MASSACHUSETTS PORT AUTHORITY COMMUNITY ADVISORY COMMITTEE

**Aviation Operations Subcommittee**

Minutes of the meeting held on May 5, 2017 at 11:00 A.M.

Logan Office Center Building

One Harborside Drive, East Boston, MA

**Attendees:**

Aviation Operations Sub-Committee: Ralph Dormitzer; Gary Banks, Cindy Christiansen, Bill Deignan, Jerry Falbo, Myron Kasarraba, Sandra Kunz, Maura Zlody

MCAC Members: David Carlon, Peter Houk, Wig Zamore

LCAC Members: Luke Preisner (Medford)

MIT: John Hansman, Luke Jensen, Jacqueline Thomas

Massport: Liz Becker, Declan Boland, Joe Davies - Consultant\Former FAA Manager, Anthony Gallagher, Frank Icovino, Flavio Leo, Mark Wimmer

HMMH: Mary Ellen Eagan, Brad Nicholas

Representatives: Senator Walter Timilty - Hannah Buntich C.O.S., Kim Arnott (Arlington/Belmont – for Rep. Dave Rogers), Joe King (for Congressman - Stephen Lynch)

Guests: Edward Cohen (Belmont/Boston Fair Skies), Thomas Dougherty (Milton), John Elliot (Medford), Michael George (Milton), Adriana Poole (Belmont/Boston Fair Skies)

The meeting was called to order at 11:00 a.m. there being a quorum of the Aviation Operations Subcommittee.

**Meeting Purpose:** Review and provide input to the Massport/FAA study team re: RNAV/MOU Study.

**Presenter:** Professor John Hansman – MIT, contributing students and HMMH

**Presentation Materials:** “Procedure Design Concepts for Logan Airport Community Noise Reduction” May 5, 2017

**Format:** Presentation of Technical concepts for noise reduction per departure and arrival runways followed by specific community input per runway.

**Detail:**

Professor Hansman – Commented that Block 1 of the study was a preliminary analysis of procedural modifications to aircraft performance that he defined as “low hanging fruit”. These consisted of performance models of thrust, velocity, flap positions, etc. of departing aircraft. Additional considerations were moving RNAV paths, dispersion and, for arrivals, steeper approaches. He commented that the Integrated Noise Model (INM) was simplistic and that MIT used a NASA noise analysis that included airframe noise in addition to engine noise provided more accurate analysis of aircraft noise as perceived from the ground. Evaluation metric is LMAX sound exposure, single event.

 **Runway 22R/15 departures:**

Problem is the wide turn of the departures from these runways that overfly the Hull peninsula. FAA rationale was to maintain the 3 mile separation of departures from 22R/15 departures from arrivals on 27. Hansman proposed relaxation of the 3-mile separation based on the vertical separation of greater than 1000’ of arrivals and departures, relocation of the initial way points for both runways and initial turns at 500’. The latter he considered “low hanging fruit”.

 Public comment: Dave Carlon – Hull commented that pre-RNAV separation of aircraft from the Hull peninsula and High School avoided over flights and that opportunities for concentration of flights over the water were frustrated by “governance issues”.

 Ralph Dormitzer – Cohasset commented on the 5 mile dispersion of the departures from 22R/15 at shore crossings and the failure to meet the intent of the Phase 1 of the BLANS. Dormitzer also pointed out that radar data of the aircraft tracks from July 2016 showing wide dispersion at shore crossings differed from the enhanced tracks from 2015 provided by HMMH. Flavio Leo agreed to provide scatter plots of the tracks.

 **Runway 33L Departures:**

 Problem is both close-in noise over East Boston, Chelsea and Everett and farther out noise over Arlington, Cambridge, Medford, Belmont and Watertown. Hansman showed both the 2010 pre-RNAV departure tracks and the current (2015) RNAV implementation, noise complaint data and flight profile options. He proposed consideration of flight profile modifications that included thrust and speed management including limiting early acceleration to a “sweet spot” of 200-220 knots. He also proposed discontinuous “Open SID” procedures on the initial RNAV segment to increase dispersion. Will also do more evaluation of the “Open SID” procedures relating to the comments made by the Medford representative.

Public comment: Myron Kasarraba – Belmont commented that we (the communities) have been and continue to ask for increasing the dispersion of flights to more closely mirror the pre-RNAV (Logan Six) procedure as well as ways to get the flights higher faster as well as efforts to decrease or eliminate stair-stepping.

Wig Zamore – Somerville commented that consideration of any changes should consider lowest population impact or max equity and that what works for the whole will be supported by Somerville.

Jerry Falbo – Winthrop commented that he would not support and would actively oppose any additional noise impact to Winthrop.

Luke Preisner - Medford commented on the inappropriateness of the RNAV way point directly over two middle schools in Medford.

Bill Deignan – Cambridge commented on favoring higher and faster departure profiles as well as dispersion while recognizing that the need to understand the complications of dispersion.

**Runway 27 Departures:**

Problem is the concentration of the flights over the inner city until at Franklin Park at the 6-mile way point where they diverge into 4 segments over the communities of Wellesley, Needham, Dedham and Milton. Hansman proposed flight profile opportunities using thrust and speed management and possibly Open SID dispersion. The latter being highly problematic as a result of a pre-existing FAA Record of Decision.

Public Comment: Maura Zlody -Boston commented that fanning as originally proposed was opposed as it was considered a strategy to increase the capacity of the runway.

**Runway 4L/R Arrivals:**

Problem is the concentration and number of flights over Milton, Randolph, Quincy and Dorchester at low altitudes and late turns onto the ILS final. Hansman projected slides showing several analyses of possible alternatives to flight profiles including steep approaches (3.77-degree glide slope), two segment approaches, an alternative RNAV Lighthouse visual approach or RNP Canarsie per JFK airport, and overflight of areas with high noise ambient such as the Southeast Expressway. All of these are problematic for one reason or another including increased aircraft safety concerns, aircraft performance capabilities, overflights of

already highly noise impacted communities and merging/timing of traffic on 4L/R. As a corollary to the discussion was that Massport was in discussion with Jet Blue re: making their (JetBlue’s) Lighthouse RNAV “visual” onto **33L** an FAA procedure and increased use of same.

Public Comment: Dave Carlon commented again on the issue of governance as related to controllers not observing RNAV way points.

Cindy Chritiansen – Milton distributed her 4R Test Plan Study Proposal to Committee members prior to the meeting to be part of the record, and proposed the following.

 1. Test a spread of several 4R/L paths set out in a manner that provides overflight noise impacts comparable to pre-RNAV distribution.

 2. Raise arrival altitude, increase plane separation and glide slope. Assess compliance with these and flight path changes using the proposals metrics and guidance.

 3. Include a simple runway use plan that (a) rotates use every 4 hours when headwind is 10 knots or less (b) defines >10 knots usable headwind arcs as equal splits between runways.

Sandra Kunz – Braintree commented that Braintree receives the same volume of overflights from arrivals on 4R as Milton as aircraft from the north pass over Braintree before being vectored on to the final to 4R over Milton. Supports the JetBlue RNAV to 4L and requiring airlines operating Airbus A320 and variants to install vortex generators.

Myron Kasarraba – Belmont commented that he did not understand the request for returning to pre-RNAV departures for 4R and how that would make any difference since the RNAV was an overlay of the ILS procedure that has been in use for 50 years. There did not seem to be little if any difference between the 2010 and 2015 flight tracks on the final approach to 4R. The greater RNAV impacts on Milton seemed to be from 27R and 33L departures that would improve with greater dispersion as it would be less concentrated and spread the noise over more neighborhoods and communities as it was pre-RNAV.

Cindy Chritiansen – Milton responding with regard to arrivals on 4L/R expressed her belief that the current noise metrics do not represent what people experience on the ground particularly individual events, and proposed use of metrics in her appendix that would better represent that experience.

David Carlon – Hull commented that there is a governance issue with the controllers and that the intruding event outliers and single event metrics with respect to altitudes of aircraft should be taken into consideration.

**Wrap Up: John Hansman - Most Promising Procedures**

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| **Block 1** | **Block 2** |
| **Departure Mods** | **Departure Mods** |
| 22R* RNAV Waypoint relocation
* Early turn after departure
 | 33L and 27* Open SID departures to introduce dispersion
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| 15R* RNAV Waypoint relocation
 | **Arrival Mods** |
| 33L and 27* Speed management
 | 4R* RNAV approach to 4R (Lighthouse-like)
* RNP approach to 4R (Canarsie-like)
* Noise masking on arrival
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| **Arrival Mods** |  |
| 33L* Lighthouse RNAV approach-
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**All the above Preliminary – Subject to Change**

**Further Comment:**

John Hansman and Flavio Leo: “Block 1 proposals should meet criteria that they not have any insurmountable technical or operational barriers, that they make sense and that they are all benefit and no dis-benefit.” The plan is to submit the above Block 1 ‘Most Promising” proposals to the FAA immediately that are “interesting to look at” with the intention of then moving to further analysis of operational implementation particularly with regard to airline and FAA concerns about additional fuel burn or other operational considerations, then reconvening the Aviation Operation Sub-Committee in the fall once input from the FAA is available.

Dave Carlon – Hull commented that given the 90,000+ yearly flights over the South Shore, that adding the 22R Lighthouse RNAV or Canarsie RNP as an alternative to 4R/L arrivals is unacceptable.

Wig Zamore – Somerville commented that the current 33R departure RNAV did not result from citizen input but to avoid interference with flights out of Hanscom airfield.

Joe Davies – Massport Consultant\Former FAA Manager commented that the MOU requires that proposals for noise reduction fit the narrow purpose of the MOU.

Walter Timilty – Senator commented that he supports Cindy Christiansen’s proposals for dispersion of flights over Milton.

Ralph Dormitzer – Cohasset proposed that the Aviation Operation Sub-Committee reconvene as soon as possible after receiving a copy of the Hansman presentation to endorse, reject or propose alternatives or additions to the “Most Promising Procedures”.

Adjourn, May 5, 2017, 1:05 p.m.

Draft Minutes - May 22, 2017 – Ralph Dormitzer

**Minutes Approved on May 31, 2017**