

# 2022 Noise Complaint Summary



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### Did you know?

**“Noise complaints” aren’t just about noise. They are complaints associated with aircraft and concerns about the aircraft’s location, sound, pollution, altitude, etc.**

## 2022 Noise Complaint Summary



The Airport received 938 total complaints in 2022, which included 886 noise complaints, a 6% decrease from 2021. The number of individual commenters submitting noise complaints decreased 31% in 2022 to 145 from 209 in 2021, including 106 individuals who were classified as infrequent callers (1-2 complaints during 2022). The three most-frequent commenters accounted for 282 (32%) noise complaints, and the ten most-frequent commenters accounted for 578 (65%) of noise complaints received.

Though noise complaints were generated throughout Sonoma County, the majority were received from residents in Windsor (293 complaints or 33%), Santa Rosa (279 complaints or 32%), and Sebastopol (205 complaints or 23%). Their complaints largely involved airlines, other jets, and less frequently, propeller aircraft and helicopters. Concerns regarding excess noise accounted for the majority of complaints (537 complaints or 62%). Other concerns expressed included low altitudes and flight paths. Noise complaints peaked in August and were highest from June through October.



## 2022 at a Glance

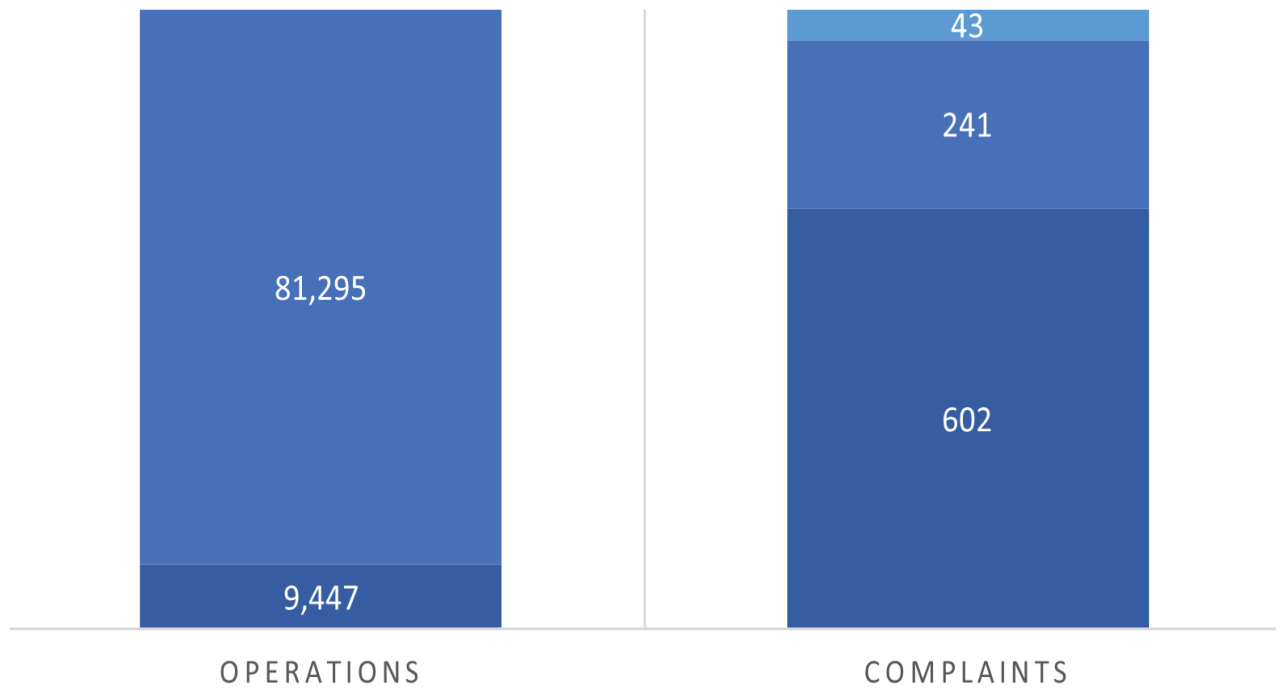
90,742 Operations | 886 Noise Complaints

The majority of noise complaints received were:

- Submitted via webform (759 complaints or 86%)
- From residents in Windsor (293 complaints or 33%)
- Regarding airline flights (602 complaints or 68%)
- Daytime flights (668 complaints or 75%)

## Complaints vs Operations

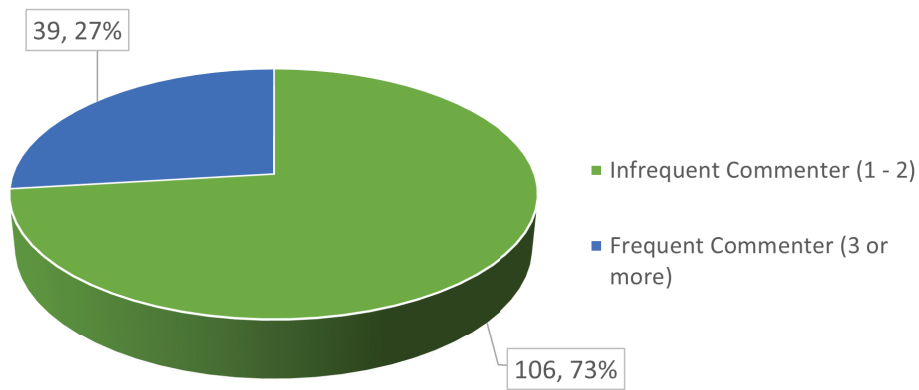
■ Airline ■ Non-Airline ■ Unknown



## 2022 Noise Complaint Overview

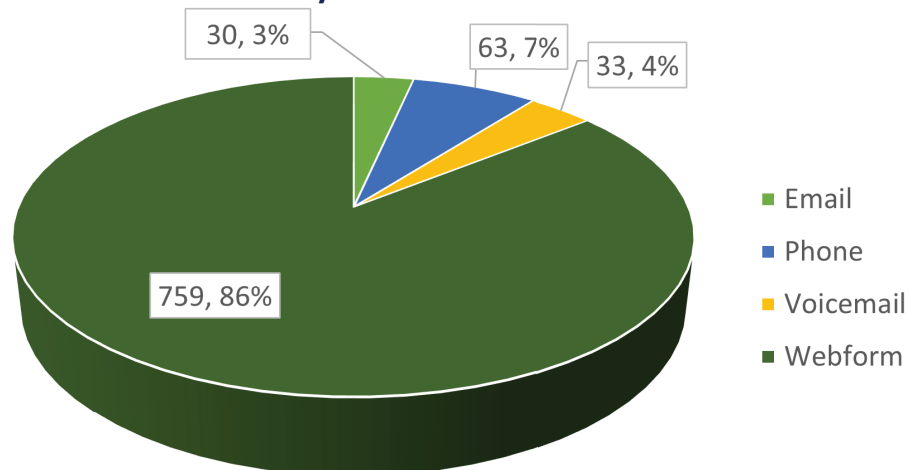
- 106 (73%) of the commenters submitted 1-2 noise complaints in 2022 (121 complaints or 14% of complaints submitted).
- 26 (18%) of the commenters submitted 3-10 noise complaints in 2022 (127 complaints or 14% of complaints submitted).
- 13 (9%) of the commenters submitted 11-115 noise complaints in 2022 (638 complaints or 72% of complaints submitted).

**2022 Noise Complaints  
by Commenter Frequency**



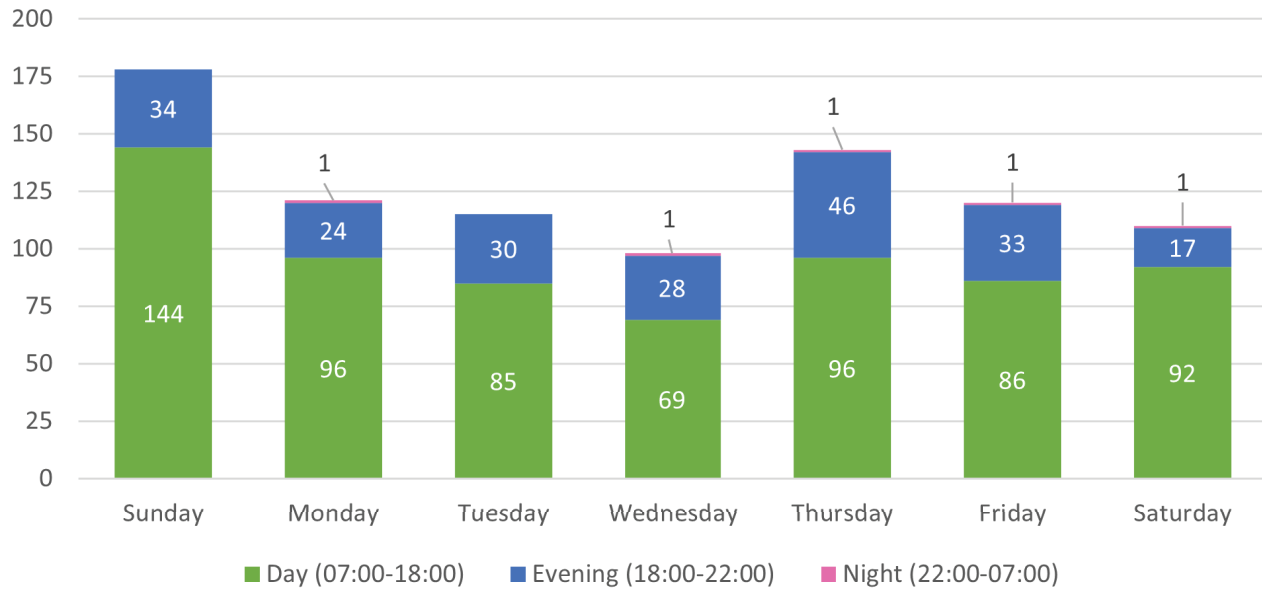
The majority of noise complaints were received by webform (759 or 86%). STS encouraged the public to utilize the webform to increase efficiency and capture more data.

**2022 Noise Complaints  
by Method Received**



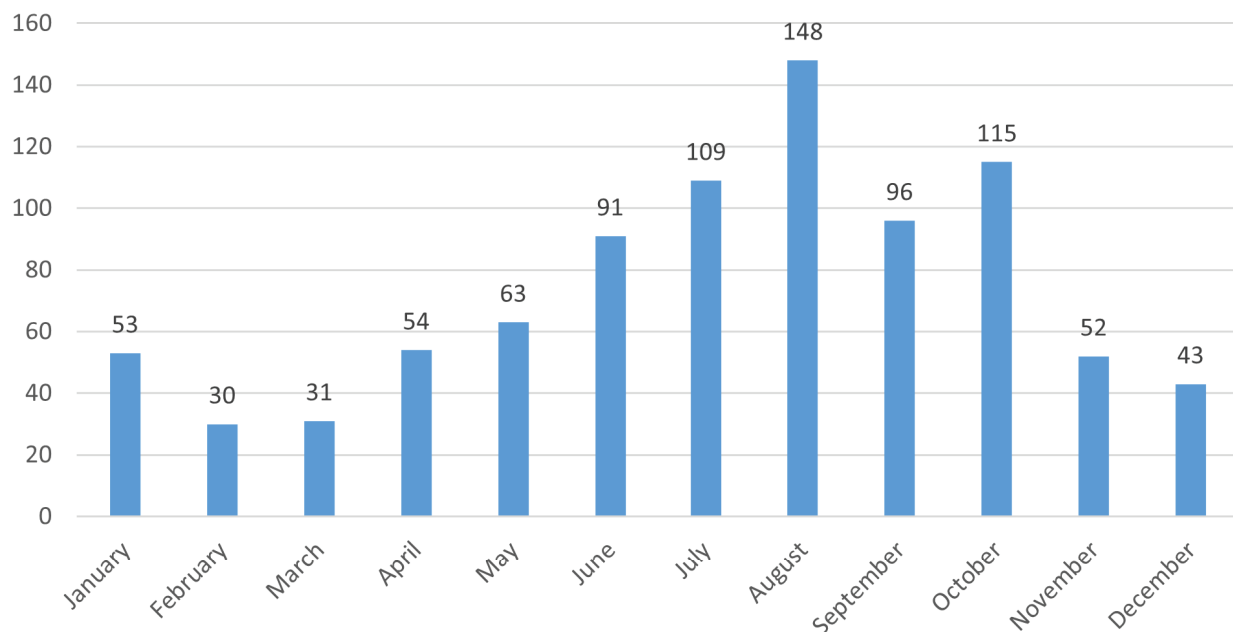
The majority of noise complaints were made during the day (668 or 75%), and on Sundays (178 or 20%) and Thursdays (143 or 16%).

### 2022 Noise Complaints by Day of Week and Time of Day

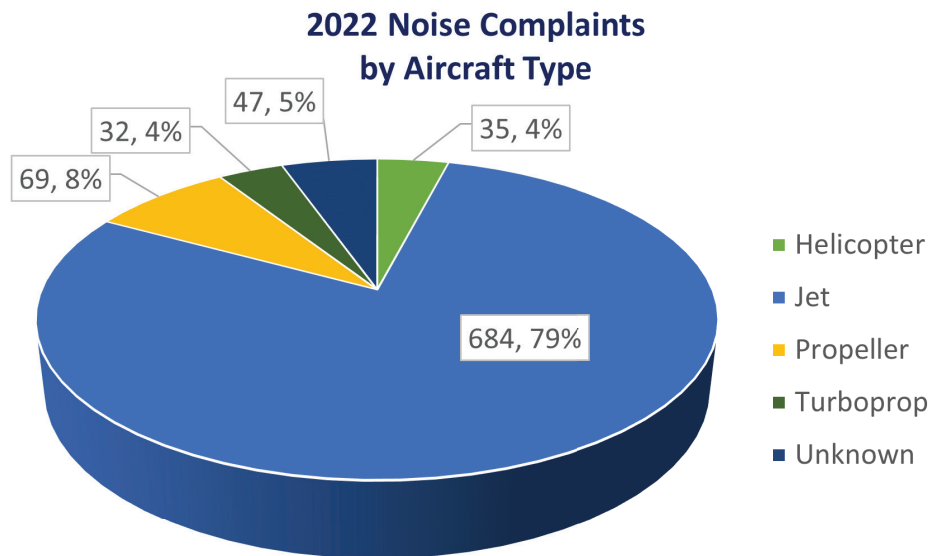


Complaints peaked in the summer/early fall months (June-October (559 or 63%), then flattened out towards the end of the year.

### 2022 Complaints by Month

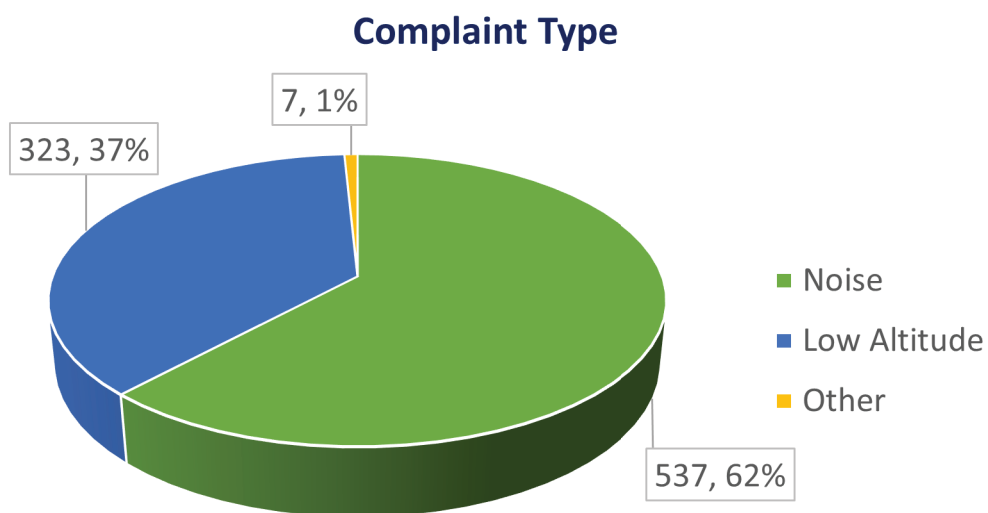


Jets (airline and non-airline) received the majority of noise complaints with 684 (79%), followed by propeller planes, which received 69 complaints (8%).



Unknown aircraft refers to tracks that were either not able to be correlated or correlated but did not include any aircraft data.

The majority of complaints were regarding excess noise (537 or 62%), followed by low altitude (323 or 37%).



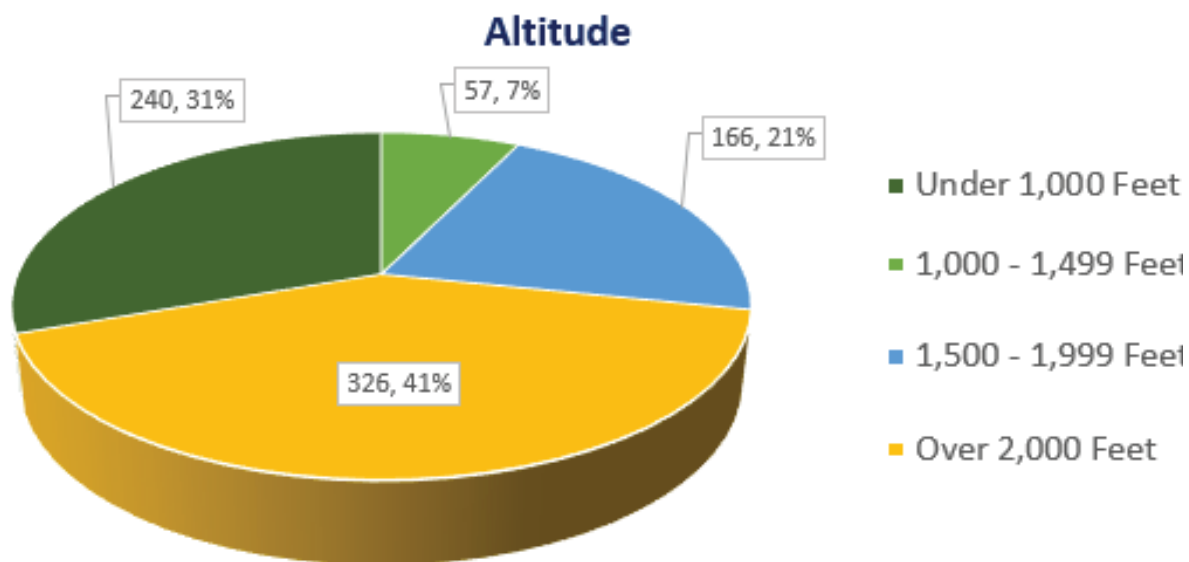
## Noise Complaints by Altitude

### Aircraft Flying Over 2,000 Feet Generated Most Complaints

There were 789 aircraft with tracked altitudes identified through complaints made in 2022. The altitude was recorded (in feet) at the point of closest approach (PCA) to the commenter's address. In some cases, the altitude cannot be determined because there is not enough information or because the plane is an overflight\*.

- 326 noise complaints (41%) were received for aircraft identified as flying at an altitude of over 2,000 feet.
- 240 noise complaints (31%) were received for aircraft identified as flying at an altitude of under 1,000 feet.
- 223 noise complaints (28%) were received for aircraft identified as flying at an altitude of between 1,000 and 1,999 feet.

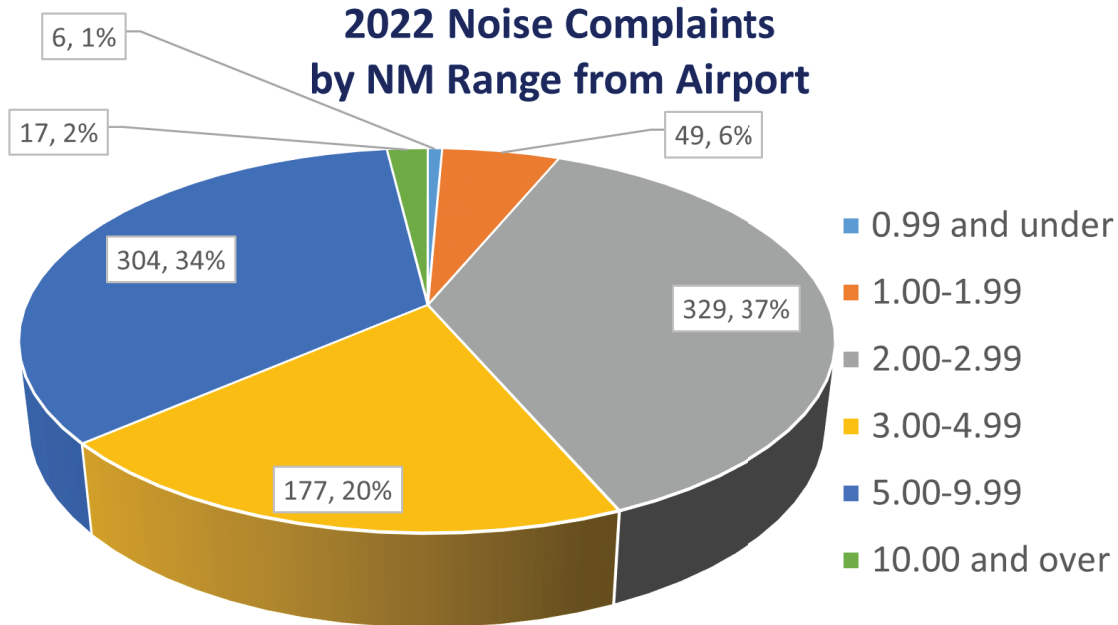
\*An "overflight" is a plane that flies over the area but does not land at or originate from the Airport.



The traffic pattern altitude (TPA) for small aircraft is 1,000 feet above ground level and the TPA for large aircraft is 1,500 feet above ground level. TPA is the minimum altitude a plane must operate at during flight. 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)).

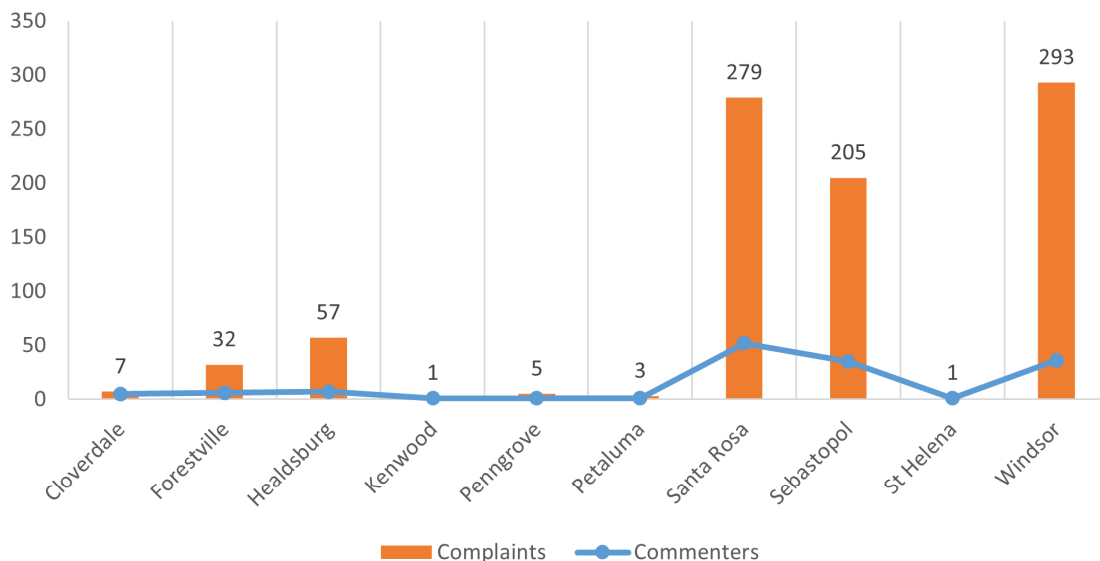
## Noise Complaints by Nautical Miles (NM)

Of the 886 noise complaints, 561 (64%) were received from addresses located within five (5) nautical miles of the Airport. STS received 55 complaints (7%) from addresses located within two (2) nautical miles of the Airport.



The majority of the 886 noise complaints received came from Windsor (293 or 33%). The majority of the 145 individual commenters were located in Santa Rosa (52 or 36%), Windsor (36 or 25%), and Sebastopol (35 or 24%). One commenter in Windsor submitted 115 (13%) of the total complaints.

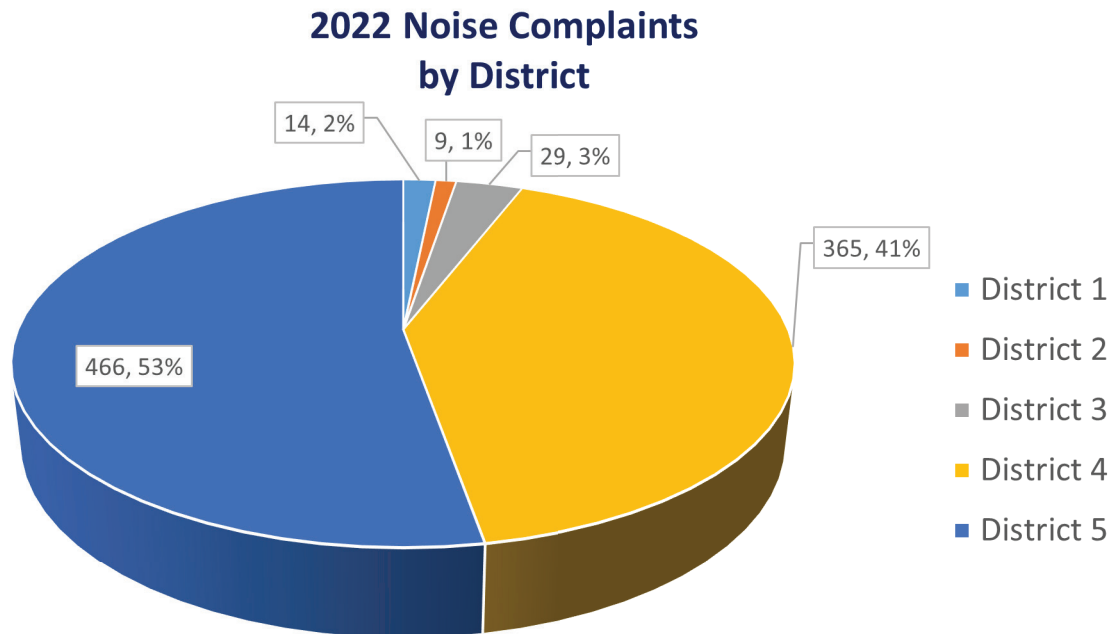
## 2022 Complaints and Commenters by City





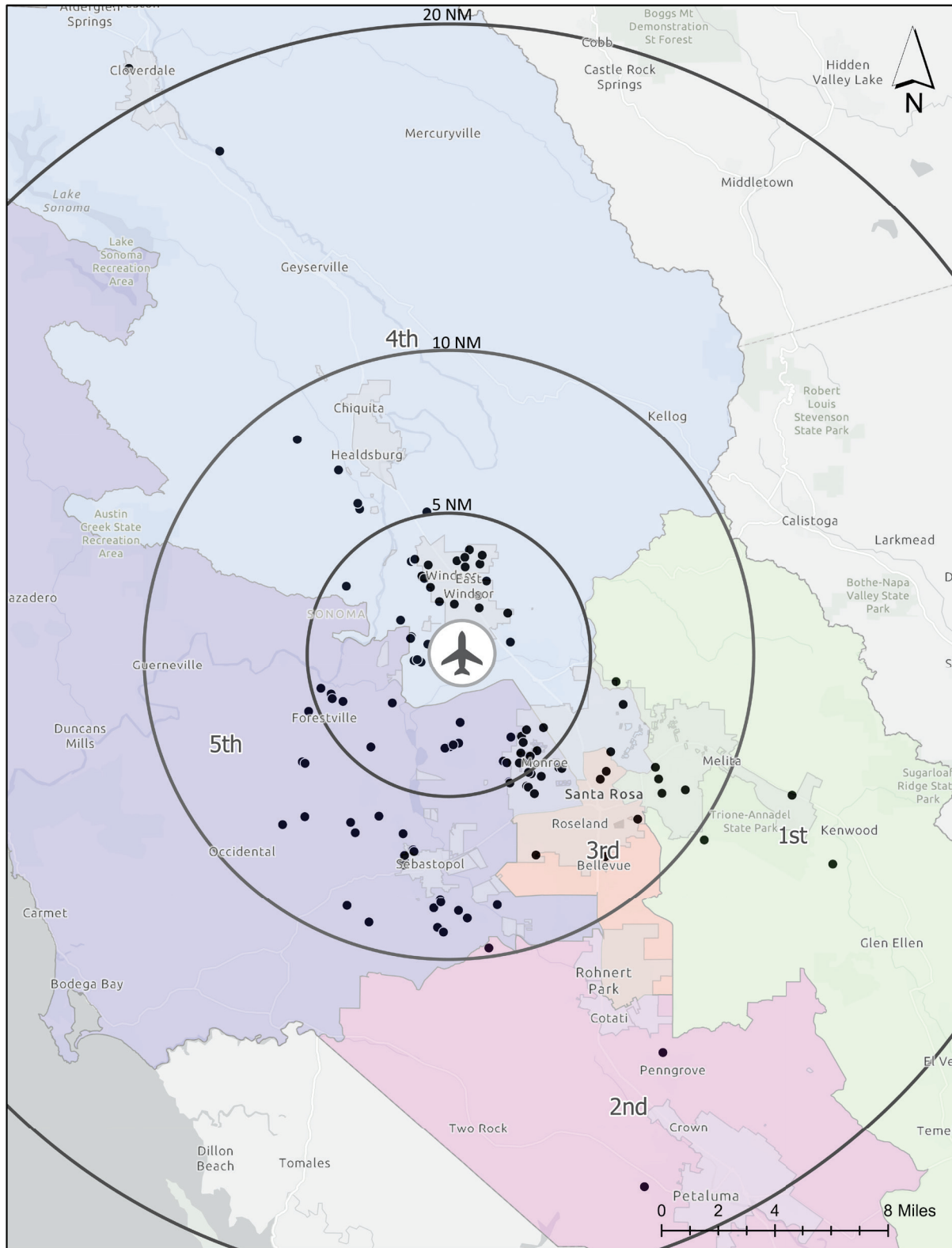
## Noise Complaints by Sonoma County Supervisor Districts

In 2021, the Airport began collecting data on the supervisorial districts where complaints originate. In 2022, 466 (53%) of complaints were received from District 5, 365 (41%) complaints came from District 4, and the remaining 6% were from other districts or unknown.



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

# Noise Complaints by Location



## 2022 Noise Complaint Data

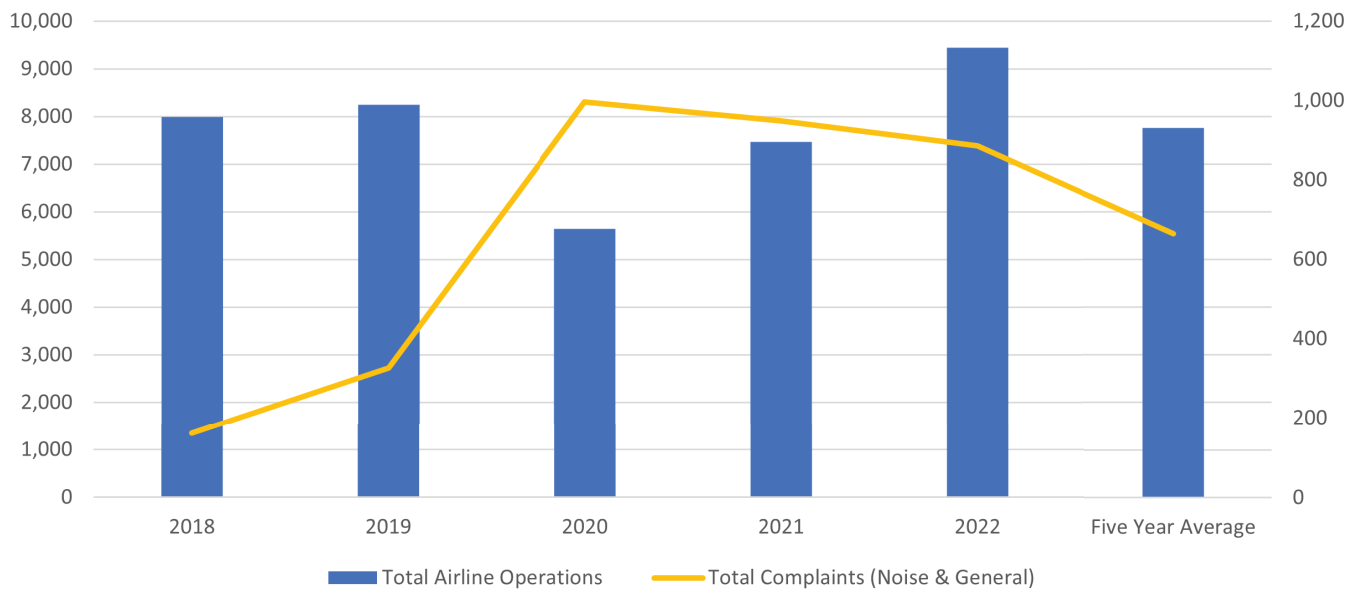
Complaints by Type			Complaints by Aircraft Type			
	Complaints	Percent		Complaints	Percent	
Low Altitude	323	37%	Helicopter	35	4%	
Noise	537	62%	Hot Air Balloon	0	0%	
Other / Unknown	7	1%	Jet - Airline	602	69%	
<b>Individual Commenters by Frequency</b>			Jet - Other	82	9%	
	Complaints	Percent	Military	0	0%	
Frequent (3 or more)	40	72%	Propeller	69	8%	
Infrequent (1 - 2)	105	28%	Turboprop	32	4%	
<b>Individual Commenters by NM from Airport</b>			Unknown	47	5%	
	Complaints	Percent	<b>Complaints by Airline Operator</b>			
0.99 and under	3	2%	Complaints			Percent
1.00-1.99	10	7%	Alaska Airlines	431	72%	
2.00-2.99	21	15%	American Airlines	124	21%	
3.00-4.99	42	30%	Avelo Airlines	42	7%	
5.00-9.99	55	39%	United Airlines	5	1%	
10.00 and over	9	6%				



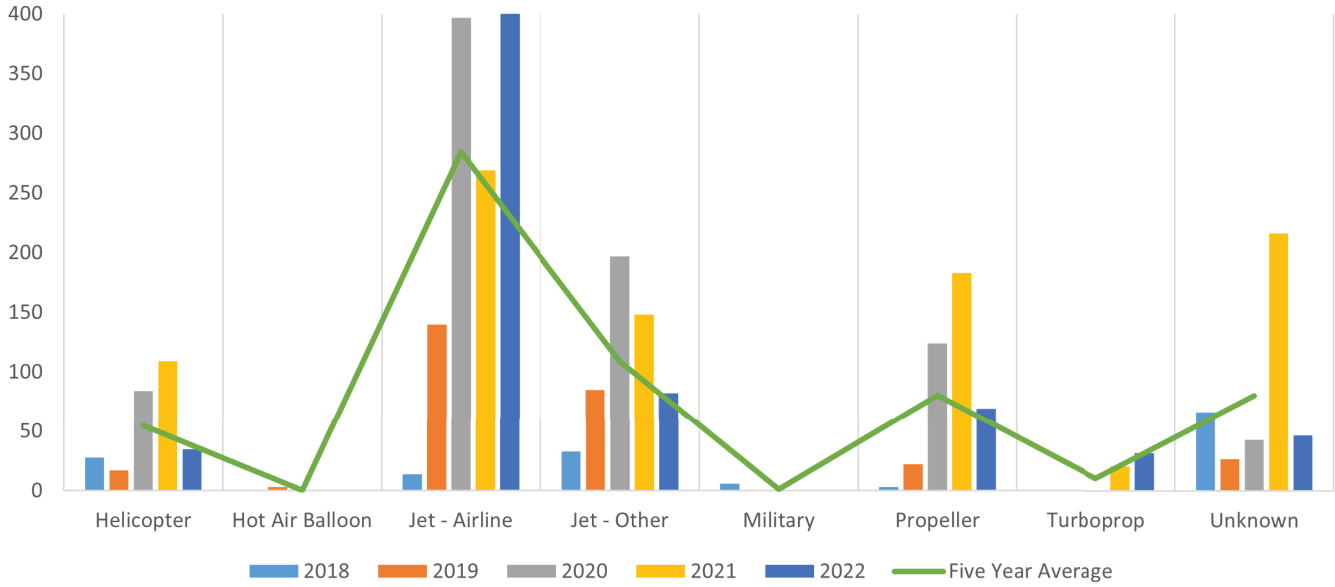
## Five Year Summaries

Year	Total Complaints	Noise Complaints	Individual Commenters	Infrequent/ Occasional Commenters	Total Operations	Operations per Noise Complaint	Total Airline Operations	Operations per Noise Complaint
<b>2018</b>	161	150	73	66	85,060	567	7,984	53
<b>2019</b>	327	294	116	93	83,734	285	8,245	28
<b>2020</b>	997	845	153	137	66,566	79	5,637	7
<b>2021</b>	980	946	209	159	90,580	96	7,470	8
<b>2022</b>	938	886	145	132	90,742	102	9,447	11
<b>Average</b>	<b>681</b>	<b>624</b>	<b>139</b>	<b>117</b>	<b>83,336</b>	<b>226</b>	<b>7,757</b>	<b>21</b>

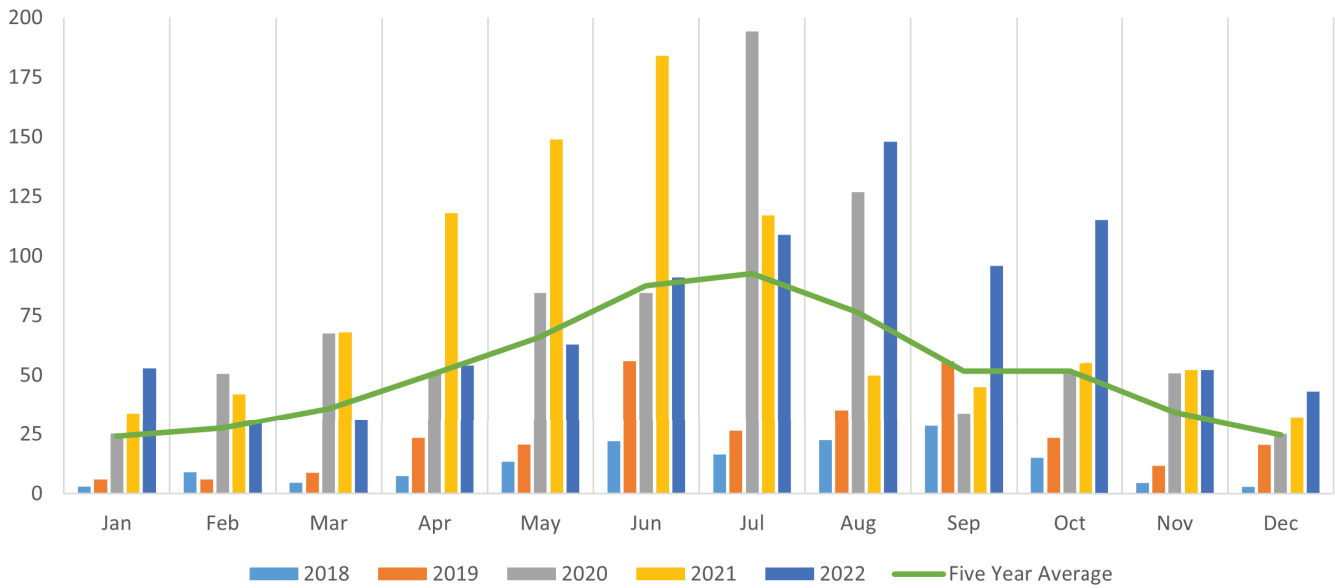
**Airline Operations vs Airline Complaints  
5-Year Summary**



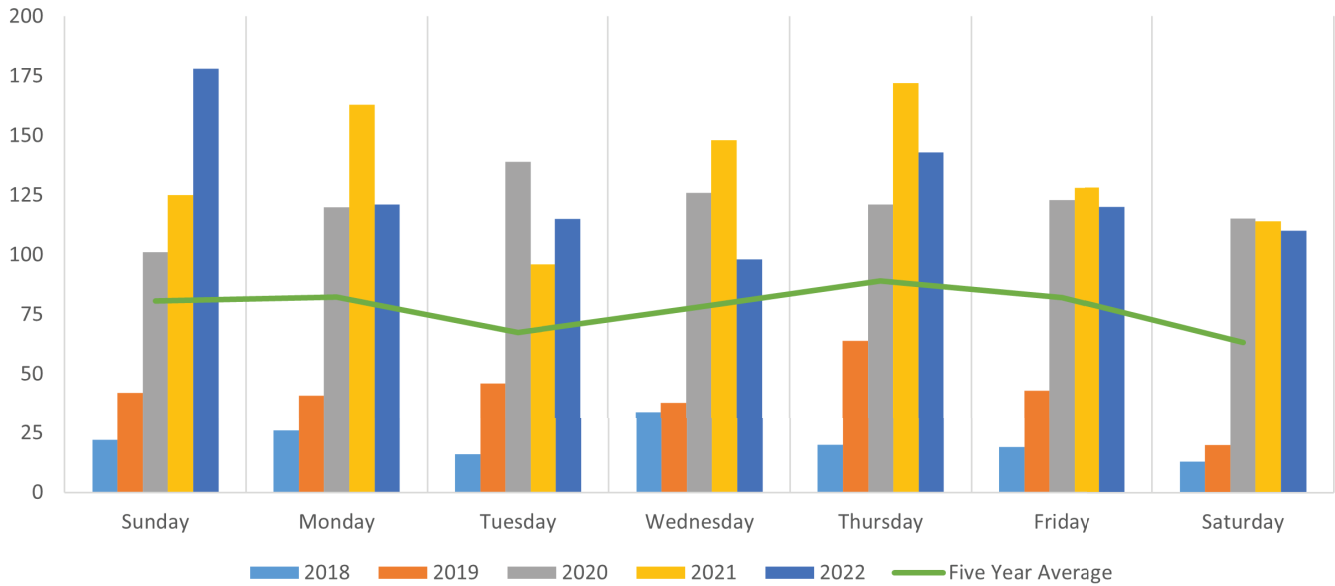
### Complaints by Aircraft Type 5-Year Summary



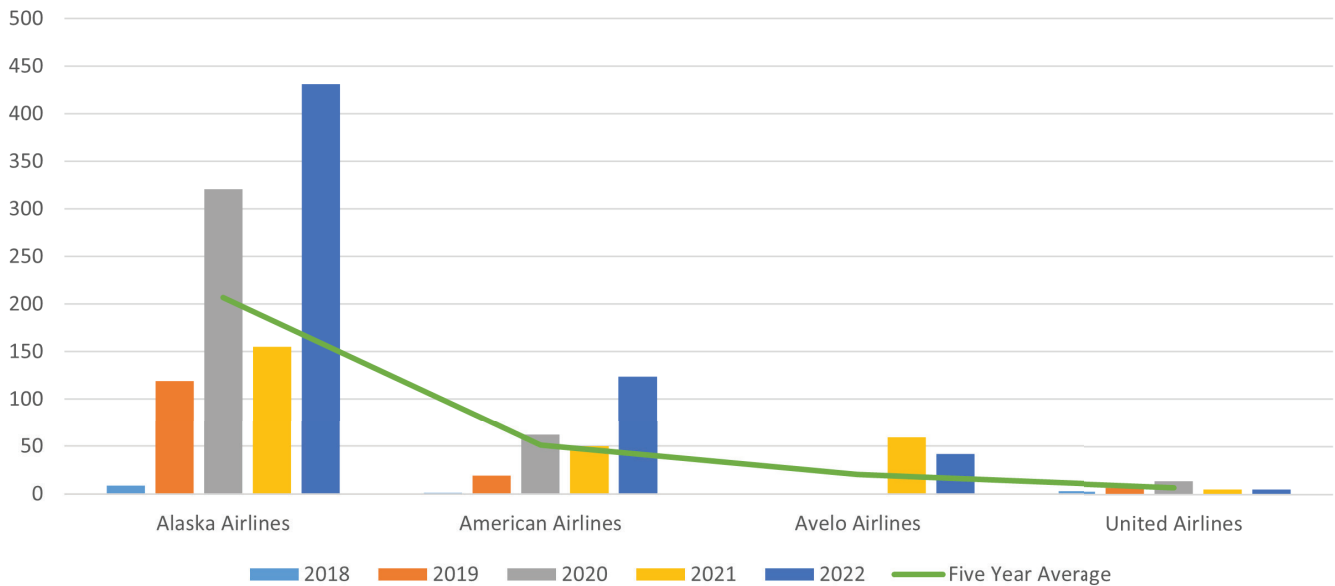
### Complaints by Month 5-Year Summary



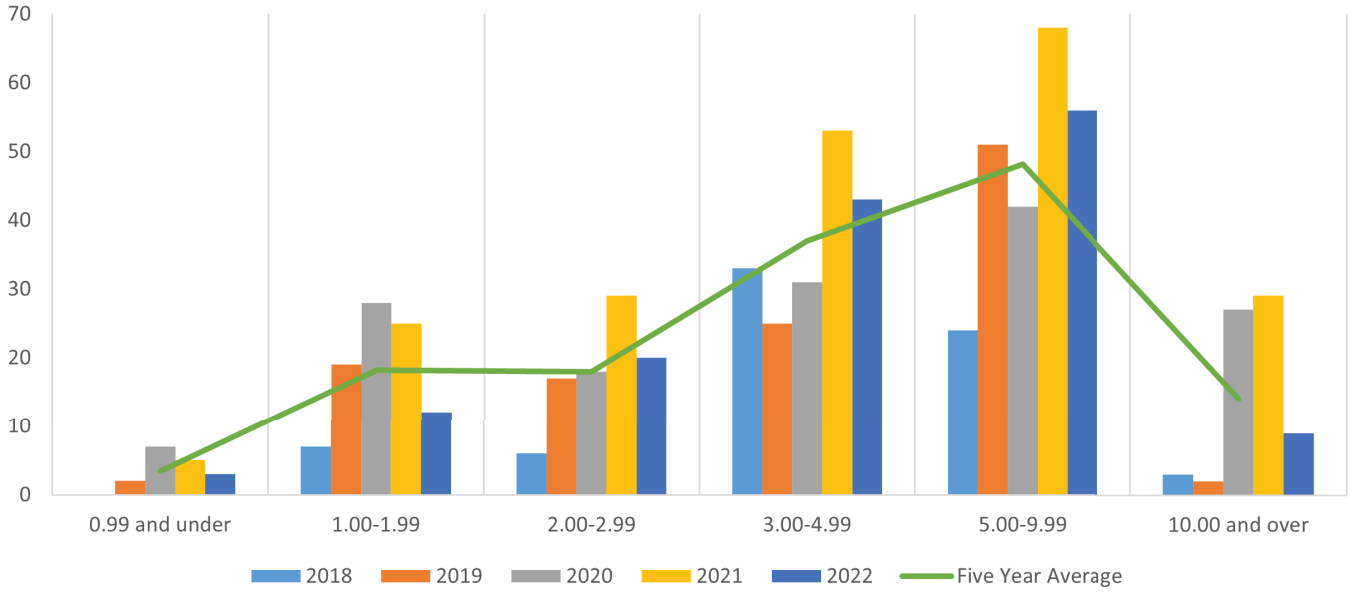
### Complaints by Day of Week 5-Year Summary



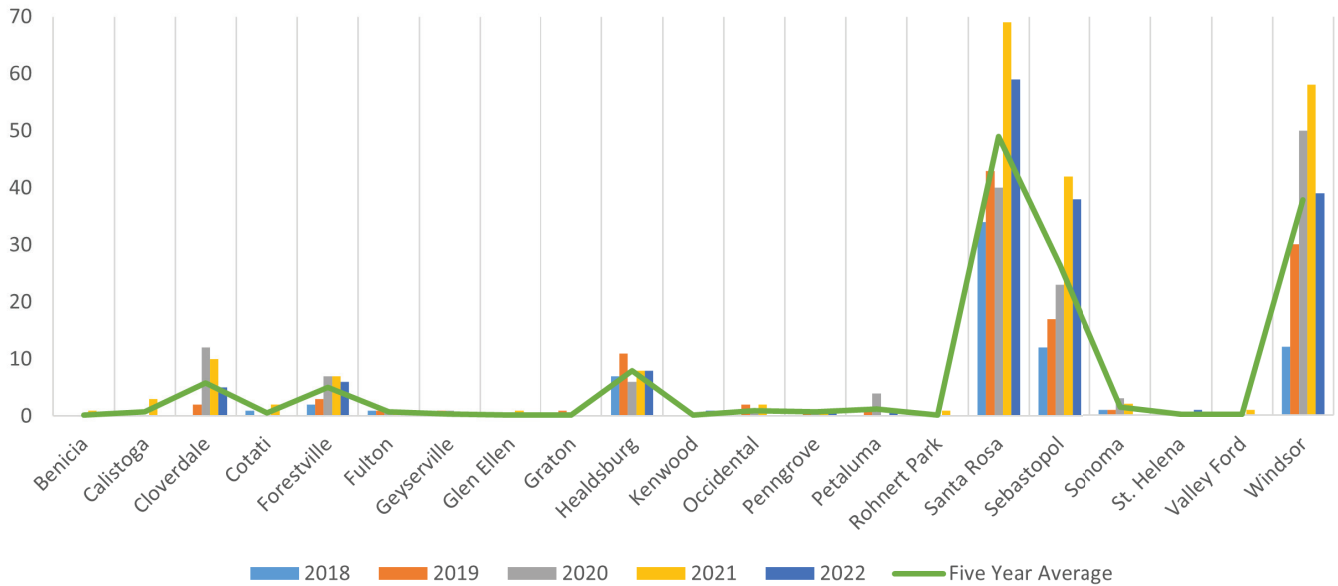
### Operations by Airline 5-Year Summary



## Individual Commenters by NM Distance from Airport 5-Year Summary



## Individual Commenters by City 5-Year Summary



## Noise Abatement in 2022 & Beyond

The Airport is committed to working with our neighbors in Sonoma County, our airline partners, and our general aviation operators to address noise concerns and continue to evaluate noise abatement procedures. Upcoming and ongoing projects include:

### **Develop and implement new procedures for arrivals and departures**

The Airport is working with Cignus Consulting to evaluate the approach and departure procedures with the goal of abating noise and emissions. At the completion of this evaluation, new instrument approach and departure guidelines will be published with the visual approach and departure paths. This process is expected to be completed in 2025 following evaluation of current procedures, creation of the report which will include findings and recommendations, FAA review, and publication for use.

### **Rewrite the Noise Abatement Guide and the Neighbor Guide**

STS is working with the Aviation Commission to rewrite the Airport's Noise Abatement Guide and associated procedures. These updates will incorporate changes based on the approach and departure feasibility study. The updated Neighbor Guide will be a collaborative effort between Airport staff and community advisors.

### **Continued accessibility with STS Good Neighbor website**

In 2021, STS launched our Good Neighbor website to increase the visibility and accessibility of our noise abatement program. This website offers monthly noise reports, frequently asked questions, a portal for the public to submit noise complaints, and will provide updates on the approach and departure feasibility study.

