



MAY 2023

VAY-SOUTH JERSEY REGIONAL AIRPORT

2020 AIRCRAFT OPERATIONS COUNTING PROGRAM

3-42-0125-020-2019



The Delaware Valley Regional Planning Commission (**DVRPC**) is the federally designated Metropolitan Planning Organization for a diverse nine-county region in two states: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington,Camden, Gloucester, and Mercer in New Jersey. The DVRPC Regional Aviation System Plan Region includes three additional counties: Salem in New Jersey, New Castle in Delaware, and Cecil in Maryland.

DVRPC's vision for the Greater Philadelphia region is a prosperous, innovative, equitable, resilient, and sustainable region that increases mobility choices by investing in a safe and modern transportation system; that protects and preserves our natural resources while creating healthy communities; and that fosters greater opportunities for all.

DVRPC's mission is to achieve this vision by convening the widest array of partners to inform and facilitate data-driven decision making. We are engaged across the region and strive to be leaders and innovators, exploring new ideas and creating best practices.

Aircraft Operations Counting Program

The Delaware Valley Regional Planning Commission (DVRPC) has conducted aircraft operations counts at the non-towered airports in the 12-county, four-state Delaware Valley Regional Airport System Plan area (RASP) since 1986. Aircraft operations counts and annual estimates of activity are essential for planning and programming of airport improvements. Reliable operations data at airport facilities provides a basis for service provision and future activity forecasting. While towered airports generally have access to this information through air traffic controllers, the general aviation and reliever airports, that make up the majority of facilities in the region, rely primarily on estimates for their traffic data.

DVRPC's cyclical aircraft operations counting program focuses on the counting of non-towered National Plan of Integrated Airport Systems (NPIAS) airports and is made possible by funding through the Federal Aviation Administration (FAA). The regional NPIAS airports are counted in a three-year program. The resulting aviation operations data created from these annual counting cycles provides facility level details on based aircraft; estimated average daily, seasonal, and annual fixed-wing operations; and helicopter activity estimates.

The complete program methodology is documented in *Aircraft Operations Counting Program Methodology (TM19018)* and additional aviation data resources are available at www.dvrpc.org/aviation.

Acknowledgments:

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VAY—South Jersey Regional Airport

Lumberton, Burlington County, New Jersey

Runway Orientation:08/26Runway Length:3,881 ft.

South Jersey Regional Airport is a publicly-owned, publicuse airport located in Lumberton, New Jersey. The airport is owned by the New Jersey Department of Transportation and South Jersey Regional Airport LLC serves as the fixed-base operator. South Jersey Regional Airport hosts a terminal building with lounge and services including transient hangar space, fueling, aircraft maintenance, and flight school. The airport serves a variety of general aviation needs and hosts a PennSTAR medevac flight crew. The services and amenities at South Jersey Regional Airport are provided by businesses including Beyond Aviation, Runway Cafe, BP Air, and the Air Victory Museum.

Operations during the 2020 cycle were significantly impacted by the COVID-19 pandemic.



Source: Nearmap, 2022

2020 Aircraft Operations

FIGURE 1: HISTORIC AIRCRAFT OPERATIONS

South Jersey Regional Airport had an estimated 22,717 total operations during the 2020 cycle, a 12.8 percent decrease from the previous cycle in 2017 as shown in Figure 1. Fixed-wing operations decreased by 3,126 or 7.0 percent. Helicopter operations decreased by 200 or 5.5 percent.

22,717 2020 total operations

19,317 fixed-wing operations

3,400 helicopter operations

The operations estimates for the 2020 cycle continues a relatively stable amount of operations.

Source: DVRPC, 2023



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Seasonal Operations

Figure 2 illustrates the total seasonal operations estimated for each period during the 2020 count cycle at South Jersey Regional Airport. Tables 1 and 2 show the breakdown for fixed-wing and helicopter operations by season with average daily operation estimates.

FIGURE 2: TOTAL ESTIMATED SEASONAL OPERATIONS

4,677 (21%)	5,360 (24%)	7,109 (31%)	5,571 (25%)
winter	spring	summer	fall
			Source: DVRPC, 2023

TABLE 1: FIXED-WING OPERATIONS BY SEASON

SEASON	AVG. DAILY OPERATIONS	SEASONAL OPERATIONS	PERCENT DAYS OBSERVED ¹
WINTER	42.6	1,920	44%
SPRING	49.6	2,256	100%
SUMMER	67.9	6,252	100%
FALL	51.2	4,714	100%

¹ "Percentage days observed" is calculated based on the number of days observations were collected as a share of the total days in a given season.

Source: DVRPC, 2023

TABLE 2: HELICOPTER OPERATIONS BY SEASON

AVG. DAILY OPERATIONS	SEASONAL OPERATIONS
9.3	838
9.3	848
9.3	857
9.3	857
	OPERATIONS 9.3 9.3 9.3

Source: DVRPC, 2023

2020 Based Aircraft

South Jersey Regional Airport had a reported 72 based aircraft during the 2020 count cycle. This is a decrease from the 105 based aircraft reported during the 2017 cycle.

65 6 0 1 0 72 single-engine multi-engine jet

Source: FAA 5010 Master Record, 2020

Observed Daily Fixed-Wing Takeoffs

Fixed-wing operation estimates are based on takeoff events observed at South Jersey Regional Airport over the course of the counting cycle. Figure 3 illustrates the daily total of observed takeoffs for each day in the counting cycle.

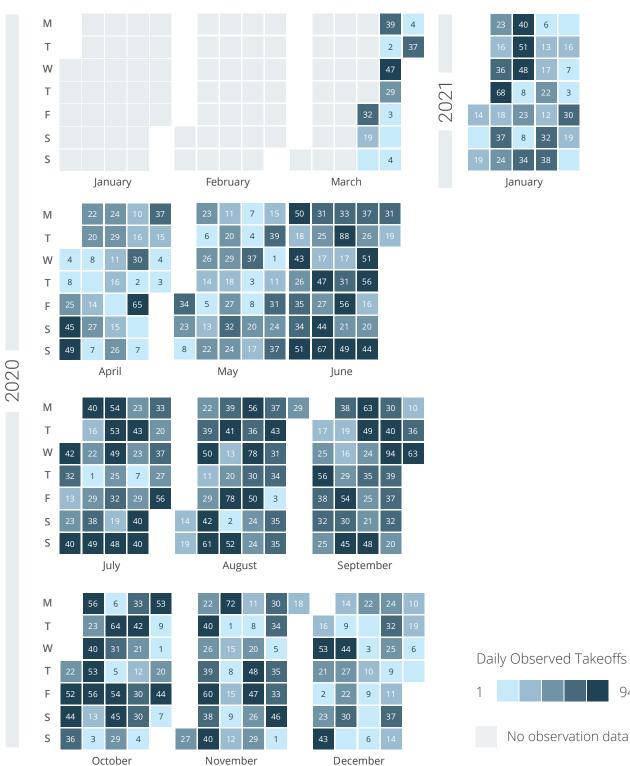


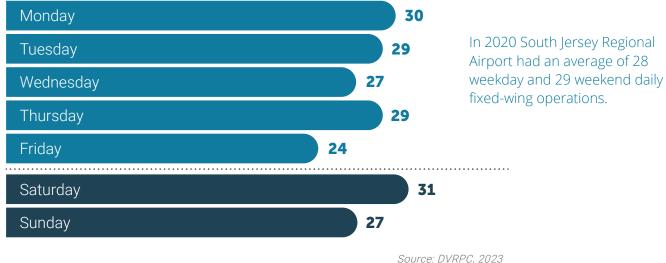
FIGURE 3: OBSERVED DAILY FIXED-WING TAKEOFFS

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Fixed-Wing Operation Patterns

The observation data collected provides insights to the patterns of aircraft operations at South Jersey Regional Airport. Utilizing the fixed-wing sample data, average daily takeoffs by day of week can be calculated to better understand the distribution of activity throughout the week. The observed events also provide a clearer illustration of the temporal distribution of fixed-wing takeoffs throughout a typical day.

FIGURE 4: AVERAGE DAILY FIXED-WING TAKEOFFS BY DAY OF WEEK



Source. DVRPC, 2023

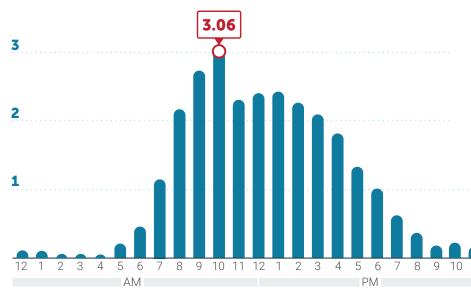


FIGURE 5: AVERAGE FIXED-WING TAKEOFFS BY TIME OF DAY

On a typical day in 2020, South Jersey Regional Airport had a notable peak of activity in the morning hours, with an average of 3 takeoffs per hour between 10 and 11 AM. The typical daytime activity averaged 2 to 2.5 takeoffs per hour from 8 AM through 4 PM.

Source: DVRPC, 2023

VAY—South Jersey Regional Airport 2020 Aircraft Operations Counting Program

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ABSTRACT: This technical report presents aircraft operations estimates for VAY—South Jersey Regional Airport in Lumberton, New Jersey. These aircraft operation estimates are a part of the cyclical regional aircraft counting program. This report is a part of the 2020 counting cycle. Acoustic counts of fixed-wing takeoffs were collected during the observation period from March 2020 through January 2021. The estimates based on these observations along with additional data collection are presented in this report. Results are used by multiple sources to monitor aircraft activity levels in the Delaware Valley and as a base for planning and forecasting documents.

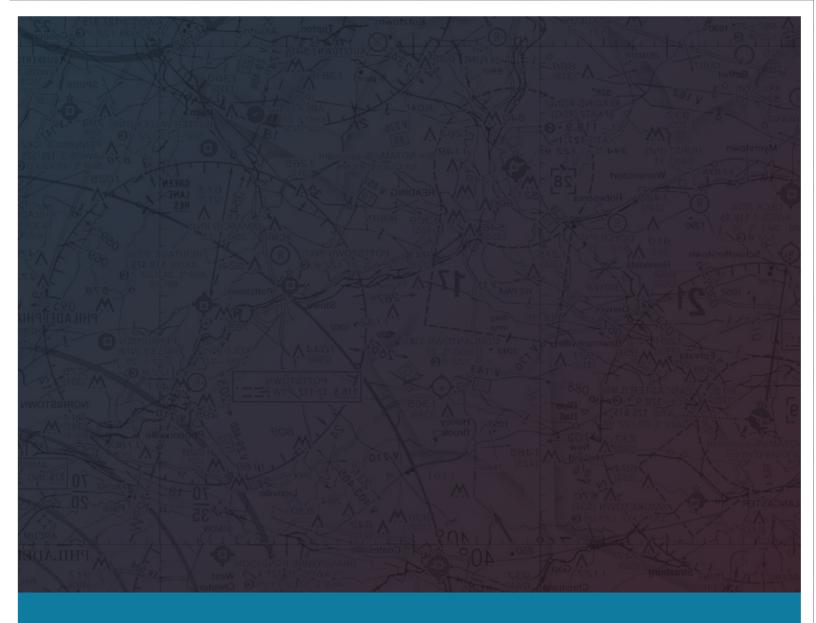
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