CITY MANAGER
MEMORANDUM

To: The Honorable Mayor and City Commissioners

Through: Joyce Shanahan, City Manager

From: Joe Mannarino, Economic Development Director

Date: March 17, 2011

Subject: Ormond Beach Municipal Airport - Noise Abatement Update

Introduction: The City Commission received and accepted the final report and recommendations of the Aircraft Noise Abatement Task Force at their meeting on December 15, 2009. The City Commission thereafter directed staff to conduct an analysis of the task force recommendations and return with specific recommendations for implementation.

Background: On April 21, 2009, during a meeting of the Ormond Beach City Commission, Mayor Costello suggested the formation of a task force consisting of citizens who reside near the airport, tenants of the airport, and representatives from flight schools that utilize the airport. In response to this suggestion, the City Commission approved Resolution 2009-60, a resolution establishing an Aircraft Noise Abatement Task Force. The Commission directed the task force to serve in an advisory capacity, and vested it with specific powers and duties, specifically:

1) Review existing data regarding the current noise abatement program, and the past, current, and future use of the Ormond Beach Municipal Airport in terms of annual operations;
2) Identify alternatives that could be incorporated into the City's current noise abatement plan;
3) Identify specific recommendations to the City Commission that would improve and further enhance the practice of aircraft noise abatement in the City of Ormond Beach, to be presented to the City Commission by the task force chairman. Its actions, decisions, and recommendations shall not be final or binding upon the City Commission.

The task force held twelve public meetings, from June 11, 2009, through November 6, 2009. These included two workshops, held on July 14, 2009, and October 3, 2009.

The task force heard presentations and testimony from individuals who were invited or requested the opportunity to speak. Additionally, the task force utilized workshops to gain additional experience and information. The first, conducted with the assistance of Embry-Riddle Aeronautical University, focused on the implementation of new flight patterns to mitigate the noise impacts of repetitive flight training activity on local communities. The second, developed and presented by Mr. Ted Baldwin of the aviation consulting firm Harris, Miller, Miller, and Hanson, Inc., afforded the task force

an overview of noise abatement fundamentals as they apply to the subject of aircraft noise abatement at general aviation airports. Twenty six recommendations were ultimately developed by the task force members and submitted for consideration by the City Commission.

Recommendations for Implementation

The recommendations of the Aircraft Noise Abatement Task Force were organized and implemented based on practicality and prospective efficacy. Many of the task force recommendations overlapped in their intent and in the manner by which they may be employed; by grouping them into like categories and focusing on the most practical and readily actionable recommendations, a more significant benefit could be realized over a shorter period of time. Recommendations to be implemented were those most likely to garner the greatest degree of improvement in terms of pilot compliance with voluntary noise abatement procedures, and relief from aircraft noise for local residents.

Implementation of the recommendations, coupled with an overall reduction in flight activity at the airport, has resulted in a **67% reduction in the number of aircraft noise complaints** received by staff in 2010, versus those received in the previous year.

Aircraft Noise Complaints - Distribution Analysis

2009

Total Complaints Recorded: 160
Number of Addresses Reporting: 23

Top Three Addresses Reporting:
(67% of Complaints)

38 Pebble Beach Drive
47 Complaints, 29% of Total

36 Pebble Beach Drive
38 Complaints, 24% of Total

14 Cotton Mill Court
23 Complaints, 14% of Total

2010

Total Complaints Recorded: 53
Number of Addresses Reporting: 16

Top Three Addresses Reporting:
(51.5% of Complaints)

14 Cotton Mill Court
19 Complaints, 36% of Total

38 Pebble Beach Drive
5 Complaints, 9.5% of Total

7 Circle Oak trail
3 Complaints, 6% of Total

(Three addresses reported 3 complaints this year, each representing 6% of the total received. The first address in alphabetical order is reported here.)

Recommendations Currently Undergoing Implementation

1) **Request pilots to fly "high and tight" traffic patterns.**
   a) *Current noise abatement procedures, developed in consultation with the Aviation Advisory Board and the Aircraft Noise Abatement Task Force, request pilots to "Please fly high and tight patterns, remaining clear of the Class C airspace beginning at 1200' MSL. Extended patterns greatly impact noise sensitive areas."*
   b) *Advisory signage at the airport has been installed to provide both local and itinerant pilots with instructions as to voluntary noise abatement procedures. (see appendix 4)*
   c) *The ATIS (Automated Terminal Information Service) recording for the airport has been updated to indicate that voluntary noise abatement procedures are in effect.*
2) **Request pilots departing to the south stay as far west of the river as possible.**
   a) *Current noise abatement procedures include a pilot's in-flight guide, which asks pilots to "stay well west of the river."*
3) **Request pilots to call for use of the least noise sensitive runway whenever wind conditions permit.**
   a) *In accordance with procedures developed in 2005 by the Noise Management Task Force, the air traffic control tower (ATCT) directs the use of Runway 17/35 as the preferred runway unless wind conditions require the use of Runway 8/26.*
4) **Request pilots to reduce power as soon as safe and practicable after takeoff.**
   a) *Current noise abatement procedures request pilots to "Reduce power after takeoff as soon as safe and practicable."*
   b) *Advisory signage at the airport has been installed to provide both local and itinerant pilots with instructions as to voluntary noise abatement procedures. (see appendix 4)*
   c) *Staff verbally reinforces the importance of noise abatement procedures during regular meetings with aviation and flight training groups, such as the Central Florida Flight Training Group (CFFTG).*
5) **Request pilots flying constant-speed-prop aircraft to not use high rpm settings while in the traffic pattern.**
   a) *Staff attends weekly meetings between representatives of the FAA, other local airports, and the major flight schools, affording regular opportunities to discuss and reinforce noise abatement initiatives. These regularly scheduled "airport safety meetings" are hosted by Daytona Beach International Airport, and serve as an open forum for direct interaction between the local flight schools and the professional custodians of local airspace and aviation infrastructure. The relationships developed at these meetings foster cooperation and mutual respect, which is key to the successful implementation of voluntary noise abatement practices. Recent reductions in noise complaints may be attributed in part to this ongoing dialogue.*
   b) *Staff attends quarterly meetings of the Central Florida Flight Training Group. These meetings are typically attended by representatives of all*

of the local flight schools, the local air traffic control tower managers, and representatives of the FAA. This meeting serves as an additional forum in which noise abatement issues may be addressed by the parties most directly involved with the practical implementation of requested noise abatement procedures.

6) **Request flight schools to work with instructors and customers to implement voluntary noise abatement procedures.**
   a) *Staff attends weekly meetings between representatives of the FAA, other local airports, and the major flight schools, affording regular opportunities to discuss and reinforce noise abatement initiatives.*
7) **Request flight schools to post noise abatement procedures in a prominent area, and encourage all pilots to adhere to them.**
   a) *Sunrise Aviation currently posts our procedures in all of their facilities. (see appendix 2)*
   b) *ERAU, Tomlinson Aviation, Phoenix-East, and Epic Aviation all publish and provide our procedures to their students and flight instructors.*
   c) *Advisory signage at the airport has been installed to provide both local and itinerant pilots with instructions as to voluntary noise abatement procedures. Additionally, the airport perimeter fence and access gates have been equipped with signage featuring distinctive slogans such as "Please Fly Quietly."*
8) **Develop a helicopter noise abatement form (similar to fixed-wing), and use to discuss with all helicopter schools.**
   a) *The Air Traffic Control Tower manager, working in concert with Tomlinson Aviation, developed helicopter training patterns designed to keep rotary-wing flight activity over airport property. The patterns are dependent on the runway in use by fixed-wing aircraft, and maximize the use of vacant property in the southwest and northwest quadrants of the airport. Included is a voluntary policy of keeping training patterns west of the Tomoka River and east of Timothy Street. (see appendix 3)*
   b) *Documentation illustrating the rotary-wing patterns and procedures has been developed and distributed to the primary rotary-wing users of the airport, Tomlinson Aviation and Bristow Academy. This document has been updated since initial publication, following citizen commentary at a meeting of the Aviation Advisory Board.*
   c) *Helicopter Association International has developed a "Fly Neighborly Guide" to help rotary-wing pilots understand and practice noise abatement. This 36 page document has been posted to the "Pilot Information" page of the Airport section of the City website.*

9) **Publish noise abatement procedures in local newspapers, and in aviation publications like the Airport Facilities Directory, SIDS, and STARS**. **Supplement this effort with appropriate signage on airport property**.
   a) *Aircraft noise abatement procedures have been published in the airport section of the City website. Electronic and/or printed renditions have been provided to all area flight schools.*
   b) *Staff continues to work with FAA to submit our new procedures for review by the FAA Air Traffic and Flight Standards Divisions, which is a necessary step toward broader publication of the procedures. The possible need for an environmental assessment must also be determined.*
   c) *Advisory signage at the airport has been installed to provide both local and itinerant pilots with instructions as to voluntary noise abatement procedures. (see appendix 4)*
10) **Educate air traffic control personnel on noise abatement procedures, and encourage ATC to assist pilots with compliance.**
   a) *Aircraft noise abatement procedures were developed with the participation of the Ormond Beach Air Traffic Control Tower manager. The most recent edition of these procedures was implemented on August 13, 2009.*
11) **Review land use zoning and building codes for compatible land use around the airport.**
   a) *The Ormond Beach Land Development Code includes an airport overlay zone to define compatible land use in the vicinity of the airport.*
   b) *The City Commission recently approved a change to the Land Development Code, providing for the inclusion of an updated illustration of the airport overlay zone.*
12) **Request flight schools to minimize night "touch-and-go" training at airports in residential areas.**
   a) *Staff attends weekly meetings between representatives of the FAA, other local airports, and the major flight schools, affording regular opportunities to discuss and re-emphasize our voluntary noise abatement initiatives.*
13) **Conduct random checks in noise sensitive neighborhoods to verify that noise abatement procedures are being followed.**
   a) *Staff currently conducts random observations, primarily of eastbound departures, in order to monitor compliance with noise abatement procedures. Incidents of non-compliance are addressed with the aircraft owner or operator. Verbal reinforcement of the procedures raises awareness, and demonstrates the City's commitment to seek a high degree of compliance. In the absence of an apparent violation of FAA regulations, there is no enforcement vehicle for voluntary procedures.*
14) **Initiate pilot education programs to teach and explain the rationale for noise abatement procedures and positive community relations.**
   a) *Embry-Riddle Aeronautical University distributes Ormond Beach noise abatement procedures to all students and instructors, and considers such procedures mandatory.*

b) Phoenix East Aviation publishes Ormond Beach noise abatement procedures electronically, and requires students to affirm reading the procedures before being released for flight activity.

c) Sunrise Aviation distributes Ormond Beach noise abatement procedures to all students and instructors, and posts the procedures prominently in their facilities.

d) Tomlinson Aviation prominently posts helicopter-specific noise abatement procedures in their facilities at the airport.

e) Staff hosted a "First in Flight Coffee" at the airport on Friday, December 17th, 2010. Representatives from Embry-Riddle Aeronautical University, Sunrise Aviation, Euro American School of Aviation, Tomlinson Aviation, and the Ormond Beach Air Traffic Control Tower attended. The meeting, which is intended to be an annual event, was held to discuss flight training issues at the Ormond Beach Municipal Airport and other local airports.

15) Monitor noise abatement education with the flight schools.

a) *Staff attends weekly meetings between representatives of the FAA, other local airports, and the major flight schools, affording regular opportunities to discuss and reinforce noise abatement initiatives.*

16) Request that flight schools assure instructors are teaching safe noise abatement techniques.

a) Staff attends weekly meetings between representatives of the FAA, other local airports, and the major flight schools, affording regular opportunities to discuss and reinforce noise abatement initiatives.

b) Staff proactively communicates with all area flight schools via email, reminding them of the importance or our noise abatement procedures prior to periods of increased flight training activity.

17) Request that flight instructors know noise-sensitive areas, and point them out to students.

a) *Staff attends weekly meetings between representatives of the FAA, other local airports, and the major flight schools, affording regular opportunities to discuss and reinforce noise abatement initiatives.*

b) Staff proactively communicates with all area flight schools via email, reminding them of the importance or our noise abatement procedures prior to periods of increased flight training activity.

18) Request that all flight schools provide aircraft registration ("N") numbers to the City for identification purposes.

a) Sunrise Aviation has proactively agreed to provide this information.

b) Staff has acquired access to the Florida Aviation Database and the National Based Aircraft Inventory to afford identification of any registered aircraft.

19) Traffic patterns, approach, and departure paths should be designated on city zoning and planning maps.

a) The purpose of the Ormond Beach Land Development Code is to provide land development regulations that implement the City's Comprehensive Plan.

b) The Land Development Code includes an airport overlay zone to define compatible land use in the vicinity of the airport.

20) Provide an aircraft noise complaint hotline/website/database, or other.

a) A link has been created on the airport page of the City website to be employed as a complaint reporting medium. Dedicated noise complaint hotlines are staff-intensive, for which the City does not currently have sufficient resources.

In accordance with the City Commission's acceptance via Resolution 2010-51 of staff's recommendations regarding aircraft noise at the Ormond Beach Municipal Airport; the following recommendations have not been assigned for implementation, as their practical benefit in terms of aircraft noise abatement is not readily discernable. Due to this, the potential costs involved, and the apparent success of the recommendations currently under implementation, staff does not recommend that additional implementation efforts be focused on these items.

1) Request pilots to use alternate airports for flight training when OMN is busy.

a) *Flight training based at OMN will largely remain local.*
b) *Area flight schools already schedule flight training sorties to spread activity among all airports in the region.*
c) *The control tower turns approaching aircraft away from OMN when the traffic pattern is full.*
d) *Staff has begun meeting with airport managers from surrounding airports to discuss strategies for noise abatement.*

2) Request pilots to practice night operations at major airports, where a smaller airplane's sound is less obtrusive.

a) Flight training at major airports is often limited due to safety constraints involving interaction with commercial flight activity.
b) Our voluntary noise abatement procedures request that pilots refrain from repetitive flight activities between the hours of 10:00 PM and 8:00 AM.

3) Request flight instructors to endorse student's logbooks for landing at remote fields, to reduce "touch-and-go" activity at local airports.

a) *Staff cannot monitor logbook endorsements, which are given individually and based upon each student's progress within the flight training curriculum.*

4) Establish a quantifiable benchmark to objectively gauge the effectiveness of the aircraft noise abatement program.

a) Staff already gathers detailed information on aircraft noise complaints, which can be readily compiled and analyzed to gauge the effectiveness of the aircraft noise abatement program. GIS will be employed to use a database of received complaints to create a quarterly complaint distribution map, to be posted on the airport website. This will be launched at the close of the first quarter of 2011.

5) Explore the prospect of contacting the FAA to see if a daily mosaic of flight tracks can be produced to verify use of noise abatement procedures.

a) FAA cannot provide this information, but some ANOMS systems provide flight tracking services.

6) Explore and consider an ANOMS system for the airport.

a) Staff presented an overview of ANOMS (Airport Noise and Operations Monitoring System) to the Aircraft Noise Abatement Task Force.

b) Mr. Ted Baldwin of the consulting firm Harris, Miller, Miller, and Hanson, conducted a discussion of ANOMS technology at the second Aircraft Noise Abatement Task Force workshop. Mr. Baldwin played a role in developing the technology behind ANOMS.

c) Staff attended a presentation of ANOMS technology offered by the LOCHARD Corporation, the leading supplier of ANOMS-based noise monitoring and management systems.

(1) Installation and Setup Fee: $24,000.00

(2) Annual Subscription Fee: $18,000.00

d) Staff presented an overview of ANOMS to the Aviation Advisory Board at their meeting on November 9, 2009. The AAB did not recommend acquisition of an ANOMS system at that time.

Displaced Threshold

A displaced threshold is located at a point on the runway other than the physical beginning of the runway surface. Displacement of a threshold reduces the length of runway available for landings. The portion of runway behind a displaced threshold is available for takeoff in both directions and landing from the opposite direction. A white threshold bar ten feet wide is located across the width of the runway at the displaced threshold. White arrows are located along the centerline in the area between the beginning of the runway and the displaced threshold. White arrow heads are located across the width of the runway just prior to the threshold bar.

The Aviation Advisory Board passed a motion at their meeting on January 10, 2011, that the City Commission consider funding a study to determine the feasibility of constructing a displaced threshold on the approach end to Runway 8, consistent with past discussions on noise abatement. Staff is preparing a discussion item on this item, which will be presented to the City Commission in April or May of this year.

Budget Impact: Implementation of the task force recommendations is an ongoing staff function and requires communication and outreach to the aviation community. Installation of advisory signage at the airport cost approximately $1,275.

Recommendation Summary: Continue to implement the recommendations of the Aircraft Noise Abatement Task Force based on practicality and prospective efficacy. Recommendations currently addressed or for which implementation is ongoing are those most likely to garner the greatest degree of improvement in terms of pilot compliance with voluntary noise abatement procedures, and relief from aircraft noise for local residents. Consider those recommendations pending implementation only if satisfactory results cannot be maintained.

Reviewed by:	_____/s/_____	__03/17/2011_____
	Theodore S. MacLeod, P.E. Assistant City Manager	Date
	_____/s/_____	__03/17/2011_____
	Kelly McGuire, Finance Director	Date
Approved by:	_____/s/_____	__03/17/2011_____
	Joyce A. Shanahan, City Manager	Date

Prepared by: Steven R. Lichliter, Airport Manager

Appendix 1: Noise Abatement Procedures

Ormond Beach Municipal Airport
Noise Abatement Procedures

Updated 08/13/2009

- When the Air Traffic Control tower is closed, runway 17 is the designated calm wind runway.
- Runway 8 departures – turn 10 degrees left on departure as soon as safety permits, and cross the Tomoka River/US1 Bridge at a point equalizing the distance between the two communities to the north and south. The bend in the Tomoka River as it passes east of the bridge should be visible to the right (as depicted on the in-flight guide map).
- Fly the approved traffic patterns on Runways 26, 17, and 35, turning to the crosswind leg as soon as altitude and airspeed permit.
- Departures from the traffic pattern should depart at pattern altitude, to the north or to the west. Remain on the tower frequency until departing the airport traffic area to the north or west.
- Pilots should avoid turning south or east over the local subdivisions (as depicted on the in-flight guide map).
- Departing aircraft should climb out at V_y (best rate of climb). Reduce power after takeoff as soon as safe and practicable.
- Please fly high and tight patterns, remaining clear of the Class C airspace beginning at 1200' MSL. Extended patterns greatly impact noise sensitive areas.
- Left hand traffic pattern on Runway 35 and Runway 8.
- Right hand traffic pattern on Runway 26 and Runway 17.

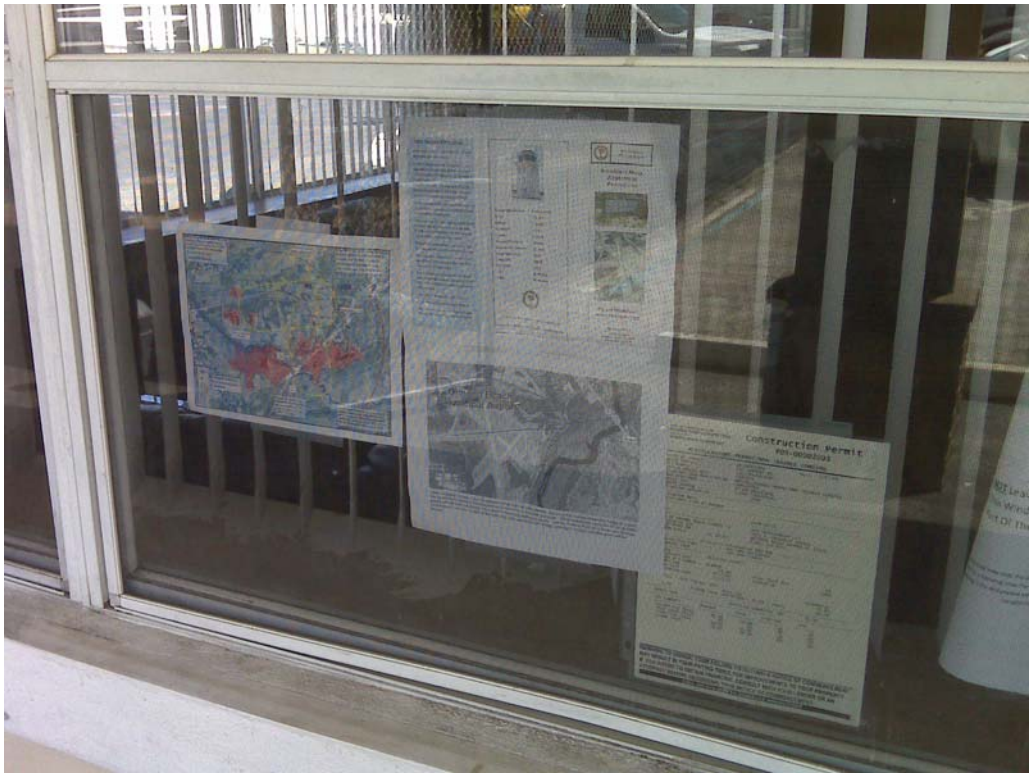
- As a courtesy to the residents of local neighborhoods, please refrain from repetitive flight activities between the hours of 10 p.m. and 8 a.m.
- Helicopter pilots should utilize designated arrival and departure corridors to minimize noise impacts.
- Pilots are requested to review and use the AOPA "Noise Awareness Steps" when practicable.

Compliance with recommended noise abatement procedures is at the discretion of the PIC.

SAFETY ALWAYS COMES FIRST

Appendix 2: Local Display of Published Noise Abatement Procedures

Sunrise Aviation:



Appendix 3: Helicopter Procedures

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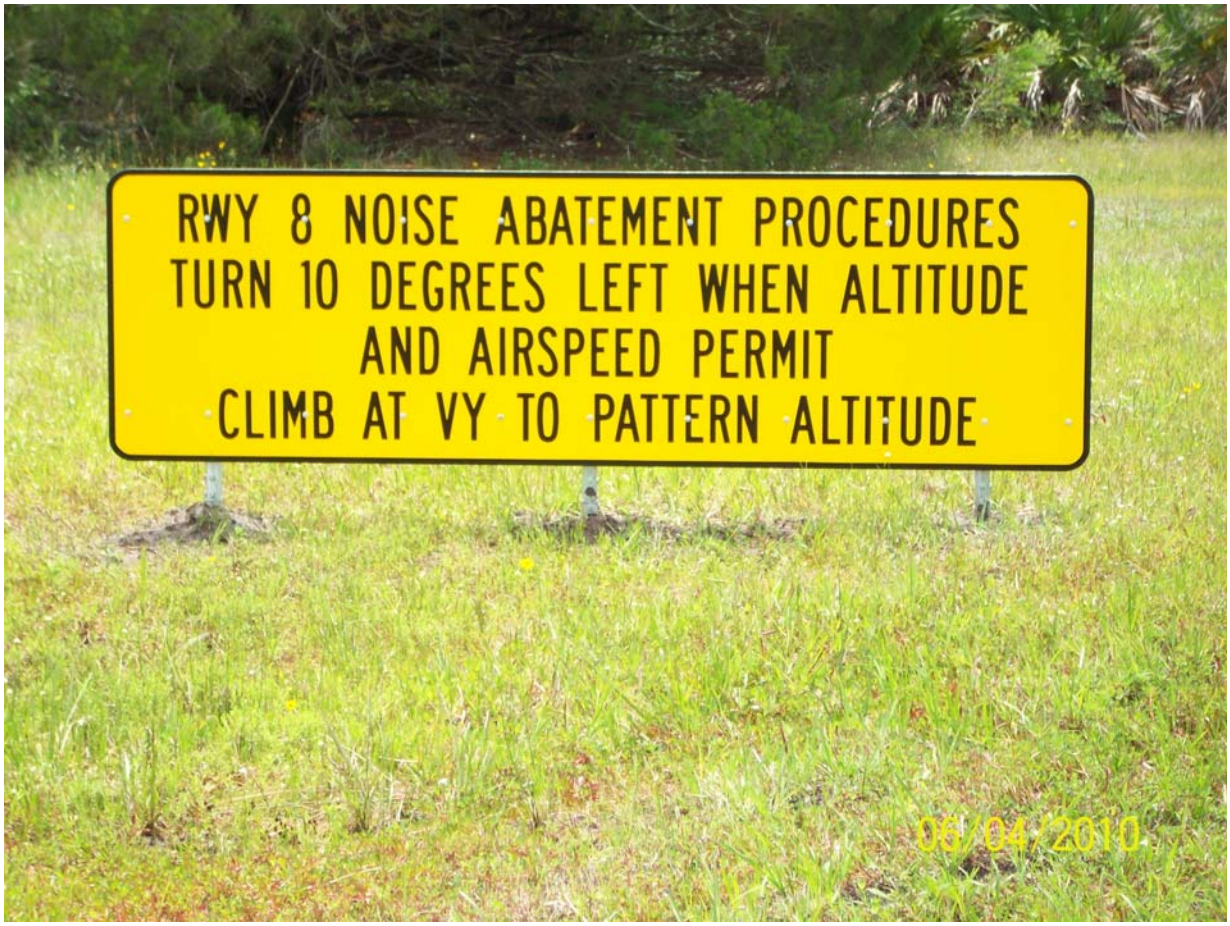
Appendix 4: Airport Signage




NOISE ABATEMENT PROCEDURES
REDUCE POWER AFTER TAKEOFF AS SOON
AS SAFE AND PRACTICABLE
CLIMB AT VY TO PATTERN ALTITUDE
06/04/2010


NOISE ABATEMENT PROCEDURES
CLIMB AT VY TO PATTERN ALTITUDE
FLY HIGH AND TIGHT PATTERNS
AVOID SHALLOW APPROACHES
06/04/2010


PLEASE FLY QUIETLY
VOLUNTARY NOISE
ABATEMENT PROCEDURES
IN EFFECT
Contact Airport Manager
For Details
(386) 615-7019
06/23/2010

Appendix 5: Airport Traffic Charts

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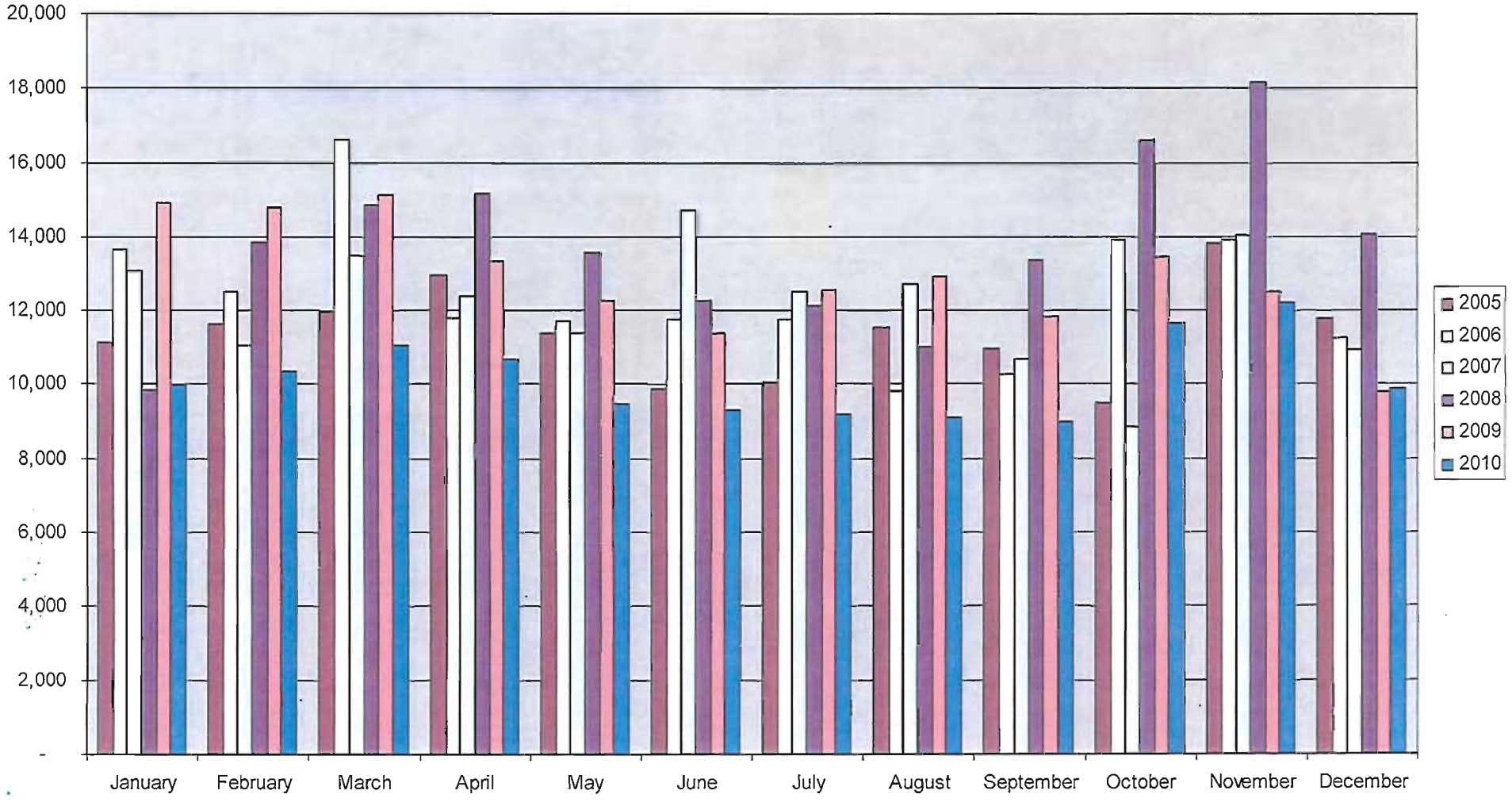
OMN Monthly Operations



	2004	2005	2006	2007	2008	2009	2010
January		11,126	13,657	13,097	9,864	14,926	9,993
February		11,651	12,490	11,060	13,858	14,777	10,353
March		11,972	16,598	13,515	14,880	15,106	11,065
April		12,957	11,809	12,389	15,151	13,326	10,697
May		11,386	11,722	11,393	13,581	12,272	9,478
June		9,907	11,776	14,696	12,247	11,393	9,326
July		10,050	11,751	12,522	12,119	12,538	9,188
August		11,558	9,817	12,722	11,001	12,902	9,096
September	3,808	10,985	10,274	10,683	13,388	11,856	8,973
October	12,041	9,469	13,927	8,880	16,587	13,458	11,683
November	12,796	13,844	13,896	14,056	18,180	12,493	12,228
December	10,224	11,795	11,270	10,911	14,065	9,812	9,892
Total	**38,869**	**136,700**	**148,987**	**145,924**	**164,921**	**154,859**	**121,972**
Percent Change			**8.99%**	**-2.06%**	**13.02%**	**-6.10%**	**-21.24%**