

**Block 2 Study Requests; CL Christiansen, Milton MCAC Rep, Aviation  
Subcommittee Meeting April 18, 2018**

**1. REQUESTED Dispersion studies that could benefit all approach paths at Logan and across the nation and questions to which I request answers.**

ALL WORK DONE WITH 4R APPROACHES MUST INCLUDE 4L PROCEDURES TOO

- RNAV Families as suggested by Dr. Tom Reynolds
  - How many RNAV approaches, along with the straight-in, are possible if one is focused on helping those on the ground?
  - How can these be rotated?
- 30-degree Angled approaches, or greater, that meet up with the straight-in at 3 nm from displace threshold, similar to what the FAA shows it can do by the 4L RNAV Visual angled approach
  - Can these be used in Instrument conditions? If not, why not?
  - Are greater angles possible if one is focused on helping those on the ground?
  - This could be helpful to approaches to 22R especially if angled approaches to the east of the approach centerline could be used (mostly over the water)
- Please do a better job on the density plots for approaches and provide a more appropriate version.
  - Use a zoom level that is appropriate for the altitude of the procedure
  - When dividing the area into 1-square acre blocks, the blocks need to align with the angle of the flight path, otherwise the graphic could show more dispersion than is actually there.
  - It is inappropriate to use the categorization of 9+ as the highest grouping when some areas have fly overs in the 100+, making the graphs misleading. Please re-do.
  - When counting, one must define what counts – please do that on the requested re-done density plots

**2. REQUESTED Studies for Approach Altitudes (not just the 4's) and questions to which I request answers.**

- Please conduct increased-altitude studies; these could benefit all those under approach paths at Logan and across the nation
- Please answer these questions:
  - If there are legitimate safety concerns, what are they and how do those concerns trump the feasible in the referenced studies if one's purpose is to reduce the burden to those on the ground?
  - What are the noise benefits for increase altitudes?
  - What are the changes to altitude caused by FAA's mathematical formula changes used for satellite navigation paths compared to radar navigation?
    - Did these satellite-based formula changes also affect departure altitudes?

**3. REQUESTED Field Work and questions to which I request answers.**

ALL WORK DONE WITH 4R APPROACHES MUST INCLUDE 4L PROCEDURES TOO

- Please Schedule a time to visit and experience the 4R/L approaches in Dorchester,

Milton, and Quincy

- Please explain the differences in flight paths shown using Massport data from 2009 and 2017
- Please explain changes with respect to mathematical formulae changes for altitude and flight paths caused by the switch from radar to satellite navigation
- Please explain the effects of these changes to people on the ground who consistently report that flights are lower (departures too) and are not following the paths shown on the monitors or maps
- What map projection and mathematical formulae (pre/post Order 8260.58) is used in:
  - AEDT software
  - HMMH density plot
  - ANOPP
  - IMN
  - Massport provided flight paths and profile graphs to the LCAC
- And what differences should we expect in paths and altitude if these map projections are different?

#### **4. REQUESTED Conformance and Operational Factors for APPROACHES (not just the 4's)**

- Conduct simulation studies of the effect of noise reduction when requiring approaches to 4R/L to follow the fly-over, altitude, and speed requirements outline below. Note that this was a request in at least one Milton Board of Selectmen letter, was presented and requested at LCAC meetings, but we have never received information regarding the consequences of these requirements.

*As one of several mitigation strategies needed to reduce the burden of Logan International Airport operations over Milton, we request that Massport and the FAA require that for all approaches to Runway 4R and for all approaches to Runway 4L, all aircraft (non-emergency) shall be turned outside (south) of NABBO and at an equivalent point for approaches to 4L at or above 3100 feet and then follow a continuous descent approach to the runway end.*

*Additionally, we ask that written directive guidance for all users of Logan International Airport shall be developed and published without delay (maximum 180 days) regarding when flaps and landing gear will be extended and required speeds at specific distances from the runway thresholds in order to attain a continuous descent approach.*

*FAA noise monitors shall verify carrier compliance and appropriate fines shall be levied against carriers for failure to follow the procedures. These fines will be set aside and used to correct for damages to the citizens of Milton.*

*These simple changes will encourage arrivals to fly higher when over most of Milton and will reduce airframe and engine noise. It also is a near zero-cost to Massport and the airlines and could prove to be helpful to the*

*many residents living under these heavily-used approaches into Logan.*

- Conduct simulation studies of the effect of noise reduction when requiring pilots to follow “clean” approaches to the runway ends
- Conduct simulation studies of the effect of conformance to path and altitude in the current approach procedures
- Report on all approach procedures known to reduce noise that are studied and reported here [Civil Aviation Authority CAP1554: Review of Arrival Noise Controls](#)