

# Noise Abatement Concepts For CAC Consideration

Concepts on the table as of  
1/23/2008

# Ground Noise Measures

- Tow aircraft to the runway ends
- Single engine taxi on aircraft side away from nearest communities
- Use Taxiway November for 22R traffic
- Use the Centerfield Taxiway for 22L traffic
- Runway 4R arrivals taxi in on the Centerfield Taxiway
- Add fillets for 4R egress and curve the fillet from the high speed exit taxiway into the Centerfield Taxiway.
- Erect noise barriers on the community side of the shoreline
- Place floating foam noise barriers in the water adjacent to November taxiway.
- Build a dedicated hush house building for run-ups.
- Replace Ground Power Unit and Aircraft Power Units with electric power hook ups.at all gates
- Change the national on time departure rules so that aircraft remain at the gate without penalizing the airline's on time performance.
- Erect noise barrier for 15R departures – northwest end of 15R/33L.
- **IC RECOMMENDATION – FORWARD ALL MEASURES TO THE BOSTAC FOR CONSIDERATION**

# Brainstorm Concepts by Area

## Southwest Area Concepts

1. Extend Runway 27 departure gates farther south to I-95/R128/ Dedham area before turning to enroute courses
2. Establish Continuous Descent Approach to Runways 4R/L
3. Phase 1 Carry Over Measures 17/21 - Runways 27 Departures: develop departure procedures for fanning. The intent of this measure is to provide respite to close-in communities in departure areas of these runways
4. Phase 1 Carry Over Measure 18 - Departure Runway 27: apply cockpit alternatives for thrust and climb management to benefit certain nearby communities through implementation of close-in or distant noise abatement departure procedures.
5. Phase 1 Carry Over Measure 27 - Runways 4R/4L LDA Approaches: develop offset approaches from the east and west. The intent of this measure is to reduce noise to communities under the existing approach to 4R/4L.
6. Phase 1 Carry Over Measure 28 - Runway 27 Departures: modify Runway 27 departure procedure to an initial right turn in order to direct aircraft over the Charles River basin and away from heavily populated areas. The intent of this measure is to reduce the aircraft noise exposure for the communities in the departure area of Runway 27.

# Brainstorm Concepts by Area

## **Southeast Area Concepts**

1. Adopt a Continuous Descent Approach (CDA) for arrivals at the DRUNK Intersection.
2. Move the DRUNK Intersection further east over the ocean, as opposed to remaining over land at Marshfield.
3. Raise the elevation of arrivals crossing the DRUNK Intersection from 6,000 feet to a level in the range of 7,000 to 8,000 feet.
4. Spread out arrivals at the DRUNK Intersection by creating additional "way points". This will reduce some of the noise impacts from having the arrivals concentrated into such a narrow flight corridor such as that adopted pursuant to Alternatives 6,7 and 11 under Phase 1.
5. In the alternative, move the narrow flight corridor adopted under Alternatives 6, 7 and 11 of Phase 1 further south, so that the altitude of the arrivals can be raised very substantially, thereby reducing or eliminating noise impacts.
6. Phase 1 Carry Over Measure 4 - Runway 14 Departures: develop departure procedures to increase altitudes of aircraft over land.
7. Phase 1 Carry Over Measure 16 - Runway 32 Arrivals: develop approach procedure that maximizes flight over water

# Brainstorm Concepts by Area

## **Northwest Area Concepts**

1. Establish a departure route from Rwy. 33L that follows the Mystic River and compatible lands to Route I-95 before turning on course
2. Establish altitude floor for local VFR traffic under Tower control not on approach or initial climb to increase altitudes over downtown
3. Establish required helicopter routings within downtown area airspace for all users, including hospitals, businesses and media
4. Extend initial departure course for turboprop aircraft to 2,000 MSL before initiating turns over populated areas
5. Phase 1 Carry Over Measures 17/21 - Runways 33L Departures: develop departure procedures for fanning. The intent of this measure is to provide respite to close-in communities in departure areas of these runways
6. Phase 1 Carry Over Measure 18 - Departure Runway 33L: apply cockpit alternatives for thrust and climb management to benefit certain nearby communities through implementation of close-in/distant noise abatement departure procedures.
7. Establish Continuous Descent Approach to Runway 15R

# Brainstorm Concepts by Area

## **Northeast Area Concepts**

1. Establish Continuous Descent Approach to Runways 4R/L
2. Phase 1 Carry Over Measures 17/21 - Runways 4R Departures: develop departure procedures for fanning. The intent of this measure is to provide respite to close-in communities in departure areas of these runways
3. Phase 1 Carry Over Measure 18 - Departure Runway 4R: apply cockpit alternatives for thrust and climb management to benefit certain nearby communities through implementation of close-in/distant noise abatement departure procedures.

# Runway Use Measures

1. Balance approaches to Runways 4R/L
2. Change runway use to land 4R/L less frequently
3. Change runway use to depart 22R/L less frequently
4. Distribute peak period runway use among three best configurations based on impacts under the approach and departure routes, winds permitting. Distribute off peak daytime use among other configurations
5. Maximize use of 15R departures, 33L landings during midnight – 6 a.m. period.
6. Phase 1 Carry Over Measure 19 - Runway 27 Departures: establish balanced use of Runways 27 and 33L for departures. The intent of this measure is to minimize noise to close-in communities.
7. Phase 1 Carry Over Measure 20 - Runway 4L Departures and 22R Arrivals: remove noise emission restriction to achieve more utilization of this runway. The intent of this measure is to develop a more equitable distribution of noise impacts.
8. Phase 1 Carry Over Measure 22 - Runways 4R/L and 22R: develop runway use procedure to more reasonably distribute operations between these runways in meteorological conditions with small tailwind components. The intent of this measure is to provide more equitable distribution of noise impacts from Runways 4R/L and 22R.
9. Phase 1 Carry Over Measure 23 - Runway 27 Arrivals and Runway 15 Departures: arrive on Runway 27 and depart on Runway 15 during late night hours. The intent of this measure is to minimize noise impacts on South Shore/Hull.
10. Phase 1 Carry Over Measure 24 - Runway 15R Departures: implement a preferential runway use procedure during operational (FAA) nighttime hours (midnight to 6 a.m.) that places all departures on Runway 15R, unless tailwinds exceed 11 knots or departures exceed 60 per hour. The intent of this measure is to reduce aircraft noise exposure during nighttime hours for communities in the departure area of Runway 27.