Overview – Iterative Process

Considering middle ground improvements

- **PH I: December 2010 thru October 2011**
  - RAND best practices and conceptual uses
  - Point C preliminary community interviews
  - HR&A general economic impacts analysis

- **PH II: October 2011 thru May 2012**
  - MIG 32 community discussion groups (CDG) & 312 participants over three months; recorded community comments and ideas

- **PH III: May 2012 thru Early 2013**
  - IBI non-aviation land enhancements
  - City Staff evaluation and implementation efforts
  - Various Consultant Support landing fee study; midfield run-up
Timeline – PH III Visioning Process

- **PH III: May 2012 thru Early 2013**
  - **May 8, 2012**
    - Council approved Phase III initiatives
  - **August 14, 2012**
    - IBI was selected to perform analysis in the areas of access and parking, land uses and alignment, site infrastructure, and feasibility of a sustainable transportation business incubator
  - **November 26, 2012**
    - Airport Commission Phase III Visioning workshop to discuss the status of work activities related to Council direction to staff at the May 8, 2012 meeting and obtain feedback from the Airport Commission and the community
  - **April 1, 2013**
    - Airport Commission Phase III Visioning workshop to discuss the status of work activities related to Council direction to staff at the May 8, 2012 meeting and obtain feedback from the Airport Commission and the community
  - **April 30, 2013**
    - Return to council with findings from Phase III
PH III Initiatives – covered in 5 thematic areas

1. Transparency, communications and trust
2. Green Airport
3. More community friendly Airport with greater community benefit
4. Design improvements on non-aviation land
5. Continue on-going dialogue with the FAA

Summarized in two groups:
- Non-aviation Areas of Review
- Aviation Areas of Review
Non-aviation areas of review – IBI

- Evaluate greater mixed-use options:
  - Outdoor recreational facilities
  - Light retail
  - Arts and education facilities
- Improve bicycle, pedestrian, and mass-transit access
- Analysis of infrastructure and facilities
- Sustainable Transportation Business Incubator

(see IBI presentation posted separately)
PH III Initiatives – Non-aviation

Airport Sustainability Plan Update

- **Energy Audit** 3 projects identified for total energy savings of 32,070 Kwh/yr. and energy costs savings of $5,790/yr.:
  1) In 2012: HVAC system reduction in hours of operation
  2) In 2013: Installation of heat pump economizers
  3) In 2014: Installation of return air programmable thermostats

- **Water Audit** made changes to fixtures for Savings of 200,135 gallons & $2,020

- **SM Green Office Program Pilot:**
  - 80% of certificate requirements complete do date
  - Completion anticipated June 2013
PH III Initiatives – Aviation Areas of Review

Aviation Areas of Review:

- 2nd Annual Airport Open House on September 22, 2012
  - ~1500 attendees
  - To be held on the fourth Saturday in September on-going

- Enhance mitigation walls
  - Engineering Division developed proposal based on Caltrans Standard Plans
  - ~$3.5 Million
  - Along PL at the South, North/West Corner, North/East Corner, & East

- Airport Operations Data
  - Monthly operational data on website (FAA & Landing Fee data)
  - Repetitive Operations Counts: Sept 10 - Sept 23; second count in April
Airport Operations Data

- 2 week period from Sept 10 - Sept 23, 2012
- The purpose of the analysis was to further characterize the type of operations being conducted at the Airport.

<table>
<thead>
<tr>
<th>Type</th>
<th>Operations</th>
<th>% of Total Operations</th>
<th>% of Propeller Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propeller Aircraft</td>
<td>2,816</td>
<td>81%</td>
<td>15%</td>
</tr>
<tr>
<td>Jet Aircraft</td>
<td>517</td>
<td>15%</td>
<td>0.07%</td>
</tr>
<tr>
<td>Helicopter</td>
<td>144</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>3,477</td>
<td>100%</td>
<td>33%</td>
</tr>
</tbody>
</table>
PH III Initiatives – Aviation Areas of Review

Aviation Areas of Review:

- Educational seminars (Directed to conduct two)
  1. Future of AVGAS on June 30th, 2012
  2. Health Effects of Noise on September 24, 2012
  3. Aircraft Silencer Technology on September 22, 2012
    - Muffler Flight Test December 6th (baseline) and 17th (w/muffler), 2012

- Quantifying Aircraft Lead Emissions at Airports study, Airport Cooperative Research Program
  - July 2013

- General Aviation Airport Comparative Data / Best Practices
  - Matrix: 43 Airports; total operations; # of flight schools with planes/school
  - Further completed for Landing Fee Study
Identifying best practices at other airports

- 43 Airports were studied
  - Provide context of operational restrictions at other airports (enforceable & recommended)
  - How does SMO compare to these airports

- Staff’s research
  - Interviews with noise management staff from each airport
  - Review of noise programs detailed in a database developed by the Boeing Corporation (Updated annually)
Identifying best practices at other airports

- **Criteria Used:**
  - Airport’s known to have enforceable operational restrictions
  - Similarly situated (active airports in highly urbanized environment)
  - Airports with similar number of aircraft operations

- **Data Provided in the Report**
  - Operational Data
  - Mandatory Restrictions
    - Maximum noise limit, curfews, maintenance run-up, pattern flying restrictions, etc.
  - Voluntary Programs
    - Recommended flight paths, voluntary arrival and departure times, noise limits, etc.
  - Flight School information
    - Number of flight schools and number of aircraft
<table>
<thead>
<tr>
<th>AIRPORT</th>
<th>STATE</th>
<th>TOTAL OPERATIONS 2011</th>
<th>LOCAL OPERATIONS</th>
<th>MAXIMUM NOISE LIMITS</th>
<th>CURFEW</th>
<th>VOLUNTARY</th>
<th>FLIGHT SCHOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santa Monica Airport</td>
<td>CA</td>
<td>110,694</td>
<td>40,930</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>6</td>
</tr>
<tr>
<td>Deer Valley Airport, Phoenix</td>
<td>AZ</td>
<td>317,443</td>
<td>189,435</td>
<td>X</td>
<td></td>
<td>X</td>
<td>2</td>
</tr>
<tr>
<td>Phoenix Mesa Gateway Airport, Mesa</td>
<td>AZ</td>
<td>171,200</td>
<td>92,835</td>
<td>X</td>
<td></td>
<td>X</td>
<td>85</td>
</tr>
<tr>
<td>Bob Hope Airport, Burbank</td>
<td>CA</td>
<td>123,092</td>
<td>19,475</td>
<td>X</td>
<td></td>
<td>X</td>
<td>2</td>
</tr>
<tr>
<td>Buchanan Airport, Concord</td>
<td>CA</td>
<td>78,166</td>
<td>37,249</td>
<td>X</td>
<td></td>
<td>X</td>
<td>2</td>
</tr>
<tr>
<td>Camarillo Airport</td>
<td>CA</td>
<td>133,403</td>
<td>61,693</td>
<td>X</td>
<td></td>
<td>X</td>
<td>18</td>
</tr>
<tr>
<td>Charles M. Schulz, Santa Rosa</td>
<td>CA</td>
<td>79,562</td>
<td>24,613</td>
<td>X</td>
<td></td>
<td>X</td>
<td>12</td>
</tr>
<tr>
<td>Gillespie field, El Cajon</td>
<td>CA</td>
<td>219,621</td>
<td>131,622</td>
<td>X</td>
<td></td>
<td>7</td>
<td>42</td>
</tr>
<tr>
<td>Hayward Executive, Hayward</td>
<td>CA</td>
<td>89,787</td>
<td>44,829</td>
<td>X</td>
<td></td>
<td>6</td>
<td>27-40</td>
</tr>
<tr>
<td>John Wayne Airport, Santa Ana</td>
<td>CA</td>
<td>261,812</td>
<td>71,673</td>
<td>X</td>
<td></td>
<td>X</td>
<td>3</td>
</tr>
<tr>
<td>Long Beach Airport</td>
<td>CA</td>
<td>295,902</td>
<td>146,647</td>
<td>X</td>
<td></td>
<td>9</td>
<td>77</td>
</tr>
<tr>
<td>McClellan-Palomar Airport, Carlsbad</td>
<td>CA</td>
<td>143,670</td>
<td>44,518</td>
<td>X</td>
<td></td>
<td>4</td>
<td>39</td>
</tr>
<tr>
<td>Modesto County Airport, Modesto</td>
<td>CA</td>
<td>44,608</td>
<td>11,412</td>
<td>X</td>
<td></td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Monterey Peninsula Airport, Monterey</td>
<td>CA</td>
<td>54,404</td>
<td>10,664</td>
<td>X</td>
<td></td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Montgomery Field, San Diego</td>
<td>CA</td>
<td>199,141</td>
<td>89,771</td>
<td>X</td>
<td></td>
<td>6</td>
<td>90</td>
</tr>
<tr>
<td>Palo Alto Airport, Palo Alto</td>
<td>CA</td>
<td>172,814</td>
<td>99,059</td>
<td>X</td>
<td></td>
<td>5</td>
<td>75</td>
</tr>
<tr>
<td>Reid HillView Airport, San Jose</td>
<td>CA</td>
<td>128,097</td>
<td>80,913</td>
<td>X</td>
<td></td>
<td>4</td>
<td>40-50</td>
</tr>
<tr>
<td>Sacramento Executive Airport</td>
<td>CA</td>
<td>91,840</td>
<td>23,598</td>
<td>X</td>
<td></td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>Sacramento Mather Airport</td>
<td>CA</td>
<td>73,121</td>
<td>17,865</td>
<td>X</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Torrance Airport</td>
<td>CA</td>
<td>129,029</td>
<td>65,019</td>
<td>X</td>
<td></td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>Van Nuys Airport</td>
<td>CA</td>
<td>298,049</td>
<td>95,076</td>
<td>X</td>
<td></td>
<td>X</td>
<td>8</td>
</tr>
<tr>
<td>Aspen/Pitkin County Airport</td>
<td>CO</td>
<td>37,615</td>
<td>3,516</td>
<td>X</td>
<td></td>
<td>1</td>
<td>56</td>
</tr>
<tr>
<td>Igor Sikorsky Memorial Airport, Bridgeport</td>
<td>CT</td>
<td>64,633</td>
<td>31,743</td>
<td>X</td>
<td></td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Clearwater Air Park</td>
<td>FL</td>
<td>Unavailable</td>
<td>Unavailable</td>
<td>X</td>
<td></td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Ft Lauderdale Executive Airport</td>
<td>FL</td>
<td>150,197</td>
<td>23,670</td>
<td>X</td>
<td></td>
<td>4</td>
<td>29-33</td>
</tr>
<tr>
<td>Naples Municipal Airport</td>
<td>FL</td>
<td>83,163</td>
<td>17,617</td>
<td>X</td>
<td></td>
<td>4</td>
<td>45</td>
</tr>
<tr>
<td>Opa Locka, Miami</td>
<td>FL</td>
<td>100,553</td>
<td>33,077</td>
<td>X</td>
<td></td>
<td>2</td>
<td>33</td>
</tr>
<tr>
<td>Orlando Executive Airport</td>
<td>FL</td>
<td>109,189</td>
<td>47,438</td>
<td>X</td>
<td></td>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>Vero Beach Municipal Airport</td>
<td>FL</td>
<td>149,915</td>
<td>74,942</td>
<td>X</td>
<td></td>
<td>2</td>
<td>115</td>
</tr>
<tr>
<td>West Palm Beach International</td>
<td>FL</td>
<td>143,194</td>
<td>1,526</td>
<td>X</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Chicago Executive Airport, Prospect Heights</td>
<td>IL</td>
<td>84,110</td>
<td>22,906</td>
<td>X</td>
<td></td>
<td>6</td>
<td>50</td>
</tr>
<tr>
<td>Laurence G Hanscom</td>
<td>MA</td>
<td>162,997</td>
<td>60,393</td>
<td>X</td>
<td></td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Spirit of St Louis</td>
<td>MO</td>
<td>102,654</td>
<td>37,540</td>
<td>X</td>
<td></td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Mercer County Airport, Trenton</td>
<td>NJ</td>
<td>76,283</td>
<td>34,095</td>
<td>X</td>
<td></td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Morristown Municipal Airport</td>
<td>NJ</td>
<td>103,806</td>
<td>33,656</td>
<td>X</td>
<td></td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>Teterboro Airport</td>
<td>NJ</td>
<td>161,043</td>
<td>-</td>
<td>X</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Islip L. I. MacArthur Airport, Long Island</td>
<td>NY</td>
<td>135,265</td>
<td>62,991</td>
<td>X</td>
<td></td>
<td>X</td>
<td>4</td>
</tr>
<tr>
<td>Republic Airport, Long Island</td>
<td>NY</td>
<td>188,219</td>
<td>80,391</td>
<td>X</td>
<td></td>
<td>14</td>
<td>50</td>
</tr>
<tr>
<td>Westchester County, White Plains</td>
<td>NY</td>
<td>194,732</td>
<td>24,041</td>
<td>X</td>
<td></td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>Paine Field, Everett</td>
<td>WA</td>
<td>113,070</td>
<td>52,097</td>
<td>X</td>
<td></td>
<td>4</td>
<td>45</td>
</tr>
<tr>
<td>Renton Airport</td>
<td>WA</td>
<td>82,032</td>
<td>47,074</td>
<td>X</td>
<td></td>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>Jackson Hole Airport</td>
<td>WY</td>
<td>25,776</td>
<td>1,961</td>
<td>X</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Identifying best practices at other airports

Findings:

- 27 airports have some sort of mandatory restrictions
- 16 have enforceable maximum noise limits
- All of the airports studied have some sort of a voluntary restriction
- SMO has one of the strictest noise abatement programs in the country
- Difficult to conduct a comparative analysis of level of strictness from one airport to another. Variances include:
  - Configuration of real-time noise monitoring systems (i.e. location/number)
  - Corresponding noise level metrics (real time vs. certificated)
  - Hours of curfew restrictions
  - Hours available for flight training
  - Run-up restrictions for aircraft maintenance
PH III Initiatives – Aviation Areas of Review

Aviation Areas of Review:

- Evaluate opportunities and advancements in runway safety (EMAS)
  - No technical advancements at this time
- Repetitive Operation Reduction Efforts
  - Removed from consideration at this time
- Conduct a landing fee study
  - Completed; City Council 04.30.13
- Ground power units
  - Recommended to be included in new leasing requirements
- Mid-field run up area
  - Not recommended per consultant evaluation by Mead and Hunt
PH III Initiatives – Aviation Areas of Review

Aviation Areas of Review:

- Support alternative fuel for aircraft
  - Potential of electric aircraft and biofuels
  - As Industry Partner, joined University of Kansas on FAA application to study alternative jet fuels and the environment
- Continue work with an intergovernmental team
  - Eliminating low-lead fuel
- Improvements of the National Airspace System - NextGen
  - Technological advances in GPS navigation
  - Reduce delays and provide environmental benefits reducing fuel consumption, carbon emissions, and aircraft noise
PH III Initiatives

Other:

- Voluntary reduction of flight school operational hours
  - Night Flying Restrictions, 2011-2013
  - 10 non-compliance letters sent to local flight schools

- Quarterly Certified Flight Instructor Clinics
  - Chief Pilots of local flight schools

- 1600+ letters sent to operators for deviations from the “Fly Neighborly Program” since March 2012 – March 2013
  - Voluntary Night Arrival Curfew, Flight path deviations, 93 dBA SENEL letters
Next Steps – Recommendations for Further Exploration

1. Assess Risks/Benefits of Closure Options

2. Potential for Significant Operational Impact Reductions:
   - Muffler Incentive Program
   - Strengthen Noise Limits
   - Expand Departure Curfew
   - Develop Performance Standards for Leases*
   - Reduce Repetitive Operations*
   - Incentivize Unleaded Fuel/Biofuel Dispensing*
   - Reduce the numbers/sizes of flight schools*
   - Reduce the Number of FBOs
   - Separation Waiver/NextGen
   - Reconfigure Uses throughout the Airport Campus to Buffer Neighborhoods
The Future of Santa Monica Airport

Next Steps:
City Council April 30, 2013