

**Boston Overflight Noise Study (BONS)  
BOS/TAC Meeting**

**MEETING SUMMARY**

June 7, 2006

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**Attendance:**

**BOS/TAC Members:**

Joseph Davies (FAA Air Traffic), Joseph Bellabona (FAA), Steve Kelley (FAA ETSU), Gail Lattrell (FAA Airports), Gary Hufnagle (FAA), Flavio Leo (Massport), Frank Iacovino (Massport), Rod Hobson (Cohasset), Steve Lathrop (Hull), Maura Zlody (Boston Environmental Department), Sandra Kunz (Braintree), John Stewart (South End), Dick Morrison (Chelsea), Bob D'Amico (City of Boston Mayor's Office), Ralph Dormitzer (Cohasset), Jerry Falbo (Winthrop), Bob Driscoll (Winthrop), James Page (Revere), Maura Zlody (Boston), Betty Desrosiers (Massport)

**Project Consultant (PC) Team:**

Greg Wellman (Ricondo & Associates, Inc.), Dennis Burke (Ricondo & Associates, Inc.), Stephen Smith (Ricondo & Associates, Inc.), Robert Varoni (ASRC Aerospace), Roger Odegard (Wyle Laboratories), Clint Morrow (Wyle Laboratories), Scott Hamwey (Planners Collaborative)

**Independent Consultant (IC) Team:**

Berta Fernandez (Landrum & Brown, Inc.), Jon Woodward (Landrum & Brown, Inc.), Bud Riebel (Landrum & Brown, Inc.), Rob Adams (Landrum & Brown), Stan Matthews (Landrum & Brown)

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**1. Introductions**

Greg Wellman opened the meeting and explained that the topic of today's meeting was Phase 1 preliminary draft noise findings. He outlined the tasks for the meeting as the review of Phase 1 findings, the identification of material needed to assist the CAC with decision-making, and the identification of follow-up steps and timing. He mentioned that the original intent was to go after the "low-hanging fruit" and noted that the noise analysis showed that some communities are negatively affected. Attendees introduced themselves.

**2. Review Phase 1 Findings**

G. Wellman began the review of Phase 1 findings. He introduced Roger Odegard who explained that there were three metrics used in the noise analysis—time above a predetermined threshold, number of events above a predetermined threshold, and day night average sound level (DNL). He explained what each of these metrics was and that the first two were taken for each event at every point on the grid. A discussion of sound energy levels (SEL) ensued. Steve Lathrop asked where the other metrics the CAC requested were. R. Odegard replied that there were in the process of being calculated.

R. Odegard began with a discussion of Alternative 6, which shifts 13 of 72 average daily 22L arrivals from south shore to DRUNK. Joe Davies explained that the 13 and

72 averages were annualized, and that when that particular runway is in use there are hundreds of flights on a given day.

John Stewart asked if they could add an executive summary that explains the percentage usage of the runway on a given day, suggesting that they need to know the impacts of these changes on a day when the runway is in use.. S. Lathrop said that the executive summary should include the percentage of arrivals and departures. Jon Woodward said that the numbers are already in there and can be derived, but we'll put it in there. Flavio Leo said it is just a packaging issue.

J. Woodward reviewed the selection of the 130 study location points. R. Odegard said that the points include 30 Massport permanent noise-monitoring sites. S. Lathrop asked if the grid could be revised to add a few more points. J. Woodward replied that it could not without more money. S. Lathrop asked why they weren't asked where the grid points should be before the money ran out. Gail Lattrell explained that it is not possible to get every point and this was meant to be a representation. S. Lathrop asked how the existing grid points would pick up Crows Point in Hingham and the Hull peninsula. G. Wellman asked if this discussion could wait until they were reviewing an alternative that impacted those areas. J. Woodward said that the Weymouth, Quincy, and Hull grid points were sufficient for estimating noise at Crows Point. R. Odegard explained how the analysis of grid points worked.

Betty Desrosiers suggested that they start with the areas of impact. S. Lathrop asked about the existing conditions line. R. Odegard explained that the existing conditions represent every track and every operation over that particular location over the course of 2003 as modeled for the 2003 EDR report. Not just arrivals on 22L, but at all noise cumulatively.

A general discussion ensued about the various numbers represented by the tables in the PowerPoint presentation and whether those numbers were specific to the procedure (the answer was no) or for all activity at Logan (yes). Sandra Kunz said that there should be a clear explanation that says there are so many flights above you now, here's how many there are under this plan, the noise now is X, the noise will be Y. S. Lathrop said that this throws into sharp relief the difference between what FAA needs and the community needs. He said that not all CAC members understand that decibel DNL shifts may not result in equal impacts. He suggested that this is why supplemental metrics (sound energy metric) are so important.

J. Stewart asked why all of the charts were in SEL, when they are familiar with DNL. G. Wellman noted that there was no change in DNL at DRUNK. S. Kunz said she was just trying to simplify this. She said that most people don't know or care what DNL or SEL is and that they should try to keep it simple. J. Woodward suggested an executive summary of a couple pages with appendices, and that the information be related to indoor and outdoor noise levels. He also said that the information should be assessed by location—suburban versus urban. There was no final consensus on providing estimated indoor levels.

R. Odegard summarized Alternative 6. He explained that DRUNK would have anywhere from less than one to eight additional aircraft overflights at that sound level. On the north shore there is basically no change. On the south shore many points have from seven to ten fewer overflights exceeding 50. R. Odegard also covered nighttime changes. There was a brief discussion of recent revisions to the presentation that summed the bins that are not yet in the document. Therefore, R. Odegard asked the group to focus on DNL, total NA above 50, and nighttime columns.

Bob D'Amico asked a question about turning planes on downwind. Denny Burke explained how the route was defined.

S. Lathrop said that three of the books that had been distributed had different information—his, J. Woodward's and Bob Driscoll's. S. Lathrop said that although they were all formatting issues, he hoped that there were not also data inconsistencies. S. Smith reminded the group that the document is a work in progress and formatting may be inconsistent. G. Wellman said that the inconsistencies can't be dealt with during this meeting, and that they don't materially change what they are discussing at this meeting. F. Leo suggested that they provide the PowerPoint presentation summarizing the results.

R. Odegard reviewed Alternative 7. He explained that the goal was to move Norwich arrivals on 27 over DRUNK and TONNI. He said that 77 or 141 average daily flights would be shifted. J. Davies asked why the percentage of shifts here is so much greater than for 22L. For that alternative it was 13 annualized daily moved, here it was 77 annualized daily flights, and the usage of 27 is double that of 22. J. Woodward said that the Alternative 6 and Alternative 7 data they have is not corresponding to what J. Davies is saying.

S. Lathrop suggested that if there is only one map per alternative, that they should include them in the report. G. Wellman agreed.

R. Odegard continued with the changes from Alternative 7. J. Stewart asked if they should be looking at a population density overlay so that they would know more about the numbers of people being impacted by changes.

B. D'Amico asked if the information was on just jets or everything. R. Odegard said it was just for jets.

R. Odegard reviewed Alternative 8, which narrows dispersion from Winthrop to Nahant for 15R arrivals. The alternative shifts 2 out of 6 average daily flights. He explained that there was no effect anywhere because of the low utilization rate of this alternative. S. Lathrop asked if this alternative could conceivably increase noise with a PRAS decision. S. Smith noted that such an effect is very difficult to identify for Phase 1. . S. Lathrop said that he was concerned about narrowing the approach near the tip of the Hull peninsula. J. Stewart suggested moving on to a procedure that's

more commonly used. B. Driscoll asked what the altitude was between Winthrop and Nahant. J. Davies explained that that they were still at 6,000 feet here because they need to clear the departure track.

R. Odegard reviewed Alternative 12A, where 3 out of 156 average daily flights have been shifted on 4R arrivals. A discussion ensued over what is considered to be late night and how many flights fall into that category. There was also a discussion about preferred arrivals. G. Wellman explained that they first looked at whether they could raise the glide slope and the answer was no. Then they looked to see if they could change the approach so that they came in at 4,000 instead of 3,000. As a result, he explained that they had to go farther out, and they had to go to the night and therefore, few operations were affected.

S. Lathrop asked if they were going to agree to accept the EDR. G. Wellman said that they were not discussing the EDR, which was discussed in detail and concluded several months ago with BOS/TAC.

R. Varani asked why they were using 50 SEL here instead of 60 SEL. R. Odegard explained that it was because the alternative was looking at the nighttime hours only, so they wanted to use a lower threshold since most people would be sleeping.

Clint Morrow reviewed Alternative 12B, which shifts 6 out of 72 operations on 22L arrivals. He added that only 14 of the 72 daily flights were late night, so they're really shifting 6 out of the 14 late night arrivals. J. Woodward asked why there were noise changes over the water. C. Morrow said that they would go back and do QA/QC.

C. Morrow reviewed Alternative 12C which shifts 5 out of 86 daily average on late night arrivals on 33L (although only 14 of the 86 operations are late night). S. Lathrop asked why it was the same results for 22L as for 33. C. Morrow replied that there are about 14 flights on both runways for late nights. F. Leo disagreed and said it was an issue with math. J. Davies asked if the colors shouldn't be similar for each of the Alternative 12's. He also wanted to know why Nantasket wasn't shaded green. Frank Iacovino said that most things coming in were VFRs.

S. Lathrop said that short turning occurs when there is less traffic and that this map needs to capture this benefit. F. Leo said that they rarely get complaint calls about this. S. Lathrop suggested that this was because they have given up.

R. Odegard reviewed Alternative 13, which covers 15R, 22L, and 22R late night departures. He said it shifted one out of 222 daily operations on those runways combined. As a result, there was minimal change at every location.

R. Odegard then reviewed Alternative 11, which is the charted visual on 33L arrivals, and which shifted 5 out of 86 daily flights. R. Varani described the process for looking for landmarks for the charted visual. He reviewed the presentation chart and explained that it was not possible to do a nighttime charted visual unless your

waypoint is a landmark—it can't be a radial. He added that airlines he spoke with were enthusiastic about the procedure and some had already flown it in their simulators and had shown it to be flyable. D. Burke said that a question came up about how many aircraft you can effectively use this for. He said that with more than five or six aircraft you need to extend it to the southeast (for arrivals coming from the northwest), and that they still need to do some work to be able to accommodate six to eight aircraft on the final. He added that once they could do that there would be some real good respite on the 33 from here. For this analysis, the FAA has stated that this procedure would be used during low to moderate traffic levels (less than 17 arrivals in one hour).

S. Lathrop expressed his thanks for this alternative and said he has been waiting since 1992 for relief. He said it was not possible for him to say how much this meant to him. He then asked if the waypoint was where it was because of Boston Light. R. Varani replied yes. J. Davies said he didn't want to put a damper on S. Lathrop, but the alternative still needs to go before the controller's union, the flight procedures folks, and the flight standards folks, so he wanted to be sure the cart wasn't put before the horse.

B. D'Amico said that he wanted the south shore to get some relief, but that he would be watching to make sure that it doesn't happen on the back of the north shore. He said that he has concerns about this alternative because it looks like Nahant is suffering. G. Wellman said that there were only 3 flights per day added. B. D'Amico suggested that the usage of the runway could grow.

S. Smith asked if the Gardner route for the Runway 33L visual could be rerouted, saying that it looked like one big turn. J. Davies said that they are coming down off the right downwind and some pilots might be more comfortable flying further out. B. D'Amico said that they would have to answer questions at a public meeting in Nahant. Discussion ensued as to whether there had been any commitment to do public meetings in every town. S. Smith asked if they were modifying the procedure. BOS/TAC requested that a review of options would be beneficial..

R. Odegard reviewed Alternative 9, which shifts 58 of the 204 average daily arrivals on 4L and 4R. D. Burke said that these results mean different things to air traffic controllers and the CAC, so it was important to get the group's input. He explained that controllers could shift flights to 4L to help out with departures, or they could use the left downwind even when using 4R. He said that it would be unreasonable to expect controllers to count planes coming from Gardner and to then split them evenly. D. Burke also said that handling 32 to 34 flights per hour with this procedure was reasonable, but that if the traffic increases there would not be any room left on 4L meaning that 4R would begin to build up again.

B. Fernandez asked if this alternative changed the capacity or operational efficiency of the airport. D. Burke said no. J. Woodward said that during instrument meteorological Conditions, everyone has to go on the right downwind. D. Burke said

that the intent of the alternative was to share noise between left and right. During instrument conditions, the analysis assumed that 50 percent of Gardner traffic would use the left downwind to 4R, and the remaining 50 percent would be directed to the right downwind to 4R. Of course, this could vary from one moment to the next depending on controller's experience and technique. J. Davies said that communities should know that the intent is to provide relief to the east and share it better with the west. He cautioned that the alternative is not designed to create equity, but it is flexible. S. Kunz said that the best explanation is that it gives the controllers flexibility. D. Burke agreed and said that is why we would never support counting airplanes. S. Lathrop said that Runway 32 arrivals are probably going to negatively impact the same towns that are benefiting from this.

R. Odegard presented Alternative 5, which deals with 22 departures. J. Woodward said that he had a real problem with the donut-change illustration around the airport, and that the same problem (inexplicable impacts in close-in communities) exists with the graphics accompanying Alternative 1 and 2. R. Odegard conceded that they had noticed this but had not been able to identify the problem yet. J. Woodward said that he couldn't endorse these results and didn't think the group should discuss departures until the problem is fixed. S. Lathrop said that he didn't think they should assume that the same problem doesn't exist with the arrivals alternatives just because nothing jumped out. S. Smith agreed with J. Woodward. S. Lathrop questioned why inner communities would be getting 15 more flights or more. He added that he hoped that when the PC identifies the problem that they will check to see if it also impacts the arrivals alternatives.

### **3. Identification of Additional Information**

G. Wellman reviewed the list of additional information requested by the CAC, including flight track exhibits used in noise analysis, runway use related to the runway configuration associated with the alternative, and population data for areas experiencing increases or decreases in noise. B. Fernandez said that it might make sense to generate summaries for each community. J. Woodward thought that groups of communities might make even more sense.

G. Wellman asked what information the CAC needed to be able to make a collective decision. He reminded them that this represented an opportunity to make real changes at this airport in a way that has never been available before and may never be available again. F. Leo requested that a PowerPoint presentation be developed. Maura Zlody said that CAC members need to know if they are taking back recommendations and a summary or all of the information.

J. Stewart said that he is here to represent the CAC, not to be an advocate for his particular interests, although he conceded that they all have interests. J. Woodward said that some members are here as charges of a particular town and they have to take information back to the town before they can give the group a response.

S. Lathrop said that this is why they need alternative metrics. He recommended three—sound energy levels (exposure computed from DNL data because decibels don't mean anything to anyone), distance to airplane (point of closest approach), and the number of operations that affect a grid point (based on the previous measure and set a threshold). S. Smith said that his request for distance to an airplane for the entire study involves extensive and expensive analysis. J. Stewart said that there were only a couple alternatives where there was any controversy and suggested that those were the ones to use alternative metrics. F. Leo said there was agreement on supplemental metrics several months ago. S. Smith confirmed that PC presented metrics, and BOS/TAC agreed to as set that would be applied to Phase 1 analysis. G. Wellman said that they have done that, even if perhaps they have not been presented in the best way. J. Woodward said that the special work that was done for Hull hasn't been shown yet because it was for departures and they haven't done that yet. R. Odegard confirmed the status of this analysis.

B. Fernandez said that the CAC talked for an hour before the meeting to try to interpret the various numbers from the charts. She said there is a real need for clear summaries.

S. Lathrop said that they have not analyzed departure alternatives without RNAV. He said they never discussed straight conventional and the possibility that you could optimize it without RNAV. G. Wellman replied that months ago the group agreed to look at the conventional with RNAV departures and that there had been consensus. He asked if the rest of the group was in agreement. S. Lathrop said that he doesn't disagree that the BOSTAC agreed. F. Leo said that they had agreed to spend extra money for one-on-one dealings on 22 departures with S. Lathrop and J. Woodward and did not understand why this was still being discussed. J. Woodward said that as a result of that work 1D and 2D were moved into Alternative 5. In conclusion, PC has and will proceed with evaluating the conventional and RNAV together for Alternative 5.

#### **4. Next Steps**

G. Wellman said that they would explore the possibility of developing a briefing document and would make sure that all of the exhibits are correct. J. Stewart said that he thinks they need to meet one more time before going to the CAC. F. Iacovino said that the population data would be effective. G. Wellman suggested population density. J. Stewart suggested that the consultants and FAA experts might be the best ones to present the information to the CAC. J. Woodward asked that they repeat SEL level by the time of day, or by urban and suburban. M. Zlody asked about dates for next steps. J. Woodward said that the group has been so date-driven and suggested that they go back, get it right, do QA/QC, and then prepare and distribute reports. At that point, he suggested they could identify a date three weeks out for the next meeting.