Delaware Statewide Airport

COUNTING PROGRAM UPDATE

2024 Technical Report

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Introduction

SECTION 1: INTRODUCTION

Since its inception in 2008, the Delaware Aircraft Operations Counting Program has provided valuable data to airports for planning purposes. DelDOT utilizes this data for system planning, FAA Form 5010 Airport Master Record updates, economic impact studies, annual reports, and funding considerations. The following airports were surveyed in 2024:

- Chorman
- Delaware Airpark (NPIAS)
- Delaware Coastal (NPIAS)

The sampling plan for Delaware airports involved the placement of a Rion Sound Level Meter NL-42 sound meter acoustical counter (SMAC) at each airport. The SMACs record noise events at each airport which are then processed with software provided by the manufacturer. The software uses the maximum decibel level of the event to determine if it was an aircraft operation. The operations are then manually checked for errors and extrapolated into seasonal and annual operations.

Other airports eligible for surveys were not included because of equipment issues related to the noise counters themselves. These airports included:

- Chandelle
- Jenkins
- Laurel
- Smyrna
- Summit

Figure 1: Sound Meter Acoustical Counter

This year, an agreement was reached with Summit Airport to allow the State to collect operational data using noise counters. In the past, Summit Airport was sampled by the Delaware Valley Regional Planning Commission (DVRPC). However, since 2020, no samples have been taken from the airport. Thus, permission was requested and granted for the airport to be included in this program.

As of February 2025, the six noise counters have been readied for use in surveying aircraft operations at all eligible Delaware airports. In the meantime, an additional method was used to estimate operations at non-surveyed airports.

1.1. Non-Survey Estimation Method

With a lack of survey data, the 2024 estimates of quarterly and annual aircraft operations were developed. Table 1 shows the comparison of 2023 and 2024 operations at towered airports in and near Delaware. Included in the comparison are Wilmington/New Castle Airport, Easton/Newnam Field Airport, and Salisbury/Ocean City Wicomico Regional Airport.

Table 1: Towered Airport Operational Comparisons: 2023-2024

	Q1	Q2	Q3	Q4	Annual
Easton					
2023	12,356	18,299	20,200	14,934	65,789
2024	11,724	16,719	15,148	10,729	54,320
Wilmington/New Castle					
2023	10,902	13,344	13,590	11,327	49,163
2024	11,040	12,282	12,501	10,993	46,816
Salisbury					
2023	14,144	13,615	12,836	15,272	55,867
2024	13,879	18,313	23,181	25,413	80,786
Grand Totals					
2023	37,402	45,258	46,626	41,533	170,819
2024	36,643	47,314	50,830	47,135	181,922
% Change	**98.0%**	**104.5%**	**109.0%**	**113.5%**	**106.5%**

Quarterly percentage changes were applied to 2023 data to estimate 2024 activity for airports lacking survey data.

Of course, there are potential issues with this methodology including:

- Lack of comparability between towered and non-towered airport activity patterns.
- Differing weather minimums between towered and non-towered airports.

- A significant number of Temporary Flight Restrictions at Wilmington/New Castle Airport due to Presidential access, which may have reduced the number of aircraft operations that would have occurred.
- Perhaps other differences in based aircraft characteristics.

Despite these limitations, the operational totals represent the best available data and serve as a basis for comparison of aircraft activity at Delaware airports. The fact that averages were used instead of just looking at one airport helps damper the potential bias.

1.2. NPIAS Airports

The National Plan of Integrated Airport Systems (NPIAS) includes the following airports in Delaware:

- Wilmington/New Castle Airport (ILG): This facility remains the sole airport in Delaware equipped with an Air Traffic Control Tower. The tower operates daily from 6:30 am to 11:00 pm, leaving nighttime operations unrecorded during unmanned hours. As of the latest reports, there has been no sampling of these night operations. In February 2023, Avelo Airlines commenced passenger services at New Castle Airport and since then has expanded its operations in 2024.
- Summit Airport (EVY): The Delaware Valley Regional Planning Commission (DVRPC) previously conducted operational counts at Summit Airport every three to four years, with the most recent survey completed in 2020. DelDOT recently contacted Summit Aviation management and successfully gained access to the airport for the DelDOT Aeronautics noise counter program. The program will begin sampling operational counts in March 2025.
- Delaware Airpark (33N): Serving as the base for Delaware State University's (DSU) flight training program, Delaware Airpark has expanded its aircraft fleet. In collaboration with the U.S. Army Cadet Command, DSU introduced helicopter flight training for ROTC students and undergraduate aviation majors in the fall of 2023. Additionally, DSU hosts an eight-week Junior Reserve Officers' Training Corps (JROTC) Summer Flight Academy each summer. The airport's 4,200-foot instrument runway offers an effective training environment. Although state-owned, the Delaware River and Bay Authority (DRBA) holds a long-term lease, overseeing management and funding improvements.
- Delaware Coastal Airport (GED): Located in Georgetown, this county-owned and operated airport supports general aviation, corporate aviation, military operations, and State Police activities. A significant Maintenance, Repair, and Overhaul (MRO) facility, ALOFT AeroArchitects, operates on-site, specializing in aircraft modifications, painting, and interior

completions. The airport features a non-intersecting crosswind runway, necessitating the placement of two counters—one on each runway—to ensure comprehensive operation counts.

1.3. Other Public-Use Airports

DelDOT conducts regular sampling of operations at privately owned, public-use airports in the State, utilizing its own resources for data collection. In 2024, only Chorman Airport was sampled, due to equipment issues. However, estimates of activity were made using other means of sampling for the remaining airports:

- Chandelle Airport: Situated near Dover, north of Dover Air Force Base, Chandelle Airport caters to private general aviation and an agricultural spray operator. Under new management since 2022, the airport has experienced a notable increase in operational activity.
- Chorman Airport: Located at the Kent and Sussex County border in a rural setting, Chorman Airport serves as a primary base for agricultural spray operations, aircraft maintenance, and storage. In recent years, the airport has significantly expanded its based aircraft population via new hangar construction.
- Jenkins Airport: In recent years, Jenkins Airport has seen a decline in activity, partly due to the closure of its primary runway. The crosswind runway remains operational.
- Laurel Airport: Leased by the owners of Chorman Airport, Laurel Airport serves as a southern base for agricultural spray operations. The facility offers refueling and chemical storage, reducing flight times for spraying activities. The airport experiences peak activity during the non-winter spraying seasons.
- Smyrna Airport: Located just east of Smyrna near Route 1, Smyrna Airport has historically functioned as a training strip, glider base, and hub for private aviation.

1.4. Airport Operations Counting Program Challenges

In past years, there have been a number of challenges in collecting the data for each airport including:

- Battery Life: In 2021, issues related largely to battery life were successfully addressed through the use of solar power. In 2023 and 2024, there were failures in the solar power units and an inability to keep the noise counters operational for two continuous weeks. During 2024, numerous options were tried to solve this problem in house. Rather than wait for a comprehensive solution, it was decided to sample airports using the noise counters and

replacing batteries weekly with charged ones from DelDOT offices. Early in 2025, a solution was found that was implemented February 14th. Going forward, a full complement of noise counters and power supplies (using solar panels) will be deployed throughout the Delaware aviation system.

Figure 2: Solar Powered Counter Unit

- Water-Related Challenges: The counters are housed in cases designed to protect the sensitive equipment from the elements. However, in environments with high humidity or precipitation, water can seep into these cases, leading to internal condensation. This moisture can interfere with the electronic components, leading to short circuits, corrosion, or other forms of damage. When water gets into the circuitry, it can cause the noise counter to malfunction, resulting in the loss of recorded data. This occurred during flooding in 2023 and 2024. As a result, six new noise counters were purchased in 2024.
- Labor Intensive Process: Software in the counters records the maximum decibel level for every minute the counters are deployed. Depending on location, the noise threshold may be different. Thus, the review of these records is very labor intensive.
- Software Limitations: The software included with the equipment provides the user with the date and time of the event (i.e., takeoff) recorded and its Lmax (maximum sound pressure level). No individual aircraft characteristics are provided, which makes it difficult to determine whether or not false positives have been recorded.
- Helicopter Operations: Helicopter flight data is not counted by the acoustic counters. Thus, the operational count is not complete, particularly at airports such as Delaware Airpark, which offers helicopter flight training, and Summit and Delaware Coastal Airport, which both have based helicopters.

1.5. Scheduled Visits to Airports

Some of the challenges listed above have been addressed in 2024 and will continue to be resolved through 2025. DelDOT is enhancing data collection methods by implementing a structured schedule developed by DSU interns, ensuring a systematic and comprehensive survey of all airports within the study scope.

The objective of the schedule is to conduct weekly trips to retrieve two weeklong data segments from high-priority airports, including Chorman, Summit, Delaware Airpark, and Coastal. Additionally, spare counters will be rotated to collect two weeklong data segments from Smyrna, Laurel, Jenkins, and Chandelle on a rotating basis. The airports are grouped based on their northern and southern locations relative to the base in Dover.

Target Airports

- Northern Airports: Smyrna, Jenkins, Chandelle, Summit, and Delaware Airpark.
- Southern Airports: Chorman, Laurel, and Delaware Coastal.

Weekly Collection and Rotation Schedule

Week 1 (Estimated Time: 2 hours; Travel Time: 1 hour 30 minutes)

- Chandelle – 13 minutes (Place spare counter)
- Summit – 40 minutes
- Delaware Airpark – 30 minutes
- Return – 15 minutes

Week 2 (Estimated Time: 2 hours 30 minutes; Travel Time: 1 hour 53 minutes)

- Jenkins – 10 minutes (Pick up counter)
- Chorman – 28 minutes
- Delaware Coastal – 29 minutes
- Return – 44 minutes

Week 3 (Estimated Time: 2 hours; Travel Time: 1 hour 33 minutes)

- Chandelle – 12 minutes (Pick up counter)
- Smyrna – 16 minutes (Place counter)
- Summit – 27 minutes
- Delaware Airpark – 31 minutes

- Return – 15 minutes

Week 4 (Estimated Time: 2 hours 45 minutes; Travel Time: 2 hours 20 minutes)

- Jenkins – 10 minutes (Pick up counter)
- Chorman – 28 minutes
- Laurel – 35 minutes (Place counter)
- Delaware Coastal – 29 minutes
- Return – 44 minutes

This structured schedule ensures consistent data collection while efficiently rotating spare counters across the designated airports.

SECTION 2

Individual Airports

SECTION 2: INDIVIDUAL AIRPORTS

The observed sample data includes only takeoff events. Estimated average daily operations, estimated seasonal operations, and estimated annual operations are calculated from the observed takeoffs. The following tables show these metrics:

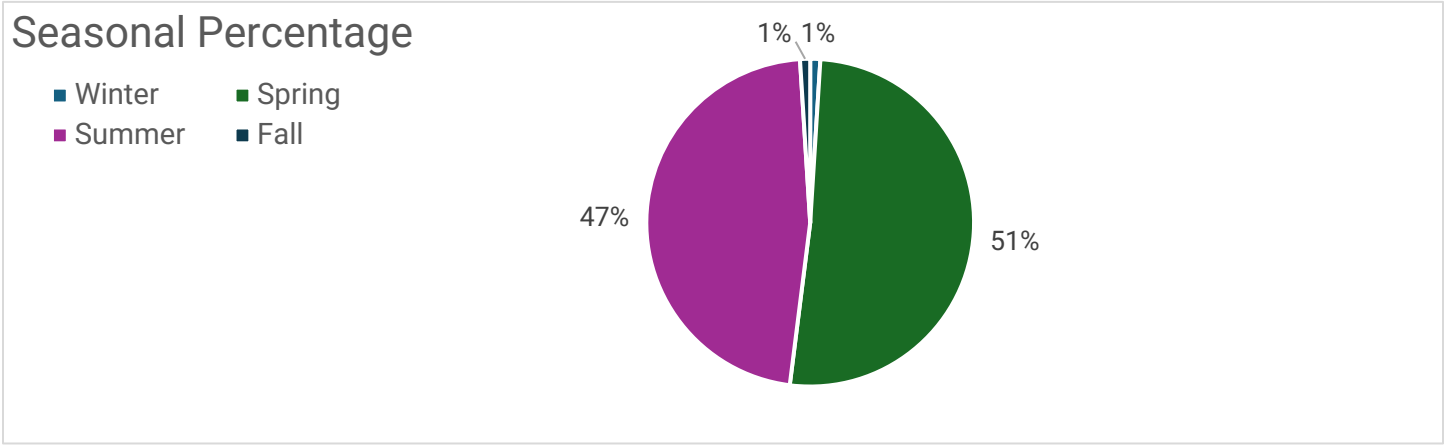
- Estimated Average Daily Operations: (Average Daily Takeoffs) x 2
- Estimated Seasonal Operations: (Estimated Average Daily Operations) x (Days in Season)
- Estimated Annual Operations = Winter + Spring + Summer + Fall Operations

On the following pages are sampling results of the acoustic counters for each sampled airport, along with seasonally adjusted estimates for non-sampled airports. As mentioned, airport operations recorded for 2023 and 2024 at three nearby towered airports were used to estimate growth or decline at Delaware airports. Operations from the Civil Air Terminal were provided by Delaware River and Bay Authority and were actual counts. New Castle Airport operations counts were taken from FAA control tower records. Summit Airport operations counts were taken from the 2023-2024 towered airport growths rate applied to the 2023 estimates in the previous counting program update.

2.1. Chandelle Airport

Table 2: Chandelle Airport (0N4) Seasonally Adjusted Summary- 2024

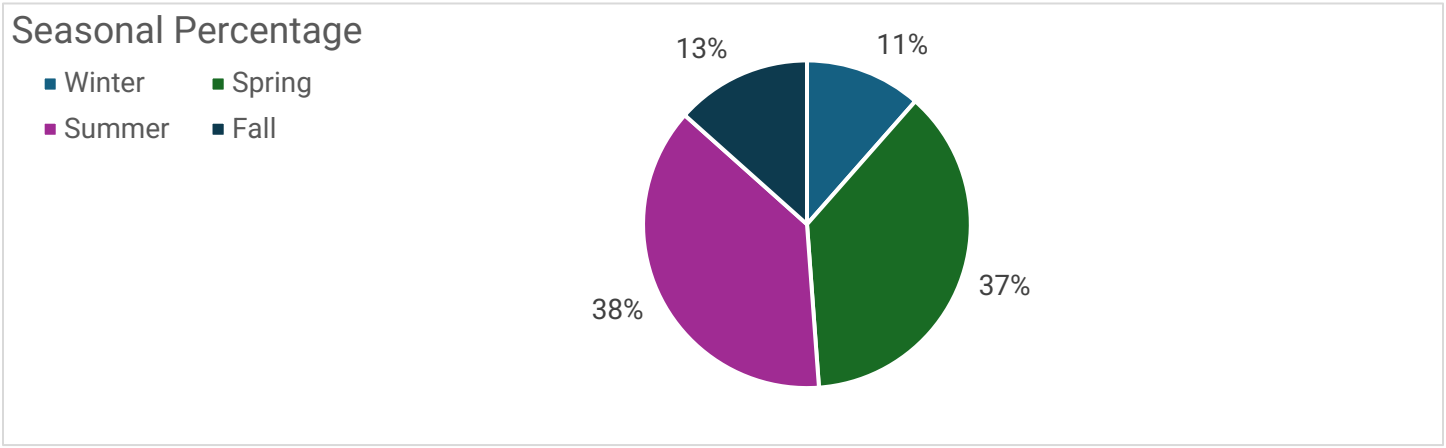
Season	Year	Average Daily Operations	Total Seasonal Operations	Percentage of Annual Operations
Winter	2024	0.4	36	1%
Spring	2024	24.0	2,184	51%
Summer	2024	22.0	2,024	47%
Fall	2024	0.5	46	1%
Annual Operations: 4,290				



2.2. Chorman Airport

Table 3: Chorman Airport (D74) Seasonally Adjusted Summary- 2024

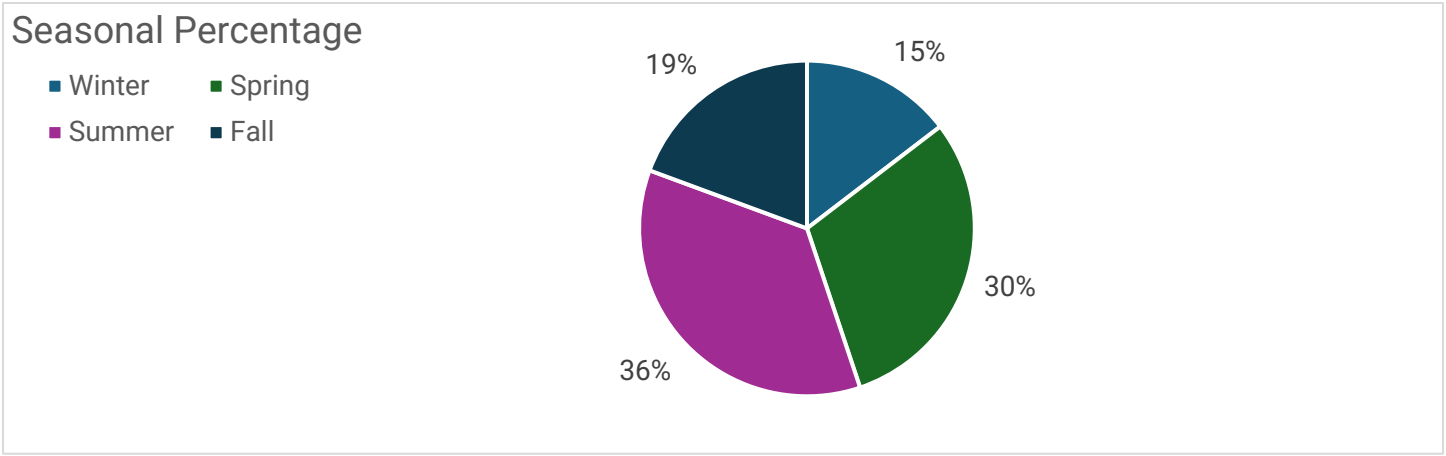
Season	Year	Average Daily Operations	Total Seasonal Operations	Percentage of Annual Operations
Winter	2024	12	1,092	12%
Spring	2024	39	3,549	37%
Summer	2024	39	3,588	38%
Fall	2024	14	1,274	13%
Annual Operations: 9,503				



2.3. Delaware Airpark

Table 4: Delaware Airpark (33N) Seasonally Adjusted Summary- 2024

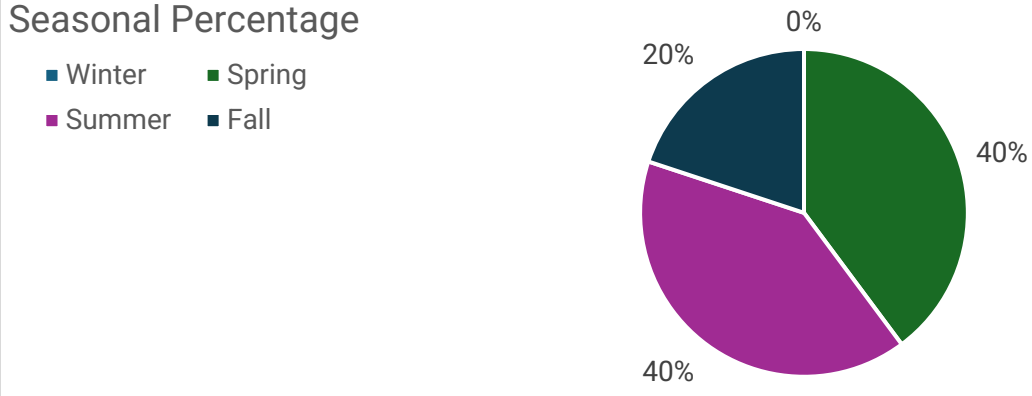
Season	Year	Average Daily Operations	Total Seasonal Operations	Percentage of Annual Operations
Winter	2024	43	3,913	15%
Spring	2024	89	8,099	30%
Summer	2024	104	9,568	36%
Fall	2024	57	5,187	19%
Annual Operations: 26,767				



2.4. Jenkins Airport

Table 5: Jenkins Airport (15N) Seasonally Adjusted Summary- 2024

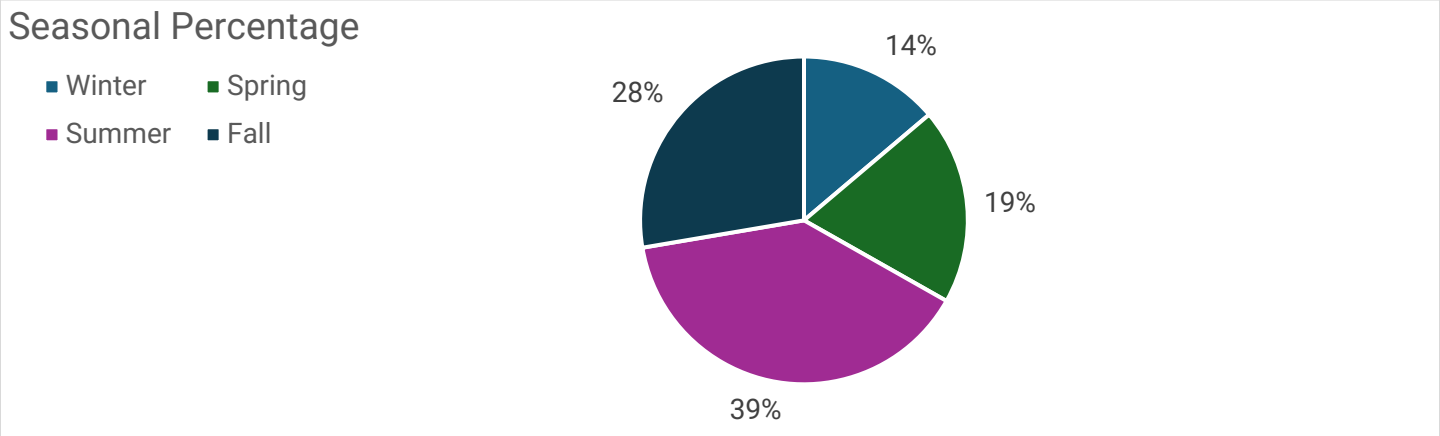
Season	Year	Average Daily Operations	Total Seasonal Operations	Percentage of Annual Operations
Winter	2024	0	0	0.0%
Spring	2024	0.2	18	40%
Summer	2024	0.2	18	40%
Fall	2024	0.1	9	20%
Annual Operations: 45				



2.5. Smyrna Airport

Table 6: Smyrna Airport (38N) Seasonally Adjusted Summary- 2024

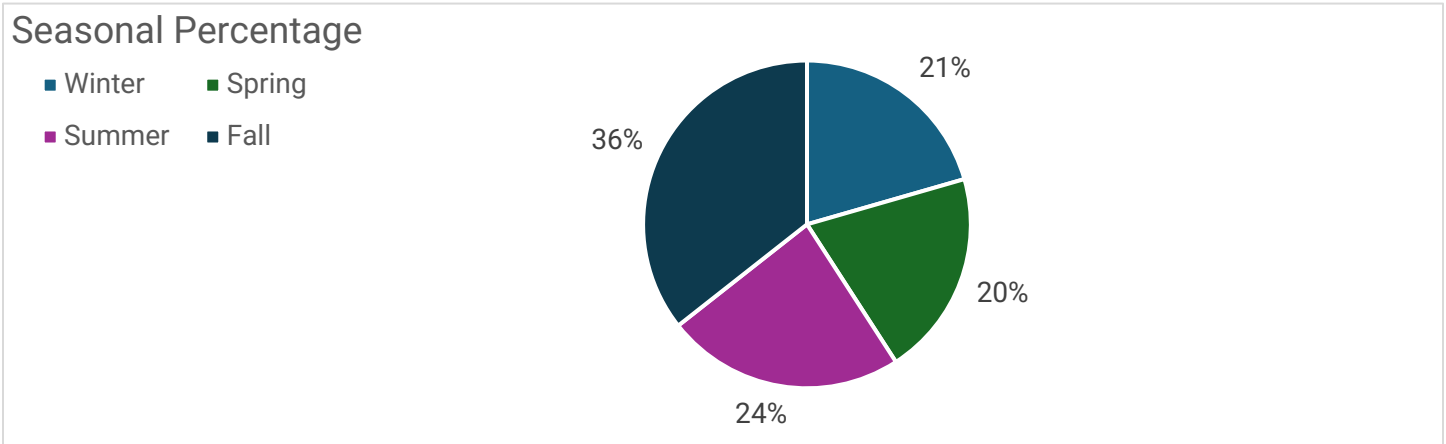
Season	Year	Average Daily Operations	Total Seasonal Operations	Percentage of Annual Operations
Winter	2024	5	455	14%
Spring	2024	7	637	19%
Summer	2024	14	1,288	39%
Fall	2024	10	910	28%
Annual Operations: 3,290				



2.6. Delaware Coastal Airport

Table 7: Delaware Coastal Airport (GED) Seasonally Adjusted Summary- 2024

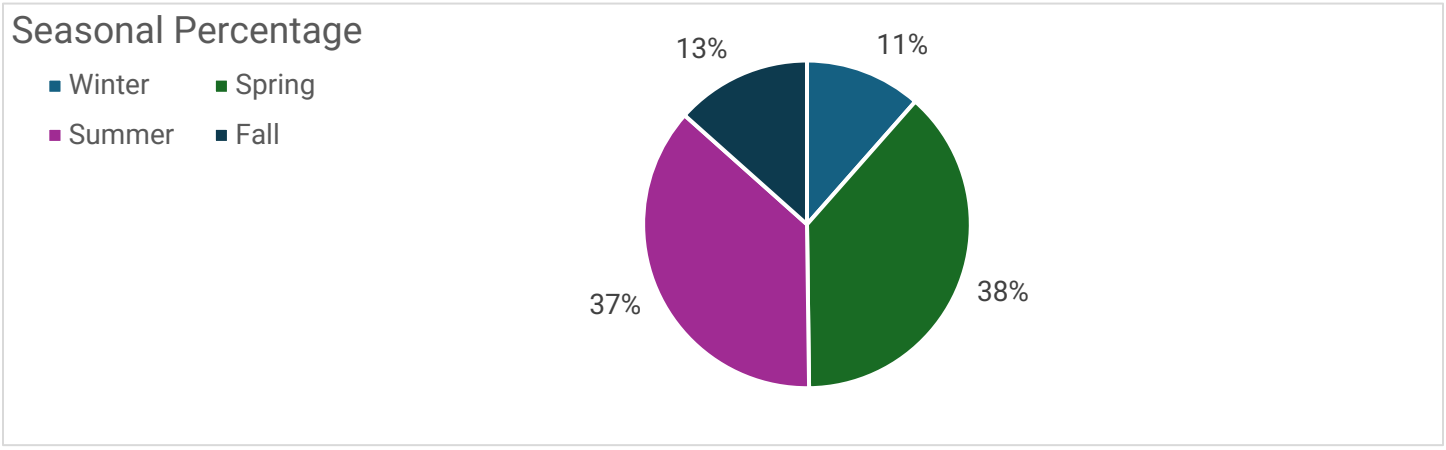
Season	Year	Average Daily Operations	Total Seasonal Operations	Percentage of Annual Operations
Winter	2024	90	8,190	20%
Spring	2024	89	8,099	20%
Summer	2024	102	9,384	24%
Fall	2024	156	14,196	36%
Annual Operations: 39,869				



2.7. Laurel Airport

Table 8: Laurel Airport (N06) Seasonally Adjusted Summary- 2024

Season	Year	Average Daily Operations	Total Seasonal Operations	Percentage of Annual Operations
Winter	2024	6	546	12%
Spring	2024	20	1,820	38%
Summer	2024	19	1,748	37%
Fall	2024	7	637	13%
Annual Operations: 4,751				



SECTION 3

Summary Results

SECTION 3: SUMMARY RESULTS

Table 2 presents a summary of the 2024 operation counts and compares them to 2023 levels. Overall, there was a Statewide increase of 1.78 percent in aircraft operations (2,847 additional operations). This number would have been higher except for a drop in aircraft operations at Wilmington/New Castle Airport and Chorman Airport from 2023 levels.

Table 9: Summary of Aircraft Operations Counts: 2023-2024

Airport	2023	2024	Change	% Change
Chandelle Airport	3,986	4,290	304	8%
Chorman Airport	10,787	9,503	-1,284	-12%
Civil Air Terminal, Dover AFB	172	226	54	31%
Delaware Airpark	26,272	26,767	495	2%
Delaware Coastal Airport	36,188	39,869	3,681	10%
Jenkins Airport	236	46	-190	-81%
Laurel Airport	4,408	4,751	343	8%
New Castle Airport	49,163	46,816	-2,347	-5%
Smyrna Airport	3,111	3,290	179	6%
Summit Airport	25,842	27,454	1,612	6%
Total	**160,165**	**163,012**	**2,847**	**1.78%**

Operations Counting Program

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