

## **MEASURES INVOLVING AIRPORT PLAN**

- **Possible Benefits of Noise Barriers**
  - North end of new runway (5L/23R)
  - At site(s) of ground runups
- **Effects of adding 1,400 feet at northeast end of Runway 5/23 and eliminating 1,400 feet at the southwest end** (*This change in runway location is being undertaken to meet safety overrun requirements. The 1,474- foot length is the change being proposed by the PTAA. The final length depends on the outcome of the Environmental Assessment. Analysis of the change isn't included in the Part 150 Study to account for the potential noise effects.*)

### **HAPPEL**

Let's not forget the several hundred acres north of the airport have been completely denuded of anything living. All natural sound buffers are gone. Parts of the sorting facility ( ramp parking areas ) are more than 1/2 mile closer to the residential homes north of Old Oak Ridge Rd. It's been my experience that 95% of jet noise emanates from the back of the engine and the aircraft.

### **J. BLACK**

#### **Possible Benefits of Noise Barriers**

I agree with Gil Happel about jet noise emanating from the back end of aircraft and that all natural sound buffers are gone due to site preparation and road construction. At times, when conditions are right, we can clearly hear rollout noise from southwest bound flights. Noise barriers located at the northeast end of both runways could help alleviate the rollout noise.

The other evening we heard a prolonged noise from a static engine run-up test, which lasted long after the 10:00 pm curfew. Noise barriers for ground run-up sites would help alleviate this problem. Also, enforcement and adherence to the curfew is essential.

### **R. BLACK**

**Static Engine Run-Ups** ~ Based on concerns expressed by users at the first Airport Users Advisory Committee Meeting regarding nighttime engine run-ups, Andy Harris commented that he thought that maybe 3 test sites might be needed for the total airport operations and that the funding for these is available with FAA monies.

In addition to the current users that expressed concern, TIMCO, FedEx and Cessna, there is now an additional user to be considered with the Comair maintenance hanger being constructed at the south end of the airport near GUCCI. Might this additional maintenance area require a possible 4<sup>th</sup> test site?

If the Airport has not yet taken action to develop the installation of testing sites with FAA monies,

- Recommend that static engine run-up test pad enclosures (or possible Hush-House(s)) be included in the Part 150 to mitigate the intrusion of static engine run-up testing noise to the neighbors of the airport, especially during the 10:00 pm to 7:00 am nighttime periods.
- Recommend a PTI Airport Policy be established in the Part 150 that will prohibit static engine run-ups except when properly performed using test pad enclosures or hush-house(s), 24/7.

### **GATTEN**

W/NW Greensboro is already being impacted by the areas around the airport from which the vegetation has been removed. Thus I would favor consideration of erection of permanent noise barriers ...

### **OSTASIEWSKI**

In favor of: Inclusion of static engine run-up test pad enclosures (or Hush-Houses) and noise barriers between the airport and residential neighborhoods such as the Cardinal.

### **KIRSTNER**

#### Concerning Measures Involving Airport Plan

It appears that the measures listed would only have an impact on immediately abutting properties. The best way to mitigate noise in those areas is for the PTIA to acquire additional land as buffers or prohibit incompatible land uses, principally residential, the portions of the flight paths where take-offs and approaches take place.

## **MEASURES INVOLVING AIRPORT AND AIRSPACE USE**

- **Effects of preferential runway use, including head-to-head operations at night**
- **Effects of daytime use of runway 5L/23R for a portion of daytime operations**
- **Effects of revised departure corridors (including use of I-40 corridor)**
- **Effects of restrictions in use of auxiliary power sources (GPU, etc.)**
- **Effects of noise abatement departure profiles (use of a procedure that might reduce noise exposure near the airport)**
- **Effects of continuous descent approach procedures (constant power settings during approach for landing)**

### BORUGIAN

#### **FedEx flight path definition**

It is important to define the specific flight paths that FedEx will use. The flight path maps that we have been given to-date include all of the day time flights which of course is important information to have but we need a separate chart showing only the incoming and outgoing flight paths that will be taken by FedEx at night. This is the time frame of most importance and is information that we must have to be able to make meaningful recommendations.

#### **Incoming flight paths, minimum allowable altitudes over residential areas and circling protocol should be defined**

A large and significant area within a ten-mile radius surrounding the airport will be negatively impacted by FedEx nighttime planes arriving and circling if they arrive in a cluster. Requiring that all incoming aircraft from 11:00 PM to 6:00 AM maintain a minimum altitude of 10,000 feet above ground level (AGL) when passing over residential areas unless they are on their final approach path would be a recommendation. Currently they often fly over residential areas at less than 2000 feet (AGL) when circling.

#### **Special rules or restrictions for noisier aircraft**

Although the FAA may not accept the recommendation that restrictions should be placed on noisier aircraft that does not mean that we cannot make the recommendations. I believe that the Washington DC airport noise abatement program has special rules based upon the type of aircraft model. Our recommendation should be that only aircraft with Stage 3 or Stage 4 engines should be allowed to arrive or depart between 11:00 PM and 6:00 AM. If you don't specify what is acceptable then you will never have a chance at getting what you want. We are to represent what is best for the citizens surrounding the airport. Basically, we do not have to agree to limit our recommendations to only those acceptable to the FAA or for that matter, FedEx. The FAA may have the final decision authority but they also have the obligation to review our input. If placing restrictions on noisier aircraft is a point of controversy then it ought to be highlighted as such. We are not a rubber stamp for the FAA.

**Require that outgoing night time aircraft achieve an altitude of 10,000 feet (AGL) prior to passing over residential areas.**

The recommendation would be for all outgoing night time aircraft to follow the I-40 corridor until an altitude of 10,000 feet above ground level (AGL) had been attained. Much of the area immediately surrounding I-40 is industrial property and could also be used during takeoff to attain the 10,000 foot minimum altitude (AGL) prior to passing over residential areas.

**CARTER**

We have three arrivals, Blocc arrives on the 152 radial, Brook 2 on the 282 radial, and Smokn arrives on the 334 radial. We try to not conflict with these arrivals. Approach control, however will be giving the arrivals to the RW 5 ils which will be as low as 2800' at seventeen miles. We can address that later to keep them high till intercepting the ils approach.

Just a couple of ideas for departures on 23 l/r.....RW 23L could be climb rw heading till 1.2 dme then climbing left turn to heading 110 degrees. RW 23R could be rw heading till 1.2 dme then climbing right turn to 300 degrees.

I spoke of approach radials so we can try to avoid incoming planes when we set up departure headings.

Departure for r/w 23L(existing r/w)- climb on r/w heading till 1.2 miles then climbing turn to heading of 110 degrees to six thousand feet. This would be approximately between highways 68 and 40. Then you would get a higher altitude and a new heading.

Departure for r/w 23R(new runway)- climb on r/w heading till 1.2 miles then climbing turn to 300 degrees to six thousand feet. This would be approximately over hwy. 40 towards Kernersville. You would get to six thousand feet and get a new heading and a new altitude between the airport and Kernersville, so you would turn an climb before going over Kernersville.

Speaking of approaches to r/w 5r- We could ask to keep aircraft at six thousand feet till intercepting the glide slope to the ils 5 approach so that we could get a quieter approach to the airport.

**REED**

I think that Ron Carter is on the right track with his thinking. Recommending arrival and departure tracks, i.e. specific turns and altitude restrictions, that will minimize noise in the surrounding communities seems to me to be the most effective measure for noise abatement. The use of the I-40 corridor as mentioned in the last meeting also seems like a good proposal

## HAPPEL

Ron Carter's suggested departure routings ( over I-40 east and west ) are good. The initial turns might have to be made before 1.2 miles to keep them from overshooting the interstate corridor. One problem, there are a substantial number of homes between Wendover Ave/ I-40 and the Four Seasons Mall area. Altitudes over these areas might only be 2 - 4 thousand feet.

## J. BLACK

**In the event of those conditions that necessitate the reversal of the FedEx 95% head-to-head flight pattern by having 5% arrivals from the northeast and 5% departures to the northeast, runway usage be limited to only using the existing runway (23L for arrivals / 5R for departures).** By only using the existing runway it would minimize the noise impact to long existing densely populated residential neighborhoods located to the northeast of the new runway (5L/23R). In fact, from 11:00 pm to 7:00 am, all flight operations should use the existing runway (5R/23L) to reduce the nighttime noise exposure to the residential neighborhoods.

**For all nighttime northeast bound departures on runway 5R,** instead of allowing the wide dispersion of flights in any direction shortly after departure, **recommend that all flights go straight out over the least populated path until each plane has reached XXX altitude before turning toward its destination.** There is not an I-40 beyond the northeast end of the runway as there is to the southwest; however, there is an uninhabited corridor for the future Painter Blvd development just off the end of the runway running toward the east.

## FABRIZIO

Routing the planes over interstate corridors seems like a good idea.

## MATTHIEU

Ron, your comments about approach and departure are music to my ears. Can you work up similar procedures for arrivals and departures to the North? Is it not true that the 2,800 ft altitude you speak of is MSL? If so, our area, north of PTIA, (altitude about 900 ft) is overflown by planes that are only 1,900 to 2,000 feet above the houses. I have observed the very process you described where by planes arrive from the North to align with BRANT and seemingly cruise the entire final approximately 20 miles to the airport at "low" altitude. Intercepting the glide slope at a higher altitude seems like a reasonable

solution. I have been informed that lengthening of the old runway may result in the FAA lowering the required altitude at BRANT from 2,900 feet to 2,800 feet.

## **LEE WHITAKER**

1. Preferential runway use. Perhaps the most discussed item in the local area. It has become generally accepted that head-to-head operations from and to the southwest of the airport will be used. As a resident of north High Point, and High Point representative, I do not fully support placing the majority of noise impact from flight operations on this one area. As the airport and local governmental and economic agencies have repeatedly stated, the entire area stands to benefit from the FEDEX hub. It is my opinion that the entire area must be willing to accept some of the inconvenience and impact from operation of the hub. Therefore, we must investigate aircraft operations in all sectors surrounding the airport, not just to and from the southwest.

My proposals are as follows:

a. ARRIVALS - From the hours 10:00 PM to 7:00AM, when traffic arrival rates, winds (maximum 5 knots tailwind), weather, and aircraft operational limitations allow, arrivals will use runways 05L and 05R, with preference to 05L. When runways 23L and 23R are in use, preference is for 23L.

1.) Starting noise abatement procedures at 10:00PM versus 11:00PM recognize that most children and many adults in the residential areas around the airport begin their sleep earlier than 11:00. Since FAA Noise Policy recognizes schools as noise sensitive locations for over flight, then we should recognize the residences where the school children live and sleep as noise sensitive, too.

2.) I recommend 5 knots as the threshold for landing with a tailwind due to the additional wear on aircraft brakes and greater use of reverse thrust to stop an aircraft landing with a tailwind. Additionally, if we are going to attempt to keep arrivals high with resultant glide paths steeper than 3 degrees, tailwinds greater than 5 knots effectively further increase the aircraft glide path.

3.) When landing on runways 05, preference to use 05L further protects the established residential areas in north High Point. Similarly, when landing on runways 23, preference for 23L further protects the Cardinal.

b. DEPARTURES – From the hours 10:00PM to 7:00AM, when winds (maximum 10 knots tailwind), weather and aircraft operation limitations allow, departures will use runways 23L and 23R. When departing aircraft's initial departure fix is west of the GSO 180 degree radial, use runway 23R. If takeoff on runways 05 is required, preference is for 05R and simultaneous departures from 05L and 05R will not be conducted.

1.) Same rationale for time period as applies to arrivals.

2.) Use of 10 knots of tailwind as a limitation is in line with the Airman's Information Manual (AIM) recommendations. Most Part 121 and 135 operators' FAA approved operations manuals limit tailwind for takeoff to 10 knots.

3.) Lateral separation between the two primary runways will allow simultaneous operations from both runways. Since we can't impose turns after takeoff in the same direction for parallel aircraft, we should restrict those that need to proceed south to west after takeoff to use of runway 23R. This will place their initial flight path west of High Point until they attain sufficient altitude to make a turn to the south with minimal noise impact. Aircraft departing simultaneously from 23L will be required to make a turn to the east or southeast immediately after takeoff to keep their departure flight paths away from north High Point and Wendover Ave. The altitude and specific departure turn headings will be further defined under noise abatement departure profiles.

4.) If aircraft require departure on runways 05, use of 05R gives the best chance to select a minimal impact departure corridor. If 05L is required for use, an immediate turn after takeoff will be required to join the departure corridor normally used for 05R. This co-use of a departure corridor to the north will prohibit simultaneous use of 05L and 05R for takeoff.

2. Daytime use of 05L/23R. Greater use of the new runway will reduce the shape and location of the 65dnl contour for 05R/23L. Spreading the noise between the two runways will dampen the impact of aircraft operations on those living under flight paths for the existing runway. However, arrivals to 23R and departures from 05L, without consideration to the underlying residential areas will likely spark a firestorm of complaint, even in the daytime. Using Indianapolis and Atlanta airports as reasonable guides. Every effort should be made to avoid direct over flight of residential areas and turns after takeoff to use established noise minimizing corridors should be followed, even in the daytime.

3. Effect of Revised Departure Corridors should be considered in conjunction with Noise Abatement Departure Profiles. Many US airports require both power management and aircraft configuration procedures in conjunction with turns immediately after takeoff to avoid noise sensitive areas. In the past weeks I have flown combinations of noise abatement departure profiles and adhered to specified departure headings, turns and routings after takeoff at Atlanta, Miami, West Palm Beach, LaGuardia, Chicago, Minneapolis, Tampa and Seattle. Just about everywhere we go, there is some form of departure and arrival restriction due to noise sensitive areas in the vicinity of the airport.

My proposals are as follows:

a. Noise Abatement Departure Profiles. Implement a close-in noise abatement departure procedure for all runways. Maintain take-off power, climb at V2 plus 10 - 20 knots in take-off configuration to 1000 feet above field level. At 1000 AFL, reduce rate

of climb by up to one-half and retract gear and flaps. Continue climb at best rate of climb speed or clean minimum maneuver speed, whichever is less, to 5000 feet AFL before accelerating to normal climb speed.

1.) The airport is surrounded by potentially noise sensitive areas, especially for nighttime operations. Routine use of noise abatement power, configuration and climb rates should be normal procedures for departures from all runways.

2.) Initial climb speed of V2 plus 10 - 20 knots allows for use of standard rate turns (25 - 30 degrees of bank) to promptly comply with required heading changes.

3.) Departure procedures for PTIA include instructions to climb to and maintain 5000 feet MSL, approximately 4100 feet above airport elevation. Hopefully at night, the local air traffic control can control more airspace above the airport and the area to manage both departures and arrivals.

b. Establish Departure Corridors. Though we intend to implement a preferential runway use plan, we still must establish turn procedures to get aircraft departing any runway into the desired corridors. The I-40 corridor idea came from a presentation made to High Point City Council by Captain Mike Foster, a commercial pilot and High Point resident, and sets a good starting point for routing departing aircraft. In all cases, aircraft departing 23L or 23R between 10:00PM and 7:00AM should begin their turn to enter the corridor no later than crossing I-40 or at a height of 400 feet above field level, whichever occurs first. Departure turn points should also be defined by DME off the departure runway ILS or at a range from the GSO VOR.

1.) Runway 23R. Departures from 23R will normally be for south to west to northbound traffic.

a.) For south to southwest departures, making standard rate right turns after takeoff from 35 degrees to 50 degrees heading change will keep departing aircraft from over flying the nursing home on Sandy Ridge Road at the old Sandy Ridge golf course and most residential areas in north High Point. Aircraft proceeding south will maintain this heading until crossing the GSO VOR 300 degree radial and reaching 5000 feet AFL before turning south.

b.) Traffic departing west to north can continue the right turn to up to 65 to 70 degrees heading change until approximately 6 miles from the GSO VOR. This will take them approximately 2 miles west of the I-40/ Business I-40 split before making further turns on course.

c.) If 23R is used for east departures, turns of from 100 to 120 degrees heading change will be required to stay north of Wendover Ave and near I-40. It is desired to keep departures north of the Wendover Ave. / Urban Loop intersection until passing that intersection.

2.) Runway 23L. Departures from 23L will normally be for southeast to northeast bound traffic.

a.) For southeast departures, starting a left standard rate turn at or prior to I-40 is essential to avoid residential areas in north High Point and along Wendover Ave. Heading change of from 100 to 120 degrees off runway heading will be required to parallel the approximate 120 degree orientation of I-40. Maintain this heading until crossing the GSO VOR 100 degree radial and 5000 feet AFL before turns on course will keep departures over the commercial areas along I-40 and the Wendover Ave / Bridford Parkway area.

b.) Northeast bound departures should start their turns at the same point and continue for 110 to 130 degrees heading change. Maintaining this heading until crossing the GSO VOR 090 degree radial and reaching 5000 feet AFL before turning northeast should avoid the residential areas around Western Guilford High School.

c.) If 23L is used for south to west departures, it should not be done simultaneously with 23R departures, and ideally only if 23R is closed. Initial standard rate right turn after takeoff for 30 to 50 degrees heading change should put the aircraft in the corridor north of the nursing home at Sandy Ridge and parallel I-40. Further turns on course should be made using the same criteria as for departures off of 23R.

3.) Runway 05R. Runway 05R should only be used when weather or winds and operation limitations require it. Aircraft should maintain runway heading for approximately 2.5 to 3 miles, or at the point where the extended runway centerline and the Urban Loop road start to diverge. A left turn of approximately 90 degrees heading change appears to avoid the most densely populated residential areas.

a.) All departures maintain this 90 degree heading change until crossing the GSO VOR 025 degree radial and reaching 5000 feet AFL before making further turns on course.

b.) Departures to the northwest to northeast may need to track outbound on the 025 degree radial to avoid the residential areas around Northwest High School and Oak Ridge.

c.) Departures to the south should turn back toward or overhead the airport and continue climb to be above 5000 feet AFL abeam the airport. Departure tracks need to be established to route these aircraft to the same corridor exit points used by departures by runway 23 departures.

4.) Runway 05L. If weather or wind, operational limitations and the closure of runway 05R require the use of 05L for takeoff, an immediate right turn of 30 degrees is required to join the extended centerline of 05R prior to 2.5 miles. By immediate turn, I mean at 100 feet AFL, just like we do at Chicago runways 32L and 22L and LaGuardia runway 13, Whitestone transition. Initiating turns at this low altitude is safe and legal for operational considerations.

5.) All runways. Establishing RNAV departures with over fly points and altitude restrictions to meet the above guidelines will simplify the departure task for the pilots and reduce ATC workload.

4. Effect of Continuous Descent Approach Procedures. Continuous descent procedures, or any procedure that limits time flying level at lower altitudes in the vicinity of the airport, will result in lower power settings and less noise from arriving aircraft. A reasonable goal should be to keep all arrivals, IFR and VFR, at least 4000 to 5000 feet above field level until within 10 miles of the runway. That would require a 4.1 to 5.4 degree descent angle to 1000 feet on final, and then a normal 3 degree glide path to touchdown.

a. IFR arrivals can be more rigidly controlled by adherence to steep down altitudes on published instrument approach procedures. These procedures can be designed to achieve our objective of keeping aircraft high until descending on final approach. IFR procedures can also be required in visual conditions. However, adherence to IFR procedures in visual conditions still requires additional spacing between aircraft and results in a reduced arrival rate. FEDEX will obviously be seeking as rapid an arrival rate as possible.

b. VFR arrivals should also be required to comply with the same altitude and distance requirements as IFR traffic for turns onto final approach. Over flight of residential areas below 2000 feet AFL is allowed by the FAA for aircraft on approach and departure. It's the maneuvering to align with the runway that most often will inadvertently place the arriving aircraft over noise sensitive residential area.

1.) Currently aircraft arriving from the northeast to south making visual approaches to runway 23 fly directly over the residential areas of north High Point to join final at approximately 3 to 4 miles from the runway. I know this because they frequently fly directly over my neighborhood, which is a mile east of the published final approach path at 5.5 miles from the runway. There are similar problems with over flight of residential areas below 2000 feet north of the airport for arrivals to runway 05.

2.) When accepting a visual approach, the pilot is responsible for spacing with other aircraft, clearance above ground obstacles and avoidance of underlying noise sensitive areas. Many times we don't know where the noise sensitive areas are located and ATC is not required to tell us where they are. PTIA must publish visual approach procedures requiring aircraft to maintain necessary altitudes, headings and intercept points on final to aid the pilots in avoiding noise sensitive areas at night. The tendency of the pilot is to look at the touchdown point and proceed in the most direct path toward it. We must give them written instructions so they can avoid our noise sensitive areas. Tampa and Seattle-Tacoma airports are two that I have recently flown into that have published VFR arrival procedures that restrict the pilot from turning directly toward the runway when cleared for a visual approach. Many other airports have published visual

approach procedures with maneuvering required up to 2.5 miles on final to avoid noise sensitive areas. We can do the same.

## **HATLING**

The I-40 corridor comments seem to warrant a need to have the people who fly the planes to first provide information on how tight a turn a jet can make. When the planes are taking off to the south they are just getting off the ground when they go over I-40, plus I-40 is at a northwest/southeast angle. Is the I-40 corridor study recommendation for flying east of the airport along I-40?

## **SMITH**

I am concerned about altitude for holding procedures and exactly where the area for these patterns would be—especially for the FedEx night time arrivals. What altitudes?

## **OSTASIEWSKI**

I agree with the comments that flights stay well above the minimum height until they are on their final approach and within a specified distance from the airport to minimize the longer duration of noise associated with landings. I also agree that departures be given specific flight paths to follow which would minimize noise to the existing residential areas. I say existing because new construction is a choice, the existing population should be our main concern. A method to calibrate non-adherence and a system to address noncompliance needs not only to be addressed but also developed and formalized. I'm sure examples exist due to the fact that we are not the first community with these concerns.

## **GATTEN**

I favor reasonable limits on turn locations and altitudes for a softer noise footprint. However, as a lay person, I do not know the answer to the question of how tight a turn a jet can make.

Is there an existing circling protocol? Is this an issue that needs to be considered?

If an I-40 corridor is being considered, what is the impact for the homes that border this area? How many? Frequency?

## **KIRSTNER**

### Concerning Measures Involving Airport and Airspace Use

It appears that “preferential runway use” and “noise abatement departure profiles” would be the easiest to monitor and could even be visually verified. However, as stated above

efficient 24-hour airport operations should be considered and significant changes to departure profiles should not create new noise impact areas. These measures should be simple and concise. If they are too complex, will they be subject to debate and their enforcement constantly questioned? What would the penalties be? Is one violation a month tolerable, two, three?

**BRANDT**

I agree that those areas that are not currently developed should bare the greater weight of the impact, so if it is possible to re-route air traffic into those areas it should be considered.

**GAYLE**

Note: In the Charlotte Part 150, the FAA approved many departure/arrival paths similar to those suggested by Lee Whitaker and Ron Carter.

## **MEASURES INVOLVING LAND USE**

- **Effects of sound insulation of residences and other noise-sensitive land uses where DNL exceeds 65 dB**
- **Effects of property acquisition where DNL exceeds 70 dB**
- **Effects of noise easement purchase where DNL exceeds 65 Db**
- **Effects of compatible use zoning**

### **J BLACK**

#### **OFFER BUYOUTS WITHIN THE 65 DNL**

I would recommend that homeowners within the 65 DNL be offered buyouts as well as insulation with aviation easement. Also, when the FedEx nighttime noise contours are given to us, we may want to look at noise mitigation measures outside or adjacent to the 65 DNL.

### **J BLACK**

#### **Avigation Easements**

Regarding an avigation easement purchase, I would recommend that the easement not be a forever easement, but rather that it be an easement for 20-years and with a clause that says, if noise levels go above a certain level, the easement is void.

Justification ~ in the span of 20-years, there can be many avigational changes, such as new technology, airport expansion and the fact that flight patterns can change. Also, PTIA is currently classified as a small hub airport, but is an airport with an expressed desire to grow and develop to its fullest potential. An avigation easement is a serious document, and without time limits homeowners, with avigation easements, have no future protection of their property rights against future airport growth or changes in flight patterns and aircraft.

### **FABRIZIO**

Another effort that should be taken into consideration (not sure if this is in the scope of this group) is to get with the planning departments. It still seems the developers are pushing the envelope on how close they can develop near the contour. Adding to the residential problem is not a solution.

### **J BLACK**

#### **OFFER A SALES ASSISTANCE PROGRAM**

Indianapolis International Airport offers Sales Assistance to homeowners in selected areas, outside the 65 DNL contour, because they may be exposed to frequent single event

overflights and cumulative noise levels, especially during late night jet operations. The Indianapolis Airport Authority, without any FAA funds, finances this Sales Assistance program. Their Sales Assistance Program is in their current Part 150 update. This airport is also home to a FedEx nighttime air-cargo hub.

**It is my recommendation that our Committees strongly consider a Sales Assistance Program be included in the PTIA Part 150 for impacted areas adjacent to or outside the 65 DNL contour that do not qualify for FAA funded noise mitigation.** This would help those residents who hear the actual sound exposure level of the nighttime aircraft during the hours of the nighttime FedEx air-cargo hub operation. People do not hear an average DNL over 24 hours. People hear the actual sound of each individual flight, especially from cargo flights at night.

**The impact areas to be considered eligible for a Sales Assistance program cannot be determined until we have been provided the requested nighttime FedEx noise contours.**

## **J BLACK**

### **Noise Contours**

As I have stated before, people don't hear averages; people hear the SEL from individual aircraft, especially from cargo flights at night. I refer to the February 1999 reply letter to me from Stephen Brill, Manager, FAA Airports Division, Atlanta. Mr. Brill wrote "The Federal Express Hub operation at GSO will require facilities capable of landing in excess of 60 aircraft during a sixty-minute period and take-off in excess of 60 aircraft during another sixty-minute once Federal Express gets in operation. These requirements are necessary throughout the year in all kinds of weather."

**Since the FAA, in the Part 150 Study, does not recognize noise exposure lower than the 65 DNL for the expenditure of Federal funds, I agree with Scott Gayle's recommendation, made at the last meeting, to disclose the 60 DNL noise contour on the Part 150 Noise Exposure Maps for information purposes. I would recommend that we go even further and also disclose the 55 DNL noise contour. I think the 55 DNL noise contour is recommended by both the World Health Organization and by the EPA. (I believe that Raleigh-Durham Airport also uses the 55 DNL noise contour on their maps).**

## **WHITAKER**

All of the measures you listed involving land use will be affected by proposed departure corridors and arrival procedures. The sooner we can establish departure corridors and arrival procedures and identify the areas that will bear the majority of the over flights, the better local planning and zoning boards can respond to enact appropriate zoning measures. PTIA needs to meet with local county and city planning and zoning offices to

make sure they are all aware of our proposals and FAA Noise Abatement Policy as it applies to building standards, compatible usage and prior notification of prospective purchasers of property that may be affected by noise from night time operations into and out of the airport.

## **MATTHIEU**

### **Sound Insulation Program**

I would like the noise abatement program to include from the outset some type of noise attenuation or soundproofing out to 60 DNL. Such a program might be implemented in stages and require co-payments to make it more palatable to PTAA and airport users. Please refer to the discussion of the MSP program at [http://macnoise.com/part150/document/chapter\\_eight/index.htm#8\\_1\\_1](http://macnoise.com/part150/document/chapter_eight/index.htm#8_1_1). It is my understanding that MSP will use AFC to finance their minimal 60 DNL mitigation effort. (As you know, MSP originally planned a more extensive 60 DNL sound mitigation program that was shelved after the AIP funding ban was passed under the leadership of Mississippi Senator Trent Lott and Northwest Airlines.)

I envision a compromise program whereby residences/noise sensitive sites directly under final common approach pathways (i.e., from outer marker to edge of runway) would receive priority mitigation efforts (if not outright purchase). Similar logic should apply to departures, if it is determined that narrow, rather than dispersed, corridors will be used. Consideration should also be given to offering mitigation for low frequency vibration/secondarily generated noise or rattle (that is not included in the DNL metric, as you know), if at all possible.

The ban on use of AIP funds for mitigation outside 65 DNL will sunset in 2007. We have no absolute assurance that Congress will renew the restriction. Therefore, I believe we are obligated to at least to request AIP funding since our part 150 study results will potentially be presented to the FAA after the ban is lifted. I emphasize that the circumstances faced by PTIA are truly special and clearly warrant FAA policy exceptions.

## **MATTHIEU**

### **Sound Insulation Program**

In my view, it is important to understand that a sound insulation program is likely to have little or no affect on low frequency vibrations/sound that may occur in some buildings around the airport. Such energy impacts may cause windows to shake and other parts of a house to noticeably rattle, even though DNL measurements are well within FAA's acceptable limits. I suspect that some individuals living under approach and departure pathways and along the lateral aspects of the major runways will experience these types of secondary noise/vibration events. Andy is an expert on this phenomenon and should address this specific issue so that the Committee may properly consider possible remedial actions.

I do not support sound insulation to the 55 DNL contour line, and I believe that the FAA will most certainly and reasonably reject AIP funding for such actions.

### **Sales Assistance Program**

I do not support a sales assistance program out to 55 DNL.

### **LUCY SMITH**

Current homeowners should be given preferential treatment, period, as to the avoidance of noise from future planned flights. To clarify further, current 4/1/05 homeowners, (not future homeowners, not future home-sellers), who stand to lose their possibly most substantial investment/nest egg, as well as their peaceful existence, along with possibly even the opportunity to escape an unlivable situation, are who this committee should protect first. Shouldn't un-built areas be used for flights if it can be shown those patterns would reduce suffering for those with *no* future options?

### **LUCY SMITH**

I agree with Jean Black that areas adjacent to the buyout 65DNL contour should have some of the same options as those within the 65DNL. As it's been noted by many homeowners, the denuding of the area around the airport has already substantially increased the noise in some places. The lay of the land causes problem spots not necessarily located in a continuous line as the simulated 'cone' shows. From legal settlements shown on maps in other airport areas, this obviously holds true.

### **OSTASIEWSKI**

The additional suggestions also have my support:

- A sales assistance program for homeowners in selected areas, outside the 65 DNL contour, because they may be exposed to frequent single event overflights and cumulative noise levels, especially during late night jet operations.
- Request policy exceptions from the FAA due to the fact that the airport is not just getting busier but adding a concentrated third shift. Loosely put, the current models being used are averaging an intensively noisy 3 hours per night for 4 days over a 24-7 period.
- Pursue the use of a 55 DNL noise contour due to the unusual circumstances of an intense night operation.

### **GATTEN**

I would favor consideration of ... the expansion of sound proofing provided to an area larger than the 65 -- perhaps the 55 DBL are much more reasonable (common sense) to use as a guide

### **KIRSTNER**

### Concerning Measures Involving Land Use

As stated above, and as my background would infer, incompatible land uses should be prohibited from noise impact areas. Studying the existing land use patterns in the current flight paths provides clear evidence that the county's Airport Overlay Zoning District has had a positive impact on keeping residential uses out of noise impact areas. Where residential uses currently exist, sound insulation and property acquisition should be used as a tool to mitigate noise impact. The County has been asked when the Airport Overlay Zoning District will be reduced to match the current computer modeling. Given the positive impact the overlay district has had the answer might be never.

### **BRANDT**

Protection of existing homes is important- I believe that a buy-out program should be instituted that goes beyond the basic 24 hour noise dbls, as was stated before "I don't listen to averages, I listen to multiple single events". However, am not sure yet where the line gets drawn- issues of pockets of noise need to be reviewed and discussed.

### **WHEELER**

I agree that there is a need for purchasing property guidelines or committee, not within the group zone yet is affected by individual aspects of the noise levels.

### **GAYLE**

- PTAA to implement noise insulation program for qualified buildings in 60 DNL contours (this is outside of Part 150 scope and requires PTAA funding)
- If technology permits, set goal for soundproofing of all rooms with interior DNL of 40 dB instead of 45 dB.
- Part 150 to acquire all mobile homes in 65 DNL contours (can't be soundproofed).
- PTAA to acquire all mobile homes in 55 DNL and 60DNL contours with PTAA funds.
- Have 60 DNL contours shown on all maps for Part 150 (already approved by Andy) to assist in review of housing data and nighttime noise readings being prepared (with and without Fed Ex Hub projections) to provide reference point if FAR Part 150 guidelines are ever changed to allow expenditure of funds below 65 DNL in future and to give additional information to city planners. (I do not object to Jean Black's request to also show 55 DNL as was apparently done in Raleigh).
- Maps for Part 150 to include data on number of residents and number of homes built before 1975?? which may likely benefit from soundproofing, to assess number needing soundproofing.
- Request PTAA expedite its request for AIP funds (Airport Improvement Program)
- Require PTAA to get FAA approval to assess PFC (passenger ticket fees, usually \$4.50 per ticket) for noise mitigation, not expanding physical plants.

- Request PTAA use its mitigation funds for communities at 65 DNL or greater
- Ask PTAA to revise its estimated costs for Residential Sound Insulation Program (\$6.3M); for Noise and Operations Monitoring System (\$500,000), for land acquisition (\$4.5M) and for roadway noise barriers (\$361,000) to determine adequacy under new contours since the ROD and FEIS numbers were established.

## **BARNES**

I agree that the 55 DNL noise contours are important to use, as an RN I can assure you that interrupted sleep can really cause behavioral as well as health problems. People hear events, not averages!!

## **MATTHIEU**

I am also concerned that adequate numbers of qualified contractors may not be available to make the repairs and additions needed to soundproof houses, schools, and other noise sensitive locations. Will homeowners be required to sign avigation easements before the sound insulation and window modifications begin? Will homeowners need to hire an attorney? What kind of soundproofing results and guarantee can the homeowner expect?

## **SMITH**

Don Matthieu's concern of qualified contractors for soundproofing is right on. The public needs to understand the procedure to receive aid and be provided assistance if there is disagreement or problem in their receiving that aid—an *advocacy agent* should they not get the promised results would be the right thing to do. Providing relief for vibration is an area that I don't even know is covered. That could cause suffering that goes unanswered as the noise may not be at the level required to be included in a relief program. I am not a sound engineer and perhaps this could be explained at the meeting too.

## **MEASURES INVOLVING NOISE PROGRAM MANAGEMENT**

- **Effects of establishing a noise office at PTIA to manage implementation of Noise Compatibility Program**
- **Effects of installing and operating an aircraft noise and operations monitoring system**

### **J BLACK**

I **strongly agree** that a Noise Office is needed at PTIA.

The Airport is committed to the installation of a Noise and Operations Monitoring System, as stated in the FEIS and the ROD. Initially the airport may start out with a small portable-based system that would allow them to establish a database of aircraft noise events around the airport. The FEIS goes on to say that after completion of the detailed noise compatibility study the sponsor may elect to install a more permanent monitoring system. **I strongly agree that we need a portable based system now and a more permanent system to be included in the Part 150.**

### **SMITH**

Jean also mentions agreement for “a portable based system now and a more permanent system to be included in the Part 150” with reference to establishing a database of aircraft noise events around the airport, stated in the FEIN and the ROD, as the Airport has committed to. I totally agree the establishment of this is an *immediate need*. ***To not take or track these measurements now would insure there is no means for comparison or quantification.***

### **MATTHIEU**

#### **Noise Abatement Department**

The department must be adequately staffed and headed by a sufficiently credentialed individual experienced in directing a noise abatement program. The program must include a state of the art analysis and monitoring system (e.g., RDU’s Rannoch AirScene, MSP’s ANOMS or other comparable system) that can track and specifically identify and locate individual planes. Reasonable but strict compliance policies must be implemented to encourage proper behaviors and discourage improper behavior. A permanent noise abatement advisory committee with diverse representation must be established. Meaningful and easily understandable periodic reports assessing noise impacts and documenting abatement actions taken should be published. (MSP’s Monthly Technical Advisor’s Report format is impressive to me). The noise abatement program must be legitimately responsive to citizens who complain of problems with aircraft noise. FedEx and air carrier upper management teams as well as PTAA must vigorously support the

program. PTAA must agree with more than words that noise management/abatement shall be a major daily operational priority.

**SMITH**

Who will maintain the complaint monitoring? Who will pay for its maintenance? How will that information be readily available to the public and their attorneys

**OSTASIEWSKI**

Noise-related landing fee penalties based on noncompliance of noise mitigation measures.

**GATTEN**

The Airport Authority needs to have a noise monitoring office that would also process complaints in a timely manner.

While I understand the role of fees imposed for landing noise, to me it implies permission for unacceptable noise that can be "bought." This runs counter to common sense to me and does not give the citizen the protection that they need.

**KIRSTNER**

Concerning Measures Involving Noise Program Management

Both a noise office and monitoring system should be implemented. Public trust in a management program will be vital to its success. Again, if the abatement measures are too complex, can monitoring and enforcement truly be effective.

**BRANDT**

A noise abatement center is a great idea, but there has to be some real teeth- fines yes, what about repeat offenders? Can the airport actually terminate their landing rights or require different, quieter, airplanes?

**GAYLE**

- Implement noise measurements on periodic basis with sufficient permanent equipment to monitor, and periodic public dissemination of the data, locations to be decided.

- Where differences between measured and forecast noise levels are noted, appropriate measures will be taken to address the causes and enforce any guidelines (see Noise Abatement Measure NA-1 Charlotte, approved by FAA)
- PTAA to provide monthly reports on late night (10 p.m. to 7a.m.) runway utilization and coordinate with air controllers to manage frequent nighttime operators to enhance voluntary adherence to existing noise mitigation procedures; publish results and compliance or lack thereof (See Measure NA-4 Charlotte, approved by FAA).
- Establish public information program to distribute noise and abatement information

## **Outstanding Questions**

### **SMITH**

RE: simultaneous FedEx operations (day & night). Is there noise increase caused by simultaneous operations and is it reflected in our information? Will it be reflected in SEL information also?

### **WHEELER**

How far out from the airport have other cities extended their noise abatement coverage?

### **GARSTKA**

How likely is it that what we (professionals + committees) suggest will actually be implemented? ... "I just want to make sure we keep in mind that we must make recommendations that are not only ideal, but that are also feasible to implement. I would hate for us to get hung up on making suggestions that are simply not going to work in a real scenario."

### **JBLACK**

It is confusing to me why we would put the above into the Part 150, as options for FAA approval, when each of these noise mitigation measures has already been committed to by PTAA in the Final Environmental Impact Statement (FEIS) and has already been approved by the FAA when it issued the Record of Decision (ROD) on December 31, 2001, including estimated costs for the mitigation measures? [re: Effects of sound insulation of residences and other noise sensitive land uses where DNL exceeds 65 Db; Effects of property acquisition where DNL exceeds 70 dB; Effects of noise easement purchase where DNL exceeds 65 dB; Effects of installing and operating an aircraft noise and operations monitoring system] *see FEIS and ROD.*

### **MATTHIEU**

Also, FedEx describes in a June 1999 letter provided to me "a scenario that would have all arrivals during our inbounds ready at the same time on a waypoint 10 nautical miles from the runway". Scott has a copy of the letter. FedEx uses this scenario to estimate its maximum airport capacity needs. I read this comment to mean that FedEx procedures require on occasion holding patterns to be flown about 12 miles from the airport. I am obviously concerned about the altitude and location at which such a procedure might be conducted. Do you have any suggestions or knowledge?

**MATTHIEU**

Why can't the Committee hear from actual FedEx pilots who must have a wealth of valuable information and experience on noise abatement procedures?

**MATTHIEU**

My final concern is best expressed as a question: If FedEx operations are behind schedule on a given night, will the noise abatement requirements be waived? What reasonable penalties or positive incentives might be implemented?

**OSTASIEWSKI**

- What is the current status of all the noise mitigation measures all ready committed to by the PTAA?
- What is the ongoing timeline for all items?
- Why isn't the committee kept current on an issue as important as Noise Mitigation Measures? For instance, what does the PTAA have planned for a noise and operations monitoring system?

**FABRIZIO**

How does this get enforced? Are we able to see how this changes the contour? Also, when we suggest changes like this, is there a way to see affected housing counts?

**SMITH**

Since we don't have legitimate noise cones/flight patterns of future flights, and have even been given reduced noise cone for a one time event(9/11) that has likely caused noise reduction for a limited time, I would ask that we be given different scenario future flight effect. I assume that's already the plan.

**SMITH**

I have heard/read the majority of flights will egress/ingress in the direction of the Southwest. I have also heard that FedEx in a letter stated they will not be restricted as to flight pattern. Who has the authority to change the flight patterns at any time? Would there be a requirement as to wind direction/speed to allow the authority to change the patterns agreed to? If there is a set wind direction/speed that would allow deviation from the set flight patterns, who will monitor compliance and levy consequences?

## **ADDITIONAL COMMENTS / CONCERNS**

### **HAPPEL**

It also seems that all conversation is only focused on the southwest (High Point ) side of the airport. ... The runway configuration in Indianapolis is exactly the same as the Greensboro airport. If you overlay their noise contours over GSO the extended end north of 23R is greatly underestimated. Departures from this runway will affect over a thousand homes and at least 4-5 thousand residents.

### **GARTSKA**

I think that the comments made by those who appear to have the tech savvy are all valid points and I have faith in our hired professionals that they will take all of our recommendations/suggestions and make the best of it.

### **WHITAKER**

We must also remember that the majority of the changes to operational procedures will impact areas not currently included within the 65dnl contours. These are the procedures that will most affect those impacted by high SELs and hourly average noise levels at night that exceed those levels compatible with residential areas.

### **J BLACK**

#### **A Surprise In The Nighttime Sky!! ~ Airspace Use**

We live 2 miles northeast of the existing runway on O'Briant Place. Last night at 11:25 pm, thru our upper west window in our family room, I saw a jet aircraft that I assume was departing to the north from PTIA. The sight of this aircraft just outside the window was very impressive. We do not often see the aircraft, but we do hear it most evenings between 11:15 to 11:30 pm to the west of our house. I have come to understand that this may be a nightly UPS flight departing to Louisville.

Any flight tracks that we have seen do not show a flight track west of O'Briant Place, but rather the track is to the east of our house over the golf course. We have heard from residents in Edinburgh, that they also hear this plane most evenings.

### **J BLACK**

### **Fallout From Close Proximity To Airport**

Besides noise, residents in Edinburgh and on Muirfield Road also tell me that they have the constant smell of fuel when they are outside . . . their clothes are permeated with the odor of the fuel fall-out from the over flying planes.

### **OSTASIEWSKI**

A monitoring system for pollutants such as runoff and jet fuel fumes

### **OSTASIEWSKI**

Limitations on number or type of operations or types of aircraft to that used in noise forecasts. Modify contours if operational activities exceed the forecasts.

### **BURNETTE**

Specifically, the City Council adopted changes in the city's land use plan to designate the area with the greatest noise impact for non-residential development. And second, the Council adopted a revised Airport Overlay District that requires disclosure for land transactions, limits specific noise-sensitive land uses based upon the determined noise impacts, and requires construction design standards to reduce interior noise levels in specific areas of the district. All these changes took effect August 7, 2003.

At the time of these land use related changes and in anticipation of the Part 150 process, the City Council voiced the following requests be considered during the Part 150 mitigation process.

- a. Request that the Part 150 consider the land use measures the city has taken and the noise research upon which the measures are based.
- b. Request that the Part 150 develop noise abatement nighttime departure procedures and noise abatement nighttime runway approach procedures to restrict nighttime overflights over noise sensitive (i.e. residential) areas of the city based upon the city's Land Use Plan.
- c. Request that the Part 150 utilize the NA (or N) metric to develop nighttime noise contours if the nighttime flight tracks are changed (from those in the EIS), so that the city may revise its land use strategy if determined necessary.

Item a. refers to the study conducted by the private consultant and the land use plan and zoning changes the City Council adopted in 2003. That information is available on the department's web site at [www.high-point.net/plan/noise.cfm](http://www.high-point.net/plan/noise.cfm).

Item b. has been chosen as a mitigation measure and also voiced by others in this process.

Item c. is based upon the consultant's nighttime noise study. If the Part 150 recommends changes to flight tracks, or if the noise impact variables are changed as compared to those of the EIS, or other changes are considered that would alter the nighttime noise impact based upon the study the City Council commissioned, then the city would need to consider adjusting its land use noise mitigation measures contained in its land use plan and airport overlay district. Therefore, the city requests the number of events above (NA or N) metric be used to develop nighttime noise impact contours.

As you know, the NA metric shows the average number of times noise events exceed a specified threshold during a typical night. The city's consultant used three thresholds: one event per night above SEL 90 dB; two events per night above SEL 85 dB; and five events per night above SEL 80 dB. This metric and those thresholds were the basis for the city's land use mitigation strategy. With this information, the city can assess its land use measures, which are currently in place, and determine if adjustments are warranted.

I support the measures planned for the initial analysis. In particular, I note the need to establish a noise office at PTIA, which in addition to other benefits, would provide a source of information to the public on aircraft noise.

#### **SMITH**

Finally, any area which is going to get the planned air traffic will be upset. I would like to understand exactly what noise impact will occur for all suggested patterns—with a map...*with street detail.*

#### **GATTEN**

As an elected representative of West/NorthWest Greensboro, I have been aware of and vitally interested in the noise issues that impact our region for many years. I live on Smoketree Drive just off Bryan Blvd and hear both the late evening flight and the early morning TIMCO engine testing. The noise issue is a regional one, not nearly as localized as some of the limits set in the study information.

#### **KIRSTNER**

Above all the measures must be balanced between allowing the airport and the Fed Ex Hub to operate efficiently while protecting existing and future neighbors of the airport from potential nighttime noise impacts. I have lived near the airport for eight years; in fact have always lived near an airport. Therefore, I admit that my opinions and observations concerning airports are sensitized. I do not feel that the current airport plan

or proposed flight patterns should be modified. If this must occur, it should clearly be shown that “new” existing or planned residential areas would not be impacted.

## BRANDT

The county should not change the current noise cone protection area, we do not know the future impact of the airport operations- and if the economic models are correct, some of the land within the existing noise cone will be needed for additional commercial, industrial or institutional uses.

## MATTHIEU

To bolster our chances, I would suggest that the Advisory Committees formally ask (via a resolution) for Triad governmental leaders to lobby North Carolina’s congressional leadership for help. It would be a nice gesture if FedEx and PTIA’s commercial carriers joined the effort. Remember that Mississippi Senator Lott apparently received Northwest Airline service to Jackson in return for his support of the AIP funding ban. It seems reasonable that our seasoned congressional delegation should likewise ask for additional funds on behalf of Triad citizens. After all, the FedEx hub will serve the entire East Coast, not just North Carolina.

### **Political Support for Exceptional Part 150 Program**

The lobbying effort that I described should not be considered outside of the Part 150 process. MSP, during its recently completed Part 150 process, was partially thwarted by **political action** by a single Senator and a single airline. For PTAA to get its **fair and deserved** share of FAA funds, we must ask for political help during the Part 150 process just as Northwest Airlines did. The grounds for FAA policy exceptions at PTIA seem obvious to me. PTIA faces truly **exceptional** and **extraordinary** circumstances that very few other airports have experienced. History of actions eventually taken at other major FedEx hubs suggests that routine mediocre noise mitigation measures are not sufficient to handle the additional noise impacts generated by the operational characteristics of a nighttime air cargo hub placed in a relatively densely populated metropolitan area. We must have political help now

## MATTHIEU

Based on what I have observed to date, I remain concerned that the PTAA Part 150 process will produce a mediocre noise abatement program. ... PTIA and its surrounding neighbors are now about to experience cataclysmic change that requires extraordinary efforts to manage the considerable noise impacts that many citizens around the airport and beyond will now experience. I had hoped that PTAA would aggressively demand that we craft a truly innovative incentive program that would facilitate and accelerate the normal process of land use change that typically occurs around cargo hubs. Elements of

such a program, in my view, necessarily must include some type of help for individuals outside of the traditional 65 DNL contour. The Sales Assistance Program (that Indianapolis eventually implemented, as identified and researched by Jean Black) could be the cornerstone of such a program.

Because PTIA circumstances are truly **special and extraordinary**, I believe that we must ask the FAA for policy exceptions and additional funding beyond what is typical for an initial Part 150 Program. As we all know, a nighttime air cargo hub is a completely different animal from what PTIA has been in the past. It is unfair for PTAA to impose additional noise burdens on properties well outside of its own property without providing reasonable help to those newly affected. In my opinion, it is also unacceptable and callous for the Citizens Advisory Committee (representing fellow concerned citizens) not to ask for some type 60 DNL mitigation program, other than implementing simple land use restrictions for future construction. Some airports more experienced (than PTIA) with managing noise are implementing mitigation programs that address problems in the 60 DNL contour. A growing group of acoustic engineers, including I suspect yourself, also support 60 DNL as a more reasonable boundary for significant noise impact and more studies are being published each year in your own literature that amply identify the flawed and outdated analyses that have supported the FAA's 65 DNL breakpoint that was established many, many years ago.

## **MATTHIEU**

As expressed earlier, I am very concerned about overflight noise. Be advised that the Haw River State Park (presumably a potentially noise sensitive area) has recently been established (May, 2003) along the eastern Guilford County/Rockingham County line. The population density in Southwest Rockingham County is increasing almost monthly, and in many areas, it is already similar to that of Northwest Guilford County.

## **MATTHIEU**

Ron Carter's analysis has merit for both ends of both runways and for both departures and arrivals. We must better manage traffic as it moves in and out of PTIA, especially at night. I see no reason why a set of specific nighttime rules could not be established so that planes arrive and depart PTIA at higher altitudes. It seems unreasonable for the FAA to routinely direct FedEx aircraft to fly the last 20 miles to PTIA at 2,800 MSL, which as you know, may be only 1,900 to 2,000 feet above some houses. I have been told that inadequate ATC staffing may cause some of the traffic problems. Some ILS approaches are essentially converted to visual approaches in order to land planes more expeditiously in busy time periods when the weather is satisfactory. I would like the FAA to address this issue (preferably without jargon so that I can understand the answer). Will additional FAA staff allow more effective noise abatement procedures? I have read that one airport in Florida actually agreed, for better noise abatement results, to fund an additional ATC position so that the FAA might better manage arrivals and departures. Can we reasonably require FedEx aircraft to conduct only ILS approaches during all weather conditions?

As discussed previously, I am also very concerned about the specific location and altitude of the holding procedure that FedEx has described in one of its earlier communications to the FAA. I would like FedEx to explain to the Committee what it has planned or what procedure it has used at other airports when holding patterns are implemented. I would also like FedEx to explain when and how often it expects to use **dual simultaneous arrivals or departures** at PTIA. Will noise impacts and appropriate noise abatement procedures significantly change under this type of airport operating condition? It is imperative that we understand FedEx's needs in view of Lee's analysis and proposals. Extension of the present 5R/23L runway will presumably shift noise impacts further North. Will additional measurements and study be needed to redefine a new contour? Will the location of BRANT be changed? Will the altitude required at BRANT be lowered? Likewise, will the location and altitude at PAGAN be changed? The discussion of "close-in" and "distant" noise abatement departure procedures (NADP) at <http://www.macnoise.com/part150/document/index.htm> (Chapters 4 and 7) seems to imply that "close-in" procedures are no longer useful at MSP because of transition to an all Stage III fleet of aircraft. MSP elected to go with "distant" NADP in 2003. I presume that we will have a cost benefit study to determine which type of NADP might be helpful for each runway, as was done at MSP. I hope such a comparison will **separately** examine both daytime and nighttime operations.

## MATTHIEU

identified preservation of rural character as a major community goal. While formal sound analyses have not been performed for our particular area, ample studies show that DNL sound levels found in rural areas do not approach those found around airports. Many residential areas are at the USEPA's 55 dBA DNL benchmark or below. Certainly, after midnight, 60–80 dBA SEL noise emanating from aircraft overflight is rare. As a rural residential landowner, I am worried about increases in both daytime and nighttime noise associated with the new FedEx overnight cargo hub and distribution center and with air traffic growth among the other commercial users of PTIA. You must be aware of studies that show fully 50% of noise complaints ultimately received by airport proprietors come from individuals who live **inside areas deemed compatible by the FAA**. Furthermore, you must have also considered studies that demonstrate that individuals living in rural communities are particularly sensitive to noise impacts ... I am advised that PTIA has no method to quantitatively capture, store, and retrospectively analyze data describing these types of individual events. Specifically, the identity of individual planes, the time, the projected overflight noise footprint, the specific carrier, the altitude, the initial point of turn, the beginning of the turn, the rate of descent, the "route" to BRANT, and the types and elevations of overflowed properties are **unknown** to PTIA. Thus the problem cannot be reasonably addressed. ... Can reasonable limits on the turn locations be established such that tight, low altitude turns are disallowed? Can changes in aircraft operational procedures soften the noise footprint?

After reviewing materials available to me that describe the operations of PTIA, I am concerned that the scope of work briefly outlined at the 6/8/04 and 6/9/04 meetings will

not address serious noise impacts likely to occur over areas not included in the Part 150 Study Area. ...the functional airport area **for arrivals on RNWY 23** extends out at least 18 miles from the physical plant located at PTIA. It is within this large circle that PTIA conducts landing procedures. Planes in an ILS approach **must** be properly aligned and at 2,900 feet MSL just prior to BRANT ....

Furthermore, while I have described arrival events for present RNWY 23 as they relate to our particular area, please notice that the same analysis can and should be made for planes arriving on RNWY 5 and for planes that will arrive the new runways (RNWY 23R and RNWY 5L). In fact, noise impacts on RNWY 5 may be worse than those for RNWY 23 under the conditions that I have described. ... **Obviously, the location of turns, above ground altitude, and routes to the outer markers of the new runways (RNWY 23R and RNWY 5L) will be even more important when 63 cargo planes arrive in a short period of time during FedEx's nighttime operations.**

While I understand that PTAA's primary focus (as directed by FAR part 150) must be on properties that will be subjected to noise of 65 dBA DNL or greater, you must be aware that many residents well outside the noise contours will experience individual noise events that are at best two to four times louder than a single 65 dBA sound. ... However, it seems wasteful to assemble and educate committee members, to hire expert consultants, and to invest an enormous amount of time only to address part of the noise problem. A **comprehensive noise abatement program** must deal with the noise environment not only around the physical airport plant, but also with the functional airport area as defined by the location of its runway outer markers and its traffic patterns. We should strive for excellence, not mediocrity, as we address noise issues related to PTIA.

## MATTHIEU

### **Dual Simultaneous Operations**

If FedEx operates the hub as has been described in the ROD and other communications, planes will simultaneously arrive and /or depart on both runways (old one, 5R/23L and new one, 5L/23R). Some of the proposals that Lee has discussed may not be allowed under of "dual simultaneous" operating conditions. The "60 to 70 minute window" to which Jean Black has referred should not be taken lightly. I believe that FedEx will use both runways on some occasions. Otherwise, I cannot explain how it will land or launch 63 planes in such a short time frame. In my view, it is imperative that the Committee know how often FedEx will use dual simultaneous operations so that appropriate additional mitigation procedures may be proposed.

### **FAA Staffing**

Adequate FAA staffing in various control centers (ATC , TRACON, etc. as listed below) is very important in managing a successful noise mitigation program. As I mentioned, one airport (as cited by HMMH's Ted Baldwin who is a PTAA consultant) agreed to fund an additional FAA ATC position in exchange for better noise control results. Please refer to [http://www.hmmh.com/aviation\\_part150\\_02fxe.html](http://www.hmmh.com/aviation_part150_02fxe.html) for details.