Airport Master Plan for
Montgomery-Gibbs
Executive Airport
PAC Meeting #3
Agenda

- Introductions
- Public Meetings Overview
- Working Paper 3 - Facility Requirements
- Working Paper 4 - Environmental Baseline Report
- Mid-point Check-In
- Public Comment
- Next Steps
Public Meeting #1

- 8/23/17 from 5:30 to 8:00 pm
- 37 attendees signed-in

Comments:
- Noise concerns
- Helicopter flights
- Focus on General Aviation
- Longer runway
Master Plan Process

Spring 2017
- Existing Conditions Analysis
- Forecasting & Facility Requirements
- Alternatives Evaluation & FFA

We Are Here

Summer 2018
- Preferred Alternative & CEQA Analysis
- Master Plan Adoption & ALP Approval

Ongoing Public Outreach

ALP – Airport Layout Plan
CEQA – California Environmental Quality Act
FFA – Financial Feasibility Analysis
Revisiting the Forecast

What are Facility Requirements?

Airside Facility Requirements

Landside Facility Requirements
MYF Demand Forecast

Based Aircraft

Annual Operations

Operations

Based Aircraft

2017 2022 2027 2032 2037

0 50,000 100,000 150,000 200,000 250,000

0 600 1200 1800 2400 3000

201,631 221,896

592 604
Operations Peaking

Month: January, February, March, April, May, June, July, August, September, October, November, December

Values: 0, 5,000, 10,000, 15,000, 20,000, 25,000
Critical Aircraft

Cessna 421 Golden Eagle

Beechcraft King Air 350
FAA Approved

Working Paper 2 – Forecast of Aviation Demand

July 26, 2017
Wayne J. Reiter
Airports Program Manager, City of San Diego
3750 John J. Montgomery Drive
San Diego, CA 92123

Montgomery Gibbs-Executive Airport (MYF)
Aviation Activity Forecast Approval

Dear Mr. Reiter,

The Federal Aviation Administration (FAA) has reviewed the aviation forecast for the Montgomery Gibbs-Executive Airport (MYF) dated June 30, 2017. The FAA approves this forecast for airport planning purposes, including Airport Layout Plan development.

It is important to note that the approval of this forecast does not guarantee future funding for capital improvements that you may propose at MYF. Future projects will need to be justified by current activity levels reached at the time the projects are proposed for implementation and will need to be further analyzed for Airport Improvement Program eligibility purposes.

If you have any questions about this forecast approval, please call me at 310-725-3613.

Sincerely,

/s/

Brenda Pérez
Community Planner
PAC/Public Input

Services
- Keep user balance
- Become more business friendly
- Enhanced FBO services

Facilities
- Additional hangar space
- Viewing area
- Aircraft wash racks
FAA Alignment

FAA Approvals
- Forecast: 7/26/17
- ALP: TBD

Funding Prioritization
- Safety
- Security
- Capacity
- Sustainability

Purpose & Need Establishment
- NEPA Approval

Published Guidance
- Specific set of guidelines provided to planners
## Data Sources

<table>
<thead>
<tr>
<th>Source</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Paper #1</td>
<td>• Airport Inventory</td>
</tr>
<tr>
<td>Working Paper #2</td>
<td>• Forecast of Aviation Demand</td>
</tr>
<tr>
<td>FAA Advisory Circulars</td>
<td>• AC 150/5060-5 Airport Capacity and Delay</td>
</tr>
<tr>
<td></td>
<td>• AC 150/5300-13A Airport Design</td>
</tr>
<tr>
<td>Airport Cooperative Research Program</td>
<td>• ACRP Report 113 Guidebook on General Aviation Facility Planning</td>
</tr>
</tbody>
</table>
Airside/Landside
Airside
## Airfield Operating Configurations

<table>
<thead>
<tr>
<th></th>
<th>030° through 210°</th>
<th>210° through 030°</th>
<th>210° through 030°</th>
<th>030° through 210°</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arrivals</strong></td>
<td>10L, 10R, 5</td>
<td>28L, 28R, 23*</td>
<td>Runway 28 Only*</td>
<td>No Arrivals</td>
</tr>
<tr>
<td><strong>Arrival Traffic Flows</strong></td>
<td>![Diagram]</td>
<td>![Diagram]</td>
<td>![Diagram]</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>IFR/VFR</strong></td>
<td>VFR</td>
<td>VFR</td>
<td>IFR</td>
<td>IFR</td>
</tr>
<tr>
<td><strong>Occurrence</strong></td>
<td>17.44%</td>
<td>67.15%</td>
<td>11.19%</td>
<td>4.22%</td>
</tr>
</tbody>
</table>

*Note: Scenario includes calm wind observations
Source: NCDC Wind & Weather Operations, 2017 & Atkins Analysis 2017
Airfield Capacity

- **Hourly Capacity** – Number of aircraft operations per hour under VFR/IFR conditions.

- **VFR Hourly Capacity**
  - Runways 28L / 28R / 23 → 228 operations
  - Runways 10L / 10R / 5 → 214 operations

- **IFR Hourly Capacity**
  - Runways 28R* → 55 operations

*Note: Only Runway 28R has the equipment for IFR approaches*
Annual Service Volume (ASV) - Maximum number of annual operations that can occur at the airport before an assumed maximum operational delay value is encountered

- **60 percent of ASV** – The threshold at which planning for capacity improvements should begin.

- **80 percent of ASV** – The threshold at which planning for improvements should be complete and construction should begin.

- **100 percent of ASV** – The airport has reached the total number of annual operations it can accommodate, and capacity-enhancing improvements should be made to avoid extensive delays.
## Annual Service Volume vs. Annual Demand

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Operations</th>
<th>Annual Service Volume</th>
<th>Percent of Annual Service Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>200,668</td>
<td>377,069</td>
<td>53.22%</td>
</tr>
<tr>
<td>2022</td>
<td>206,517</td>
<td>377,069</td>
<td>54.77%</td>
</tr>
<tr>
<td>2027</td>
<td>211,521</td>
<td>377,069</td>
<td>56.10%</td>
</tr>
<tr>
<td>2032</td>
<td>216,647</td>
<td>377,069</td>
<td>57.46%</td>
</tr>
<tr>
<td>2037</td>
<td>221,896</td>
<td>377,069</td>
<td>58.85%</td>
</tr>
</tbody>
</table>

Sources: FAA AC 150.5060-5, Airport Capacity and Delay Analysis by Atkins, 2017
Annual Service Volume vs. Annual Demand

- ASV
- 80% ASV
- 60% ASV
- Total Operations

Yearly operations from 2016 to 2031 are shown, with a trend line indicating a steady increase.
Airfield Capabilities

- **Arrivals vs. Departures**
  - Based on common practice, it is assumed that arrivals and departures are split equally.

- **Instrument Approach**
  - IFR only on Runway 28L
  - Instrument Landing System (ILS) using a localizer
  - Area Navigation (RNAV) using GPS

- **Full Length Parallel Taxiway**
  - Only Runway 10R/28L has a full-length parallel taxiway
  - Lack of full-length taxiways along highly used runways can possibly cause delays and congestion
Holding Bays
- Four holding bays on the airfield
- Holding bays have several deficiencies
  - lack of markings
  - insufficient taxiway wingtip clearance
  - insufficient depth
  - insufficient safety area clearance.

Airfield Lighting
- No major lighting deficiencies currently exist
- Lighting will be analyzed further in future phases
- Available airfield lighting
  - Medium Intensity Approach Lighting System (MALSR)
  - Runway End Identifier Lights (REIL)
  - Runway edge lighting
  - Taxiway edge lighting
Feedback
Landslide
## Aircraft Hangars

<table>
<thead>
<tr>
<th></th>
<th>2017 (Existing)</th>
<th>2022</th>
<th>2027</th>
<th>2032</th>
<th>2037</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional/Box Hangar (SF)</td>
<td>235,000</td>
<td>183,400</td>
<td>184,600</td>
<td>184,600</td>
<td>185,800</td>
</tr>
<tr>
<td>T-Hangar (SF)</td>
<td>334,000</td>
<td>364,000</td>
<td>364,000</td>
<td>368,200</td>
<td>369,600</td>
</tr>
<tr>
<td>Total Hangar Area (SF)</td>
<td>569,000</td>
<td>547,400</td>
<td>548,600</td>
<td>552,800</td>
<td>555,400</td>
</tr>
</tbody>
</table>

25 additional T-hangars over 20 year planning period
Apron Area
## Aircraft Parking Apron

<table>
<thead>
<tr>
<th>Apron Type (SY)</th>
<th>2017 (existing)</th>
<th>2022</th>
<th>2027</th>
<th>2032</th>
<th>2037</th>
</tr>
</thead>
<tbody>
<tr>
<td>Itinerant Apron</td>
<td>20,000</td>
<td>38,000</td>
<td>38,800</td>
<td>40,000</td>
<td>41,200</td>
</tr>
<tr>
<td>Based Apron</td>
<td>40,000</td>
<td>40,200</td>
<td>40,400</td>
<td>40,600</td>
<td>40,600</td>
</tr>
<tr>
<td>Total Apron</td>
<td>60,000</td>
<td>78,200</td>
<td>79,200</td>
<td>80,600</td>
<td>81,800</td>
</tr>
</tbody>
</table>
## Terminal/Airport Administration Building

<table>
<thead>
<tr>
<th>Year</th>
<th>Itinerant Design Hour Operations</th>
<th>Peak-Hour Pilot &amp; Passengers</th>
<th>Terminal Size Required (SF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>55</td>
<td>138</td>
<td>16,600 (current) 20,700 (demand)</td>
</tr>
<tr>
<td>2022</td>
<td>57</td>
<td>143</td>
<td>21,450</td>
</tr>
<tr>
<td>2027</td>
<td>58</td>
<td>145</td>
<td>21,750</td>
</tr>
<tr>
<td>2032</td>
<td>60</td>
<td>150</td>
<td>22,500</td>
</tr>
<tr>
<td>2037</td>
<td>61</td>
<td>153</td>
<td>22,950</td>
</tr>
</tbody>
</table>
Support Facilities

Fueling

Wash Rack

Fencing

Parking

Restaurant
Non-aeronautical Development
Environmental Baseline for
Montgomery-Gibbs Executive Airport
PAC Meeting #3
Goals

- Establish existing conditions to help guide planners and designers to avoid or minimize impact to environmental resources

- Assess level of review under NEPA
  - Guided by FAA regulations
There are 14 resources to be evaluated:

- Air quality
- Biological resources
- Climate
- Coastal resources
- Section 4(f) (historic and recreation)
- Farmlands
- Hazardous materials
- Cultural resources
- Land use
- Natural resources and energy supply
- Noise
- Socioeconomics and environmental justice
- Visual effects
- Water resources
Impact Categories

> Potentially significant impacts
  > Air quality, Biological resources, HazMat, Land Use, Noise

> No Significant Impact
  > Climate, Section 4(f), Cultural resources, Visual, Water resources

> No impact or resource is not present
  > Coastal resources, Farmlands, Natural resources and energy supply, Socioeconomics/Enviro Justice/Children’s Environmental Health & Safety

Presentation focuses on potentially significant impacts.
Air quality

Emissions & aircraft

On the ground
The main contribution aircraft emissions make to ground level air quality occurs while they are on the ground and operating their engines.

During take-off
As aircraft take-off the engines generate emissions. Above 600ft, aircraft emissions have a negligible effect on ground level air quality around the airport.

During landing
Aircraft produce fewer emissions landing compared to taking-off. This is due to a combination of using engines less and carrying less weight in fuel.

Source: The Aeronautical Journal (DETRA, 2002)
Hazardous Materials
Noise
Recommendation

- Potential for significant impact does not mean there is an impact – just that more detailed study and design are necessary.

- Environmental Assessment (EA) under NEPA, in order to better study and disclose impacts:
  - Project dependent
  - Some projects may qualify for a categorical exclusion.

- Awaiting selection of preferred alternative to determine CEQA requirements.
Next Steps

> Provide environmental data to planners and designers

> Coordinate with the airports, city and FAA regarding NEPA and CEQA

> Determine level of documentation necessary under CEQA
Feedback
Public Comment
Next Steps

> Incorporate Feedback
> Finalize Facility Requirements
> Hold Public Meeting
> Progress to Alternatives Development