Greater Orlando Aviation Authority
Jeff Daniels, FMA, CEA, CEM, CEA, LEED GA
Assistant Director of Maintenance &
Director of Sustainability
1940–1975
McCoy Airbase

1975 City airport operations begin

1980 West side of terminal

1990 East terminal expansion

2001 Fourth Airside opens

2003 Fourth Airfeld opens

2017 South APM IMF
The Numbers

Property includes approximately 13,000 Acres

Airfield includes
- 8 Miles on 4 Runways
- 37 Miles on 53 Taxiways
- 391 acres of Aprons

Terminal and Airsides Buildings (5,226,000 SF)
- Landside Terminal
- Four Airside Terminals

Satellite Buildings (600,000 SF)

Roadway & Parking: Roadways (68 lane miles) Parking: 20,729 spaces

Operations: 25,000 operations monthly or 300,000 a year.

Visitors
- 57 million to the Central Florida region 35 million through the airport.
- 17,000 employees
Electrical and Electronics

100,000 Power, Lighting & Signage fixtures in the terminal

8000 Lighting & Signage fixtures in the airfield

500 Electronic Doors

5000 Public Audio System components

2000+ Security Cameras
Mechanical Systems

325 Air handlers and associated equipment

18 Centrifugal chillers producing over 15,000 tons of cooling

20 Megawatts of power

238 Bathrooms with over 1300 fixtures
Carpentry and Painting

Walls, counters, base boards, ceiling tiles, cabinet work and special projects such as the art port displays, information booth, etc.

Interior and Exterior Finishes
Runways and Taxiways Airside Aprons

Parking Lot Striping

Over 8500 gallons of paint applied each year
Grounds & Pavements

Runway & Taxiway Pavements

Airside Aprons

Roadways

Parking Lots

Storm Drainage

Grass Cutting & Edging in the Aircraft Operations area (AOA).

Cranes and other heavy equipment
Building Services

- Custodial Contracts employing over 400 employees
- Surface parking and garage cleaning
- Pest Control Services
- Pressure washing
Vehicle Maintenance

Over 500 vehicles in the vehicle pool with:

• 29 busses
• 17 fire / rescue Trucks
• 160 light trucks and sedans
• 57 emergency generators/fire pumps
• 223 other vehicles (tractors, lawn equipment, shop equipment, etc)
Transportation Systems

8 Automated People Movers (APMs)
120 elevators
76 escalators
17 moving sidewalks
24/7 Operations

Communications Center
- 911 Dispatch
- Security Systems
- Life Safety Systems

Central Plant Operations
- HVAC, power, transportation, and lighting monitoring/control
- Trouble Calls

Airport Operations Center
- Airline Operations and coordination
- Customs and Border Protection coordination and support
- TSA support

Baggage Handling Operations
BAGGAGE HANDLING SYSTEMS

• Over 4,500 assets
• More than 11 miles of conveyors
• 35 baggage claim carrousels
Orlando BHS Stats & Facts

• Averages
  ▪ 37,000 outbound bags daily
  ▪ 0.72 bags per passenger
  ▪ 6 minutes processing time
  ▪ 96% automated tag reading rate

• Busiest baggage day was:
  Saturday, January 4, 2014
  59,185 bags were processed
SYSTEMS OF THE BHS

- 150 programmable logic controllers
- 66 Servers
- 29 in-line EDS L3’s
BHS COORDINATION CENTER

• Operates 20 hours a day, 7 days a week
• Coordinates BHS operations and maintenance GSE
• Single point of contact
• Managed and staffed by the Authority
GROUND SERVICE EQUIPMENT

- Approximately 500 assets
- 93 passenger boarding bridges
- Pre-conditioned air
- Ground power units
The Future

Preparing for Growth
COMPARISON OF HIGH, BASE, AND LOW ENPLANED PASSENGER FORECASTS

DOMESTIC 2.3%

INTERNATIONAL 5.9%
### Terminal Operational Systems

<table>
<thead>
<tr>
<th>Terminal Operational Systems</th>
<th>35</th>
<th>36</th>
<th>37</th>
<th>38</th>
<th>39</th>
<th>40</th>
<th>41</th>
<th>42</th>
<th>43</th>
<th>44</th>
<th>45</th>
<th>46+</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Leigh Fisher) Forecasted Year to Achieve MAP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Passenger Security Checkpoints</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>44</td>
</tr>
<tr>
<td>2. Ticketing (Queue Area)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>44</td>
</tr>
<tr>
<td>3. On-Airport RAC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>44</td>
</tr>
<tr>
<td>4. Entering and Exiting Weaves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>5. Terminal Ramps</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>6. Curbs (Enplane, Deplane, Comm.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>7. Baggage Claim</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>8. Baggage Handling Systems (BHS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>9. Gates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Terminal Roads</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Ticketing (Counter Positions)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Parking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Airfield</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Automated People Movers (APM)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Capacity (Million Annual Passengers)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Future Challenges

- **Finite Capacity**
- **45 MAP**
- **Diminishing Return on Capital Investment**
- **Enhanced Terminal Capacity**
- **Low Customer SATISFACTION**
Ticket Counter Level Renovation
Airside 4 Central Chilled Water Plant
Airside 4 Restroom Renovations

FAMILY
RESTROOM

NURSING
ROOM
FIRST PROJECT ON THE LEED CAMPUS

- North Terminal Complex (NTC) Capacity Reliever
- Automated People Mover (APM) System from NTC
- 500,000 SF Facility
- 2,400 Car Garage
- Ground Transportation Facility
- Remote Check-In
  - https://www.youtube.com/watch?feature=player_detailpage&v=zH3_ZNRHtSw
View of the Ground Transportation Level
TOUR GUIDELINES

• Photography is PROHIBITED
• Security check
  ▪ Government ID must be on you at all times
  ▪ Personal items are limited
• Sensitive Security Information
• Physical constraints
• Personal Safety
• Limited restroom availability