B-I/5000
5/23 Future	B-II (Dassault Falcon 900)	same	same	B-II/5000

Source: FAA AC 150/5300-13B, Change 1.

Runway 11/29

A crosswind runway is recommended by the FAA when the primary runway orientation cannot provide 95% wind coverage. As documented in the inventory chapter, Runway 5/23 cannot provide the required crosswind coverage for the lowest (10.5 knot) category needed to support aircraft with reference codes of A-I or B-I. However, the coverage is provided when both runways are evaluated together. As such, the Beechcraft King Air B100 (B-I) is the representative existing and future critical aircraft for Runway 11/29. Because the Beechcraft King Air B100 has an MTOW of 11,800 pounds, this designates the runway for small aircraft and, unless the instrument minimums established to either end of the runway change, the RDC for the runway is B-I/5000.

TABLE 2.18: EXISTING AND FUTURE RUNWAY 11/29 CODES

Runway	Critical Aircraft	APRC	DPRC	RDC
11/29 Existing	B-I Small (Beechcraft King Air B100)	B/I(S)/4000	B/I(S)	B-I/5000
11/29 Future	same	same	same	same

Source: FAA AC 150/5300-13B, Change 1.

Taxiway Design Group

Taxiway design standards use a taxiway design group (TDG), which is based on the overall width of the aircraft's main gear as well as the distance between the main gear and the cockpit. The TDG is the primary design factor for taxiway or taxilane width, as well as the required turning radii and edge fillets. The minimum TDGs for the existing and future runway conditions are in **Table 2.19**.

TABLE 2.19: TAXIWAY DESIGN GROUPS

Runway	Existing	Future
5/23	1A	2A
11/29	1A	1A

Source: FAA AC 150/5300-13B, Change 1.

2.8. FAA Aerospace Forecast Comparison

Any new forecast undertaken to support infrastructure planning, justification and development are subject to FAA approval before they can be applied to further master plan analyses. For nontowered airports like GIF, the FAA evaluates if the recommended forecasts for aircraft operations and based aircraft are consistent with annual growth rates in the current FAA aerospace forecast.

Forecasts are typically approved by the FAA if they do not differ from the applied annual growth rates of the current FAA aerospace forecast by more than 10% in the 5-year and 15% in the 10-year planning periods. For annual operations, the recommended forecasts are compared to the growth rates in Table 29: Active General Aviation and Air Taxi Hours Flown of the FAA aerospace forecast, and for based aircraft, the comparison is made to growth rates in Table 28: Active General Aviation and Air Taxi Aircraft. As shown in **Table 2.20**, the five- and 10-year recommended forecasts for aircraft operations and based aircraft are within the FAA's criteria.

TABLE 2.20: COMPARISON OF FORECAST TO 2025 FAA AEROSPACE FORECAST

	Recommended Forecast	2025 FAA Aerospace Forecast Growth Rate	Projection Using FAA Growth Rates	Percentage Difference
Annual Operations (Compared to FAA Table 29)				
Base Year (2025)	86,119		86,119	
Five-Year (2030)	95,100	0.21%	87,000	9.3%
10-Year (2035)	105,000	1.03%	91,600	14.6%
Based Aircraft (Compared to FAA Table 28)				
Base Year (2025)	223		223	
Five-Year (2030)	249	0.35%	227	9.6%
10-Year (2035)	264	0.49%	233	13.5%

Source: *FAA Aerospace Forecast Fiscal Years 2025–2045*, ESA analysis, 2026.

2.9. Forecast Summary

Table 2.21 presents an overview of the recommended forecasts. The methods used to forecast aviation demand for the airport are consistent with those used by the FAA, FDOT, and other airports. These forecasts are considered to reasonably reflect the activity anticipated at GIF through 2045 given the information available during this study.

TABLE 2.21: SUMMARY OF AVIATION ACTIVITY FORECASTS

	Base Year	Forecast		
	2025	2030	2035	2045
Annual Operations	**86,119**	**95,100**	**105,000**	**124,300**
Based Aircraft				
Single-Engine	196	213	218	229
Multiengine	19	22	26	34
Jet	0	4	8	16
Rotorcraft	8	10	12	18
Total	**223**	**249**	**264**	**297**
Categories of Operations				
Local Operations	16,965	23,800	31,500	43,500
Itinerant Operations	69,154	71,300	73,500	80,800
Instrument Operations	2,674	4,800	6,600	12,400
Operational Fleet Mix				
Single-Engine	77,009	83,300	88,700	95,700
Multiengine	8,508	9,200	10,500	13,700
Jet	289	1,200	2,600	6,200
Rotorcraft (Includes eVTOLs)	313	1,400	3,200	8,700
Peaks in Aircraft Operations				
Peak Month	8,161	10,460	11,550	13,670
Average Day of Peak Month	272	340	370	440
Peak Hour of Average Day	41	51	56	66

Source: ESA analysis, 2026.

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APPENDIX D: FAA TERMINAL AREA FORECAST

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APO TERMINAL AREA FORECAST DETAIL REPORT
Forecast Issued February 2026

GIF

	AIRCRAFT OPERATIONS													
	Enplanements			Itinerant Operations					Local Operations					
Fiscal Year	Air Carrier	Commuter	Total	Air Carrier	Air Taxi & Commuter	GA	Military	Total	Civil	Military	Total	Total Ops	Total Tracon Ops	Based Aircraft
REGION:ASO **STATE:**FL **LOCID:**GIF														
CITY:WINTER HAVEN **AIRPORT:**Winter Haven Regional														
1990	0	0	0	0	1,200	37,500	6	38,706	36,000	0	36,000	74,706	0	109
1991	0	0	0	0	1,200	37,500	6	38,706	36,000	0	36,000	74,706	0	114
1992	0	0	0	0	0	38,970	50	39,020	25,980	0	25,980	65,000	0	128
1993	0	0	0	0	0	39,676	50	39,726	26,451	0	26,451	66,177	0	129
1994	0	0	0	0	0	41,325	50	41,375	27,550	0	27,550	68,925	0	133
1995	0	0	0	0	0	42,376	50	42,426	28,250	0	28,250	70,676	0	135
1996	0	0	0	0	0	42,809	50	42,859	28,540	0	28,540	71,399	0	135
1997	0	0	0	0	0	42,247	50	42,297	28,832	0	28,832	71,129	0	135
1998	0	0	0	0	0	49,191	50	49,241	32,794	0	32,794	82,035	0	151
1999	0	0	0	0	0	51,002	50	51,052	34,002	0	34,002	85,054	0	156
2000	0	0	0	0	0	55,818	50	55,868	37,212	0	37,212	93,080	0	168
2001	0	0	0	0	0	57,056	0	57,056	38,038	0	38,038	95,094	0	168
2002	0	0	0	0	0	45,030	0	45,030	30,020	0	30,020	75,050	0	178
2003	0	0	0	0	0	46,362	0	46,362	30,908	0	30,908	77,270	0	182
2004	0	0	0	0	0	47,672	0	47,672	31,781	0	31,781	79,453	0	160
2005	0	0	0	0	0	25,000	0	25,000	35,000	0	35,000	60,000	0	160
2006	0	0	0	0	0	25,000	0	25,000	35,000	0	35,000	60,000	0	160
2007	0	0	0	0	0	25,000	0	25,000	35,000	0	35,000	60,000	0	160
2008	0	0	0	0	0	25,000	0	25,000	35,000	0	35,000	60,000	0	184
2009	0	0	0	0	0	25,000	0	25,000	35,000	0	35,000	60,000	0	169
2010	0	0	0	0	0	25,000	0	25,000	35,000	0	35,000	60,000	0	165
2011	0	0	0	0	0	25,000	0	25,000	35,000	0	35,000	60,000	0	154
2012	0	0	0	0	0	25,000	0	25,000	35,000	0	35,000	60,000	0	158
2013	0	0	0	0	0	25,000	0	25,000	35,000	0	35,000	60,000	0	151
2014	0	0	0	0	0	25,000	0	25,000	35,000	0	35,000	60,000	0	145
2015	0	0	0	0	0	33,000	0	33,000	43,200	0	43,200	76,200	0	133
2016	0	0	0	0	0	33,000	0	33,000	43,200	0	43,200	76,200	0	135
2017	0	0	0	0	0	31,200	0	31,200	46,798	0	46,798	77,998	0	135
2018	0	0	0	0	0	31,200	0	31,200	46,798	0	46,798	77,998	0	114
2019	0	0	0	0	0	31,200	0	31,200	46,798	0	46,798	77,998	0	114

APO TERMINAL AREA FORECAST DETAIL REPORT
Forecast Issued February 2026

GIF

AIRCRAFT OPERATIONS

	Enplanements			Itinerant Operations				Local Operations					
Fiscal Year	Air Carrier	Commuter	Total	Air Carrier	Air Taxi & Commuter	GA	Military	Total	Civil	Military	Total	Total Ops	Total Tracon Ops	Based Aircraft
2020	0	0	0	0	0	31,200	0	31,200	46,798	0	46,798	77,998	0	151
2021	0	0	0	0	0	31,200	0	31,200	46,798	0	46,798	77,998	0	151
2022	0	0	0	0	0	31,910	0	31,910	47,863	0	47,863	79,773	0	151
2023	0	0	0	0	0	31,910	0	31,910	47,863	0	47,863	79,773	0	157
2024	0	0	0	0	0	31,200	0	31,200	46,798	0	46,798	77,998	0	172
2025*	0	0	0	0	0	31,200	0	31,200	46,798	0	46,798	77,998	0	175
2026*	0	0	0	0	0	31,910	0	31,910	47,863	0	47,863	79,773	0	181
2027*	0	0	0	0	0	32,637	0	32,637	48,952	0	48,952	81,589	0	187
2028*	0	0	0	0	0	33,381	0	33,381	50,067	0	50,067	83,448	0	194
2029*	0	0	0	0	0	34,142	0	34,142	51,204	0	51,204	85,346	0	201
2030*	0	0	0	0	0	34,919	0	34,919	52,370	0	52,370	87,289	0	208
2031*	0	0	0	0	0	35,715	0	35,715	53,561	0	53,561	89,276	0	215
2032*	0	0	0	0	0	36,528	0	36,528	54,780	0	54,780	91,308	0	222
2033*	0	0	0	0	0	37,361	0	37,361	56,027	0	56,027	93,388	0	231
2034*	0	0	0	0	0	38,212	0	38,212	57,302	0	57,302	95,514	0	240
2035*	0	0	0	0	0	39,082	0	39,082	58,605	0	58,605	97,687	0	249
2036*	0	0	0	0	0	39,971	0	39,971	59,938	0	59,938	99,909	0	258
2037*	0	0	0	0	0	40,880	0	40,880	61,301	0	61,301	102,181	0	267
2038*	0	0	0	0	0	41,811	0	41,811	62,695	0	62,695	104,506	0	277
2039*	0	0	0	0	0	42,763	0	42,763	64,121	0	64,121	106,884	0	287
2040*	0	0	0	0	0	43,736	0	43,736	65,580	0	65,580	109,316	0	297
2041*	0	0	0	0	0	44,731	0	44,731	67,072	0	67,072	111,803	0	307
2042*	0	0	0	0	0	45,748	0	45,748	68,597	0	68,597	114,345	0	317
2043*	0	0	0	0	0	46,788	0	46,788	70,157	0	70,157	116,945	0	328
2044*	0	0	0	0	0	47,854	0	47,854	71,752	0	71,752	119,606	0	339
2045*	0	0	0	0	0	48,943	0	48,943	73,383	0	73,383	122,326	0	350
2046*	0	0	0	0	0	50,057	0	50,057	75,051	0	75,051	125,108	0	361
2047*	0	0	0	0	0	51,195	0	51,195	76,757	0	76,757	127,952	0	372
2048*	0	0	0	0	0	52,359	0	52,359	78,502	0	78,502	130,861	0	384
2049*	0	0	0	0	0	53,550	0	53,550	80,286	0	80,286	133,836	0	396

APO TERMINAL AREA FORECAST DETAIL REPORT
Forecast Issued February 2026

GIF

AIRCRAFT OPERATIONS

	Enplanements			Itinerant Operations				Local Operations					

Fiscal Year	Air Carrier	Commuter	Total	Air Carrier	Air Taxi & Commuter	GA	Military	Total	Civil	Military	Total	Total Ops	Total Tracon Ops	Based Aircraft
2050*	0	0	0	0	0	54,768	0	54,768	82,112	0	82,112	136,880	0	409
2051*	0	0	0	0	0	56,014	0	56,014	83,980	0	83,980	139,994	0	422
2052*	0	0	0	0	0	57,288	0	57,288	85,890	0	85,890	143,178	0	436
2053*	0	0	0	0	0	58,591	0	58,591	87,844	0	87,844	146,435	0	450
2054*	0	0	0	0	0	59,924	0	59,924	89,842	0	89,842	149,766	0	464
2055*	0	0	0	0	0	61,287	0	61,287	91,886	0	91,886	153,173	0	479

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APPENDIX E: FY 2025 VIRTOWER DATA

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Airport Operations Tracking

VirTower LLC
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Airport Operations
Snapshot Local Time
Start Date 10/01/2024 00:00 LT
End Date 09/30/2025 23:59 LT

Creation 01/14/2026 16:54
User KGIF_OPS
Customer ID KGIF

Summary

Landings		Take-Offs		Totals	
Single Engine	37957	Single Engine	37795	Single Engine	75752
Single Engine Turbine	164	Single Engine Turbine	162	Single Engine Turbine	326
Multi Engine	4214	Multi Engine	4172	Multi Engine	8386
Multi Engine Turbine	67	Multi Engine Turbine	61	Multi Engine Turbine	128
Business Jet	146	Business Jet	139	Business Jet	285
Helicopter	167	Helicopter	145	Helicopter	312
Military	2	Military	1	Military	3
Military Helicopter	2	Military Helicopter	1	Military Helicopter	3
Light Sport Aircraft	459	Light Sport Aircraft	449	Light Sport Aircraft	908
Glider	4	Glider	4	Glider	8
Other	4	Other	4	Other	8
TOTAL	**43186**	**TOTAL**	**42933**	**TOTAL**	**86119**

FAA AAC/ADG Summary

Landings		Take-Offs		Totals	
A1	42210	A1	42017	A1	84227
A2	146	A2	143	A2	289
B1	270	B1	265	B1	535
B2	123	B2	116	B2	239
C1	13	C1	13	C1	26
C2	24	C2	23	C2	47
D1	1	D1	1	D1	2
HEL	148	HEL	122	HEL	270
UKN	251	UKN	233	UKN	484
TOTAL	**43186**	**TOTAL**	**42933**	**TOTAL**	**86119**

Operations by Aircraft Type

Single Engine		Single Engine Turbine		Multi Engine		Multi Engine Turbine		Business Jet		Jet 2		Jet NB		Jet 4		Jet WB		Helicopter	
15AC	2	AT8T	4	AERO 601	2	AC90	4	B100	2									A109	3
200C	1	C208	86	AEST	23	B200	2	BE40	2									AR-1	2
2T1A	27	E1000	2	Aircam	175	B300	2	C25A	4									AS50	1
7EC	6	EPIC	6	Air-Cam	2	B350	8	C25B	4									B06	14
7ECA	2	K100	2	AIRCAM	6	B360	2	C25C	2									B407	10

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Single Engine		Single Engine Turbine		Multi Engine		Multi Engine Turbine		Business Jet		Jet 2		Jet NB		Jet 4		Jet WB		Helicopter	
7KCAB	1	KODI	30	AS601	6	BE20	18	C500	2									EC35	82
8K	20	M600	2	B50	2	BE30	42	C501	2									EC45	1
8KCAB	35	P46T	18	B55	2	BE9L	14	C510	4									EL10	42
A1B	6	PA46	2	B58	27	C425	2	C525	67									EN28	3
A1C	7	PC12	93	B60	58	C441	16	C550	12									EN48	2
A-1C-200	7	PC6T	2	BE18	8	MU2	8	C55B	4									GYRO	45
A240	4	T34P	9	BE55	137	P180	2	C560	12									MM24	1
A-2A	8	TBM7	48	BE58	37	SC7	2	C56X	26									R22	31
A5	14	TBM9	20	BE76	12	U21	6	C650	4									R44	50
A75N1	21	TMB7	2	BE95	100			C680	25									R66	24
AA1	86			BE9T	2			C68A	2									ROTO	1
AA1B	2			C310	51			C700	6										
AA5	96			C310Q	4			C750	2										
AA5A	28			C32O	49			CL30	10										
AA5B	11			C337	70			E35L	2										
AC11	1			C340	57			E50P	2										
ACFT HIGHLANDER	1			C401	2			E550	4										
AG5B	8			C414	22			E55P	14										
AIRCAM	15			C421	35			EA50	4										
AL3	44			C441	6			EA500	2										
B19	173			DA42	4			F2TH	2										
B23	57			DA62	8			FA20	2										
B24	26			G73T	8			FA50	2										
B33	14			P180	2			G280	4										
B34	5			P2006	104			H25B	13										
B36	10			P68	14			HDJT	2										
B45	3			PA23	86			LJ36	2										
B 600	16			PA30	150			LJ45	2										
B75	17			PA31	26			LJ55	4										
Baronanza Kit	2			PA34	42			LJ60	16										
BE19	10			PA39	5			PRM1	4										
BE23	2			PA44	7042			SF50	10										
BE24	2							Others	2										
BE33	42																		
BE35	181																		
BE36	201																		
BE77	62																		
BEAR	2																		
BL17	87																		
BL8	2																		

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Single Engine		Single Engine Turbine		Multi Engine		Multi Engine Turbine		Business Jet		Jet 2		Jet NB		Jet 4		Jet WB		Helicopter	
BRAV	2																		
BRISTELL LSA	20																		
BS5	2																		
C140	8																		
C150	1662																		
C152	1753																		
C162	220																		
C170	13																		
C172	12763																		
C172	4																		
C175	8																		
C177	503																		
C180	18																		
C182	872																		
C185	82																		
C188	11																		
C190	2																		
C195	7																		
C206	96																		
C210	138																		
C240	2																		
C77R	2																		
CAMP	2																		
CCX-2300	2																		
CH2000	17																		
CH75	2																		
CH7A	10																		
CH7B	13																		
CH8B	2																		
CJ6	32																		
COL3	18																		
COL4	204																		
COZY	6																		
CTSW	16																		
Cub	23																		
CX4	2																		
DA20	152																		
DA40	199																		
DA50	2																		
DHC2	12																		
DR 109	2																		

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BRAV	2																		
BRISTELL LSA	20																		
BS5	2																		
C140	8																		
C150	1662																		
C152	1753																		
C162	220																		
C170	13																		
C172	12763																		
C172	4																		
C175	8																		
C177	503																		
C180	18																		
C182	872																		
C185	82																		
C188	11																		
C190	2																		
C195	7																		
C206	96																		
C210	138																		
C240	2																		
C77R	2																		
CAMP	2																		
CCX-2300	2																		
CH2000	17																		
CH75	2																		
CH7A	10																		
CH7B	13																		
CH8B	2																		
CJ6	32																		
COL3	18																		
COL4	204																		
COZY	6																		
CTSW	16																		
Cub	23																		
CX4	2																		
DA20	152																		
DA40	199																		
DA50	2																		
DHC2	12																		
DR 109	2																		

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Single Engine		Single Engine Turbine		Multi Engine		Multi Engine Turbine		Business Jet		Jet 2		Jet NB		Jet 4		Jet WB		Helicopter	
LancairES	2																		
LASER Z2300	4																		
LE61	10																		
LEG2	2																		
LEGACY	6																		
LGEZ	5																		
LibertyXL2	4																		
LNGD	6																		
Luscombe 8A	2																		
M20	353																		
M20E	2																		
M600	2																		
M7	22																		
MOR2	2																		
MustangII	22																		
NAVI	17																		
NG5	2																		
O1	6																		
OpenEZE	2																		
P2004	85																		
P2008	76																		
P2010	4																		
P28A	105																		
P28B	2																		
P28R	6																		
P28U	2																		
P51	8																		
P92	40																		
PA12	13																		
PA16	4																		
PA18	298																		
PA20	3																		
PA22	89																		
PA24	76																		
PA25	2																		
PA28	49191																		
PA32	696																		
PA38	84																		
PA46	31																		
PARADISE P	4																		
PA-SPORT	10																		

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Single Engine		Single Engine Turbine		Multi Engine		Multi Engine Turbine		Business Jet		Jet 2		Jet NB		Jet 4		Jet WB		Helicopter	
PIAT	14																		
PMentor	2																		
PTS2	2																		
R112	1																		
R114	116																		
Rans S7	4																		
Recon	2																		
ROTORCRAFT	1																		
RS21	2																		
RV10	125																		
RV12	415																		
RV14	47																		
RV3	4																		
RV4	6																		
RV6	279																		
RV7	134																		
RV8	188																		
RV9	101																		
S108	25																		
S20	3																		
S21	6																		
S-21 OUTBOUND	2																		
S22T	22																		
S2R	3																		
Searey	375																		
SEA REY	2																		
SEARLEY	12																		
SONX	2																		
Sportcruiser	232																		
Sportsman	2																		
Sportstar	70																		
SR20	284																		
SR22	616																		
Stinson10	2																		
Stinson108	30																		
STOCK-CUB	2																		
SUPERCUB	2																		
SuperPetrelXP	4																		
SVNH	4																		
SW51	4																		

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Single Engine		Single Engine Turbine		Multi Engine		Multi Engine Turbine		Business Jet		Jet 2		Jet NB		Jet 4		Jet WB		Helicopter	
SX 300	2																		
T28	2																		
T6	79																		
T6G	1																		
TB-20	2																		
TB30	1																		
TB9	6																		
ULTRAVIA PELICAN	37																		
UPF7	4																		
V1	8																		
V1.0	2																		
V2150	31																		
VALI	2																		
Varieze	2																		
VELO	2																		
Velocity	20																		
Velocity173	77																		
VIA	111																		
VIRUS SW	4																		
VL3	4																		
VL-3TE	2																		
VO10	4																		
VTUR	2																		
WACF	2																		
WACO	6																		
XL RG5	2																		
Zodiac601	2																		
Others	115																		

Military		Military Helicopter		Light Sport Aircraft		Glider		UAV		Blimp		Balloon		GND Emergency		GND Vehicle A		Other	
B350	2	H60	3	A22	2	MD312	3											Others	8
Others	1			A32	5	Sinus912	2												
				A5	6	VENTURE	2												
				Aircam	205	VSO-10	1												
				AL3	207														
				Aventura	2														
				Bristell	9														
				BRISTELL	2														

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Military	Military Helicopter	Light Sport Aircraft		Glider	UAV	Blimp	Balloon	GND Emergency	GND Vehicle A	Other
		CH601	2							
		CH750	10							
		CTLS	37							
		CTSW	11							
		IconA5	4							
		Kitfox	6							
		PIAT	62							
		PiperSport	5							
		QUIKR	99							
		R7	47							
		RemosGX	13							
		REVOLT	2							
		Searey	31							
		SLH4	4							
		Sling	10							
		SOLO	5							
		SONX	53							
		Sportcruiser	47							
		Stingsport	4							
		Virus	18							

Activity Summary

ALPHA N RWY 29	47
B1	3158
B2	1145
B3	11662
B4	1774
B5	7863
BRAVO N RWY 29	13330
BRAVO S RWY 29	15053
CHARLIE E RWY 05	7495
CHARLIE RWY 29	3679
CHARLIE W RWY 05	6271
E1	2427
ECHO	3054
F1	4339
F2	1064
F3	10939
F4	1443
F5	8410

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FBO RAMP	**23185**
FOXTROT N RWY 11	**11972**
FOXTROT S RWY 11	**10804**
LANDING RWY 05	**22364**
LANDING RWY 11	**8044**
LANDING RWY 23	**8829**
LANDING RWY 29	**3949**
SELF FUEL	**6403**
TAKEOFF RWY 05	**22260**
TAKEOFF RWY 11	**7593**
TAKEOFF RWY 23	**9057**
TAKEOFF RWY 29	**4023**
T&G RWY 05	**4268**
T&G RWY 11	**1805**
T&G RWY 23	**1645**
T&G RWY 29	**749**
T-HANGARS	**3952**

This report was generated using sensors monitoring aircraft operations at the selected airport and may not contain aircraft that do not have ADS-B. Airports that have multiple sensors deployed will also feature aircraft fitted with transponders only. The information presented is correct to the best of our knowledge from available sensors at the time: Les Goldsmith, President VirTower LLC

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