

**City of Hayward
777 B Street
Hayward, CA 94541**

Council's Airport Committee Meeting

**Thursday, April 27, 2006
5:30 p.m.
Work Session Room 2A**

A G E N D A

5:30 p.m. Call to Order - Pledge of Allegiance

Public Comments: (The PUBLIC COMMENTS section provides an opportunity to address the Committee on items listed on the agenda, as well as other items of interest. The Committee welcomes your comments under this section, but is prohibited by State law from discussing items not listed on the agenda. Your item will be taken under consideration and referred to staff.)

- 1. Approval of January 26, 2006 Summary Minutes**
- 2. Annual Evaluation of the Performance-Based Noise Ordinance for Calendar Year 2005**
- 3. Future Agenda Items; Schedule Special Meeting**

Distribution:

Mayor and City Council
City Manager
Assistant City Manager
City Attorney
Public Works Director

City Clerk
FAA Tower Manager
Airport Tenants
FBO's
Interested Parties

Daily Review
Post

Assistance will be provided to those requiring accommodations for disabilities in compliance with the Americans with Disabilities Act of 1990. Interested persons must request accommodation at least 48 hours in advance of the meeting by contacting the Airport Manager at (510) 293-8678 or TDD (510) 293-1590.



AGENDA DATE 04/27/06

AGENDA ITEM 1

COUNCIL AIRPORT COMMITTEE

Summary Minutes for January 26, 2006

CALL MEETING TO ORDER

Council Member Henson called the meeting to order at 5:34 p.m. with Council Member Halliday and Council Member Quirk present.

City staff: Jesús Armas, City Manager
Robert Bauman, Director of Public Works
Brent Shiner, Airport Manager
Ross Dubarry, Airport Operations Manager
Jenny Donnelley, Admin Analyst I

Members of the public present: John Kyle
Ernie Delli Gatti
Scott Briggs

PUBLIC COMMENTS:

Mr. John Kyle commented on the recent article in the Daily Review newspaper regarding the rent established for new hangars recently built by Ascend at the Airport.

1. Approval of Summary Minutes – October 27, 2005 Meeting

Summary Minutes were approved as submitted.

2. Security for General Aviation Airports

Airport Manager, Brent Shiner, presented the staff report. Mr. Shiner stated that Federal requirements have not been established for security at general aviation airports. In May of 2004, the Transportation Security Administration (TSA) published an Informational Publication (IP) to assist airport owners with assessing appropriate security enhancements for their specific airport environment.

In compliance with the TSA's guidelines, staff has established a new lock and key control system, a wireless digital camera system, and will soon improve the Airport's perimeter fencing. Additionally, staff has posted signage at every City maintained access gate clearly stating proper procedures to follow when entering or exiting the airfield.

Each air taxi operator at Hayward has a tailor-made TSA approved security program on file in Sacramento. The TSA, as established under TSR part 1544, can and does inspect each airport operator's facility and its records to determine compliance.

Council Member Halliday inquired if there were any metal detectors at the Airport. Mr. Shiner responded that there were none, at this time, and they are currently not required. Council Member Quirk asked what the most typical security breach was at a general aviation airport. Mr. Shiner stated that the most common security issue is aircraft theft.

Mr. Kyle asked if the Airport's hangar leases provide for periodic inspection of the interior of hangars. Mr. Shiner stated Airport staff annually inspects all City owned hangars. Mr. Delli Gatti inquired if staff had considered tying the camera system into the existing noise monitoring system. Mr. Shiner assured him that staff has been looking into ways to tie the two systems together.

3. Airport Construction Update

Public Work's Director, Robert Bauman, provided a brief update on the progress of various projects at the Airport. This included the second phase of the Ascend Hangar project, the overlay of Runways 28R/10L and 28L/10R, widening of Taxiway Alpha, construction of the Target Retail Shopping Center, the Interite Pump Station, and the realignment of West A Street. Additionally, Mr. Bauman reported that the FAA has approved funding for the construction of the North Side Helipad.

Council Member Halliday inquired if the contaminated ground water and soil under the Target site had been resolved. Mr. Bauman responded that staff is still working with the Regional Water Quality Control Board to fully address its requirements. Mr. Kyle expressed his concerns regarding the type of fencing surrounding the Intertie Pump Station. He suggested that if a block wall is constructed the City should anticipate it being a target for graffiti. Mr. Bauman assured him that City staff has taken that into consideration.

4. Status Report on Helicopter Arrival and Departure Procedures Study

Mr. Shiner reported the completion of the helicopter study.. City staff is working with the FAA and helicopter operators to develop a Letter of Agreement (LOA) to verify the proper helicopter noise abatement routes at Hayward. Staff anticipates the FAA will have an LOA for the City's review by the end of February.

Council Member Quirk commented on the excellent job staff has done working with the FAA and helicopter pilots to reduce the impact of helicopter noise on neighboring communities. Council Member Henson expressed his gratitude to the Helicopter Working Group.

AGENDA BUILDING

1. Progress report on future Airport rates and charges. Bob crossed this item off - he does not remember it as an item. Please advise.
2. Progress report on the Helicopter Arrival and Departure Study.

ADJOURNMENT

The meeting adjourned at 6:38 p.m.



CITY OF HAYWARD
STAFF REPORT

AGENDA DATE 04/27/06

AGENDA ITEM 2

TO: Council's Airport Committee

FROM: Director of Public Works

SUBJECT: Annual Evaluation of the Performance-Based Noise Ordinance for Calendar Year 2005 Report

RECOMMENDATION:

It is recommended that the Committee review and comment on the attached "Annual Evaluation of the Performance-Based Noise Ordinance for Calendar Year 2005" report.

DISCUSSION:

Each year, Airport staff prepares a report (Attachment A) that evaluates the effectiveness of the City's Performance-Based Noise Ordinance. The findings for calendar year 2005 can be summarized as follows:

1. There were 128,184 aircraft operations at Hayward in 2005, a decrease of approximately 8.5 percent from 2004.
2. There were 947 complaints filed from January 1, through December 31, 2005. Two households in San Lorenzo filed 816 of those complaints. As staff was unable to associate any reportable noise activity to many of the complaints, those that were not correlated to violations or exceedances of the noise ordinance were separated from this report.
3. With the anomalies removed there were 131 complaints from 47 households as a result of aircraft operations at HWD, representing only 0.1 percent of the 128,184 total operations.
4. There were 123 exceedances of the noise limits. This represents a slight increase from 2004 (117).
5. Approximately 93 percent of the exceedances of the noise ordinance (115 of 123) were caused by aircraft exempt from restrictions by state or federal laws, or by provisions of the City's noise ordinance.
6. The 8 non-exempt exceedances were .006 percent of the total operations for 2005. This reflects nearly 100 percent adherence to the noise ordinance.
7. Approximately 31 percent (41) of the noise complaints received were the result of a noise decibel limit exceedance. Only 8.4 percent of the complaints (11) were the result of a violation of the noise ordinance.

Staff concludes that, overall, the noise ordinance has been highly effective in accomplishing the objectives established by City Council. Since 1993, the number of complaints caused by exceedances of the noise ordinance's decibel limits has dropped from 156 to 41, a reduction of 73 percent. Staff believes that its focus on noise abatement and promoting Hayward's "Fly Friendly" User Education Program may have contributed to this result.

As part of the City's ongoing effort to monitor and ensure compliance with the City's Noise Ordinance, an upgrade to the existing Airport Noise and Operations Monitoring System (ANOMS) will be proposed in the Airport's Capital Improvement Fund budget for FY 06/07. The proposed system, under contract with and maintained by the City's current ANOMS provider (Lochard Corp.), includes a conversion from the current Unix based ANOMS 6, to the latest and most up-to-date Windows based ANOMS 8. The proposed system will enable collection and reporting of data compatible with Windows. This upgrade will improve system administration, strengthen staff's ability to view data more quickly, provide better street mapping capabilities, and enable data to be used in various formats with more comprehensive and less problematic reporting methods.

In response to suggestions stemming from the Committee meeting of April 28, 2005, the proposed FY 06/07 Capital Improvement Budget will include funding to landscape approximately 2,000 lineal feet along the top (east side) of the noise berm. This project includes areas adjacent to the fence line along Hesperian Boulevard. The dirt and unpaved areas (approx. 4,000 sq ft) to the south of the run-up apron for Runway 28L will be landscaped. These improvements are intended to mitigate, to the extent possible, jet aircraft fumes in the residential areas across Hesperian Boulevard near Longwood Avenue.

CONCLUSION:

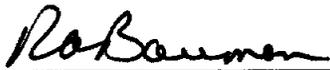
Staff believes that the noise ordinance is achieving its goal of reducing excessive aircraft noise, and is available to answer any questions Committee members may have.

Prepared by:



Brent S. Shiner, Airport Manager

Recommended by:



Robert A. Bauman, Director of Public Works

Approved by:



Jesús Armas, City Manager

HAYWARD EXECUTIVE AIRPORT

Annual Evaluation of the Performance-Based Noise Ordinance For Calendar Year 2005

OPERATIONS AND NOISE COMPLAINT DATA:

During the period from January 1, 2005, through December 31, 2005, there were 128,184 aircraft operations (124,610) FAA daytime count, 7:00 a.m. to 9:00 p.m., and (3,574) night operations count, (9:00 p.m. to 7:00 a.m.) at the Hayward Executive Airport (HWD). There were 947 complaints filed during that period.

Graphs for calendar year 2005 depicting complaints received per month, by neighborhood, time of day, and type of operation are attached as Exhibits 1 through 4. CY 2005 complaint data has also been compared to years 2003 and 2004, which are displayed for reference purposes (Exhibit 5).

The breakdown of aircraft operations and available noise information for CY 2005 is as follows:

1. Of the 947 complaints, 816 were from two households in San Lorenzo. Of the 816 complaints there were 5 violations and 39 exceedances (8 of those exceedances resulted from Lifeguard flights) of the noise ordinance. As in years past, complaints from these two households (not correlated with an exceedance or violation of the noise ordinance) have been separated from this report. This is due to the inability of staff to associate any reportable noise activity to many of the complaints and staff's objective to better utilize limited resources.
2. A total of 47 households filed 131 complaints in CY 2005. In CY 2004, 61 households filed 154 complaints.

The percentage of total complaints filed by households were:

	<u>2005</u>	<u>2004</u>	<u>2003</u>
San Lorenzo	72%	68%	81%
Longwood	7%	10%	3%
Mobile Home Park	1%	1%	4%
Southgate	8%	9%	7%
Other	13%	12%	5%

When the statistical anomalies generated by two households are removed; 705 in 2003, 556 in 2004 and 816 in 2005, the annual complaint numbers from San Lorenzo become: 131 in 2003, 104 in 2004, and 131 in 2005.

A total of 17 complaints for 2005 were filed from neighborhoods not in the vicinity of the airport. Most of these complaints were from San Leandro, Castro Valley, Union City, Fremont and Oakland. These complaints were not necessarily from aircraft operating to or from the Hayward Airport.

3. The majority of complaints (114) 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 2004 was 119 (Exhibit 3).

RADAR FLIGHT TRACKING:

As part of the City's ongoing effort to monitor and ensure compliance with the Noise Ordinance, an Airport Noise and Operations Monitoring System (ANOMS) was installed and certified operational in early 2002. This new state of the art system provides airport staff with the increased ability to accurately monitor aircraft arriving and departing, track flights and altitudes and aircraft identification. Through information obtained from the NMTs (Exhibit 6), radar flight tracking data and local air traffic control communications, a significant number of noise and low overflights can be comprehensively investigated. In addition to increased accuracy, ANOMS reduces the time necessary to analyze and respond to the public's inquiries. Exhibit 7 is an example of the ANOMS flight data and tracking capabilities.

24 HOUR NOISE ABATEMENT RADIO TRANSMISSION AND NEW COMMUNITY GUIDE:

In early September, 2004, after receiving authorization from the Federal Communications Commission (FCC), Airport staff established a 24 hour, 7-days a week, continuous radio broadcast of the City's noise abatement and operational procedures. This broadcast allows staff to communicate our "fly friendly" program to local and transient pilots nonstop. Additionally, in our ongoing effort to remain sensitive to the needs of the surrounding airport community, staff designed and printed an *Aircraft Noise Reduction Community Guide* (Exhibit 9). This comprehensive guide provides information to concerned citizens regarding what, how, and when to report aircraft they believe may be in violation of the City's Noise Ordinance.

SUMMARY OF NOISE VIOLATIONS FOR CALENDAR YEAR (CY) 2005:

Violations incurred by based aircraft operators:	0
Violations incurred by transient operators:	<u>11</u>
Total:	11

SUMMARY OF FINDINGS FOR CALENDAR YEAR (CY) 2005:

1. There were 128,184 aircraft operations at Hayward in 2005. This is a decrease of approximately 8.5% from 2004 (140,102).
2. There were 123 exceedances of the noise limits. This represents a slight increase from 2004 (117).
3. There were 131 complaints from aircraft operations at HWD, representing only 0.1% of the 128,184 total operations. The number of complaints by household decreased from 61 in CY 2004 to 48 in CY 2005.
4. Approximately 93% of the exceedances of the noise ordinance (115 of 123) were caused by aircraft exempt from restrictions by state or federal laws, or by provisions of the City's noise ordinance.
5. The 8 non-exempt exceedances were .006% of the total operations for 2005. This reflects nearly 100% adherence to the Noise Ordinance.
6. Approximately 31% of the noise complaints (41) received were the result of a noise decibel limit exceedance. Only 8.4% of the complaints (11) were the result of a violation of the Noise Ordinance.

4. Causes of the 131 complaints by type of operation and by type of aircraft are (Exhibit 4):

Departures	94	Helicopter	15
Media/Police	16	Jet	62
Touch and Go's	10	Multi Engine	15
Landings	7	Single Engine	34
General Complaints	3	Unknown	<u>5</u>
Run-ups	<u>1</u>		131
	131		

5. The percentage of total complaints (947) relative to total operations (128,184) is 0.7%. When the statistical anomalies are removed (816), the percentage of complaints (131), to operations is .10%. In 2004 complaints/operations percentage removing the statistical anomalies was also .10%.

EXCEEDANCE OF NOISE LIMITS:

In 2005, there were 123 exceedances of the noise ordinance resulting from 128,184 operations. Therefore, only .09% of operations resulted in an exceedance. This is a slight increase of 117 from last year (.08%). One (1) exceedance represents an SENEL (Single Event Noise Exposure Level) measuring above the level allowed in the ordinance that is recorded at any given Noise Monitoring Terminal (NMT). Hence, a single aircraft operation, i.e. a landing or take-off, can cause more than one exceedance if the noise level is exceeded at two or more NMT's. Of the 123 exceedances, 115 involved operations exempt (Lifeguard and Stage III) from being considered in violation of the noise ordinance (Section 2-6.123).

Lifeguard	18
Stage III Jet Aircraft	<u>97</u>
	115

EXCEEDANCE OF NOISE LIMITS AND RELATED COMPLAINTS:

A total of 41 complaints were received as a result of the 123 exceedances of the noise limits during CY2005. There were 32 complaints received on aircraft exempt from noise restrictions by state or federal law, or by provisions of the City's noise ordinance, i.e., a Lifeguard flight, Police operation or an ATC request. There were 11 complaints received on aircraft, which operated in violation of the noise ordinance.

VIOLATIONS INCURRED BY AIRCRAFT:

HWD Based

There were no violations of the noise ordinance by HWD based aircraft.

Transient

There were 8 transient aircraft, which created 11 violations of the noise ordinance. These aircraft were a mixture of out-of-state and out-of-area aircraft from a variety of cities. The aircraft owners were contacted regarding Hayward's noise limits and procedures.

CONCLUSIONS:

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

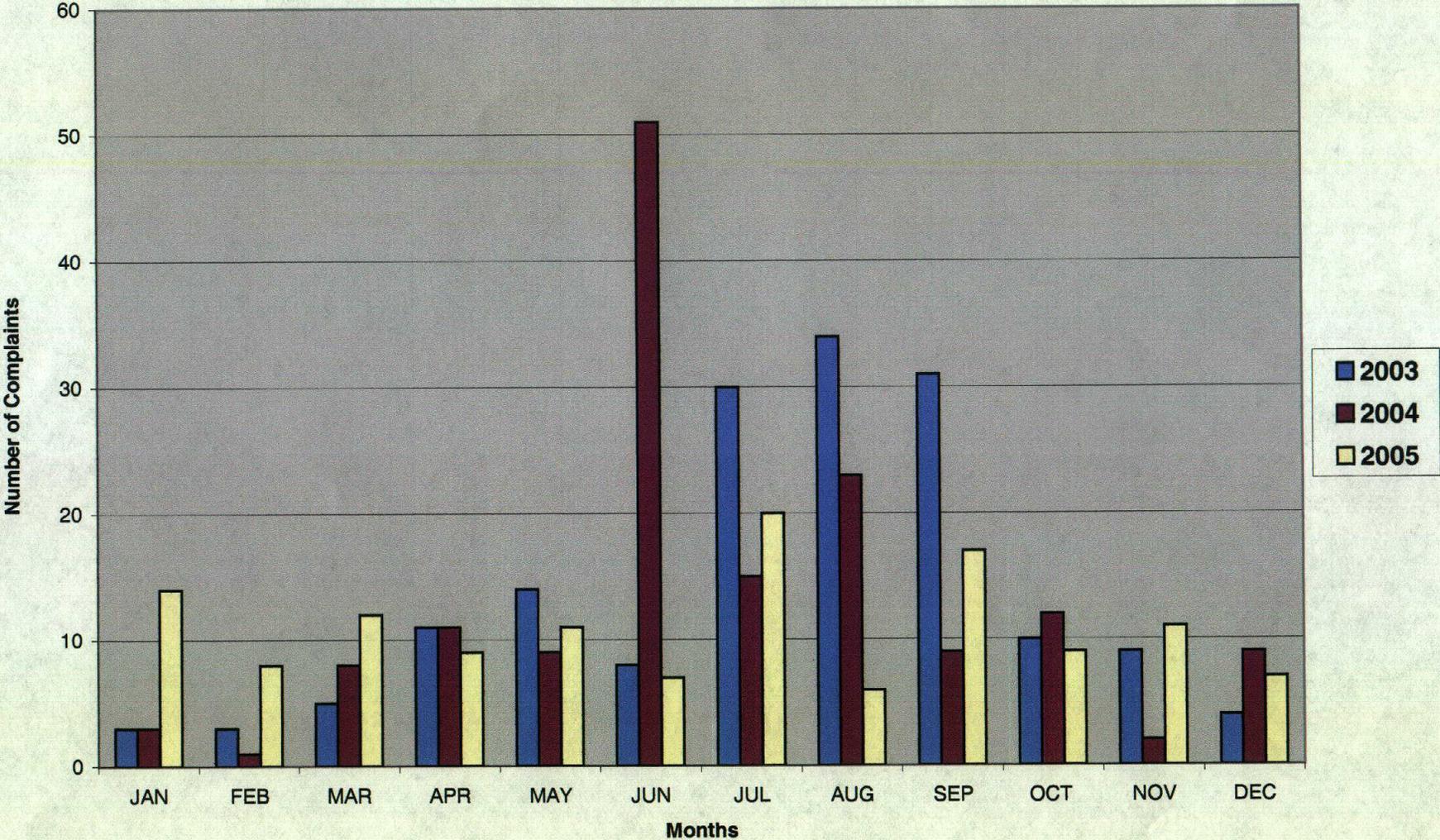
1. Since 1992, the number of complaints caused by exceedances of the noise ordinance has dropped from 156 to 41, a reduction of 73%.
2. Aircraft not in compliance with FAA's estimated maximum A-weighted sound levels in accordance with Advisory Circular 36-3F are unable to operate at the airport without 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 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 via 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 E-mail; a form is available on the Airport website.

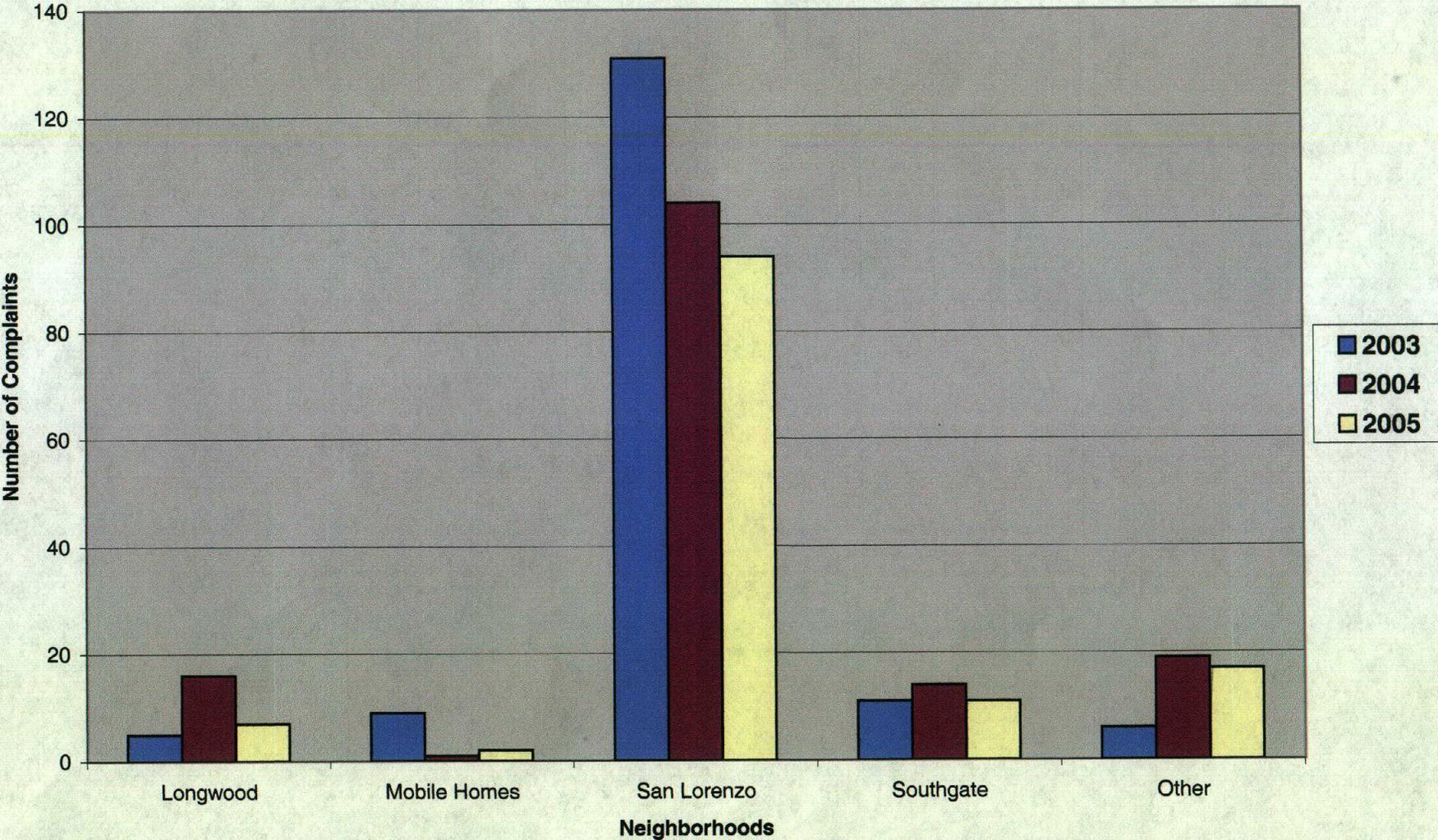
EXHIBITS:

1. Complaints Received/Month
2. Complaints by Neighborhood
3. Complaints by Time of Day
4. Complaints by Type of Operation and Type of Aircraft
5. Complaint Comparison 2003-2005
6. Noise Monitor Locations Map
7. Radar Flight Tracks
8. Appendix A
9. Aircraft Noise Reduction Community Guide

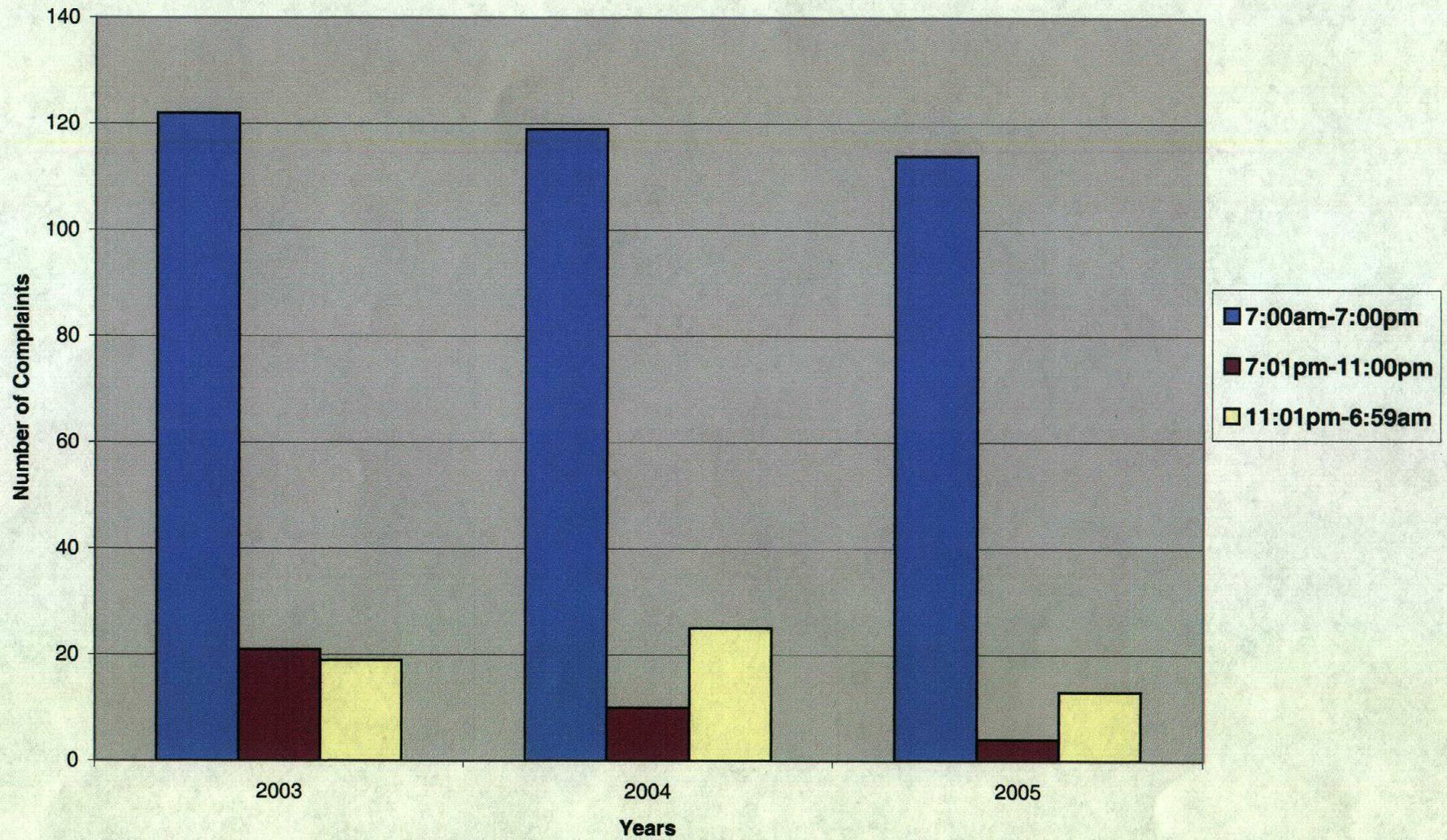
COMPLAINTS PER MONTH 2003-2005



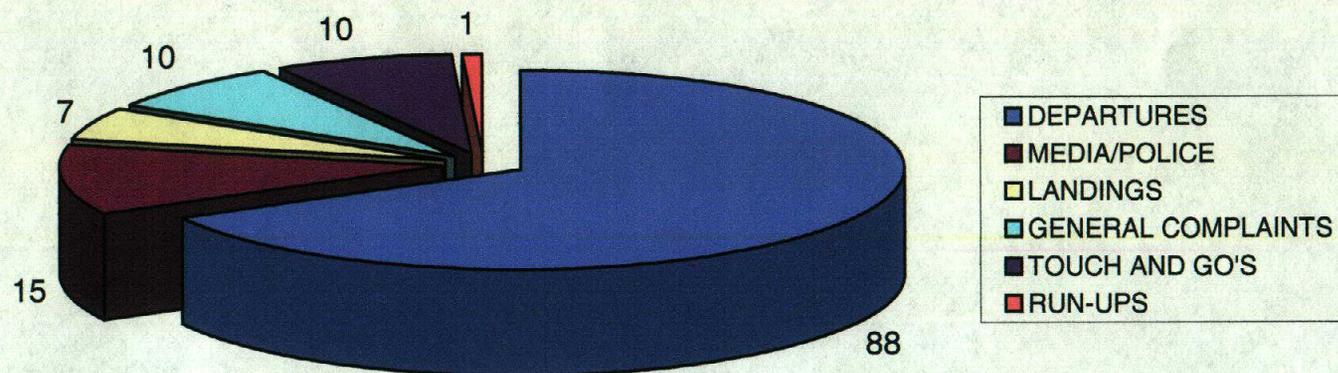
COMPLAINTS BY NEIGHBORHOOD 2003-2005



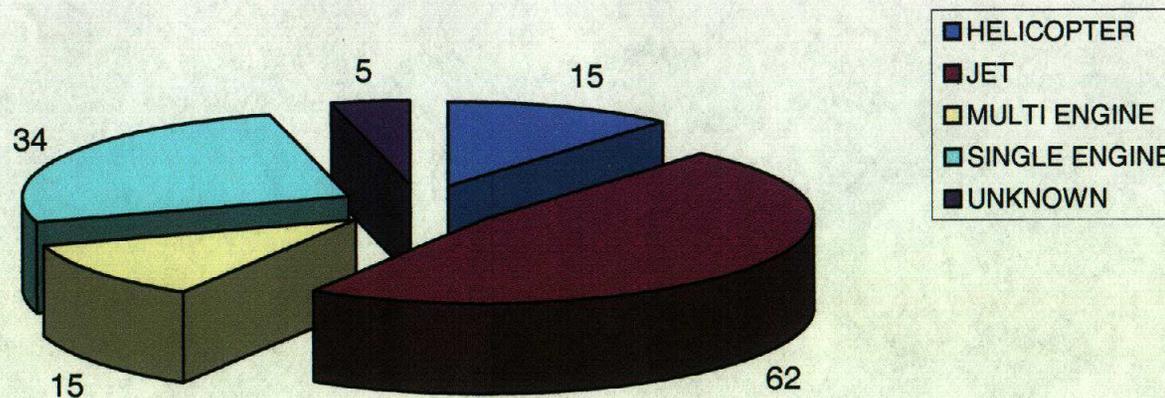
COMPLAINTS BY TIME OF DAY 2003-2005



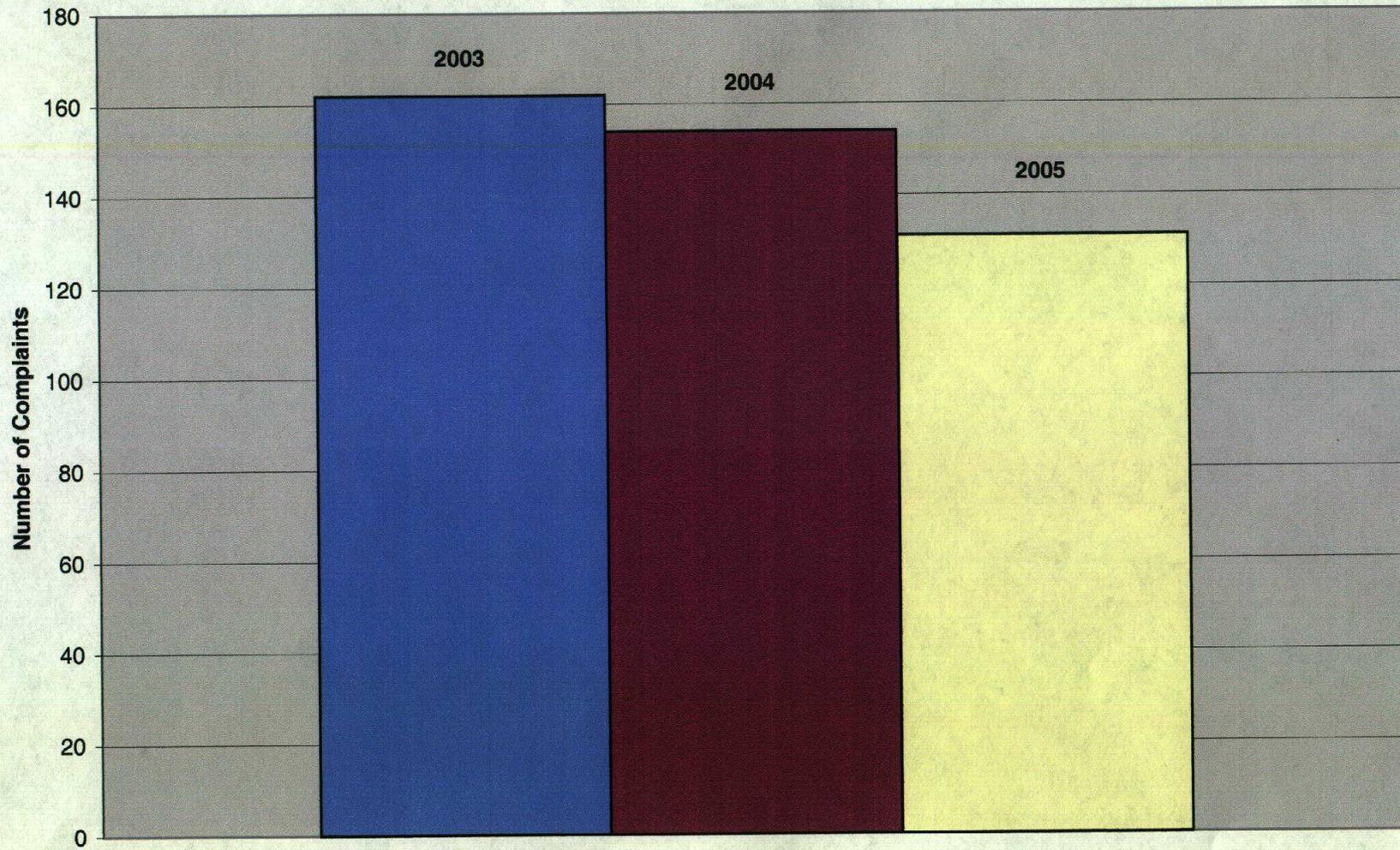
COMPLAINTS BY OPERATIONS 2005



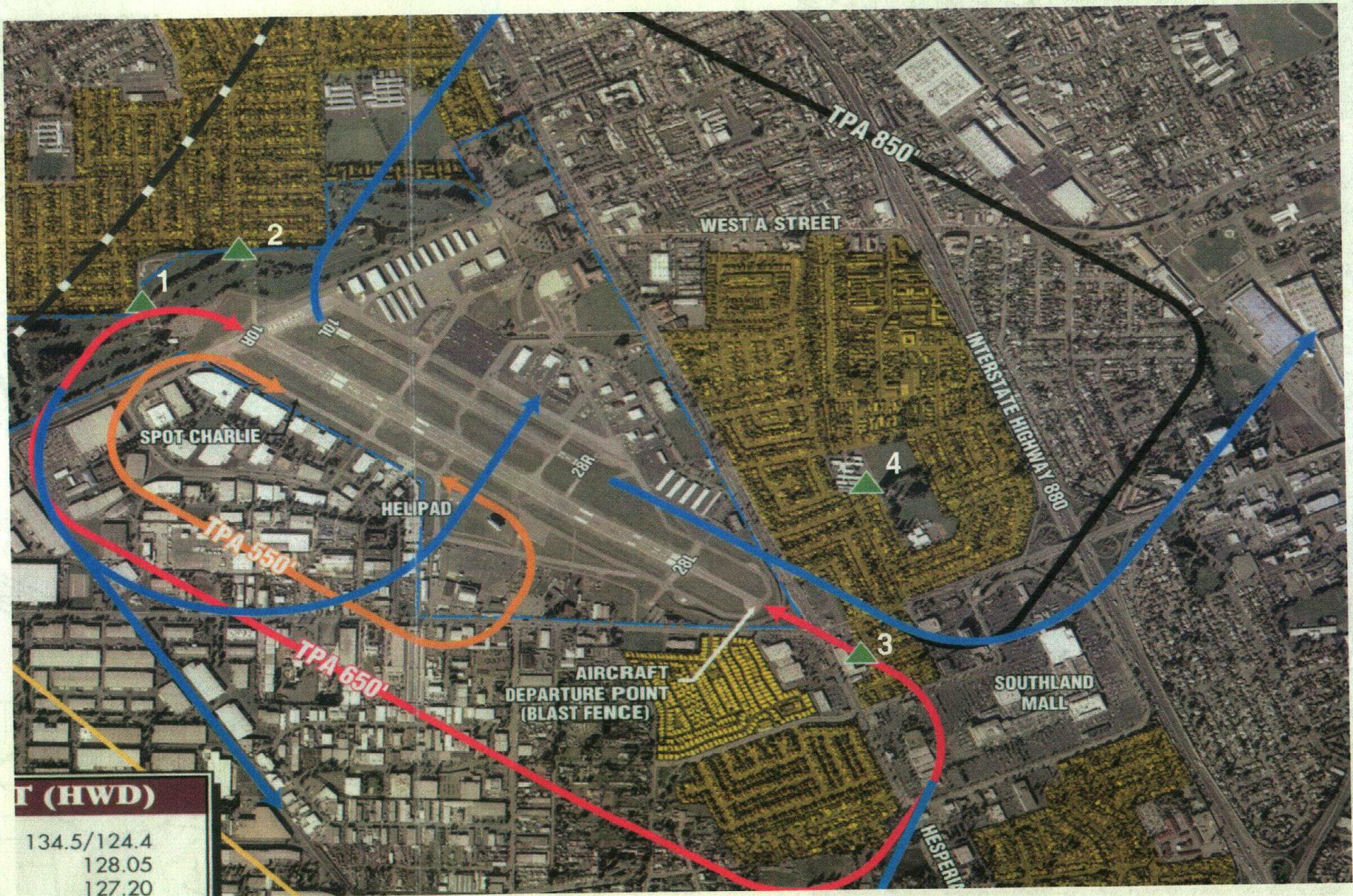
COMPLAINTS BY TYPE OF AIRCRAFT 2005



COMPLAINT COMPARISON 2003-2005

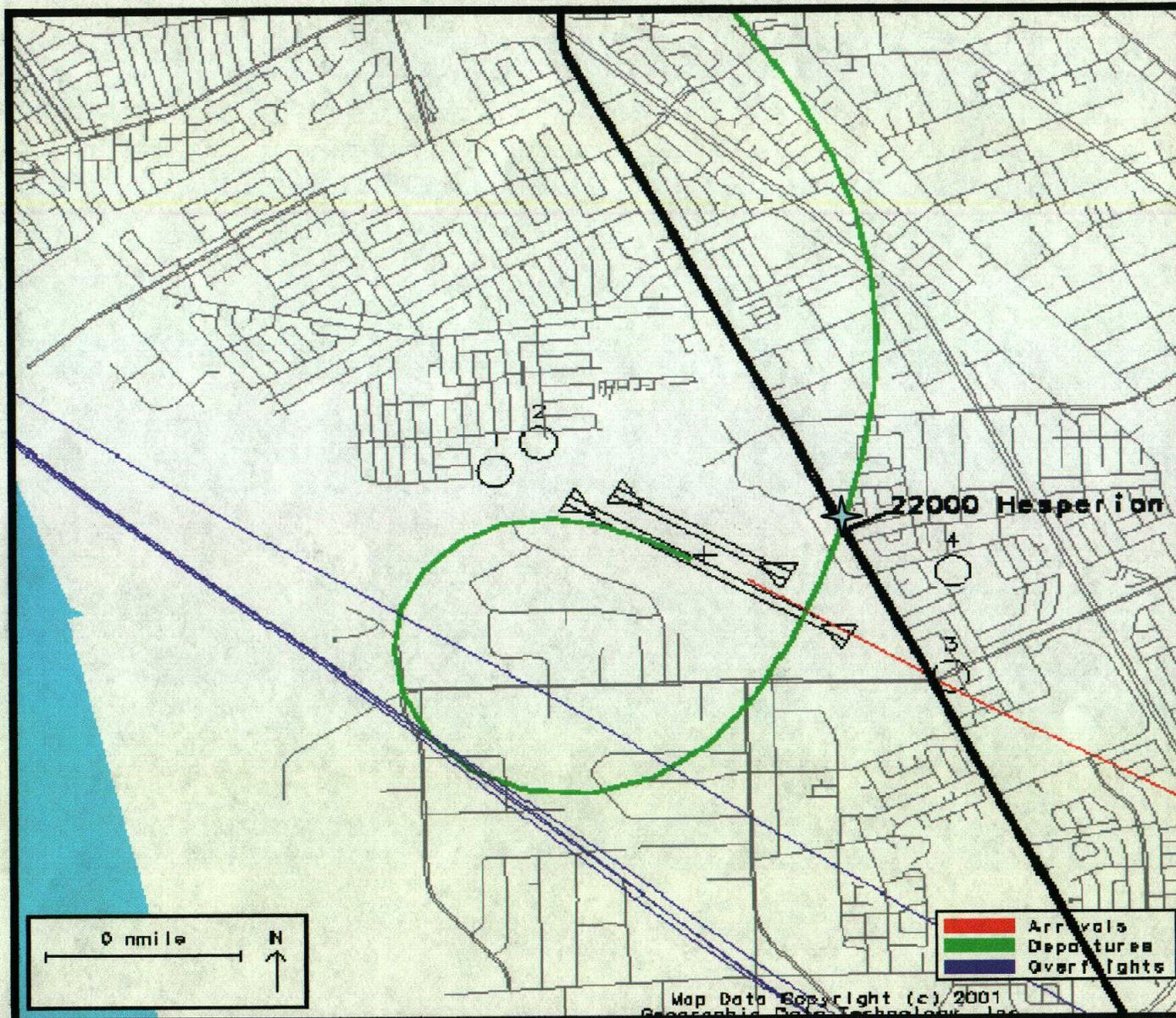


1



▲ Noise Monitoring Terminals (NMT'S)

TYPICAL RADAR FLIGHT TRACK DATA



★ = Track Target
Latitude: 37.6611
Longitude: -122.1149
Altitude: 1033 ft
Time: 20:13:02
SENEL: 73.6 dB
Noise Monitors (1-4)

APPENDIX A

History of the Performance-Based Noise Ordinance

BACKGROUND:

On January 1, 1988, the Hayward City Council enacted an aircraft noise ordinance. The ordinance set noise decibel limits for aircraft which relied upon measured decibel levels contained in the Federal Aviation Administration (FAA) Advisory Circular (AC) AC-26-3F. This Advisory Circular is a published list of certified maximum decibel levels for specified aircraft on takeoff. The 1988 ordinance was an interim measure taken by the City Council until a performance-based noise ordinance could be implemented.

In November 1988, a permanent noise monitoring system consisting of four noise monitoring terminals was installed in the community. Data collected from these monitors during the 19-month test period, as well as analysis of information in AC-36-3F, provided the basis for the maximum aircraft noise limits contained in the Performance-based Noise Ordinance. The ordinance was implemented on February 1, 1992.

In order for aircraft to operate at the airport within the parameters established under the Performance-Based Noise Ordinance, they must not exceed certain maximum noise decibel levels contained within the ordinance. The noise levels generated by aircraft are monitored and recorded 24 hours a day. Specialized equipment records the sound levels at which aircraft are actually being operated. Aircraft must not exceed the maximum noise limits established for any of the four individual noise monitors stationed in the community.

Section 2-6.120 of the Performance-Based Noise Ordinance sets forth aircraft noise limits for each noise monitor in the system, taking into consideration the runway in use and the time of day.

In summary, the Performance-Based Noise Ordinance states that no aircraft may take off, land, or otherwise operate at the airport between the hours of 7:00 a.m. and 11:00 p.m. if it generates a Single Event Noise Exposure Level (SENEL) exceeding the following values measured at any one of the four Noise Monitoring Terminals (NMT). They are:

<u>Noise Monitoring Terminal</u>	<u>Runways 28L/28R</u>	<u>Runways 10R/10L</u>
NMT #1	98	98
NMT #2	98	98
NMT #3	98	100
NMT #4	98	99

Additionally, no aircraft may take off, land or otherwise operate at the airport between the hours of 11:01 p.m. and 6:59 a.m. if it generates a SENEL which exceeds the following values as measured at any one of the four Noise Monitoring Terminals (NMT):

<u>Noise Monitoring Terminal</u>	<u>Runways 28L/28R</u>	<u>Runways 10R/10L</u>
NMT #1	95	95
NMT #2	95	95
NMT #3	95	97
NMT #4	95	96

For the location of each Noise Monitoring Terminal, see Appendix A, page 3.

OBJECTIVES OF NOISE ORDINANCE:

The ordinance was designed to accomplish the following objectives as set forth by the City Council:

1. To reduce the number of aircraft operations at the airport which generate excessive noise decibel levels resulting in consistent complaints, subject to regulations which may be imposed by state or federal laws; and
2. To reduce aircraft noise decibel levels in response to the environmental concerns of the community without impairing the ability of the airport to serve the general aviation needs of the community and the national air transportation system; and
3. To adopt reasonable rules that would be legally defensible; and
4. To implement noise enforcement standards allowing operators of aircraft which exceed established noise levels the flexibility to modify their aircraft or otherwise bring their performance standards into compliance with the noise ordinance.