The CLE Master Plan Includes:

- An inventory of existing conditions
- Forecasting future demand and analyzing future needs
- Evaluating alternative development scenarios
- Preparing the Airport Layout Plan
- Preparing the Airport Capital Improvement Program (ACIP)
- Determining the economic impact of current airport activity and future master plan development
- Promoting green initiatives & environmental stewardship
- Fostering partnership with stakeholders & the airport community
Master Plan Reflects Stakeholder Consensus of Approach to the Future of Aviation at CLE

MPU Stakeholder Outreach Program

- Aerotropolis Project Team
- Air Traffic Control (ATC)
- Airport System Staff
- Airport Tenants
- Cleveland Airline Managers Association (CAMA)
- Cleveland City Council
- Continental/United Airlines
- Customs and Border Protection (CBP)
- Federal Aviation Administration (FAA)
- Greater Cleveland Partnership
- Public Workshops (3)
- Suburban Mayors
- Transportation Security Administration (TSA)

- Reflects interviews with stakeholders at every step of the master planning process
- Stakeholders identified opportunities and constraints
- Consensus: create opportunities to shape the Airport’s future
Provide Opportunities to Shape CLE’s Future

- Baseline demographic forecasts reflect “business-as-usual” future
- Successful economic development initiatives in the region will change this forecast
- Stronger local market will make CLE a more attractive location for an airline hub
- A 25% change in the demographic forecasts has a dramatic impact on future passenger volumes
The Future of Aviation at CLE

- 2035 Passenger Forecasts:
  - Baseline of 8.3 million boarding passengers (25% connecting)
  - High case of 11.4 million boarding passengers (50% connecting)
  - High case driven primarily by increased connecting traffic

- 2035 Operations Forecasts:
  - Baseline of 257,400 commercial operations (AAG rate of 0.8%)
  - High case of 351,400 commercial operations (AAG rate of 1.9%)
  - High case driven primarily by modeled increase in Continental Airlines connecting traffic
Passenger Terminal Area
Terminal Improvement Plan Background/Findings

- Building conditions survey findings:
  - Structure is sound
  - Roof requires immediate repair
  - Improve efficiency through insulation, double pane windows, new systems
  - Building will require various recurring renewal efforts to extend useful life
  - Renewal will require $5-10 million per year over next 25 years

- Functional improvements
  - No immediate projects (recession has dampened demand, postponing needs)
  - Checkpoints and baggage screening operating at capacity during peak hours
  - Customs facility accommodates one flight at a time, is inefficient and poorly located
  - Emerging needs for ticketing and airline baggage handling space
Ground Transportation Plan Background/Findings

### Parking
- Long-term garage has reached the end of its useful life
  - Constructed in 1969
  - Previous restoration already extended its life once
  - Parking study and master plan concur on expansion of short-term garage to provide long-term parking capacity
- Need for immediate action

### Roads
- Peak hour demand at the curbs exceeds capacity
  - Arrivals curb has greater problem than departures curb
  - Queuing backs up onto entrance road
- Entrance roads capacity issues
  - Short decision distances
  - Three way signal limits capacity and causes queuing
- Exit roads design issues
  - Short decision and weaving distances
  - Difficult sight lines
- Recession has dampened demand and has postponed need for immediate action

### Land Use
- Link Hotel with RTA and Terminal
- Demand for airport related government office space
Terminal Area Immediate Needs (GTC)

Alternative Energy
Terminal Area (w/ Hotel/Office/Retail & Garage Exp)
South Campus
Cargo, Airline Maintenance & Corporate Aviation
Cargo – Operations & Fleet Mix

Cargo Aircraft Operations Forecast

- Cargo operations at CLE declined by 7.3% in 2008 and projected to decline further to 8.8% in 2009
- 2035 baseline: between 12 and 17 daily cargo flights
- FedEx expected to continue to account for nearly three quarters of total cargo aircraft operations at CLE throughout the forecast period

While air cargo demand is flat, facility enhancements could help capture new/available market

Cargo Operations: Aircraft Fleet Mix

- Cargo aircraft operations at CLE is predominately operated with wide-body and B757 aircraft
- FedEx continues to operate the majority of A300-600 through 2035
- UPS continues to replace DC 8 aircraft with A300-600 and is expected to retire DC 8 aircraft from the CLE cargo fleet by 2015
- FedEx expected to continue to operate turboprop aircraft at CLE throughout the forecast period

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Cargo Campus Development Plan
Corporate Aviation Campus Development Plan
South Campus Development Plan

- Close Eastland Rd. Entrance
- Relocate Five Points Road
- Modify Interchange
- New entrances and loop road
- Glycol Treatment
- IX Center
- Airline Maintenance Campus
- Corporate Aviation Campus
- Cargo Campus
- Central Receiving/Concessions Screening
- Continental/United Campus
- USPS
- ATCT
- ARFF
- FedEx
West Campus Improvement Plan

- Background & Findings
  - Collocate airport maintenance functions for efficiency
  - Provide for satellite ARFF location
  - Provide for relocated DPC employee offices

- Collocate airport maintenance functions for efficiency
- Provide for satellite ARFF location
- Provide for relocated DPC employee offices

- Existing NWS Radar
- Proposed DPC Offices
- Proposed DPC Oil Field Maintenance
- Proposed CPD/FBI/TSA Hazmat Storage
- Proposed DPC Vehicle Maintenance
- Existing VBM Battery Storage & Hazmat
- Proposed Satellite ARFF
- Existing UPS Facility
- Proposed CPD/ FBl/TSA Hazmat Storage
- NASA
- EV-10
Airfield Improvements – Background

- Previous master plan provides runway capacity for the foreseeable future
- The aircraft sizes and capabilities we have today are representative of the future
- Stakeholders identified need to improve pilot orientation, congestion hotspots and taxiway flow improvements

### Commercial Aircraft Operations Forecast

- **Scenarios:**
  - 2035 baseline forecast of 252,000 annual aircraft
  - High scenario projects 351,400 annual aircraft
  - High scenario driven primarily by increases in connecting traffic

### Passenger Operations: Aircraft Fleet Mix

- **Narrow-body fleet expected to comprise of a greater number of 737-700, 800, 900 model aircraft**
- Increased use of large regional jets or props
- Small RJ and prop aircraft will continue to comprise a large component of fleet

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Airfield Improvement Plan

LEGEND

- Existing Airfield Pavement
- Proposed Airfield Pavement
- Existing Airfield Pavement to be Removed

Existing Hotspots
Master Plan Summary

**CLE Today:**
- Runways have ample capacity
- Terminal needs security and customs upgrades and room to grow the airline hub
- Cargo facilities constrain the market
- Airline maintenance & corporate aviation needs room for growth

**CLE Tomorrow:**
- Runways have ample capacity
- Terminal has high customer convenience, amenities, and airlines have room to grow
- Cargo has its fair share of the market
- Airlines have space to maintain their fleets
- Hub for regional economic development initiatives
Master Plan Highlights

- **Terminal Modernization**
  - Concourse C Widening, New Customs Facility, Ticketing & Bag Screening Expansion
  - Collateral Development Area in the Terminal Core
- **Airfield & Landside Rehabilitation for Safety, Security & Capacity**
  - Runway 10-28 RSA
  - Pavement Removal
  - Taxiway Safety & Capacity Projects
- **Clean & Green Cargo**
  - New Hangars, Apron, Access & Customs
- **Customer Convenience**
  - New Hotel/Retail/Office Space Complex
  - Ground Transportation Center (remote check-in/bus terminal)
  - Parking Garage Expansion
  - Terminal Area Roadway Reconfiguration
  - New Airline Maintenance, Corporate, DPC Facilities
  - New Airport Access & SR 237 Interchange
  - New Deicing Support Facilities
- **Green Initiatives – “Blue Sky & Green Flights”**
  - Reduce Emissions
  - Reduce, Reuse & Recycle
  - On-Airport Solar Farm
  - New Glycol Recovery Systems
- **Hub for regional economic development initiatives**
Next Steps

- **Master Plan**
  - Final Round of Stakeholder & Public Information Meetings
  - FAA Review & Approval of Updated Master Plan
  - Economic Impact of Updated Master Plan Projects

- **Environmental Evaluation for Project Implementation**