

HAYWARD EXECUTIVE AIRPORT

Annual Evaluation of the Performance-Based Noise Ordinance For Calendar Year 2012

OPERATIONS AND NOISE COMPLAINT DATA:

During the period from January 1, 2012, through December 31, 2012, there were 83,173 aircraft operations at the Hayward Executive Airport (HWD). There were 612 complaints filed during that period.

Graphs for calendar year 2012 depicting complaints received per month, by neighborhood, time of day, and type of operation are attached as Attachment I-a. Complaint trends over a ten year period are displayed for reference purposes (Attachment I-b).

The breakdown of aircraft operations and available noise information for CY 2012 is as follows:

1. Of the 612 complaints, 504 were from two households in San Lorenzo. As in years past, complaints from these two households (not correlated with an exceedance or violation of the City's Noise Ordinance) have been separated from this report unless stated otherwise.

This removes a total of 479 complaints not correlated with an exceedance or violation of the City's Noise Ordinance. A total of 445 complaints were removed from the annual noise evaluation in 2011.

2. A total of 45 households filed 133 complaints in CY 2012. In CY 2011, 39 households filed 119 complaints. In CY 2010, 54 households filed 117 complaints.

The percentages of complaints filed by households were:

	<u>2012</u>	<u>2011</u>	<u>2010</u>
San Lorenzo	68%	75%	69%
Mobile Home Park	8%	3%	2%
Southgate	3%	4%	3%
Other	21%	18%	26%

When complaints not correlated to exceedances or violations from the two households are added, the percentages of complaints filed by households from San Lorenzo become: 93% in 2012, 95% in 2011, and 95% in 2010.

A total of 19 complaints for 2012 were filed from neighborhoods not in the vicinity of the airport. Most of these complaints were from the Hayward Hills, Castro Valley, San Leandro, Berkeley, and Alameda. These complaints were not necessarily from aircraft operating to or from the Hayward Airport.

3. The majority of complaints (85) were received between the hours of 7:00 a.m. to 7:00 p.m. The number of complaints received during the same time period in CY 2011 was the same at 85 (Attachment Ic).
4. Causes of the 133 complaints by type of operation and by type of aircraft are (Attachment Id):

Departures	62	Helicopter	41
Landings	27	Jet	52
Media/Police	15	Multi Engine	17
Overflights/Orbit	3	Single Engine	23
Run-ups	3		133
Touch and go's	23		
	133		

The percentage of total complaints (612) relative to total operations (83,173) is 0.74%. When the 479 non-exceedance complaints from the two San Lorenzo households are removed, the percentage of complaints (133) to operations (83,173) is 0.16%. In 2011, the complaints to operations percentage was 0.13%.

EXCEEDANCE OF NOISE LIMITS:

In 2012, there were 106 exceedances of the noise ordinance resulting from the 83,173 operations. Therefore, only 0.13% of operations resulted in an exceedance. This is the same percentage as CY 2011.

One exceedance represents a single event noise exposure level (SENEL) measuring above the defined decibel level in the City's Noise Ordinance at any given noise monitoring terminal (NMT). A single aircraft operation, such as a landing or take-off, can cause more than one exceedance if the noise level is exceeded at two or more NMTs. Of the 106 exceedances, 100 involved operations exempt (Lifeguard and Stage III) from being considered in violation of the City's Noise Ordinance (Section 2-6.123).

Lifeguard	1
Stage III Jet Aircraft	99
	100

EXCEEDANCE OF NOISE LIMITS AND RELATED COMPLAINTS:

A total of 32 complaints were received as a result of the 106 exceedances of the noise limit during CY 2012. Of the 32 complaints, there were 30 complaints received on aircraft exempt from noise restrictions by state or federal law, or by provisions of the City's Noise Ordinance. There were 2 complaints received on aircraft, which operated in violation of the noise ordinance.

When a complaint is received by our office and staff investigation determines there was an exceedance of the City's established noise decibel level in accordance with the noise ordinance, the owner or pilot of the aircraft is contacted by phone or by mail. Airport staff instructs him/her on proper noise abatement procedures and our "Fly Friendly" program. This occurs even for exempt operations.

VIOLATIONS INCURRED BY AIRCRAFT:

HWD Based

There were 0 violations of the noise ordinance by HWD based aircraft.

Transient

There were 3 transient aircraft, which created 3 violations and 6 exceedances of the noise ordinance. These aircraft were a mixture of out-of-state and out-of-area aircraft from a variety of cities. Aircraft owners were contacted regarding the City's noise limits and warned that further violations can result in a civil penalty as outlined in the ordinance.

NOISE EQUIPMENT:

HWD continues to utilize prime noise monitoring equipment to accurately track and research noise events. Our Airport Noise and Operations Monitoring System (ANOMS) translates raw noise data from our 4 NMTs and correlates it to an aircraft's flight track. Staff is able to monitor the City's Noise Ordinance, preferred flight paths, and query noise events. Staff also uses a Digital Loggers radio scanner system, purchased in 2009, to monitor and ensure compliance with the City's Noise Ordinance. This equipment has the ability to scan and record eight different air traffic control frequencies in a crystal clear format. Combined with ANOMS, we can see and hear air traffic control instructions and pilot read backs. This greatly assists in finding non-compliant flights and provides information on each operation on a variety of frequencies.

In our ongoing effort to remain sensitive to the needs of the surrounding airport community, airport staff designed a variety of "fly friendly" brochures and flyers. These comprehensive guides provide information to concerned citizens regarding what, how, and when to report aircraft they believe may be in violation of the City's Noise Ordinance. They also inform pilots on recommended operational procedures that can significantly reduce the noise impacts on our surrounding community.

SUMMARY OF NOISE VIOLATIONS FOR CALENDAR YEAR (CY) 2012:

Violations incurred by based aircraft operators:	0
Violations incurred by transient operators:	<u>3</u>
Total:	3

SUMMARY OF FINDINGS FOR CALENDAR YEAR (CY) 2012:

1. There were 83,173 aircraft operations at HWD in 2012. This is a decrease of approximately 7.4% from 2011 (89,799).
2. There were 106 exceedances of the noise limits. This is a slight decrease from 2011 (115).
3. There were 133 complaints from aircraft operations at HWD, representing only 0.16% of the 83,173 total operations. The number of households submitting complaints increased

from 39 in CY 2011 to 45 in CY 2012. 19 of the 45 households were outside the vicinity of the airport and therefore outside Hayward Airport's jurisdiction.

4. Approximately 94.3% of the exceedances of the noise ordinance (100 of 106) were caused by aircraft exempt from restrictions by state or federal laws, or by provisions of the City's Noise Ordinance.
5. The 6 non-exempt exceedances were .007% of the total operations for 2012. This reflects nearly 100% adherence to the Noise Ordinance.
6. Approximately 24.1% of the noise complaints (32) received was the result of a noise decibel limit exceedance. Only 1.5% of the complaints (2) were the result of a violation of the Noise Ordinance.

CONCLUSIONS:

Staff is committed to accomplishing the objectives established by City Council. Conclusions can be summarized as follows:

1. Since 1993, the number of complaints caused by exceedances of the noise ordinance has dropped from 156 to 32, a reduction of 79.5%.
2. Aircraft not in compliance with FAA's estimated maximum A-weighted sound levels in accordance with Advisory Circular 36-3F are unable to operate at the airport without detection, subsequent investigation and appropriate correction.
3. Aircraft noise has been reduced to decibel levels that respond to the environmental concerns of the community, yet are not so severe as to preclude HWD from serving the general aviation needs of the community.
4. The noise ordinance is reasonable and reflects significant positive input from the community and a number of airport users.
5. The "Fly Friendly" User Education Program continues to be effective by instructing local and transient pilots in quiet-flying techniques and in the use of the noise abatement procedures at HWD. The procedures are designed to reduce aircraft low over-flights in the surrounding communities of the airport; through mandatory noise briefings for new tenants, providing information on proper operational procedures in our newsletter, sending instructional fliers to various flight schools in the area and investigating aircraft flights with our radar tracking system.

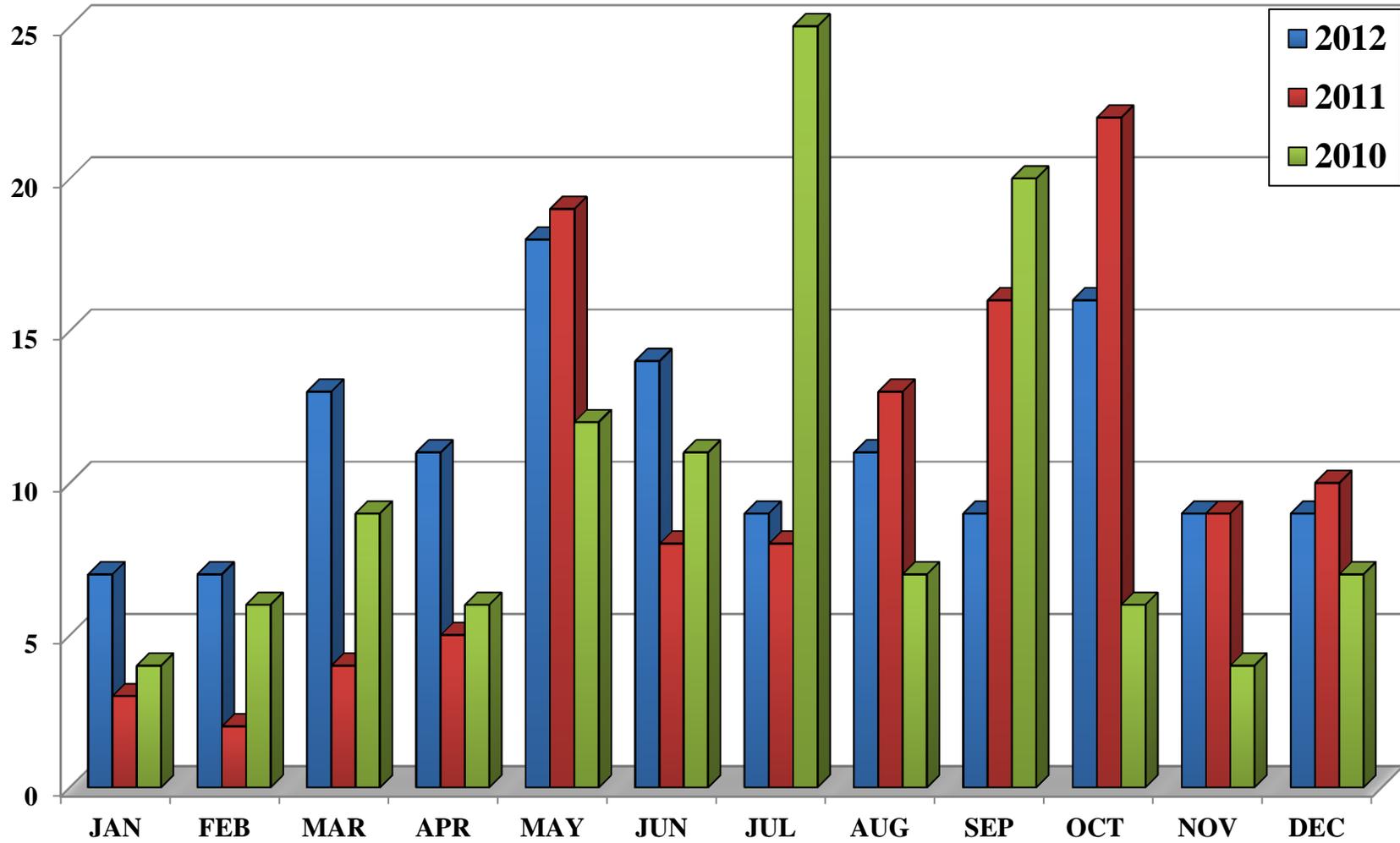
The program has been effective in reaching both local and transient operators as evidenced by the low percentage of violations and 99.99% adherence to the noise ordinance by local and transient operators. A toll free telephone number is maintained to encourage pilots and corporate groups to inquire about noise abatement procedures and the noise ordinance prior to using HWD. They can also direct inquiries to staff through airport email on the City's website.

Attachments:

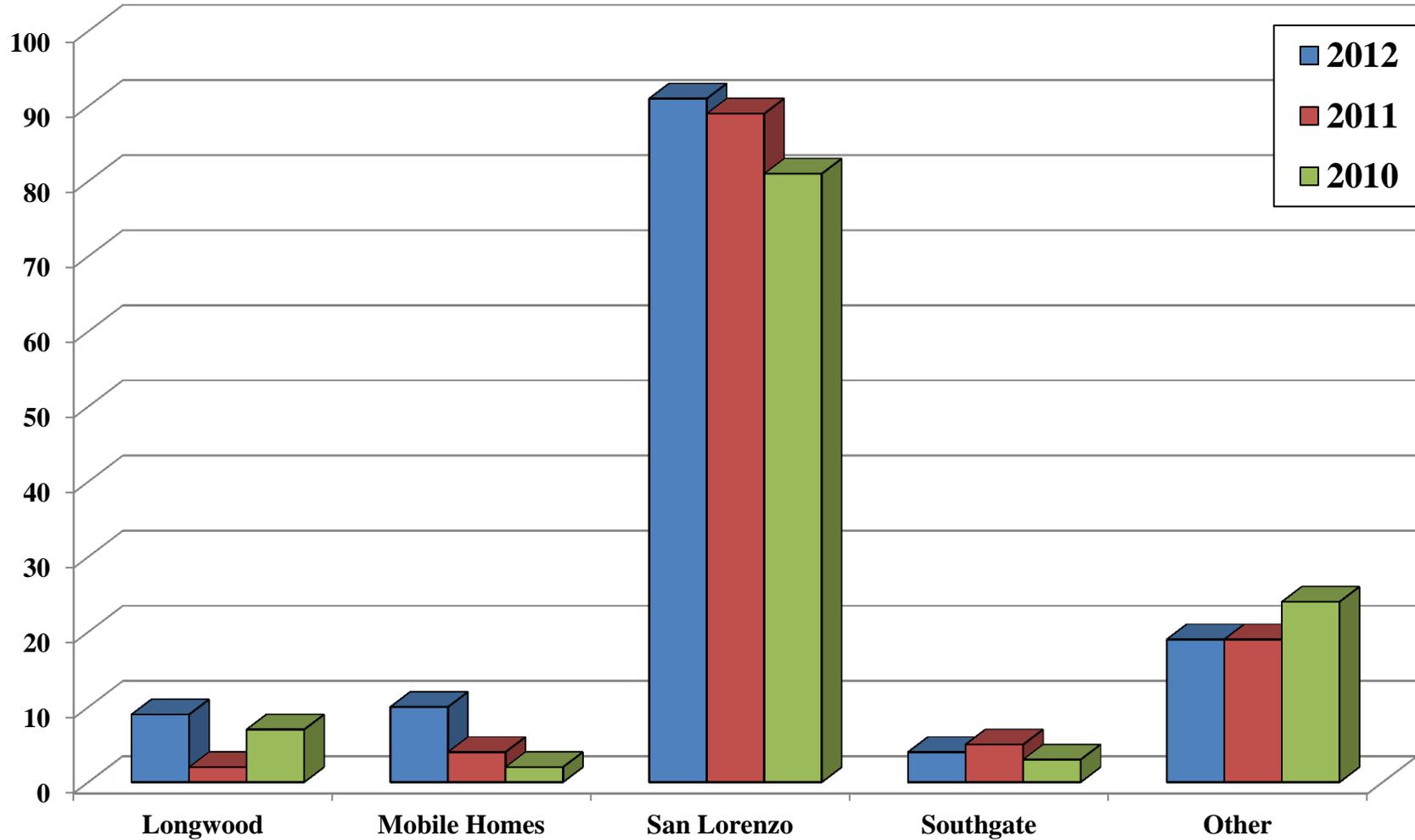
Attachment I-a: Graphs

Attachment I-b: Complaint

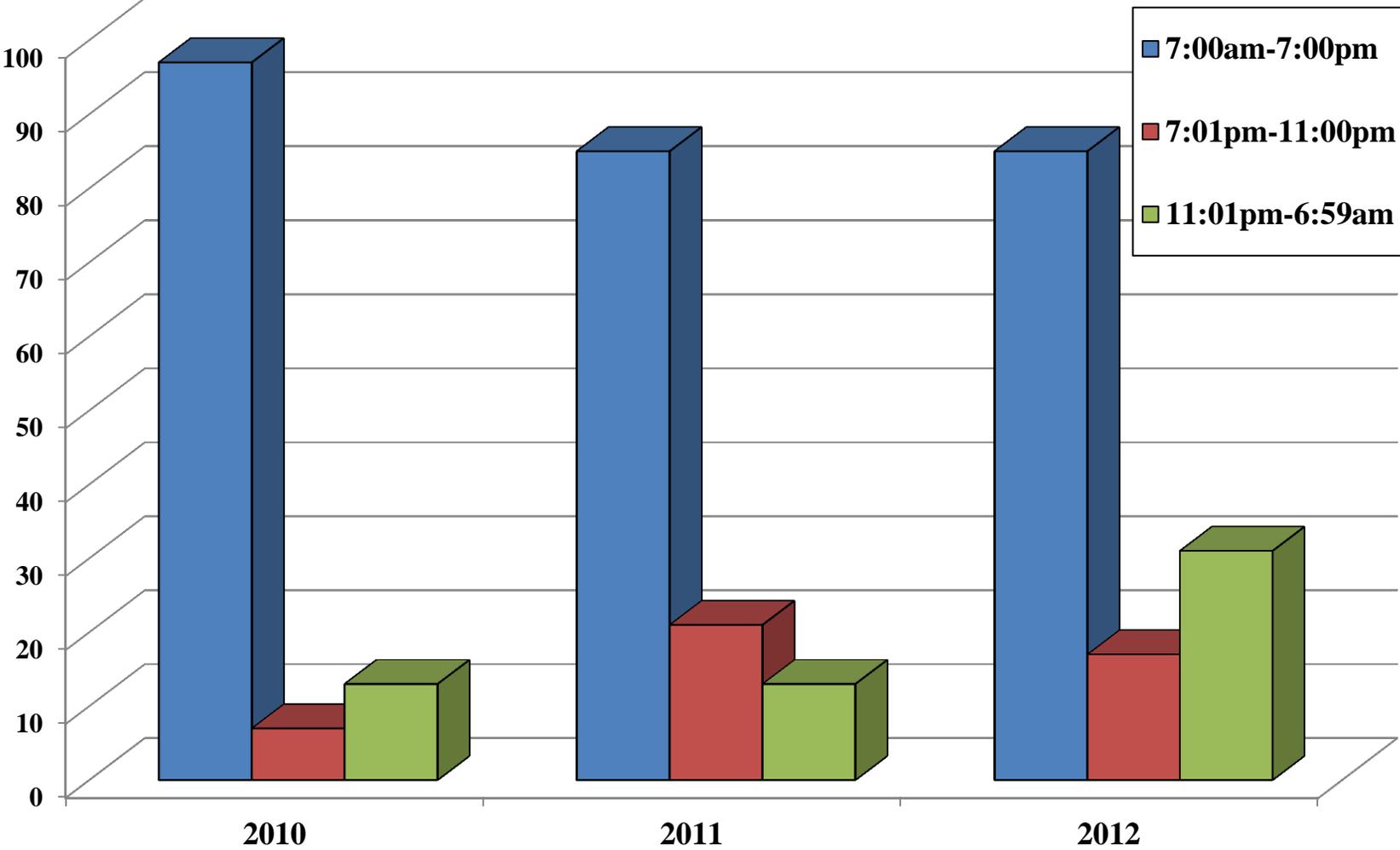
Complaints by Month



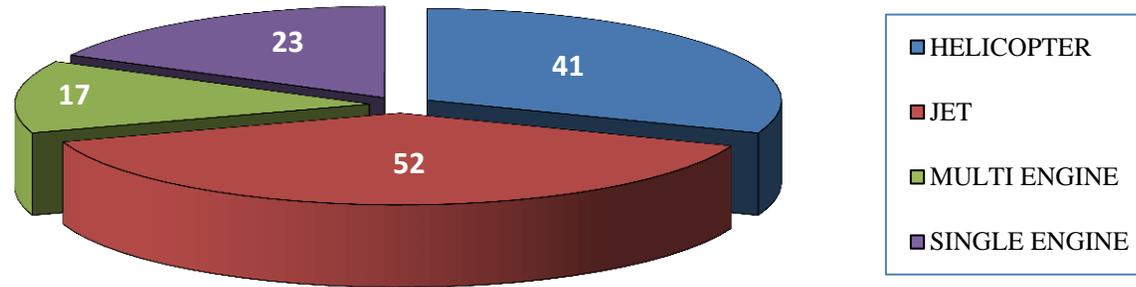
Complaints by Location



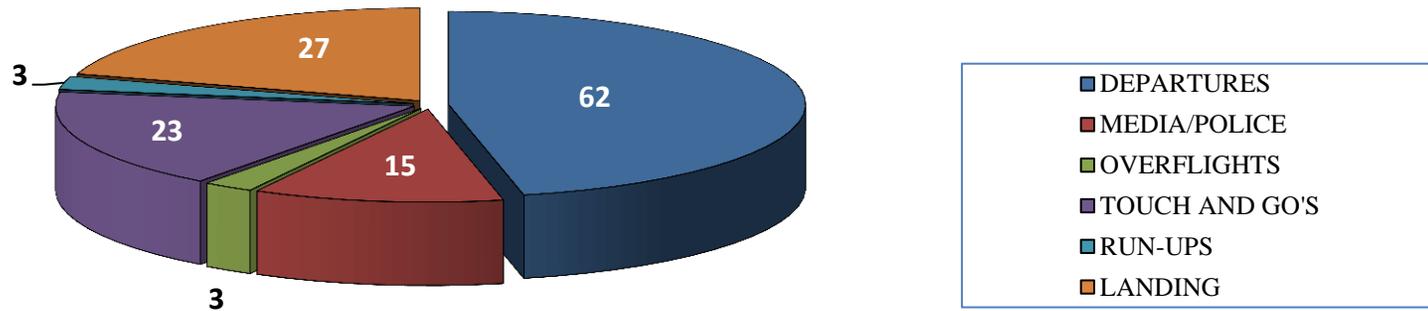
Complaints by Time of Day



COMPLAINTS BY TYPE OF AIRCRAFT 2012



COMPLAINTS BY OPERATIONS 2012



Ten Year Complaint Trend

