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## Charles M. Schulz – Sonoma County Airport (STS)

# Aircraft Noise Monthly Report

**December 2022**



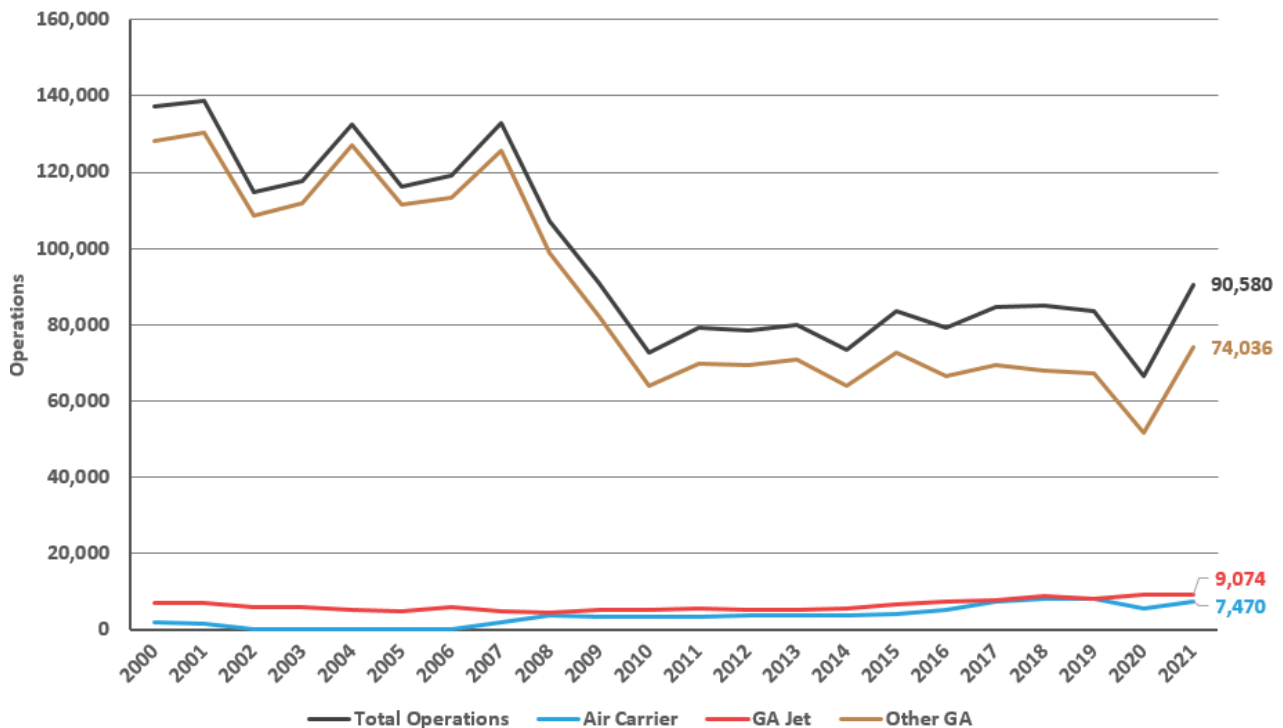
# About the Charles M. Schulz – Sonoma County Airport and Noise Abatement

The Airport operates as a self-supporting Enterprise Fund within the Department of Transportation and Public Works and under the jurisdiction of the Federal Aviation Administration (FAA). STS is both a general aviation facility, serving private planes and business jets, and is a commercial airline facility with scheduled air service. STS generates over \$1,300,000 annually in tax revenues, via its users, for Sonoma County and County School Districts.

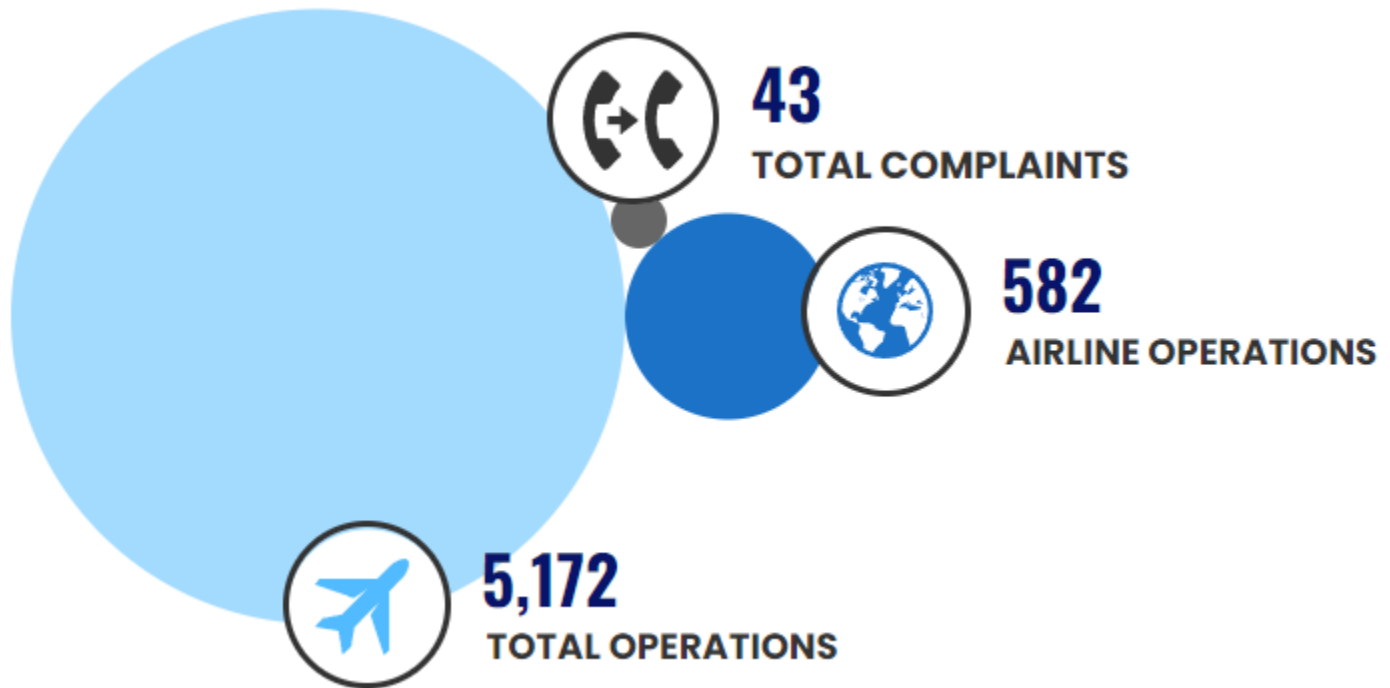
The Airport’s current Noise Abatement Program was established in 1988. STS also works within FAA guidelines, to encourage pilots and airlines to fly with consideration of our neighbors in mind. The Airport makes every effort to promote flight procedures that minimize aircraft noise while always maintaining safety as the highest priority. It is the FAA’s sole responsibility to develop air traffic rules, assign the use of airspace, and control air traffic.

STS is working with our Aviation Commission and a community advisory group to re-write the Airport’s Noise Abatement Guide and associated procedures (to be released in 2022). Using flight-tracking and noise management software, the Airport also provides monthly complaint reports to pilots and to airlines so that operators can use real data to update flight practices and fly friendly. As more data becomes available to STS staff, additional analysis is performed and included in monthly and annual reports.

## STS Historical Operations



# This Month's Operations



## This Month's Noise Complaints At-A-Glance

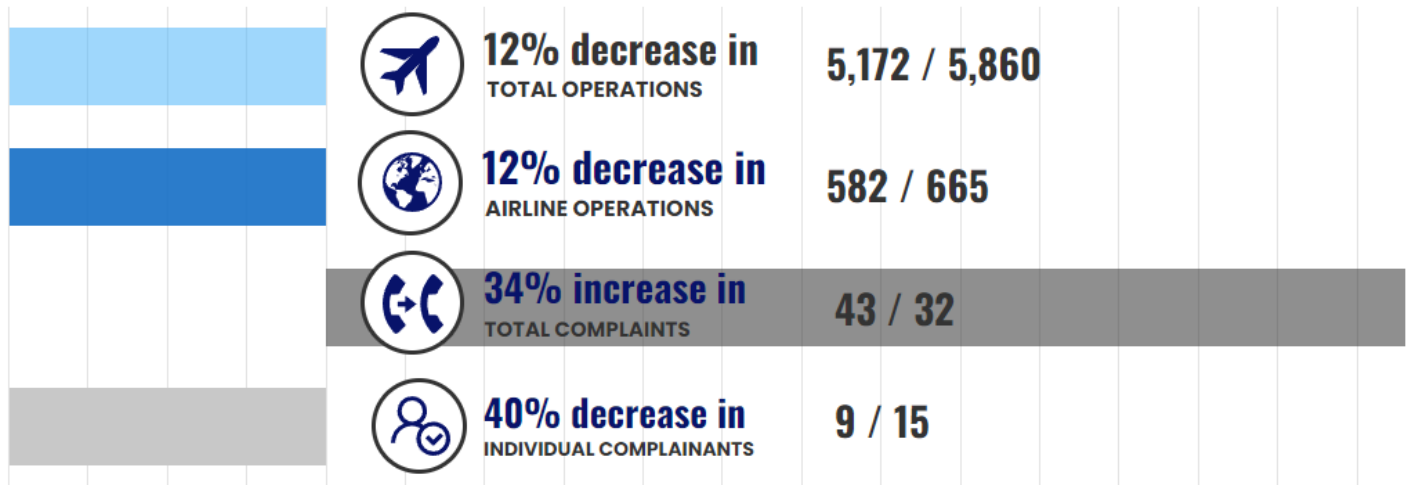
- 43 Noise Complaints received
- 9 Individual Commenters
- 2 New Commenters
- 35 Correlated Operations\*
- 8 Complaints that were non-specific, were regarding operations that did not include STS as the origin or the destination (not Airport-related), or were unable to be correlated to a flight track/aircraft



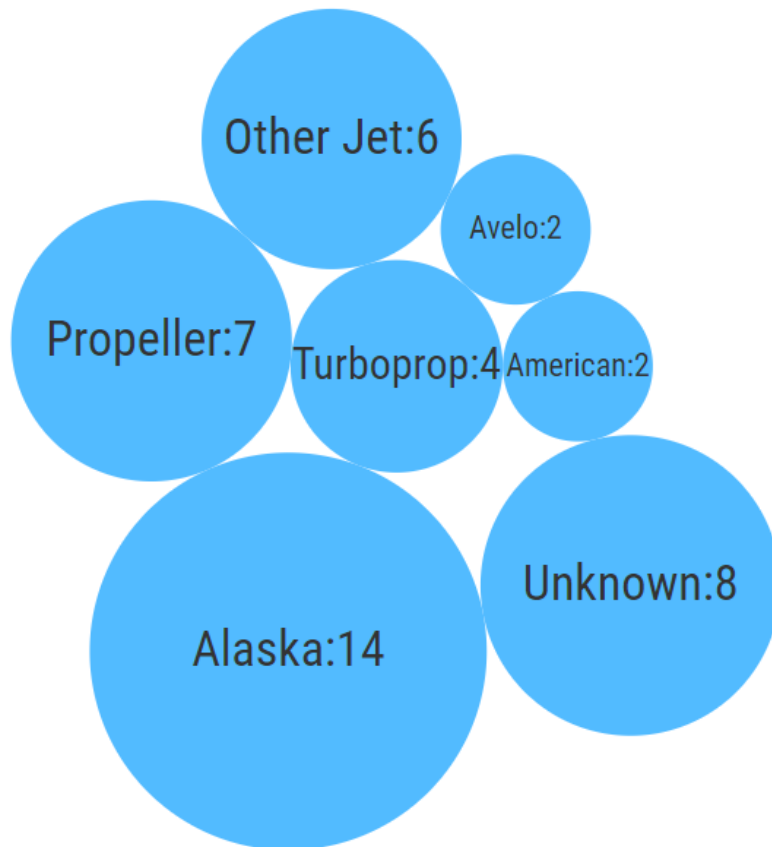
*\*An Operation is a departure from or an arrival to the Airport. Complaints may be correlated to more than one Operation or may not be correlated to an Operation.*

The Airport received 9 less complaints in December than in November. This month, one of the complaints received was from a commenter located greater than ten nautical miles from the Airport. There were 2 new commenters this month. 4 of the 9 individual commenters live within five nautical miles of STS, including one of the new commenters. One of the new commenters lives in Sebastopol and one in Windsor. The majority of noise complaints received in December were regarding Alaska Airlines, propellers, and other jets.

# What's Changed This Year? December 2022 vs. 2021



## Airlines and Operators Identified Through Complaints

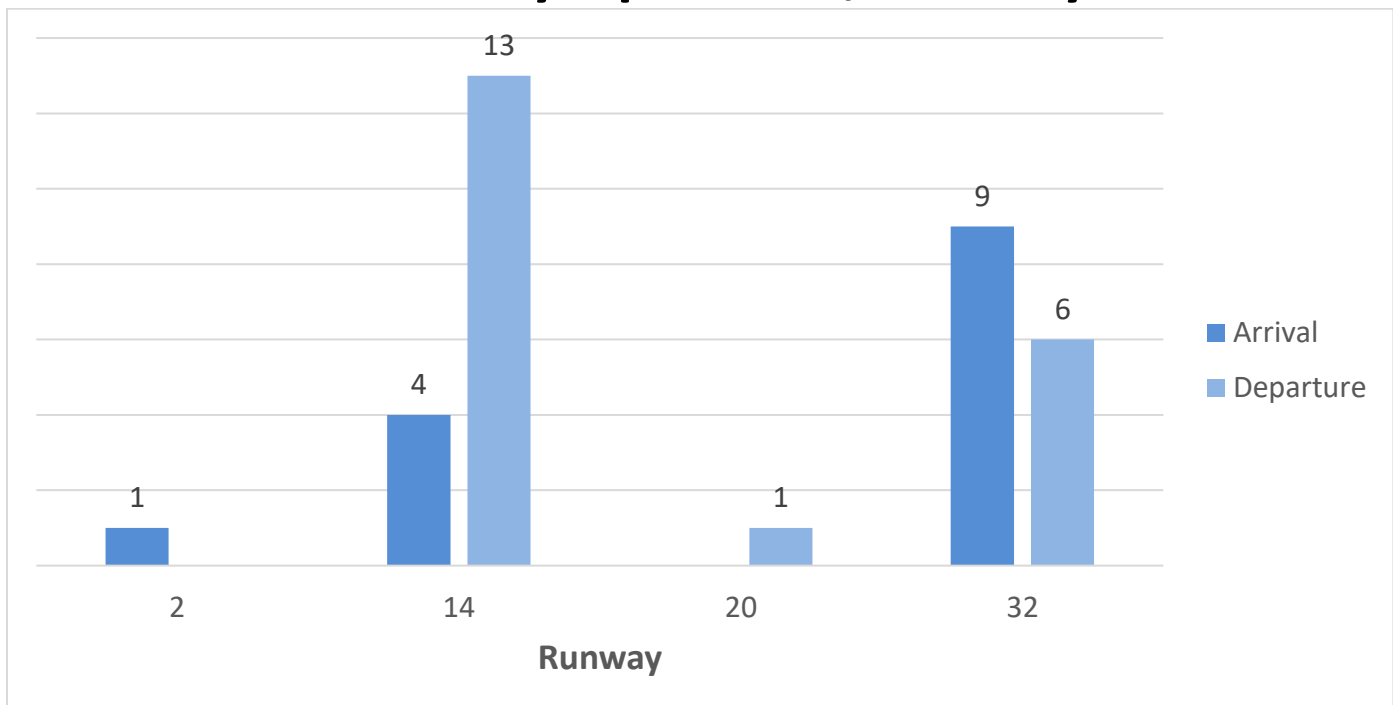


*All airlines operate jets.*

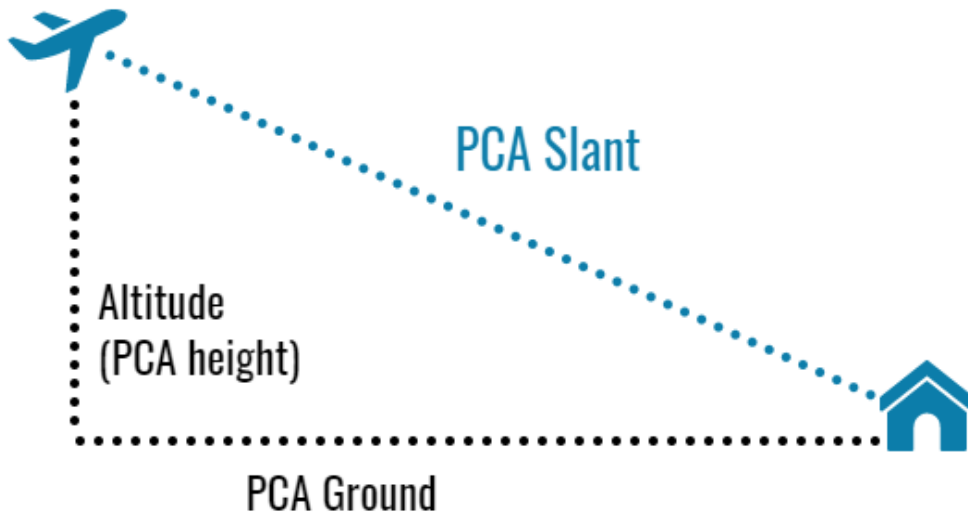
## Aircraft Operated by Airlines at STS

ALASKA AIRLINES	AMERICAN AIRLINES	AVELO AIRLINES
<u>E175 (76 seats)</u> 	<u>E175 (76 seats)</u> 	<u>737-800 (189 seats)</u> 
<u>737-800 (147 seats)</u> 	<u>CRJ700 (65-76 seats)</u> 	
	<u>CRJ900 (76-79 seats)</u> 	

## Identified Aircraft by Operation, Runway



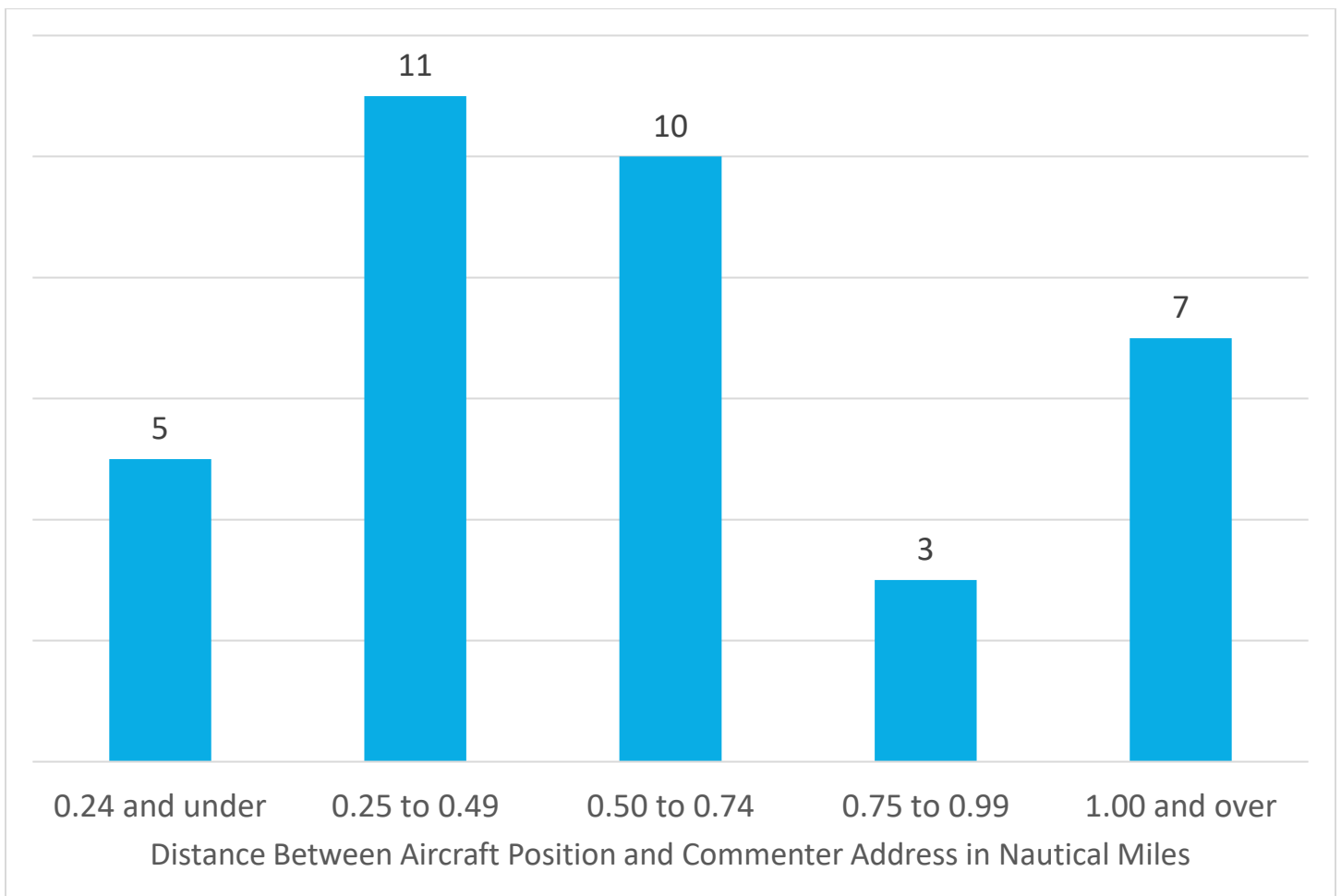
# Aircraft Points of Closest Approach (PCA)



There were 36 aircraft identified through complaints made this month with a tracked point of closest approach (PCA). Sometimes called the PCA slant, the PCA is the distance in nautical miles between the commenter’s address and the aircraft.

In December, 14% of aircraft that generated complaints were less than a quarter-mile from the commenter’s address per the PCA measurement.

## Most Aircraft Were Between 0.25 and 0.49 Nautical Miles from the Commenter



# Aircraft Altitudes

There were 36 aircraft identified through complaints made this month with a tracked altitude. At the point of closest approach to the commenter’s address, the altitude was recorded (in feet) in relation to the commenters location and may be represented as a negative number due to their location being at a higher elevation than the Airport and flight paths. Per FAA aircraft guidelines, except when necessary for takeoff or landing, aircraft must maintain an altitude of at least 1,000 feet over populated areas. Helicopters may operate safely at less than the minimum for other aircraft.

Recorded Altitude Range	Aircraft	Recorded Altitude
Under 1,000 feet	3*	642, 882, 942
1,000 to 1,499 feet	3	1017, 1142, 1367
1,500 to 1,999 feet	6	1837, 1857, 1887, 1887, 1987, 1989
Over 2,000 feet	24	2062, 2087, 2176, 2251, 2314, 2464, 2587, 2592, 2862, 2907, 3007, 3175, 3382, 3431, 3682, 3887, 3982, 4581, 4957, 4982, 4982, 4989, 4989, 4989

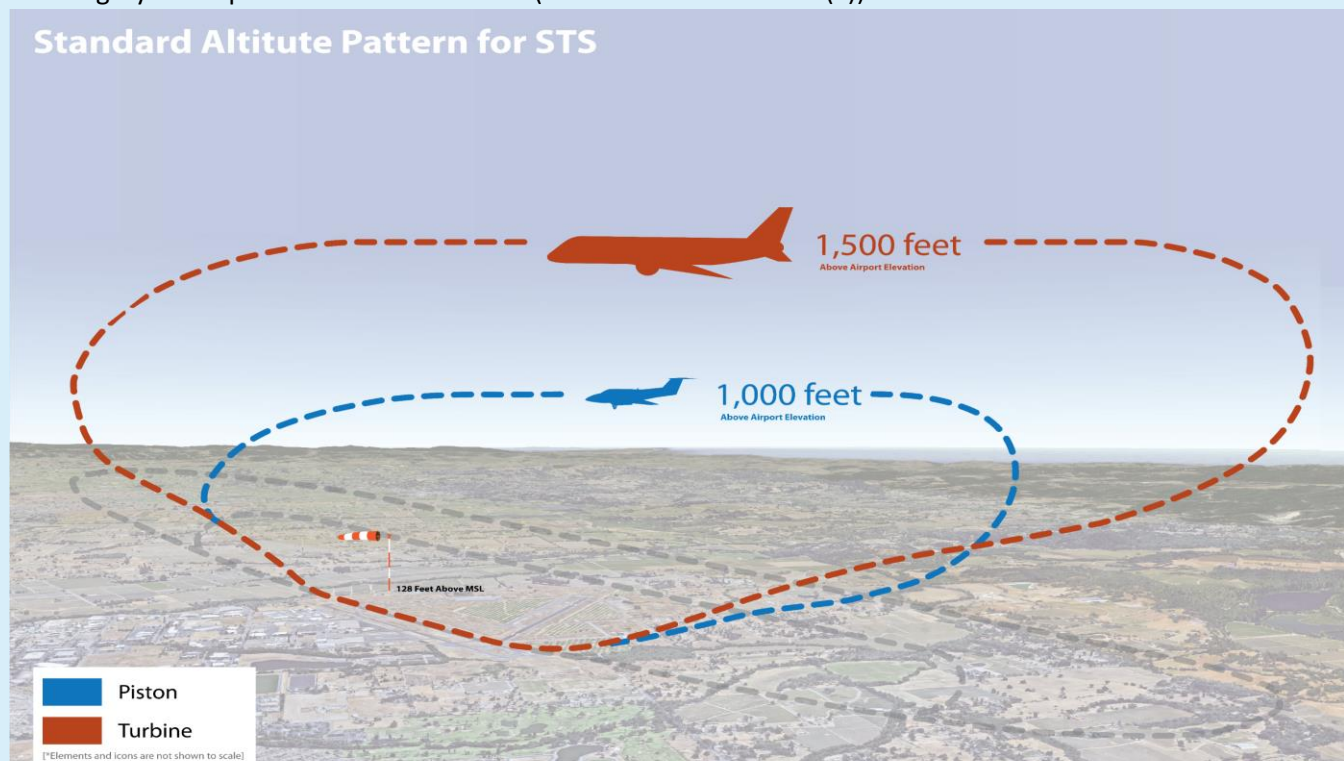
\*Aircraft under 500 feet are typically helicopters.

# Aircraft Angles

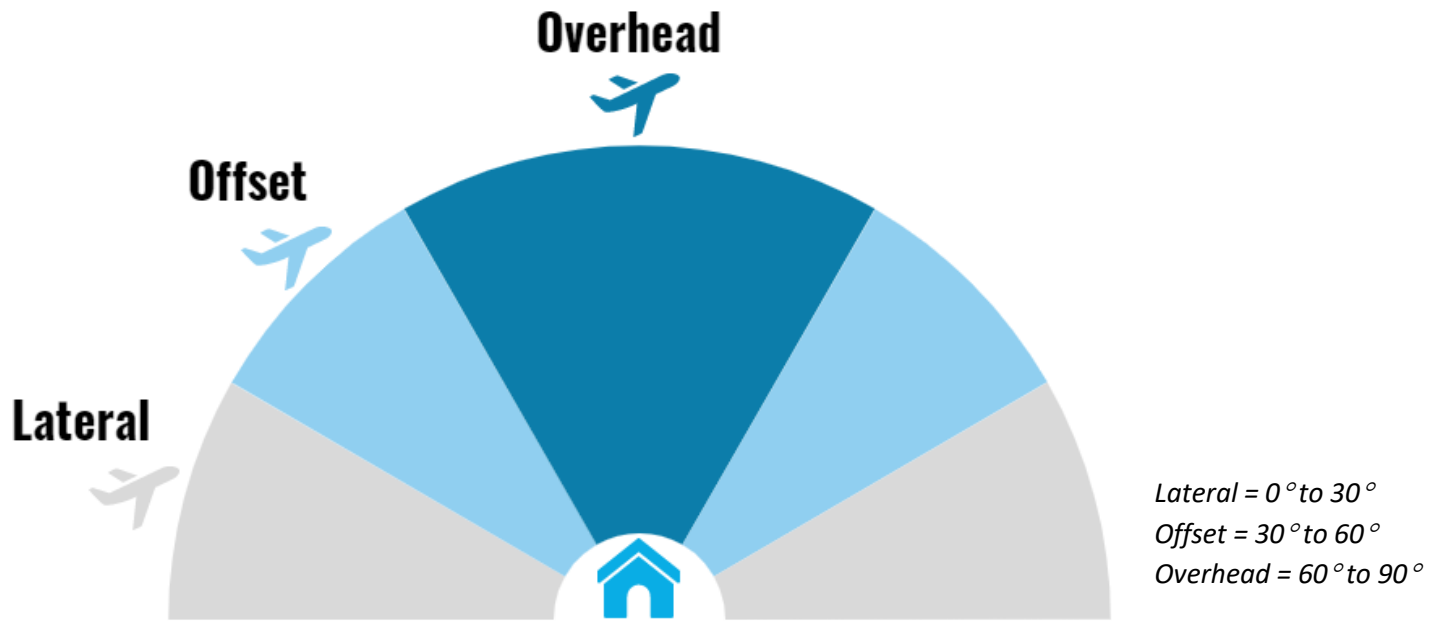
## What are the altitude requirements for aircraft landing at or taking off from the Airport?

The Airport’s standard altitude pattern is the highest allowed by the FAA. Under FAA regulations, altitude restrictions are not applicable during landing and takeoff. The FAA has exclusive sovereignty of airspace in the United States (49 U.S.C. Section 40103(a)).

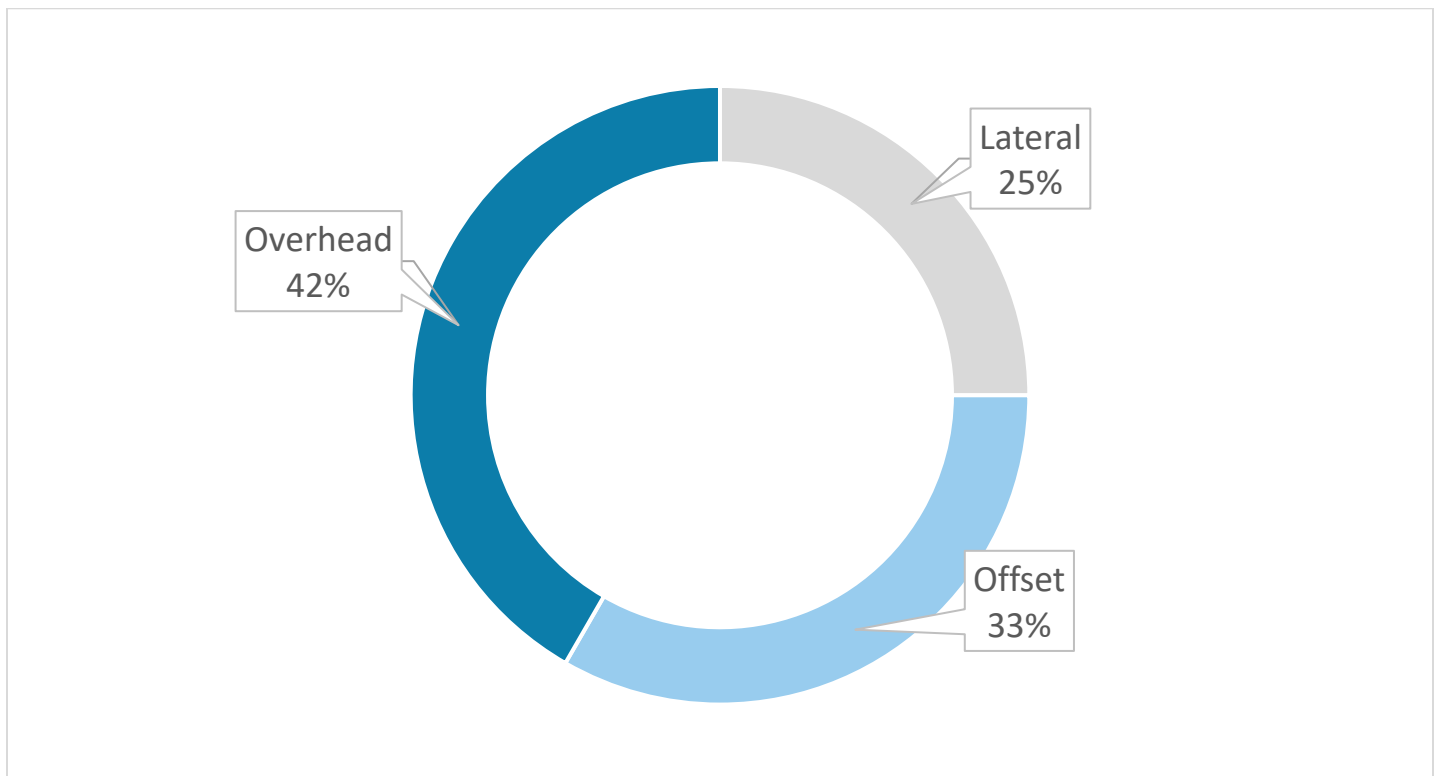
### Standard Altitude Pattern for STS



At the point of closest approach to the commenter's address, the angle was calculated. The angle of the aircraft was then categorized as lateral (0° to 30°), offset (30° to 60°), or overhead (60° to 90°).

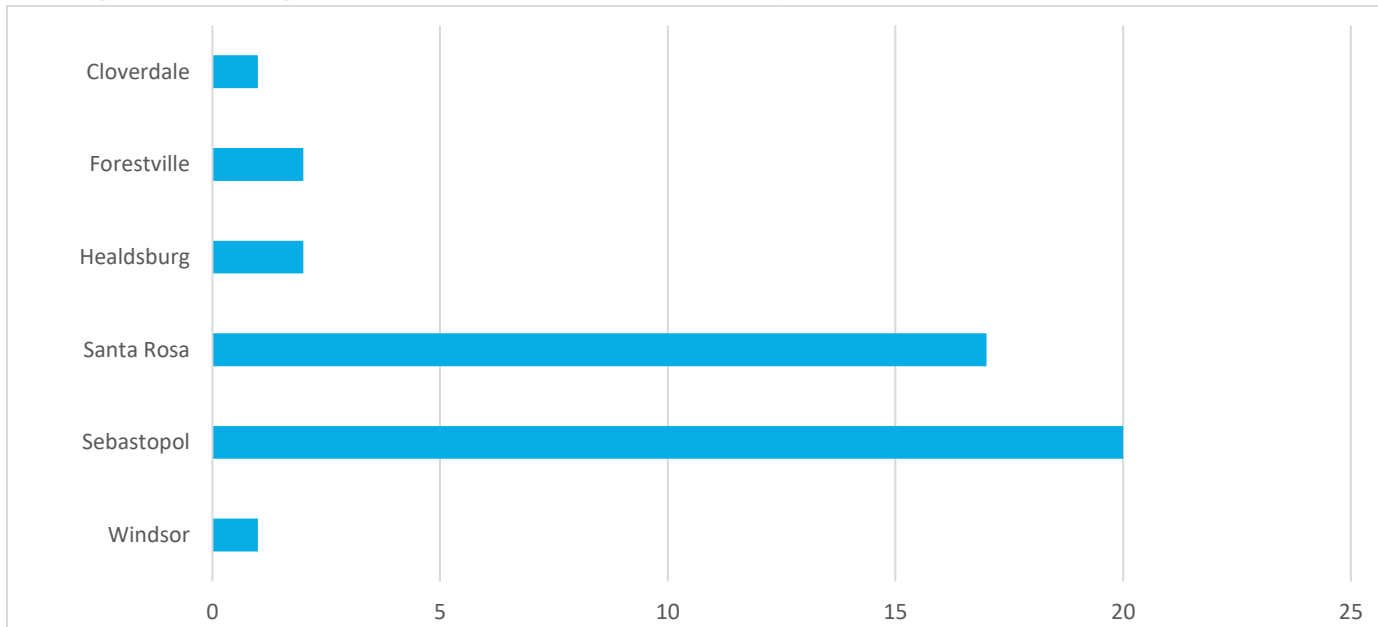


### Most Aircraft Were Overhead at the Time of Complaint





# Originating Locations of Complaints

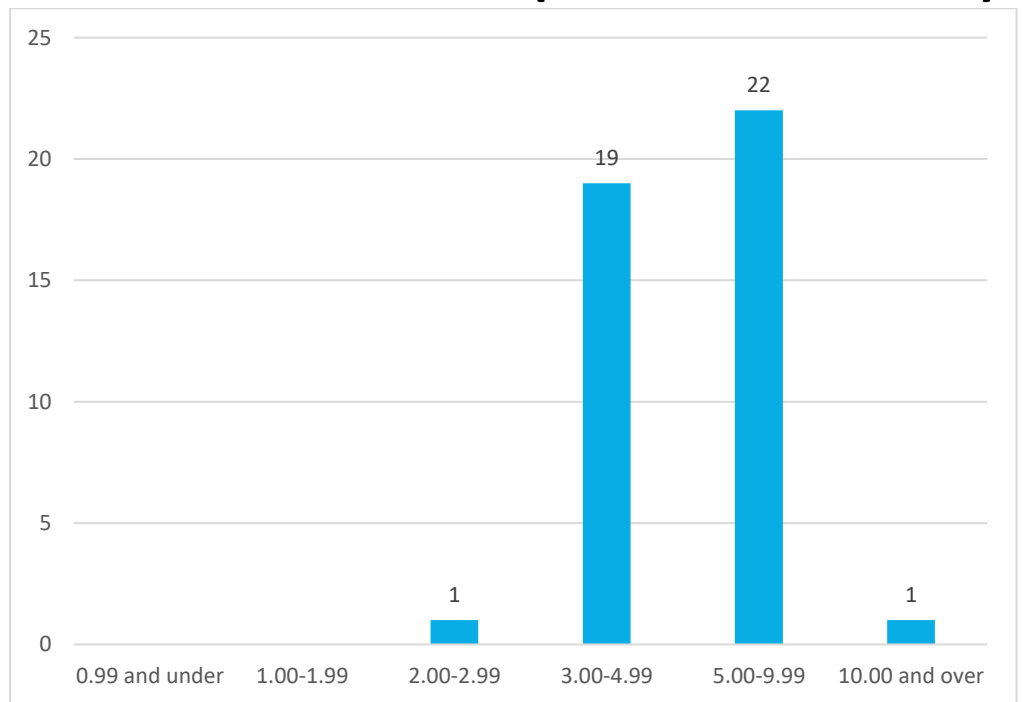


*This graph reflects the locations of unique commenters this month.*

## Distance of Originating Complaint Locations from STS (in nautical miles)

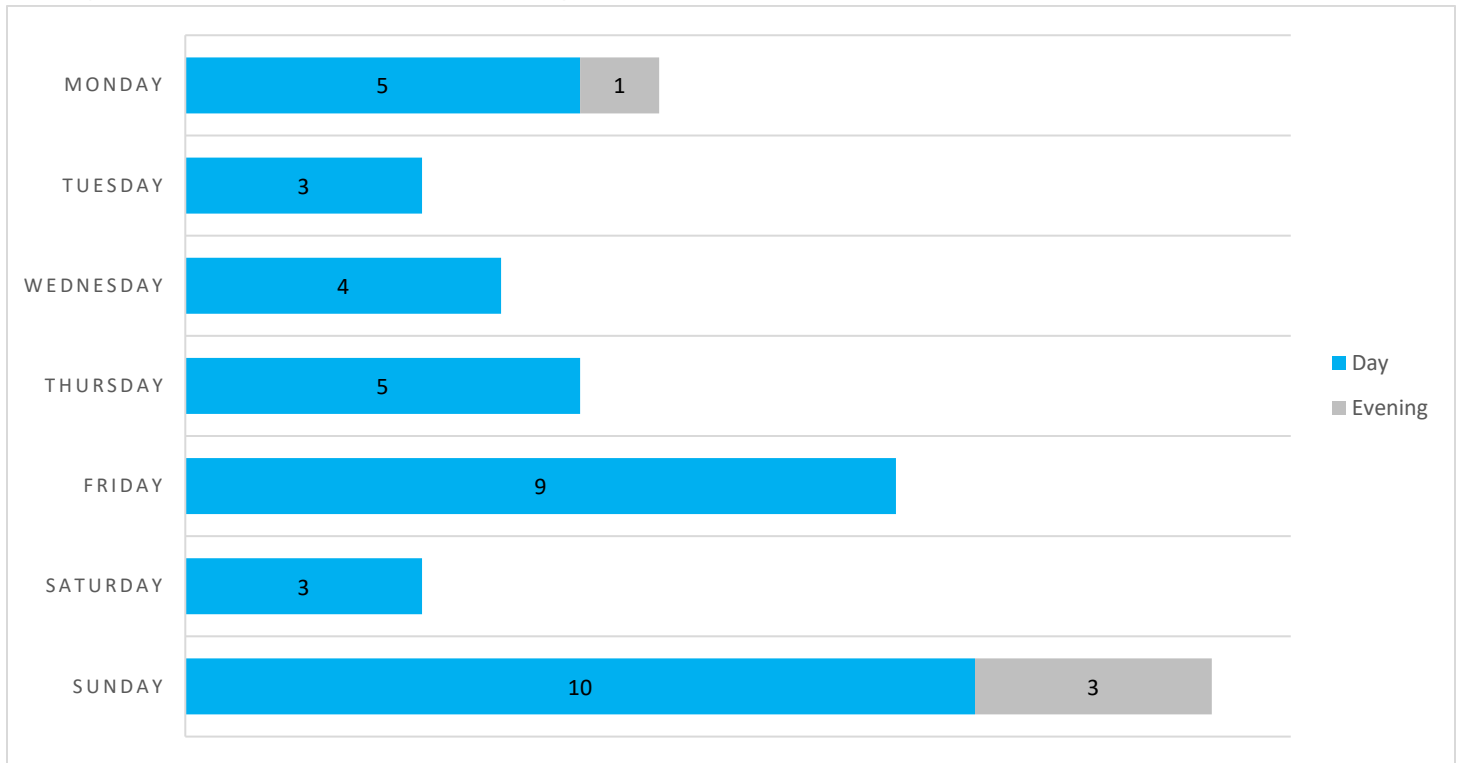
### Why are aircraft flying over my house?

The FAA directs traffic into and out of the Airport. Flights are directed to the safest pattern depending on the amount of air traffic and prevailing winds at the time of arrival or departure. Safety is the FAA’s first consideration. However, aircraft can and do fly over all parts of Sonoma County. Sonoma County does not contain any No Fly Zones.



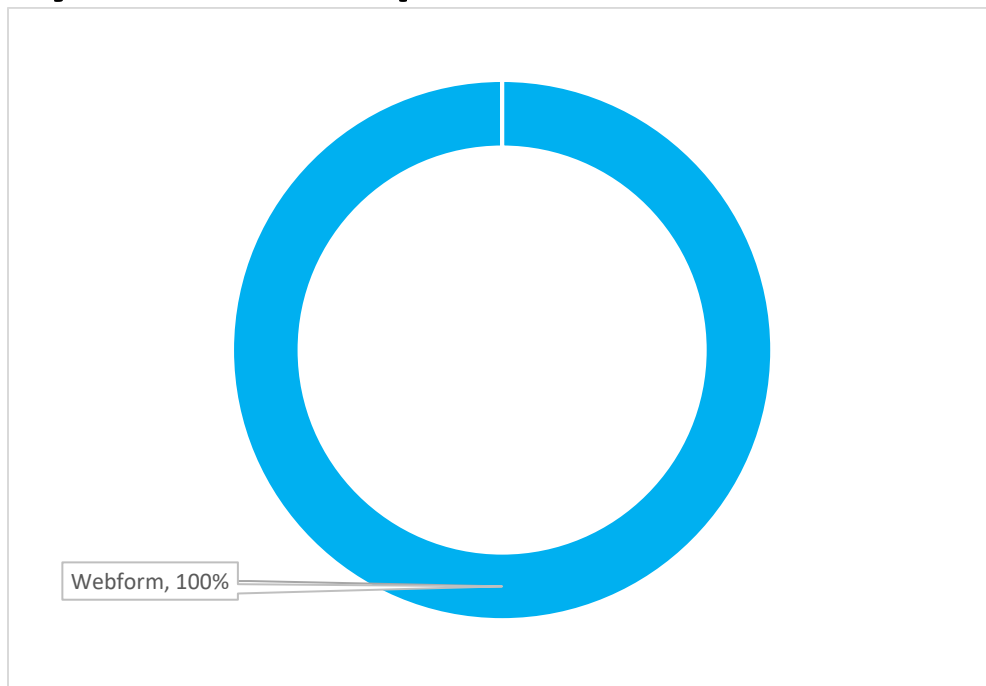
*This graph reflects the distance between the Airport and the addresses of unique complainants who made complaints this month in nautical miles (NM).*

## Days and Times Complaints Were Generated

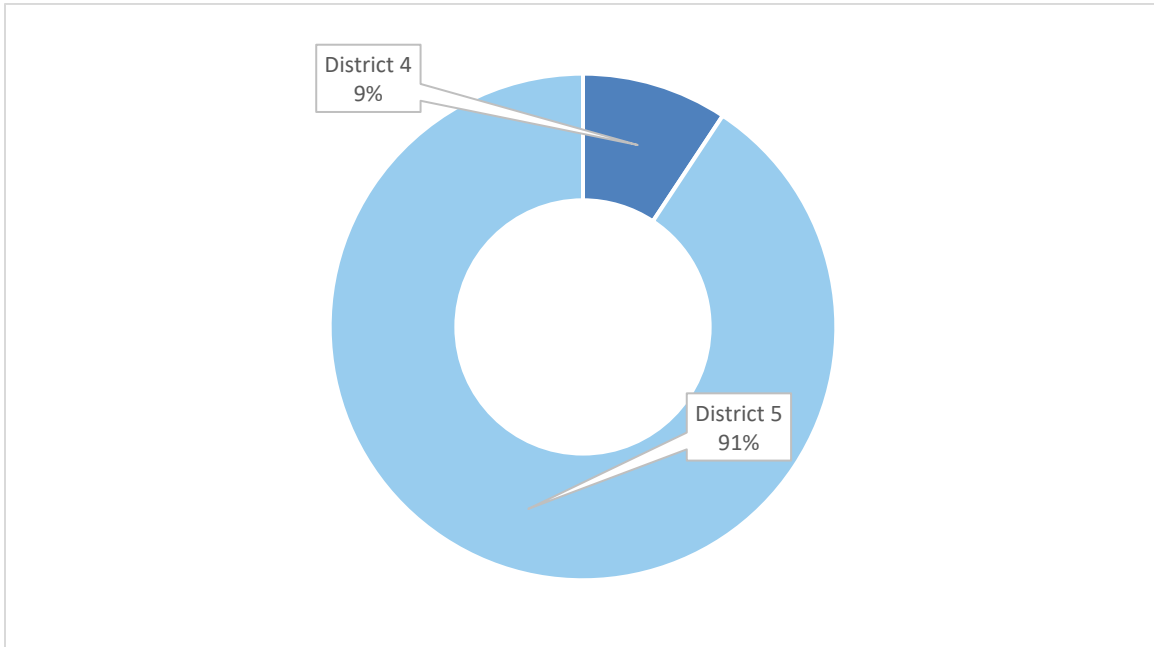


**Day** = 7:00 AM to 5:59 PM / **Evening** = 6:00 PM to 9:59 AM / **Night** = 10:00 PM – 6:59 AM

## Method by Which Complaints Were Received



# County Districts Complaints Were Received From\*



\*Supervisory districts are based on the district map located on the Sonoma County [website](#).

# Year-to-Date Operations and Complaints

Month	2022 Total Operations	2022 Airline Operations	2022 Complaints	2021 Total Operations	2021 Airline Operations	2021 Complaints
January	7,809	687	54	4,851	299	34
February	7,410	588	30	6,788	203	42
March	8,090	723	31	7,343	339	68
April	7,439	783	54	8,287	536	118
May	8,738	804	63	8,818	620	149
June	8,603	884	91	8,488	723	184
July	8,002	954	109	9,180	729	117
August	8,147	888	148	8,153	781	50
September	7,243	981	96	7,235	869	45
October	7,320	866	115	7,446	931	55
November	6,769	709	52	8,131	775	55
December	5,172	582	43	5,860	665	32
<b>YTD</b>	<b>90,742</b>	<b>9,449</b>	<b>886</b>	<b>90,580</b>	<b>7,470</b>	<b>949</b>

## Year-to-Date Activities Identified Through Complaints\*

Month	District 1	District 2	District 3	District 4	District 5
January	-	-	2	29	23
February	2	-	-	9	19
March	1	2	-	5	17
April	-	-	1	20	33
May	2	2	-	31	28
June	2	3	5	32	49
July	1	1	8	55	29
August	4	-	2	91	50
September	1	-	-	42	53
October	-	-	10	44	61
November	1	-	4	4	43
December	-	-	-	4	39
<b>YTD</b>	<b>14</b>	<b>4</b>	<b>19</b>	<b>366</b>	<b>444</b>

Month	Alaska Airlines	Avelo Airlines	American Airlines	United Airlines	Other Jet	Helicopter	Propeller	Turboprop	Military	Unknown
January	8	-	1	1	6	2	15	2	-	18
February	7	1	1	1	14	3	7	1	-	5
March	10	1	1	1	13	3	6	2	-	7
April	14	3	7	2	7	1	11	6	-	3
May	25	7	2	-	8	2	9	6	-	4
June	37	7	4	-	16	6	8	1	-	-
July	27	13	17	-	23	3	13	8	-	5
August	59	13	13	-	28	9	13	6	-	1
September	40	9	8	1	17	-	13	6	-	1
October	34	18	7	-	19	6	23	-	-	8
November	10	5	2	-	7	3	13	4	-	8
December	14	2	2	-	6	-	7	4	-	8
<b>YTD</b>	<b>285</b>	<b>79</b>	<b>65</b>	<b>6</b>	<b>164</b>	<b>38</b>	<b>138</b>	<b>46</b>	<b>0</b>	<b>71</b>
<b>Airline Operations YTD</b>	<b>6,103</b>	<b>1,050</b>	<b>1,702</b>	<b>568</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

*\*Complaints may be correlated to more than one Operation (arrival or departure from the Airport) or may not be correlated to an Operation or aircraft.*

## Contact the Charles M. Schulz – Sonoma County Airport

To learn more about Noise Abatement at the Airport or submit a noise complaint:

<https://stsgoodneighbor.com>

### Complaint submission tips:

Provide as much information as possible, including date, time, and, if possible, a description of the aircraft. Include the reason for your complaint.

### To submit a general comment:

Visit <https://sonomacountyairport.org/about-sts/contact/>