Nantucket Memorial Airport Commission

Master Plan Workshop

October 26, 2012
Agenda

• Introductions

• Master Plan 101
  – Airport Planning Issues
  – Noise Abatement Activities
  – Environmental Monitoring
  – Public Outreach Program

• Next Steps, Questions, Issues?
Master Plan 101

• What is an airport master plan and why is it important?
• What is covered?
• What is the schedule?
• How does the public participate?
A Master Plan Is…

• **Study** of current airport uses and deficiencies

• **Process** to identify priority projects to help airport operate efficiently and safely

• **Opportunity** to look at the big picture – how does airport interact with island community and how can interactions be improved

• **Analysis** of environmental impacts and mitigation

• **Framework** for 5 year Capital Improvement Plan (CIP) to set FAA Entitlement $ and Airport investment budgets
What is Covered in the Master Plan?

- ACK role/trends & 20-year aviation forecasts
- Inventory of existing conditions & needs
- Airfield design evaluation
- Airport Layout Plan
- Noise abatement
- Environmental stewardship
- Ground transportation
- Consistency with community goals
- Capital Improvement Plan
- and more
ACK Trends

- Demand is increasing—second busiest airport in Mass.
- Mix of General Aviation aircraft is changing
- Congestion due to changing GA fleet
- Larger corporate jets
Flight Operations Forecast
NANTUCKET MEMORIAL AIRPORT

OPERATIONS TREND LINE

1986 Base Year (150,649 Ops)
2000 Prior Peak (170,367 Ops)
1995 Prior Low (115,371 Ops)
2011 ACTUAL (120,806 Ops)

HISTORICAL

POTENTIAL TREND LINE RANGE
Passenger Enplanement Forecast
NANTUCKET MEMORIAL AIRPORT

1995 FORECAST
ACTUAL SINCE MASTER PLAN FORECAST (1995)

2000 ACTUAL (302,161)
2003 ACTUAL (229,301)
2007 ACTUAL (278,133)
2011 ACTUAL (179,410)

HISTORICAL
Inventory of Existing Conditions & Needs
Recent Projects/Current Issues

**Completed Projects**
- Terminal Building and new ARFF Building
- Runway 33 extension 500’ south
- Study of South Apron safety & capacity issues
- South Apron noise monitoring
- General Aviation/Admin Building (to be completed)

**Current Issues**
- Ramp Electrification (FAA rejected funding request)
- Runway 33 taxiway alignment
- South Apron Environmental Assessment (on Hold)
- Air Traffic Control Tower Rehabilitation
- On-Going Noise Abatement Initiatives
- Ongoing Environmental Monitoring Program
- Photovoltaic (solar) field proposals (on Hold)
- GIS Base Plan and Utilities GIS Master Drawing
- Airspace Protection Plan
- Airport Budget & Financial Planning
- Airport Rates & Charges Update
Planning Issues
Current Airport Safety & Operational Layout Issues

- Mix of Large and Small GA aircraft
- Apron Parking of Large Corporate Jets
- South Ramp Congestion
- Control Tower Improvements
- RW33 Extension & Need for Parallel Taxiway
- Bunker Area Aviation Use
- Bunker Area Non-Aviation Use
- GIS Base Plan and Utilities GIS Master Drawing
- Potential Photo-Voltaic Facility Site
- On-going Noise Mitigation Efforts
- On-going Environmental Monitoring Needs
South Apron Parking as Designed
South Apron Parking as Currently Used
Tight Taxi Clearances on the South Apron
Tight Taxi Clearances on the South Apron
Existing Conditions - South Apron Study Area
Ongoing noise abatement includes:

- Enforcement of 15-min. APU use rule
- Park jets with engines turned from homes
- Educational handout for pilots and GA passengers
- Over-water landing approaches
- Noise abatement flight tracks
- MOU with air traffic control tower staff
- Air traffic tracking system to help enforce noise policies
- Call-in number and complaints-tracking system
- Opportunities to reduce back-taxi distance and exhaust (Taxiway D)
Apron Noise & Air Quality Mitigation
Park Engines Aimed Away from Homes

To Runways

To Homes
Future Noise Mitigation Concepts

Future noise mitigation could include:

– Earth berm
– Noise wall
– Ground Power Units

(All of the above require FAA approval & funding)

– Nighttime user fees (Not Permissable)
Taxiway D Widening
Noise Mitigation
Standard FAA Flight Pattern at ACK
(pre-1995)

Legend
- Standard Aircraft Traffic Pattern
- Suggested Flight Corridor
- 1 Mile Shoreline Buffer
- Developed Areas - Noise Sensitive
- Roads

Standard FAA Air Traffic Pattern
On-going Noise Mitigation:
Avoid Developed Areas with Over-Water Flight Tracks

Legend
- Suggested Flight Corridor
- 1 Mile Shoreline Buffer
- Developed Areas - Noise Sensitivity
- Roads

Modified VFR Flight Tracks
Runway 33: New 500-Foot Extension Enables Increased RW33 Over-Water Landings
Runway 33 East Side Taxiway Alternative
Runway 33 West Side Taxiway Alternative
On-Going Environmental Monitoring
MESA Vegetation Management Plan

**Legend:**
- **Schedule 1:** 277 acres
  - Unrestricted mowing schedule
  - To be determined by airport manager
- **Schedule 2:** 151 acres
  - Cut once every 2 to 3 years to control invasive tree and shrub growth and to enhance plant diversity.
- **Schedule 3:** 151 acres
  - Controlled burning or selective cutting every 5 to 7 years to control tree growth. Exact schedule to be determined by airport manager in coordination with the project's technical advisory committee.

**Notes:**
1. Grassland management plan has been developed pursuant to the Massachusetts Endangered Species Act (M.G.L. c. 131A) and is a condition of the permit issued in 2004 by Massachusetts Natural Heritage Endangered Species Program, Division of Fisheries and Wildlife.
2. Schedules shown on this plan will be re-evaluated by the airport management in coordination with the project's technical advisory committee and necessary modifications will be made.
Environmental Program Elements

- Compliance with current MESA Permit
- Controlled Burn & Habitat Monitoring
- Historic/Archaeological & Tribal Coordination
- Sustainability Assessment/ Energy Audit
- Renewable Photovoltaic/ Solar/ Wind initiatives
- Greenhouse Gas mitigation objectives
- On-Going Noise Monitoring
- Noise Contour Mapping
- SWPP & SPCC Updates
- Traffic Reduction Concepts: Taxi, Bus, Bikes
Budget & Financial Planning

- Airport funds come from user fees & FAA
- Rates and charges will be updated
- FAA funds are both entitlement funds and discretionary funds
- Discretionary FAA funds are competitive
- Projects that address safety issues are priority projects for FAA Entitlement $$
- FAA restricts how its funds can be spent
### NANTUCKET MEMORIAL AIRPORT - Proposed FY13-14 FAA CIP

#### 2013 (@ 90% FAA Reimb.; 7.5% STATE; 2.5% ACK)

<table>
<thead>
<tr>
<th>Description</th>
<th>FAA Entitlement</th>
<th>FAA Discretionary</th>
<th>MASS DOT</th>
<th>AIRPORT</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>&quot;Replace MITLs on R/W 12-30; Replace 5,000 LF of Fence&quot;</td>
<td>$393,300</td>
<td>$32,775</td>
<td>$10,925</td>
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<td>Infrastructure for &quot;PAPIs and REILs for R/W 33&quot;</td>
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<td>$8,750</td>
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<td>&quot;Widen &amp; Relocate T/W D and Remove R/W 33 Pad&quot;</td>
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<td>$28,125</td>
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<td>FY '13 Estimated ENTITLEMENT</td>
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<td><strong>SUBTRACT FY 2013 PROJECTS</strong></td>
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<td>Unused Entitlement from FY '12</td>
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<td>CARRYOVER FROM FY '13 TO FY '14</td>
<td>$787,500</td>
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#### 2014 (@ 90% FAA Reimb.; 5% STATE; 5% ACK)

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<td>&quot;EA/EIR Permitting/Compliance Program&quot;</td>
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<td><strong>SUBTRACT FY 2014 PROJECTS</strong></td>
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<td>Unused Entitlement from FY '13</td>
<td>$787,500</td>
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<td>446,600</td>
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Commission’s Role in Master Plan

- Help identify & define issues for Master Plan
- Participate in planning process at key milestones
- Get others involved
- Help identify ways we can keep you up to date:
  - Meetings
  - Newsletters
  - Robust airport web page with master plan documents and updates
  - Presentations at neighborhood events
  - Participate on Working Group
  - ?
Public Outreach Program
Expansive & Open Planning Process

• Working Group

• Meetings and Workshops
  – Public focus groups
  – Informational meetings
  – Speakers Bureau

• Events
  – Airport tours and Open Houses
  – Fly-a-Friend / Fly-a-Reporter

• Communications & Public Information Pieces
  – Airport Master Plan web page
  – Airplane seat-back inserts or bill stuffers
  – Social media (Facebook and Twitter)
  – Media releases at key milestones
Master Plan Working Group/ Advisory Committee

• Purpose of Working Group
  – Provides input to Goals & Objectives and long-range planning
  – Forum to freely present issues, ideas and provide guidance

• Structure of Working Group
  • Three subcommittees: Airside, Landside, and Environmental
    – Discussions related to aviation, flight safety, community concerns, planning, coordination, fiscal and legal issues
    – Provide linkage to various groups that members have been drawn from as communicators to larger Island-wide community

• Composition of Working Group
  – Members from Airport, tenants, users, NPEDC, FAA, MassDOT, community groups and general public
  – Diverse range of community interests and opinions
Schedule

Master Plan

- Winter 2012–13 create Working Group
- Ongoing environmental monitoring
- **May 30, 2013** - Complete scoping/ID 3-Phase Approach
- **May 30, 2014** - Identify needs/ priorities/ projects/CIP $; complete Master Plan/ ENF/ Scope EA Grant
- **June 30, 2015** - Complete Environmental Assessment for 5-year CIP Projects

Financial Plan

- **July 2013–May 2014** – Draft and final 5-year plan consistent with MP

  ! Public outreach throughout process !
Master Plan Schedule - Phase 1 Tasks (Typ.)
Master Plan Schedule – Phase 3 Tasks (Typ.)
Next Steps:

• Form Working Group
• Develop Draft Scope of Work for Master Plan
• Hold kickoff Working Group meeting to review scope, process & schedule (approx. Feb. 2013)
• Hold Client Group meeting with FAA & MassDOT Aeronautics on Scope
Discussion

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