

**Key West International Airport
Ad-hoc Committee on Airport Noise**

Agenda for Tuesday, February 5th, 2013

Call to Order 2:00 pm Harvey Government Center
Roll Call

- A. Review and Approval of Meeting Minutes
 - 1. For October 2nd, 2012
 - 2. For December 4th, 2012.
 - 3. Approve Meeting Schedule for 2013
- B. Discussion of Part 150 Study Update -
 - 1. Role of the FAA and the Part 150 Process
 - 2. Section 1, 2, and Forecast Comments
 - 3. Sections 4 and 5
 - 4. Noise Exposure Maps
- C. Other Reports:
 - 1. Noise Hotline and Contact Log
 - 2. Airport Noise Report
- D. Any Other Discussion
- E. Next meeting: April 2nd, 2013

2013 Schedule of Meetings

February 5 th	April 2 nd	June 4 th
August 6 th	October 1 st	December 3 rd

ADA ASSISTANCE: If you are a person with a disability who needs special accommodations in order to participate in this proceeding, please contact the County Administrator's Office, by phoning (305) 292-4441, between the hours of 8:30 a.m. - 5:00 p.m., no later than five (5) calendar days prior to the scheduled meeting; if you are hearing or voice impaired, call "711".

The Role of the FAA in the Part 150 Process:

Noise Exposure Maps

- Indicates whether they are in compliance with applicable requirements,
- Publishes notice of compliance in the Federal Register, including where and when the maps and related documentation are available for public inspection.

Noise Compatibility Program

The FAA conducts an evaluation of each of the measures (operational, land use, and program management) included in the noise compatibility program and, based on that evaluation, either approves or disapproves each of the measures in the program. The evaluation includes consideration of proposed measures to determine whether they—

- May create an undue burden on interstate or foreign commerce (including unjust discrimination);
- Are reasonably consistent with obtaining the goal of reducing existing noncompatible land uses and preventing the introduction of additional noncompatible land uses;
- Include the use of new or modified flight procedures to control the operation of aircraft for purposes of noise control, or affect flight procedures in any way;
- The evaluation may also include an evaluation of those proposed measures to determine whether they may adversely affect the exercise of the authority and responsibilities of the Administrator under the Federal Aviation Act of 1958, as amended.

The Administrator approves programs under this part, if –

- Program measures to be implemented would not create an undue burden on interstate or foreign commerce and are reasonable consistent with achieving the goals of reducing existing noncompatible land uses around the airport and of preventing the introduction of additional noncompatible land uses;
- The program provides for revision if made necessary by the revision of the noise map;
- Those aspects of programs relating to the use of flight procedures for noise control can be implemented within the period covered by the program and WITHOUT –
 - Reducing the level of aviation safety provided;
 - Derogating the requisite level of protection for aircraft, their occupants, and persons and property on the ground
 - Adversely affecting the efficient use and management of the Navigable Airspace and Air Traffic Control Systems; or
 - Adversely affecting any other powers and responsibilities of the Administrator prescribed by law or any other program, standard, or requirement established in accordance with law.

Source: .Title 14 cfr part 150.

PART 150 PROCESS

NOISE EXPOSURE MAPS

Existing Noise Exposure Map



Future Noise Exposure Map



Public Review

Noise Exposure Maps Report



FAA Review / Comments

FAA Notice of Noise Exposure Map Conformance

NOISE COMPATIBILITY PROGRAM

Operational Noise Abatement Alternatives



Land Use Noise Mitigation Alternatives



Public Review

Program Management Alternatives



**Implementation Plan / Noise Benefit Analysis /
Cost Estimate / Roles & Responsibilities**



Preliminary Noise Compatibility Program Report



FAA Review

Final Noise Compatibility Program Report



Public Hearing



FAA Review - 180 Days

FAA Record of Approval



**KWIA Ad-Hoc Committee on Noise
October 2, 2012 Meeting Minutes**

ROLL CALL:

Committee Members in Attendance:

Commissioner Kim Wigington
Dan McMahon
Kay Miller
Sonny Knowles
Robert Padron
Dr. Julie Ann Floyd
Marlene Durazo

Staff and Guests in Attendance:

Peter Horton, KWIA.
Deborah Lagos, URS Corp.
Dan Botto, URS Corp.
R. L. Blazevic, Resident
Brendan Cunningham, City of Key West
Danny Kolhage, Monroe County Clerk of the Court
Robert S. Gold, Resident

Commissioner Wigington (Committee Chair) called the meeting to order at 2:00 p.m.

Quorum was present

Before any discussion started, Peter Horton presented Commissioner Wigington a plaque for her years of service as the Chairperson for the Monroe County Ad-Hoc Committee on Aircraft Noise.

In addition, Kay Miller congratulated Peter Horton for EYW being named Commercial Service Airport Manager of the Year.

The Meeting was temporarily recessed for a small celebration of both events.

KWIA Ad-Hoc Committee on Noise October 2, 2012 Meeting Minutes

Review and Approval of Meeting Minutes for the August 7, 2012 Ad Hoc Committee Meeting

Commissioner Wigington asked if everyone had a chance to review the meeting minutes from August 7, 2012 and if there are any revisions or corrections. The committee indicated there were no changes. Robert Padron motioned that the minutes be accepted as written. Dan McMahon seconded the motion and the motion passed.

Discussion of Part 150 Study Update

Commissioner Wigington began the discussion of the Part 150 Study Update.

Role of the FAA

Dan mentioned that the "Role of the FAA" page in the agenda package, page 3, has two minor changes. The revised page has been provided to all in attendance today. Both of these changes are in the first paragraph of the Noise Compatibility Program section. The FAA wanted to change the first sentence to read "...of the measures (operational, land use, and program management) included in the NCP and, based on that evaluation, either approves or disproves each of the measures in the program." The FAA wanted to make it clear that they can and often do approve or disapprove individual measures recommended in the NCP, as opposed to approving or disapproving the entire program.

Dan explained that the FAA also does not approve the NEMs, they strictly determine if the NEMs are in compliance with the Part 150 requirements, and will issue a Notice of Compliance that will be published in the Federal Register. They will make sure that URS and the Airport are following the rules and regulations that govern the Part 150 Process and that the public was included; additionally, they will provide guidance and instruction as to items that were not covered or covered improperly.

Dan further mentioned that the approval role of the FAA occurs during the Noise Compatibility Program [NCP] where recommendations are made for operational

KWIA Ad-Hoc Committee on Noise October 2, 2012 Meeting Minutes

and/or land use mitigation measures, like the NIP. That is where the FAA will approve or disapprove based on the Part 150 requirements.

Section 1 and 2 of the NEM Documentation

Dan Botto asked if everyone had a chance to review the Sections 1 and 2 that were provided at the previous meeting. Kay Miller asked for a pdf of the sections as she was not at the previous meeting. Dan explained that Section 1 was an introduction to the NEM and the Part 150 process. Section 2 was jurisdiction and land use and would be updated throughout the project as necessary. There were no comments from the Committee.

Forecast of Aircraft Operations

Dan Botto provided the FAA-approved Part 150 Forecast of Aircraft Operations to the Committee. Dan explained that these numbers would be used for the future condition (2018) noise modeling in the NEM. Dan also explained that the forecast would be increased by the addition of Southwest's one daily flight (i.e., 730 operations annually) from Key West to New Orleans. Since this will not significantly increase the number of operations included in the forecast previously approved by the FAA, the FAA would most likely approve the revised forecast.

Dan Botto and Deborah Lagos explained that the existing year (i.e., 2013) has not been completed yet, and is waiting on the radar data to be provided by NASKW. Dan Botto also explained that the documentation in Section 3 has some Navy information that NASKW needs to confirm.

Dan Botto asked that the Committee review and provide comments and questions on the Forecast of Aircraft Operations at any time between now and the December meeting.

Robert Gold asked if the forecast is surprising or in line with what is expected. Deborah Lagos explained that this was not a true forecast. Deborah explained that the FAA provides and develops a Terminal Area Forecast (TAF) for each airport in the country. The TAF begins with operations reported to the FAA from the EYW ATCT. The tower is not open 24 hours per day; therefore the reports to

KWIA Ad-Hoc Committee on Noise October 2, 2012 Meeting Minutes

the FAA do not include any operations occurring when the tower is closed. Deborah continued that this forecast seeks to account for aircraft operations occurring during those hours when the tower is not operational, and the change from the FAA TAF is not a huge increase. Dan Botto explained that the FAA prefers the use of the TAF unless there is concrete documentation for this change. The change requested in this forecast, including the documented new Southwest flight, remains below the FAA percentage increase (i.e., 10%) that would trigger a complete review and possible revision of the TAF. Dan mentioned that the change indicated on page 13 of the Forecast of Aircraft Operations, even including the new SWA flight, would remain less than 10 percent. Dan explained that a larger increase triggers a complete forecast that goes to Washington for approval instead of the regional FAA office.

Danny Kolhage asked if we are required to develop a forecast for the Part 150. Deborah Lagos explained that we could have chosen to use the TAF, without having to obtain special approval. Danny then asked why is it in the best interest of the airport to develop a forecast. Deborah Lagos explained that it better represents what is occurring and what may actually occur in the future. Deborah mentioned that there are certain areas that want to be in the noise contour to take advantage of any noise mitigation programs. Therefore having the most accurate account of aircraft operations provides the best opportunity for this to occur and reduces any questions that may arise if these areas are not in the contour. Robert Gold mentions that this is not a case of "cooking the books" so much as it is a case of using the most accurate data possible. Dan Botto reminded everyone that the TAF is based on EYW tower counts that do not include operations occurring when the tower is closed. This forecast tries to account for these operations in the most logically defensible manner possible.

Robert Gold asked when can we expect this forecast to be approved. Peter Horton mentioned that the forecast had been approved for use in the Part 150 on the previous Friday (Sept. 28, 2012). Peter explained that the FAA TAF is usually very conservative, and if you look at Table 1 in the Forecast of Aircraft Operations you can see how the operations have changed over time, but throughout this period passenger enplanements have gone up. This indicates that fewer operations are occurring, but they are using larger aircraft. Commissioner Wigington mentioned

KWIA Ad-Hoc Committee on Noise October 2, 2012 Meeting Minutes

that these larger aircraft happen to be newer, quieter aircraft. Peter also mentioned that the ATR-72 aircraft is going to be replaced by the EMB140 prior to the future year (i.e., 2018).

Other Reports

Hotline & Contact Log

Dan Botto reported that the hotline had three calls over the last two months; all from a resident of Key West-by-the-Sea. Ms. Durazo explained that when the wind switches, the departures seem to deviate from the runway centerline and drift closer to KWBTS.

Kay Millar asked if URS had contacted Mrs. Sands. Dan Botto explained that we have been in contact with Mrs. Sands and are working with her to determine a solution.

Robert Gold asked if the departure procedures are set by the ATCT. Peter Horton explained that the departure path is at the pilot's discretion. Peter said that if the airport is operating to the east (i.e., 80% of the time), the tower will tell the aircraft to make an immediate left turn to avoid NASKW, but other than that, it is up to the pilot. If departing to the west, the aircraft will make a turn to the north as soon as possible. Robert Gold mentioned that this goes back to his previous discussions that the tower can be more authoritative in terms of flight path immediately before landing and immediately after take-off. If the tower were to tell the aircraft to wait a few seconds before making any turns, it could reduce much of the complaints. A 5 second difference on when the aircraft make their turns could have a huge impact on the noise. Robert said he personally loves the operation in the opposite direction because his biggest impact is when aircraft are arriving over his home, but he understands that it is much worse for KWBTS.

Sonny Knowles explained that if some aircraft were slightly left of the runway centerline on westerly departures, it is most likely due to either an unintentional drift by the pilot or alteration caused by winds. Marlene Durazo mentioned that it does occur occasionally. Peter Horton explained that KWBTS is only 800 feet off the runway centerline, and at that distance it does not take much deviation and/or correction to ease slightly closer to KWBTS.

KWIA Ad-Hoc Committee on Noise October 2, 2012 Meeting Minutes

Peter Horton explained that the switch to the EMB 140 will reduce the use of the Garrison Bight approach because they are required to be at a stabilized approach 3 miles out and straight in.

Airport Noise Report

Dan Botto asked if there are any items of interest in the Airport Noise Report (ANR). There were no items from the committee. Dan discussed that most of the items of interest in this batch of the ANR have to deal with the FAA's recently issued Program Guidance Letter (PGL), reiterating their policy on how Noise Insulation Programs are to be conducted. Danny Kolhage indicated that in the ANR, AAAE believes that this is new guidance, while the FAA indicates that this has been the guidance all along, and they are just reiterating those rules.

Deborah Lagos explained that previously a NIP would test 10 to 15 percent of the homes in a program area, taking a wide sample of building types and levels of maintenance, for noise levels prior to and after the construction has been completed to determine the amount of noise reduction achieved by the sound insulation. This PGL is telling us that the primary reason for the noise testing is to determine if the house is qualified to participate in the NIP. Previously, it was assumed that if the house was in the 65 dB noise contour, or in a squared off area for neighborhood equity, it was eligible. Now that is only the first step towards eligibility. The second step is this noise testing that has to show that the house has an interior noise level of 45 dB or above before any work is done. Kay Miller asks if this could lead to one house qualifying and the house next door not being eligible. Deborah Lagos indicated that this could happen.

Danny Kolhage asked in the prior projects at Key West, what would have happened if this guidance had been followed. Deborah Lagos explained that about 50 percent would have qualified. Kay Miller mentioned that her house may not have qualified. Peter Horton mentioned that from a public relations standpoint, that would be suicidal for an airport. Deborah Lagos went on that the NIP would still test up to 30 percent of the houses, based on similar construction types (i.e., wood frame, concrete block, etc.). Previously, we assumed that if KWBTs was in the 65 dB contour in anyway, then the entire complex would be included. But with this

KWIA Ad-Hoc Committee on Noise October 2, 2012 Meeting Minutes

guidance, KWBTs could possibly be separated by buildings and even within the same building there could be qualifying and non-qualifying units.

Commissioner Wigington asked if KWBTs requires voting by all residents for approval of exterior improvements. Robert Padron explained that if the improvements change the esthetics of the property, then it would require voting. Commissioner Wigington then asked if the vote required 70 or 90 percent approval from the residents.

Marlene Durazo then mentioned that the FAA has yet to account for the reverberation noise between the buildings at KWBTs.

Deborah explained that this PGL also indicates that there is a secondary package of noise insulation for homes that do not meet the 45 dB and above interior noise levels, but are within the contour. The secondary package consists of items such as: caulking of windows, storm doors, and possible ventilation. Dan Botto mentioned that this secondary package is only available to 10 percent or a maximum of 20 homes in each phase.

Commissioner Wigington clarified that the first criteria is the home is within the DNL 65 dB noise contour. Commissioner Wigington then asked if an old house with no improvements that had an interior level greater than 45 but was not within the 65 dB contour would not be considered, but a newer house within the 65 may not meet the interior noise standards? Deborah Lagos mentioned that the older house could still qualify if the home was included in an area that has been included for neighborhood equity.

Danny Kolhage asked if there is anyone challenging this PGL. Deborah Lagos mentioned that many of the aviation groups (e.g., ACI, AAAE, ACC) will be challenging the FAA on this.

Peter Horton mentioned that Key West has kind of had to deal with this before when originally Linda Avenue was included in the NIP, then the FAA removed them from the program. The issue was raised with the FAA and Linda Avenue was put back into the program.

Robert Padron asked if this PGL could lead to issues, especially at KWBTs, because you could have one building in the program and the others not in the program.

KWIA Ad-Hoc Committee on Noise October 2, 2012 Meeting Minutes

Deborah Lagos asked Dan McMahon about what would happen if half of Building C was eligible. Dan McMahon said perhaps the residents would feel that they should take what they can get, that something is better than nothing. Robert Padron mentioned that it could affect the values. Dan agreed, but depending on how it was presented it could still be approved. Marlene Durazo indicated that is something that should be looked into. Peter Horton said that if the contour does hit KWBT5, that each and every unit should be included in the NIP and let the FAA accept or reject each one.

Marlene Durazo mentioned that KWBT5 was the first condo in Key West. Peter Horton said that at that time, the largest aircraft coming into Key West was probably the DC-3, and the airport has evolved since then.

Dan Botto mentioned that on page 25 of the agenda package, the PGL indicates that if the residences not tested believe that their unit would test different, the resident can request individual testing.

Deborah Lagos explained that in most cases, the residences tested as the representative sample would likely represent the worst case scenario. Marlene Durazo mentioned that the corner units closest to the airport receive a large share of run-up noise. Deborah Lagos further explained that the testing would have to be on multiple floors to determine if the noise levels would be different. Dan McMahon asked if where the PGL talks about different categories, which would include one, two, and three bedroom units, different floors, and different areas that are unique in their own way. Deborah Lagos mentioned that the testing is done with simulated noise, not actual aircraft noise.

Dan McMahon asked if the windows are open or closed when the testing is done. Kay Miller explained that everything is closed.

Deborah Lagos explained that with the clarified guidance, the further outside the actual 65 that a given unit is, the more difficult it will be to qualify. The testing will determine the noise level difference between the outside and the inside. For example, if the noise level reduction between outside to inside is 20 dB, then this is subtracted from the modeled outside noise level to determine inside noise levels. The resultant inside noise level must be DNL 45dB or above.

KWIA Ad-Hoc Committee on Noise October 2, 2012 Meeting Minutes

Danny Kolhage asked how long the whole Part 150 Update process is expected to take. Deborah Lagos explained anywhere from 24 to 36 months. Dan Botto explained that the process is presented as a timeline, but in reality many different parts are being developed at the same time.

Deborah Lagos told the committee that they should have the existing and future contours at the February 2013 meeting.

Other

Marlene Durazo asked if we would be submitting the different sections as we complete them. Deborah Lagos mentioned that yes the sections go to the FAA prior to the committee. Marlene Durazo said she would like to review the mitigation recommendations prior to sending them to the FAA. Deborah explained that the recommendations will be those of the committee. The recommendations will be discussed and approved by the committee prior to official documentation is provided to the FAA. Marlene mentioned the previous update did not have recommendations. Deborah explained that the annual contour update does not contain any recommendations; it merely presents updated contours that may or may not trigger an update to the NEM and NCP.

Peter Horton suggested that if this committee wants to continue with the NIP, this committee has the ability to recommend any reasonable measures, including all of KWBTS, and let the FAA accept or reject this. Peter continued that one of the reasons for this Part 150 is to try and include KWBTS due to its proximity to the airport.

Commissioner Wigington asked if there was any other discussion, and there was none.

Meeting adjourned at 3:20 PM.

KWIA Ad-Hoc Committee on Noise December 4, 2012 Meeting Minutes

Meeting called to order by Commissioner Kolhage at 2:00 PM.

ROLL CALL:

Committee Members in Attendance:

Commissioner Danny Kolhage
Sonny Knowles
Dr. Julie Ann Floyd
Marvin Hunt

Staff and Guests in Attendance:

Peter Horton, KWIA.
Deborah Lagos, URS Corp.
Dan Botto, URS Corp.
R. L. Blazevic, Resident
Ashley Monnier, NASKW
AL Sullivan, Last Stand
Tina Mazzorana, Resident

A quorum was not present.

Review and Approval of Meeting Minutes for the October 2nd, 2012 Ad Hoc Committee Meeting

Commissioner Kolhage indicated that with no quorum present, the minutes for the previous meeting could not be approved. Before Commissioner Kolhage could move to the next item in the agenda, Peter Horton mentioned that Nikali Pontecorvo will be nominated for the open position on the committee at the January BOCC meeting. Sonny Knowles asked if we were missing one for a quorum, and Peter responded that we are missing one for a quorum, and the committee is short one member.

Discussion of Part 150 Study Update

Commissioner Kolhage began the discussion of the Part 150 Study Update.

KWIA Ad-Hoc Committee on Noise December 4, 2012 Meeting Minutes

Part 150 has been completed twice before at KWIA, in 1990 and 1999. The only way the FAA will allow noise mitigation practices to be put into effect, or at least the ones the FAA will fund, is through the Part 150 process. The Part 150 project is 95 percent funded by the FAA. The team has gone through all the historical data regarding the operational characteristics of the airport, including flight tracks, aircraft types. The next step is to put this information into the Noise Exposure Maps (NEMs) or contours. Contours were produced on a yearly basis; the last contours were produced in 2010. The NEMs show where the contours are and what the impacts are, by decibel. Once that is finished, and then we go to the most difficult work, producing the Noise Compatibility Program (NCP), where we come up with ideas to mitigate noise, including a Noise Insulation Program (NIP), and flight track adjustments, amongst other things. There are certain items we cannot look at, such as limiting the number of flights or implementing a noise curfew. These can be done voluntarily and be included in the NCP. Many times these voluntary programs are implemented by the pilots whenever possible. This is the stage that input from this committee and the public is needed.

Role of the FAA

Dan Botto discussed the role of the FAA in the Part 150 Study and process. A handout describing this role and the process was provided to the Committee at the behest of the FAA, and will be provided at each meeting. The Committee was reminded that the FAA does not automatically approve all recommended measures of the Part 150 Study.

Dan explained that the FAA also does not approve the NEMs, they strictly determine if the NEMs are in compliance with the Part 150 requirements, and will issue a Notice of Compliance in the Federal Register. They will make sure that URS and the Airport are following the rules and regulations that govern the Part 150 Process and that the public was included; additionally, they will provide guidance and instruction as to items that were not covered or covered improperly.

Dan further mentioned that the approval role of the FAA occurs during the Noise Compatibility Program [NCP] where recommendations are made for operational

KWIA Ad-Hoc Committee on Noise December 4, 2012 Meeting Minutes

and/or land use mitigation measures, like the NIP. That is where the FAA will approve or disprove each recommendation based on the Part 150 requirements.

Section 1, 2, and the Forecast of the NEM Documentation

Dan Botto asked if everyone had a chance to review the Sections 1, 2, and the forecast that were provided at the previous meetings, and if there were any comments. Peter Horton mentioned that after we go through all of these sections, they will be compiled in a single document, the NEM documentation, and will be provided again for all to review.

Dan Botto provided a pre-draft version of Section 3, explaining that it is basically an inventory of the characteristics of KWIA, weather, arrival and departure procedures, other area airports, for review, with the understanding that it is currently under FAA review.

Dan asked that comments on all sections be received by January 4th, 2013.

Operations Data and Flight Tracks

Dan Botto provided the existing flight tracks obtained from the analysis of radar data, to be used in the noise modeling, including a comparison to the previous Part 150 Study. Dan explained that there are more tracks this time, as this is representative of the radar data. Dan also explained that the noise modeling uses representative tracks instead of using all of the radar tracks, as it would be impossible to make flight track adjustments for mitigation purposes if the radar tracks were used.

Peter Horton asked what the percentage of each track and runway is used. Dan asked everyone to look at their arrival and departure flight track utilization page that was provided at the start of the meeting. Dan said he did not provide the committee with a general utilization percentages, as the percentages provided are the numbers to be used in the modeling. There was some additional discussion on what tracks were used to the greater percentages.

KWIA Ad-Hoc Committee on Noise December 4, 2012 Meeting Minutes

Peter mentioned that most of the night operations come in over Fleming Key, and Dr. Floyd agreed, stating this is due to the location of the VOR. Dr. Floyd suggested we move the VOR. Peter responded that they are looking at moving the NDB, so moving the VOR, while a longshot, is not out of the question. Sonny Knowles indicated the VOR approach has been decommissioned. Dr. Floyd mentioned that flying the VOR approach, in its current location, is the safest at night.

Sonny and Dr. Floyd mentioned that some pilots, especially in conditions where there is low light, approached to the center of the pattern. Dr. Floyd also mentioned that the pattern tracks appear to be too wide.

Peter Horton mentioned that this is one of the few airports that still have a right hand pattern. Sonny Knowles said that the right hand pattern is used unless the Navy is recovering aircraft.

Dr. Floyd asked Dan Botto how the touch and go patterns influence the noise contours. Dan explained that these are low altitude flights that fly near areas of concern and may affect the contours. Dan asked Dr. Floyd and Sonny Knowles to mark up their exhibits to show the correct position of the pattern tracks. These changes would be input into INM for the modeling.

Dan Botto then discussed the INM substitution lists, as there are only 150 + aircraft in the model, the list provides the INM aircraft that are used in place of specific aircraft. Deborah Lagos explained that there are so many aircraft types, particularly GA aircraft that we have to develop a list of representative aircraft. Dan gave the ATR 72 as an example of aircraft that is not in INM, and the official substitution is the SF 340.

Dan explained that in the future, based on currently-available information, the number of certain aircraft types will increase and other aircraft types will decrease or be removed entirely. Deborah mentioned that the Stage 1 and 2 business jets will be eliminated due to the mandated phase out of these aircraft. Deborah continued that this will be difficult to model as we are unsure how the re-

KWIA Ad-Hoc Committee on Noise December 4, 2012 Meeting Minutes

engineered or hush-kitted business jets will be modeled as there is no substitution information at this time.

Dan Botto also provided the existing condition fleet mix percentage based on the INM substitution list and the radar data. Peter Horton mentioned that the 737-500 and -800 do not fly into KWIA. Dan said the 500 is a substitution for the EMB170, and he will check on the accuracy of the -800 in the data, as it is from the landing fee reports.

R.L. Blazevic asked if the helicopters that fly into KWIA for the boat races are included in the modeling. Dan Botto explained that there are helicopters in the modeling, based on the available data.

Commissioner Kolhage asked if the mosquito control aircraft are included in the modeling. Dan Botto responded that the aircraft may be in the fleet mix but their specific flight tracks after departure are probably not included.

Deborah Lagos asked that everyone review the material provided and provide comments.

Other Reports

Hotline & Contact Log

Deborah Lagos reported that the hotline had one call over the last two months; and that there was one email complaint that was not included in the hotline log. Deborah also mentioned that apparently the number is not well advertised or easily identifiable on the website. Peter Horton provided the number to those in attendance, 305-294-9595.

Airport Noise Report

Deborah Lagos mentioned that there were a number of articles in the ANR concerning the FAA's update to their recent Program Guidance Letter on how Noise Insulation Programs will be implemented. The articles mentioned that multiple aviation groups were questioning the FAA's guidance and believed that the

KWIA Ad-Hoc Committee on Noise December 4, 2012 Meeting Minutes

answers provided did not provide enough clarification, especially concerning how the testing for eligibility would be implemented. The programs that are currently active will be the ones that have to work through these issues. One of the most difficult issues will dealing with homeowners that were previously notified that they are in a NIP, that are determined to be ineligible after they have been tested.

Other Discussion

Peter mentioned that the schedule for the 2013 meetings has been provided and the room has been reserved.

Commissioner Kolhage asked if there was any other discussion, and there was none.

The meeting adjourned at 2:47 PM.

**Key West International Airport
Noise Hotline Log**

Date of call	Time of call	Caller	Contact information	Date rec'd	Message	Response	Date
1/10/2013	3:16 PM	Agnus Monpoint	Flagler & 7th, 305-731-9249	1/24/2013	Almost every night in the morning, afternoon and nighttime we do have a big noise right now from the aircrafts to the point when the window shakes and I never have that before. I'm just wondering what we can do about it and who I can talk to? Please call me back.		
1/17/2013	3:23 PM	Carol Lorick	KWBTS, 305-949-9693	1/24/2013	All day long today its been like the attack of Pearl Harbor. The planes are taking off in the opposite direction towards us and we don't have any impact windows or anything. Have them take off the other way where you spent lots of money on those people that have insulation because it is killing us.		
1/21/2013	1:46 PM	Frank Duluna	1916 Patterson	1/24/2013	It seems like all the jets are flying over the house today. I don't know if they changed the flight paths but I don't know what's going on its just a lot of jet noise.		

**Key West International Airport
Contact Log**

Date of call	Caller	Contact information	Subject	Response	Date
1/8/2013	Helen Heitzman	610-565-6672	Called to see how the noise monitoring study, which used her yard as a monitor location, is coming along.	DTB - Spoke with Ms Heitzman and explained that the modeling data had been provided to the subcontractor for completion of the Monitoring study and will provide it when the draft is released.	
1/10/2013	Kevin Talbort	305-296-0831	Called to see if his home at 1701/1703 Johnson St was/is included in the NIP program.	DTB- Explained that the updating the Part 150 is underway, so current NIP is on hold. Also explained that Mr. Talbort's property is outside of the NIP areas. Informed Mr. Talbort that he will be added to the Ad-Hoc committee email list for further information.	
1/10/2013	Joyce Baker	Email	I heard one from one of our neighbors that the airport window people were going to be doing soemthing in our neighborhood this week. Is this true and what will they be doing?	DML- Informed her that they were re-inspecting some of the homes fron Phase 6, but no new homes were being worked on.	
1/22/2013	Tom Finney		Asked about the status of the Part 150 Update as it relates to the NIP.		

Airport Noise Report



A weekly update on litigation, regulations, and technological developments

Volume 24, Number 40

November 21, 2012

Ft. Lauderdale-Hollywood Int'l

FAA REVIEWING AMENDED NOISE MITIGATION PLAN THAT INCLUDES CONVEYANCE/RELEASE

The Federal Aviation Administration is in the process of reviewing an amended noise mitigation plan for a controversial \$790 million extension of the south runway at Ft. Lauderdale-Hollywood International Airport.

On Oct. 23, the Broward County Commissioners unanimously agreed to a revised noise mitigation plan that includes a Conveyance and Release Agreement, a legal instrument that was included in a 2011 Settlement Agreement with the City of Dania Beach, FL, that ended years of litigation over the runway extension.

However, Dania Beach formally voided the Settlement Agreement in May after learning that neither FAA nor Broward County would fund a key provision of the agreement called the Early Benefit Component of the Sales Assistance Program.

This was a novel idea, never tried at any other airport, that would have paid property owners who did not want to wait years to participate in the Sales Assistance Program "an early benefit payment" equal to 20 percent of their property's fair market value. In return, property owners had to enter into a recordable Conveyance and Release Agreement with the County.

(Continued on p. 169)

Legislation

NY SENATE BILL WOULD REQUIRE PANYNJ TO CONDUCT PART 150 STUDY, HOLD HEARINGS

New York State Sen. Senator Tony Avella (D) introduced legislation in the State Senate on Oct. 26 that would require the Port Authority of New York and New Jersey (PANYNJ) to conduct a Part 150 Airport Noise Compatibility Study and hold biennial public hearings to address noise issues arising from the introduction of NextGen advanced navigational procedures at Port Authority airports.

The three airports operated by the PANYNJ collectively represent the busiest airport system in the United States, Avella said in announcing his legislation (S7864). At this point, the bill has no co-sponsors because the state Senate is out of session and does not reconvene until January, his press secretary told ANR.

"Over time there has been a dramatic increase in the number of commercial and cargo flights coming into and out of John F. Kennedy International, Newark Liberty International, and LaGuardia Airports. Over the past several years the Federal Aviation Administration has begun implementing new approach and departure paths for the major metropolitan airports under the New York/New Jersey/Philadelphia Airspace Redesign and next technological advancements under the NextGen

(Continued on p. 170)

In This Issue...

Ft. Lauderdale-Hollywood Int'l ... County Commissioners approve amended noise mitigation plan for runway extension - p. 168

Legislation ... NY State senator introduces bill that would require PANYNJ to conduct Part 150 study, hold hearings on noise - p. 168

LAX ... LAWA Board approves additional sound insulation funding - p. 169

NASA ... Open rotor engines are louder than geared turbofans but comfortably below Stage 4 noise standards, study shows - p. 169

Fly Like an Owl? ... University of Cambridge researchers are studying the structure of owl wings to better understand how to mitigate aircraft noise - p. 170

Tugs ... KLM signs letter of intent with WheelTug plc to explore possible installation of electric wheel tugs on its fleet in the future - p. 171

Ft. Lauderdale, from p. 168

FAA said the Early Benefit Component was outside the scope of the 2008 Record of Decision for the runway project and, therefore, was not eligible for funding under the Airport Improvement Program as an Environmental Impact Statement noise mitigation measure.

The amended noise mitigation plan just approved by the County Commissioners retains the Conveyance and Release Agreement of the original mitigation plan, which would:

- Give the County a continuing and perpetual public right of free, unrestricted, and unobstructed flight over the property now and in the future;
- Waive all rights of property owners to receive any damages from the County on account of noise, vibrations, aircraft lights, fumes, dust or other particulate matter, fuel particles, fear, interference with sleep, enjoyment and communication, and any and all other effects;
- Give the County the right to prevent the property owner from obstructing the airspace beginning 60 feet above their property with structures or vegetation and allows the County to remove anything that obstructs that airspace; and
- Require that the Conveyance and Release to run with the land in the deed.

Property owners would be compensated for signed the Conveyance and Release Agreement but the amount they would be paid has not yet been determined.

The County also is funding a residential sound insulation program for property owners in Dania in high noise zones.

The amended noise mitigation plan approved by Broward County Commissioners was done independently and not pursuant to any kind of settlement with Dania Beach.

Meanwhile, litigation filed by Dania Beach challenging the Army Corps of Engineers' permit for filling wetlands where the extended runway will be located moves forward.

LAX**BOARD APPROVES FUNDING FOR RESIDENTIAL INSULATION**

The Los Angeles Board of Airport Commissioners Nov. 13 awarded a contract to Karabuild Development Inc. of Inglewood, CA, for a portion of the work being undertaken as part of the Los Angeles International Airport Residential Soundproofing Program.

The contract, for \$2,378,803, covers sound-insulation modifications on 112 dwellings consisting of 43 single-family dwellings, three duplexes, five triplexes and three apartment buildings containing a total of 48 units, all located within Los Angeles City Council Districts 8 and 11.

The overall LAX Residential Soundproofing Program includes approximately 9,400 residences in the City of Los Angeles communities of South Los Angeles, Westchester and Playa del Rey that have been recorded with a Community

Noise Equivalent Level of 65 decibels or higher. Contractors typically installed double-paned windows, solid-core doors, fireplace doors and dampers, attic baffles, insulation and heating-ventilation-air conditioning to achieve a noise-level reduction of approximately one-half in a home's interior.

The 112 dwellings units in this project will bring the total units completed, under construction or approved by the Board to date to 7,334. Owners of the remaining 2,066 units were all notified of their eligibility for this program and did not respond by the June 1, 2010 deadline, or declined to participate.

In related news, the Board authorized the release of \$9,225,000 in matching funds to implement a noise mitigation project in the Lennox, Athens and Del Aire areas of Los Angeles County adjacent to LAX. These funds, along with an additional \$8 million from the FAA will enable Los Angeles County to sound insulate 391 more dwelling units.

In February 2006, Los Angeles World Airports entered into a settlement agreement with the County of Los Angeles and several other parties on the LAX Master Plan. In that settlement, LAWA agreed to forego requirements for aviation easements in exchange for soundproofing funds, and to only require noise easements under very limited circumstances.

The initial allocation of funds in 2006-07 was \$60 million. In addition, the settlement agreement provided an annual funding capacity on noise mitigation grants to the County of Los Angeles and the cities of Inglewood and El Segundo of \$22.5 million annually between 2008 and 2012.

The last grant awarded to the County of Los Angeles was in November 2011 in the amount of \$7.5 million to soundproof 159 dwelling units.

NASA**OPEN ROTORS LOUDER THAN TURBOFANS BUT BELOW STAGE 4**

Open rotor (OR) aircraft engines are about 11-12 dB louder than geared turboprops for a rear-mounted configuration but are predicted to be about a cumulative 12.5 dB below Stage 4 aircraft noise certification levels, which is a marked improvement over earlier open rotor technology, National Aeronautics and Space Administration researchers concluded from recent studies.

NASA is studying open rotor engine technology because it is significantly more fuel-efficient than conventional jet engines.

"Application of high speed, advanced turboprops, or 'propfans', to transonic transport aircraft received significant attention during the 1970s and 1980s when fuel efficiency was the driving focus of aeronautical research," NASA researchers explained in a new report issued in October.

The report, Performance and Environmental Assessment of an Advanced Aircraft with Open Rotor Propulsion, (NASA-2012-217772), was prepared by researchers at NASA Langley Research Center in Hampton, VA, and Glenn

Research Center in Cleveland, OH.

“Unfortunately, after fuel prices declined sharply there was no longer sufficient motivation to continue maturing this technology. Recent volatility in fuel prices and increasing concern for aviation’s environmental impact, however, have renewed interest in unducted, open rotor propulsion and revived research by NASA and a number of engine manufacturers,” the report notes.

It continues: “Because of the renewed interest in open rotor propulsion, the lack of publicly available up-to-date studies assessing its benefits, and NASA’s focus on reducing fuel consumption, a preliminary aircraft system level study on open rotor propulsion was initiated to inform decisions concerning research in this area.

“New analysis processes were established to assess the characteristics of open rotor aircraft. These processes were then used to assess the performance, noise, and emissions characteristics of an advanced, single-aisle aircraft using open rotor propulsion.

“The results of this initial study indicate open rotor engines have the potential to provide significant reductions in fuel consumption and landing-takeoff cycle NOX emissions compared to aircraft utilizing turbofan engines with equivalent core technology. In addition, noise analysis of the study configuration indicates that an open rotor aircraft in the single-aisle class would be able to meet current noise regulations with margin.”

“NASA’s system analysis group is planning two studies over the next 9-12 months. We will be updating the turbofan analysis to review/revise things in an effort to ensure a better ‘apples-to-apples’ comparison with the OR results,” William Haller of the NASA Glenn Research Center told ANR.

“Secondly, we are planning to redo the OR analysis utilizing more advanced rotor geometries that were recently tested under the FAA’s CLEEN program. It is our expectation that these geometries may reduce the acoustic levels below what was possible with the earlier generation of blades used in our first assessment, and hopefully will not significantly deteriorate the fuel efficiency benefits of the OR.”

Research

STUDY OF OWL WINGS MAY LEAD TO QUIETER AIRCRAFT WINGS

Owls have the uncanny ability to fly silently, relying on specialized plumage to reduce noise so they can hunt in acoustic stealth.

Researchers from the University of Cambridge, England, are studying the owl’s wing structure to better understand how it mitigates noise so they can apply that information to the design of conventional aircraft.

They presented their findings at the American Physical Society’s (APS) Division of Fluid Dynamics meeting, held

Nov. 18-20 in San Diego.

“Many owl species have developed specialized plumage to effectively eliminate the aerodynamic noise from their wings, which allows them to hunt and capture their prey using their ears alone,” said Justin Jaworski with the department of applied mathematics and theoretical physics at the University of Cambridge.

“No one knows exactly how owls achieve this acoustic stealth, and the reasons for this feat are largely speculative based on comparisons of owl feathers and physiology to other not-so-quiet birds such as pigeons.”

All wings, either natural or engineered, create turbulent eddies as they cut through the air. When these eddies hit the trailing edge of the wing, they are amplified and scattered as sound. Conventional aircraft, which have hard trailing edges, are particularly noisy in this regard.

Owls, however, possess no fewer than three distinct physical attributes that are thought to contribute to their silent flight capability: a comb of stiff feathers along the leading edge of the wing; a soft downy material on top of the wing; and a flexible fringe at the trailing edge of the wing. At present it is not known whether it is a single attribute or the combination of attributes that are the root cause of the noise reduction.

The researchers attempted to unravel this mystery by developing a theoretical basis for the owl’s ability to mitigate sound from the trailing edge of its wing, which is typically an airfoil’s dominant noise source. Earlier owl noise experiments suggest that their wing noise is much less dependent on air speed and that there is a large reduction of high frequency noise across a range where human ears are most sensitive.

Using mathematical models, the researchers demonstrated that elastic and porous properties of a trailing edge could be tuned so that aerodynamic noise would depend on the flight speed as if there were no edge at all. “This implied that the dominant noise source for conventional wings could be eliminated,” said Nigel Peake also of the University of Cambridge. “The noise signature from the wing could then be dictated by otherwise minor noise mechanisms such as the roughness of the wing surface.”

The paper is “Poroelastic Trailing Edge Noise and the Silent Flight of the Owl.”

Legislation, from p. 168

Program. While the increase in flights, improvements in flight plans and navigational technology has provided additional flight offerings to New York and New Jersey consumers, they have also resulted in an increase in aircraft noise around communities in proximity to these facilities.”

“Part 150 of the federal aviation regulations provides a mechanism for considering the issue of aircraft noise and developing a plan to address noise issues that gives due consideration to residents effected by aircraft noise issues. Part 150 studies have been conducted by many airports around the

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United States including major Northeast and Atlantic region airports such as Boston Logan, Philadelphia International and Baltimore/Washington International Airports. However, no such studies have been conducted by the PANYNJ," Avella noted in his statement.

He said that earlier this summer, he "began receiving complaints from residents that the deafening sound caused by constant plane traffic was creating significant quality of life issues for their residential neighborhoods." In response, Avella held a large rally with Assemblyman Edward Braunstein, Community Board 11, civic leaders, "and dozens of fed up homeowners protesting the sudden increase in air traffic from LaGuardia Airport that was causing the unbearable noise and air pollution for residents in Northeast Queens, including the neighborhoods of Bayside, Bay Terrace, North Flushing, and most recently Whitestone." Avella said he is currently working with the FAA to address these concerns.

"My office continues to hear from homeowners who are irate at this abrupt increase in air traffic over their homes, which is causing an intolerable amount of noise pollution," Avella said, adding, "Frankly, it is unfathomable that the PANYNJ, which controls three of the busiest airports in the world in one of the largest metropolitan areas in the world, has not conducted a study assessing the impact of aircraft noise in residential areas. While I understand new flight patterns may need to be instituted, they need to be properly evaluated to determine the impact on the quality of life for residents. I introduced this legislation to give these residents a voice in a decision making process that will have such a profound effect on their daily lives."

Tugs

KLM IS EXPLORING INSTALLATION OF ELECTRIC WHEEL TUGS ON ITS FLEET

On Nov. 15, KLM Royal Dutch Airlines executed a letter of intent with Gibraltar-based WheelTug plc to explore the possibilities of installing the firm's electric drive system on its aircraft fleet in the future.

WheelTug plc is developing the new technology, which results in lower aircraft noise and emissions levels. The company said it now has 258 aircraft delivery slots allocated for its electric drive system, with high-performance electric motors, installed in the nose gear wheels of an aircraft, to provide full mobility while on the ground without the use of the aircraft's jet engines or tugs for both pushback and taxi operations.

WheelTug enables aircraft to be electrically driven from the terminal gate to the takeoff runway and, upon landing, from runway exit to the gate. The WheelTug system is being developed initially for the Boeing 737NG and Airbus A320, the world's most widely flown aircraft.

AIRPORT NOISE REPORT

Anne H. Kohut, Publisher

Published 44 times a year at 43978 Urbancrest Ct., Ashburn, Va. 20147; Phone: (703) 729-4867; FAX: (703) 729-4528.
e-mail: editor@airportnoisereport.com; Price \$850.

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Airport Noise Report



A weekly update on litigation, regulations, and technological developments

Volume 24, Number 41

November 30, 2012

Denver Int'l

NEXTGEN RNAV/RNP PROCEDURES BEING IMPLEMENTED IN COMPLEX DEN AIRSPACE

NextGen advanced aircraft navigation procedures, including continuous descent approaches, are being implemented at Denver International Airport (DEN) and nearby Centennial Airport and Rocky Mountain Metro Airport in order to improve the safety and efficiency of the complex Denver airspace.

The Federal Aviation Administration in collaboration with Jeppesen, airport officials, airlines, and other stakeholders, have designed area navigation with required navigation performance (RNAV/RNP) procedures for all three airports that will expedite the flow of air traffic arriving at Denver International.

The NextGen procedures will reduce pilot and controller workload and increase aircraft efficiency, while at the same time making Denver International more neighbor-friendly, Jeppesen, a subsidiary of Boeing, said Nov. 27.

It noted that the new RNAV/RNP arrival procedures will be fully implemented on Dec. 3. "From initiation to completion, the project was completed in less than 24 months," Jeppesen said.

"Denver International Airport is one of the least delayed, most efficient airports
(Continued on p. 173)

Sonic Boom

NASA INVESTIGATES THE 'FaINT' SIDE OF SONIC BOOMS

[Following is a NASA feature news story prepared by Gray Creech of NASA's Dryden Flight Research Center in Palmdale, CA.]

Sonic booms created by aircraft flying faster than the speed of sound certainly aren't known for being faint, but rather for their loud, make-you-jump startle effect for those who experience them. However, sonic booms have a quieter, fainter side, too.

NASA's Supersonics Project is embarking on its latest effort to characterize or define that fainter side of sonic booms as a NASA F/A-18 aircraft takes to the air in a project called Farfield Investigation of No Boom Threshold, or FaINT.

As the latest in a continuing progression of NASA supersonics research projects aimed at reducing sonic boom levels, FaINT is designed to enable engineers to better understand evanescent waves, an acoustic phenomenon that occurs at the very edges or just outside of the normal sonic boom envelope.

For an aircraft flying at a supersonic speed of about Mach 1.2 or less at an alti-

(Continued on p. 174)

In This Issue...

Denver Int'l ... A total of 43 NextGen RNAV/RNP approach and departure procedures, including continuous descent approaches, are being implemented at Denver International, Centennial, and Rocky Mountain Metropolitan airports to improve the safety and efficiency of the complex Denver airspace. Most of the procedures are going in at DEN. An Environmental Assessment done by FAA on the procedures concluded they would not result in a significant noise impact - p. 172

Sonic Boom ... NASA is investigating the "FaINT" side of sonic booms - p. 172

Taxiing ... The airlines are given a live demonstration of the Taxibot aircraft tug, which is in the final stages of development and will reduce ground noise - p. 173

Noise Monitoring ... ITT Exelis is upgrading its noise and flight tracking system at Sarasota-Bradenton International Airport - p. 174

Denver, from p. 172

in the National Airspace System, and these evolutionary flight procedures enable us to meet increased demand in the future while minimizing aviation's environmental impacts," said DIA Aviation Manager Kim Day. "Through collaboration with Jeppesen, the FAA, airports, industry leaders, and the public, Denver's skies are opened to continued growth and increased performance."

Added Jeppesen President and CEO Mark Van Tine, "Performance Based Navigation is one of the pillars upon which NextGen and SESAR will be built, but these future air traffic management systems cannot be implemented by government alone. Successful implementation requires cooperation and collaboration by numerous stakeholders, as was the case with this project. I am proud that Jeppesen played a lead role in helping DEN continue to improve operational efficiency."

Each of the participants, Jeppesen said, came to the project with specific objectives: DEN's primary desire was to increase its ability to efficiently handle arriving traffic, while at the same time minimizing environmental impacts of traffic growth. The FAA's goal was to improve safety and efficiency and lessen controller/pilot workload, and airlines wanted to reduce the number of miles flown while operating in the Denver terminal area.

Jeppesen said it helped bring all the parties together "to ensure that the project accounted for all airspace users, RNP and non-RNP capable alike, and delivered procedures controllers would willingly issue and pilots would willingly accept and fly. Draft procedures, created by Jeppesen's staff, which includes both experienced procedure designers as well as veteran air traffic controllers, were then charted and coded for stakeholder evaluation, iteration and further refinement."

EA Conducted

The FAA prepared an Environmental Assessment on the NextGen procedures and on Aug. 12 issued a Finding of No Significant Impact (FONSI).

The Preferred Alternative in the EA consisted of 17 RNAV STARs (Standard Terminal Arrival Routes), including RNP approaches, and 16 RNAV SIDs (Standard Instrument Departure) procedures at DEN; four RNAV STARs for aircraft arriving at Centennial and Rocky Mountain each, and one RNAV SID for Centennial and Rocky Mountain each.

The Study Area for the EA encompasses a roughly 30 nautical mile radius around the three airports (over 6,900 square miles) and extended up to 18,000 feet above ground level because the study area included Rocky Mountain National Park, wilderness areas, and a national wildlife refuge.

The EA concluded that there would be no significant noise impact in the study area because the RNAV/RNP procedures would not result in a 1.5 dB increase in noise levels within the 65 dB DNL contour area. Under FAA's environmental order, an increase of 1.5 dB DNL in the 65 DNL contour is the threshold of significant noise impact. An increase from DNL 63.5 dB to DNL 65 dB over a noise sensitive area

is also a significant impact.

"The concentration of noise exposure over areas directly underneath the proposed RNAV procedures would result in increases to some population centroids and decreases to others, and as such, implementation of the Preferred Alternative would result in reportable change in some DNL ranges, namely areas that would experience increases or decreases of 5 dB above 45 DNL," the EA concluded.

It estimated that 81,113 fewer people will experience noise levels of 45 DNL or higher, while 87,304 additional people will experience noise levels above 45 DNL.

The NextGen procedures will result in 5,964 fewer people exposed to noise levels between 50 and 55 DNL and 65 fewer people exposed to noise levels above 60 DNL, although none of them would experience an increase of 3 DNL.

Thus far, there are no reports of residents complaining about the NextGen flight path changes.

Taxiing**AIRLINES GIVEN LIVE DEMO OF IAI TAXIBOT AIRCRAFT TUG**

The TaxiBot aircraft tug, under development since 2008 by Israel Aerospace Industries (IAI) in close cooperation with Airbus, was demonstrated live for the first time to leading airlines at Chateauroux Airport in France the week of Nov. 19.

TaxiBot is a semi-robotic, pilot-controlled vehicle designed to transport airplanes from the airport gate to the runway. It features a cockpit-operated driving system controlled by the pilot, which would be operated after the aircraft has completed its typical "push-back" from an airport's gate with a driver.

The TaxiBot uses hybrid diesel electric power to transport the airplane on the ground, instead of running the airplane engines, which will reduce airport noise.

Use of the TaxiBot, and other aircraft tugs under development, opens the way for more efficient taxiing with benefits that include reductions in fuel consumption and CO2 emissions, lower air and noise pollution, and increased ground traffic safety.

Intended to be compatible with Airbus and other aircraft, there will be two TaxiBot vehicles: one capable of handling single-aisle airplanes sized at 100 seats and above, and the second for larger wide-body jetliners.

Senior representatives and test pilots of various leading airlines and ground handling companies including Lufthansa, KLM, British Airways, CEA (China Eastern Airlines), CSA (China South Airlines), Federal Express, Air France, United Airways, WestJet, Aéroport de Paris, and Swissport traveled to Chateauroux to evaluate the TaxiBot towing system.

The test pilots conducted, from the cockpit of an Airbus A320, a series of driving and control tests of the vehicle as part of the advanced evaluation process, which various airlines are conducting on the new technology.

“The TaxiBot program is built on the joint effort, collaboration, and commitments of companies around the world, including IAI, Airbus, TLD, Siemens, Lufthansa, Ricardo and many others,” said Yehoshua (Shuki) Eldar, IAI’s Corporate VP, Business Development and Subsidiaries.

“This fruitful cooperation has succeeded in transforming a great idea into a major breakthrough, which will change the transportation of airplanes to the runway in airports, save vast amounts of money and meet the new environmental goals.”

Frederic Pochet, Airbus’ VP for Business Development and International Cooperation, added, “Airbus is proud to be part of an initiative which will result in substantial savings for airlines and in a significant reduction of the noise and emissions resulting from conventional aircraft taxiing in airports.”

Since 2008, Airbus, Lufthansa LEOS and TLD Group have been cooperating with IAI in the development of the TaxiBot. Airbus and IAI have a cooperation agreement and are in the final process of approving the establishment of a joint venture in order to support the TaxiBot program.

Significantly Reduces Taxiing Costs

The overall worldwide taxiing cost in 2020 is estimated to exceed \$8.5 billion per year. Airbus said the TaxiBot has the potential to reduce it to less than \$3 billion per year. The TaxiBot system entered the advanced testing phase in July. During tests performed at Chateauroux Airport, France, results exceeded the system’s predicted performance, Airbus said.

Tests of a Narrow Body TaxiBot on a Lufthansa Boeing 737 for certification and the operation of three new NB TaxiBot systems under actual day-to-day operations of Lufthansa’s Boeing 737 fleet in Frankfurt are planned to start in mid 2013 by Lufthansa LEOS, Lufthansa’s Ground Handling Company.

According to IAI, a typical Boeing 747 fuel consumption for a 17 minute taxi before takeoff is 1 ton of fuel (1,250 liters). In comparison for the same taxi the TaxiBot consumes only 25-30 liters of fuel. An airplane’s engines emit 3.2 tons of CO₂, while the TaxiBot emits less than 60 kgs.

The TaxiBot’s benefits include massive saving in fuel consumption, CO₂ pollution and taxes, which will result in savings of millions of dollars a years for airline operators and billions of dollars a year for the commercial airline industry, IAI said.

Sarasota Bradenton Int’l

ITT EXELIS PROVIDING UPGRADED NOISE, FLIGHT TRACKING SYSTEM

Sarasota Manatee Airport Authority recently entered into an agreement with ITT Exelis to upgrade its noise and flight tracking systems at Sarasota Bradenton International Airport.

The upgrade includes replacement of the existing terminal radar data feed with NextGen data, which will allow for

higher accuracy flight tracking, more frequent updates, and greater reliability.

Sarasota Bradenton International uses the Exelis noise and operations monitoring system to validate, monitor, and enhance aircraft departure and arrival procedures.

“The Exelis solution with the NextGen surveillance feed produces more accurate geo-referenced flight tracks with higher update rates than any single terminal radar,” the firm said. “This solution allows the airport and the surrounding community to corroborate aircraft operations and flight tracks over the community, thereby simultaneously addressing community concerns about aircraft noise and fostering air commerce.”

“We are pleased that the airport will continue its partnership with Exelis. The enhancements to our noise monitoring system provides the airport with the latest technology available and demonstrates SRQ’s strong commitment to being a good neighbor,” said Fredrick (Rick) J. Piccolo, president and CEO of Sarasota Bradenton International Airport.

ITT Exelis is a global aerospace, defense, and information solutions company headquartered in McLean, VA. It employs about 20,500 people and generated 2011 sales of \$5.8 billion.

NASA, from p. 172

tude above 35,000 feet, the shockwaves being produced typically do not reach the ground, so no sonic boom is heard. This is because shockwaves from an aircraft flying supersonically at higher altitudes are refracted, or bent upwards, as they enter warmer air closer to the ground, due to the fact that the speed of sound increases with air temperature.

But when sonic booms curve upward they create a series of sonic boom waves that are focused along a line. This line is called a caustic line. The side of the caustic line opposite of the sonic boom waves is called the “shadow side,” where the evanescent waves are generated. This is the area that NASA researchers are studying during the FaINT project to learn more about how to reduce the level of sonic booms.

New Area of Research

“It’s exciting to help lead a new area in sonic boom flight research,” said Larry Cliatt, principal investigator for the FaINT flight project at NASA’s Dryden Flight Research Center. “We are investigating supersonic technology and research that is relatively raw in the modern sense. When overland supersonic commercial travel is commonplace, it will be efforts like this that helped get us there.”

The planned evanescent wave flights will occur over Edwards Air Force Base, Calif., where special microphone arrays placed on the southern portion of Rogers Dry Lake will again be the NASA Dryden researcher’s sensor of choice.

For the upcoming FaINT flight project, capturing the fleeting sounds of evanescent waves coming off sonic boom shockwaves will be a challenge. Similar to the shadow the sun creates behind a building, if some light were to still leak

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around the edges it would not get completely dark, but it would get darker the further you move away from the edge. Certain conditions and refractions create a similar “shadow side” of a sonic boom where evanescent waves are generated, sounding similar to distant thunder. These waves quickly fade and disappear, as supersonic shockwaves act similar to boat wakes on water, decreasing with distance.

Characterizing the effects of both normal and loud sonic booms in order to provide the data necessary for engineers to design future low-boom supersonic aircraft has required an amazing amount of work and tenacity by NASA engineers from the agency’s Dryden and Langley research centers, and industry partners as well.

“The FaINT team has been working hard on the development and design of the FaINT project for the last six months,” said Brett Pauer, FaINT deputy project manager at NASA Dryden. “NASA, along with our seven industry and university partners, are ready to collect data and expand our collective knowledge of sonic boom propagation effects near the shadow side of them,” Pauer said.

Related sonic boom research projects preceding FaINT date back several years. Recent efforts include the Superboom Caustic Analysis and Measurement Program (SCAMP), which produced and measured amped-up, super-loud sonic booms, and the Waveforms and Sonic boom Perception and Response (WSPR) project, which gathered data from a select group of volunteer Edwards Air Force Base residents on their individual perceptions of sonic booms produced by aircraft in supersonic flight over Edwards.

The overarching goal of NASA’s sonic boom reduction research is to shrink the sonic boom “footprint” in order to make commercial supersonic flight over land practical.

This research is funded by NASA’s Aeronautics Research Mission Directorate at NASA Headquarters in Washington, DC.

What Causes a Sonic Boom?

Supersonic-capable aircraft passing Mach 1 produce a loud sound called a sonic boom. Thunder-like sonic booms are caused by air molecules being crowded into shockwaves by an aircraft travelling supersonically. The sonic boom is the “wake” of the plane’s shockwaves combined together, similar to a boat’s wake. Double booms are sometimes produced first by shockwaves from the plane’s nose and then from its tail. Mach 1, also known as the speed of sound, is approximately 740 miles per hour at sea level.

AIRPORT NOISE REPORT

Anne H. Kohut, Publisher

Published 44 times a year at 43978 Urbancrest Ct., Ashburn, Va. 20147; Phone: (703) 729-4867; FAX: (703) 729-4528.
e-mail: editor@airportnoisereport.com; Price \$850.

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Airport Noise Report



A weekly update on litigation, regulations, and technological developments

Volume 24, Number 42

December 7, 2012

Los Angeles Int'l

BOAC STAFF RECOMMENDS MOVING NORTH RUNWAY AT LAX 250 FEET TO ADD TAXIWAY

A plan to separate the two north runways at Los Angeles International Airport in order to add a taxiway that allows for more efficient handling of supersized jets moved forward Dec. 3 as the Los Angeles Board of Airport Commissioners (BOAC) was presented with the option favored by its staff.

The staff recommended moving the northernmost runway 260 feet to the north, closer to the community of Westchester, but not the most drastic option of moving the runway 350 feet to the north.

The staff also recommended improving ground transportation at LAX by adding an intermodal facility that would bring light rail directly to the airport and eventually adding a consolidated rental car facility and an automated people mover.

No BOAC decision on the staff-recommended alternatives was made at the meeting.

The project has the support of Los Angeles business and labor groups but is opposed by many residents of the community of Westchester and by the grass-roots organization Alliance for a Regional Solution to Airport Congestion. They fear the
(Continued on p. 177)

LaGuardia

AVELLA CALLS WAY FAA IMPLEMENTING NEXTGEN PROCEDURES 'A DISGRACE'

On Dec. 4, NY State Sen. Tony Avella (D) criticized the Federal Aviation Administration's intention to move forward with the implementation of a NextGen departure procedures at LaGuardia Airport that, when flight tested, resulted in what Avella termed "an excessive increase in noise and air pollution throughout north-eastern Queens."

The NextGen procedure involves flights departing from Runway 13 at LaGuardia Airport. FAA says the procedure follows an existing departure path over Queens. Queens residents say they have noticed a significant increase in noise impact.

Neither FAA nor the Port Authority of New York and New Jersey has announced yet that the procedures, which have undergone a six-month flight test, will be instituted on a permanent basis. ANR asked the FAA to confirm Avella's assertion that they would be but did not receive a response by deadline.

A spokesman for Avella told ANR that "a very reliable source," which he did not name, told the senator the procedures would be implemented.

(Continued on p. 178)

In This Issue...

Los Angeles Int'l ... Staff of the L.A. Board of Airport Commissioners recommends moving the northernmost runway at LAX 260 feet closer to community - p. 176

LaGuardia ... NY State Senator says "it is a disgrace" that FAA is moving to implement NextGen departure procedures at LaGuardia "without proper input from community" - p. 176

NextGen ... Satellites will extend ADS-B coverage to entire planet - p. 177

ACRP ... Report identifying when aircraft noise affects student learning, best metrics due out soon- p. 177

Japan ... Residents near U.S. Kadena Air Base in Okinawa file suit seeking compensation for noise, halt to nighttime operations - p. 178

Paine Field ... FAA approves introduction of passenger service; mayor of nearby town of Mukilteo, WA, may file lawsuit - p. 179

LAX, from p. 176

noise and emissions impacts of a closer runway and want air traffic at LAX spread to underused airports nearby, such as Ontario International.

Said Los Angeles World Airport (LAWA) Executive Director Gina Marie Lindsey, "... While not the optimal runway configuration, [moving the northernmost runway 260 to the north] is an approach that balances the needs of the airport with the stated interests of the neighboring communities. We promised to deliver a plan for LAX that is safe, environmentally balanced, sustainable, and financially responsible all while improving the passenger experience and ensuring that LAX will continue to be L.A.'s economic engine for years to come. We have done just that."

The Coalition to Fix LAX NOW, a group of Los Angeles business and labor organizations, said it supports the BOAC staff recommendation to move the north runway only 260 feet even though it originally supported a 350 foot separation.

"For nearly twenty years, the issue of the North Airfield has vexed Mayoral administrations and stymied the City's ability to properly accommodate the new generation of larger, more environmentally friendly aircraft. Today's recommendation is a giant step in the right direction to create a world class airport," said LAX NOW.

"We are pleased to learn, also, that the recommended solution will entail no expansion of the footprint of LAX beyond its current boundaries and there will be no taking of any homes ... Implementation of this recommendation will also clear the way for the development of the Northside property owned by LAWA in a manner highly beneficial to the local community."

The recommendations presented by the BOAC staff were part of the ongoing Los Angeles International Airport (LAX) Specific Plan Amendment Study (SPAS) Report.

On July 27, (LAWA) issued for public comment the Draft Environmental Impact Report on nine options for improving the safety and efficiency of LAX's North Field in the SPAS (22 ANR 86).

The SPAS Report and Draft EIR identified and evaluated potential alternatives to certain components of the previously-approved LAX Master Plan, referred to as Yellow Light Projects.

LAWA staff will next complete the Final EIR, including a discussion of the Staff-Recommended Alternative, for review and consideration by the Board of Airport Commissioners, which will also consider other information and the public comments and LAWA responses as part of their deliberations.

A decision, if any, on SPAS by the Board is subject to review and approval by other local decision-making bodies including, but not limited to, the Los Angeles City Council and the County of Los Angeles. Various state and federal reviews and approvals, including by the Federal Aviation Administration, are also required prior to implementing any LAX SPAS alternative.

NextGen**SATELLITES WILL EXTEND ADS-B COVERAGE TO ENTIRE PLANET**

McLean, VA-based Iridium Communications Inc. announced Nov. 19 that it has finalized an agreement with NAV CANADA regarding Aireon LLC, a joint venture that will allow air traffic management agencies around the globe to continuously track aircraft anywhere in the world.

Iridium said it is the only mobile voice and data satellite communications network that spans the entire globe.

"Aireon will uniquely leverage Iridium NEXT, Iridium's next-generation constellation of 66 cross-linked Low Earth Orbit (LEO) satellites, to meet the critical need of extending Automatic Dependent Surveillance-Broadcast (ADS-B) coverage and benefits to every flight path across the planet" Iridium said.

"For the first time ever, air navigation service providers (ANSPs) around the world will be able to track aircraft from pole-to-pole, including oceanic airspace and remote regions. The new capability will provide significant benefits to the aviation industry, including substantial fuel savings, a reduction in greenhouse gas emissions and enhanced safety and efficiency for passengers."

"The FAA has been working with Iridium as they develop technical and operational requirements towards the realization of a space-based ADS-B system to provide safety and efficiency benefits to the airspace," said Chris Metts, vice president of the FAA Program Management Organization.

"This technology could be transformative for the aviation industry and the FAA is committed to ensuring that the technical performance of the space-based ADS-B system meets the agency's needs."

ACRP**REPORT ID'ING WHEN NOISE AFFECTS LEARNING DUE SOON**

At the end of January 2013, the final report is due out on a study undertaken to identify and evaluate conditions under which aircraft noise affects student learning and to identify metrics that best define those conditions.

Airport Cooperative Research Program (ACRP) Project 02-26, "Assessing Aircraft Noise Conditions Affecting Student Learning," is a \$450,000 effort being undertaken by Wyle Laboratories.

The TRB summary of the project notes, "Concerns over the effects of noise on student learning present potential barriers to airport operations and expansion and can contribute to delays in both facility and capacity improvements. As is evident from numerous studies, there is a considerable body of research demonstrating that chronic exposure to noise is associated with learning deficits in children ... Furthermore, a

pilot study for the Federal Interagency Committee on Aviation Noise (FICAN) found that low-performing students' test scores were more likely to improve after their schools were insulated against aircraft noise.

"Although an important summary of existing literature is available in the recently released ACRP Synthesis 9: Effects of Aircraft Noise: Research Update on Selected Topics, additional studies directed specifically to aircraft noise impact are needed. In particular, a remaining question is the level of aircraft noise at which learning impacts occur.

"In FY07, the FAA awarded \$56.5 million in grants to insulate public buildings – mostly schools – often based on a criterion of achieving a maximum Day-Night Average Sound Level (DNL) of 65 dB. Despite this history, there has been little research to date as to whether this criterion is appropriate for determining when noise levels impact schools and learning.

"The Environmental Working Group (EWG) Science and Metrics Standing Committee of the Joint Planning and Development Office (JPDO) has proposed metrics to the EWG Policy Standing Committee for consideration in their preparation of the EWG environmental targets [for the Next Generation Air Transportation System (NextGen)]. What is evident from available studies is that there is no clear understanding of the conditions as to when aircraft noise affects student learning and when to implement mitigation measures. Research is needed to enhance that understanding."

Congress created the JPDO to manage the partnerships designed to bring NextGen online.

LaGuardia, from p. 176

He added that Avella plans to meet with Port Authority officials in a few weeks to discuss the matter.

On Oct. 26, Avella introduced legislation in the NY Senate that would require the PANYNJ to conduct a Part 150 Airport Noise Compatibility Study and hold biennial public hearings to address noise issues arising from the introduction of NextGen advanced navigational procedures at Port Authority Airports (24 ANR 168).

"Frankly, it is a disgrace the FAA has decided to go ahead with these departure changes, which will have a profound effect on the residents in northeastern Queens, without the proper input from the community," Avella said in a Dec. 4 statement.

"My office continues to hear from homeowners who are irate at this abrupt increase in air traffic over their homes, which is causing an intolerable amount of noise pollution. Any new flight patterns need to be properly evaluated to determine the impact on the quality of life for residents. In this case, the FAA has decided to disregard the voice of the people, and as a result, another rally is necessary to ensure that FAA finally listens to the concerns of residents."

Earlier this year, Sen. Avella and NY State Assemblyman Edward C. Braunstein (D) began receiving complaints from

Queens residents "that the deafening sound caused by the constant plane traffic was creating significant quality of life issues for their residential neighborhoods," Avella said in a Dec. 4 statement.

The statement continues, "Avella and Braunstein immediately reached out to the FAA which subsequently indicated that a new departure procedure from La Guardia Airport was being tested and would be completed in six months. They stated that should the agency decide to pursue the use of this new pattern on a permanent basis, comments from the public would be considered before an environmental determination was made.

"Following a large rally that Avella with Assemblyman Braunstein, Community Board 11, civic leaders, and dozens of fed up homeowners protesting the sudden increase in air traffic from LaGuardia Airport, Avella and Braunstein met with the FAA in September and were advised that their six-month "testing period" of the new procedures at LaGuardia Airport had been completed by mid-October. They have been attempting to schedule a follow up meeting to discuss the agency's findings.

"However, Avella was recently informed that following the six-month testing period the FAA performed an environmental review which was quickly followed by the agency's approval of the new procedures. Furthermore, it appears that the FAA will begin to implement these new procedures on a regular basis in coordination with specific runway configurations at John F. Kennedy Airport.

"Given what appears to be a stated intent to formally implement these procedures Avella, will hold another rally to let the FAA know that the communities in northeast Queens will not accept this decision."

Avella will hold a rally in opposition to the FAA's decision on Saturday, December 15th at 11:00 a.m. in front of his Senate District Office at 38-50 Bell Boulevard, Bayside, Queens.

Litigation

RESIDENTS NEAR U.S. AIR BASE IN OKINAWA FILE SUIT OVER NOISE

Some 144 residents around Kadena Air Base in Okinawa, Japan, filed a lawsuit on Nov. 30 against the U.S. government over aircraft noise, seeking about \$2.7 million in compensation and a halt to U.S. nighttime flights, *Stars and Stripes* reported.

The 144 plaintiffs are part of more than 22,000 residents who filed a similar suit against the Japanese government in April 2011, seeking \$544 million for physical and mental damage from the noise, the paper reported.

"It's the residents' second attempt to sue the U.S. government. They believe they have a better chance this time under a revised Japanese civil law, said Kichiro Takagi, one of their lawyers," according to *Stars and Stripes*.

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“In 2009, the Act on the Civil Jurisdiction of Japan with Respect to a Foreign State ruled out some acts from immunity, Takagi said, adding that residents near the base have long suffered from various health problems including hearing loss and high-blood pressure.”

Kadena Air Base is the hub of U.S. air power in the Pacific and home to the U.S. Air Force’s 18th Wing, its largest combat fighter wing, and a variety of associated military units.

Paine Field

FAA FONSI/ROD ALLOWS INTRODUCTION OF PASSENGER SERVICE AT PAINE FIELD

On Dec. 4, the Federal Aviation Administration issued a Finding of No Significant Impact and Record of Decision (FONSI/ROD) approving commercial passenger service at Paine Field, where the issue has long been contentious.

Both Horizon Air and Allegiant Air have expressed interest in providing commercial service at the airport, which would be a convenient location for residents north of Seattle to use.

The addition of 8,340 flights at Paine Field over five years would not significantly increase noise, traffic, or pollution in communities near the airport, FAA concluded in its Environmental Assessment of the project.

However, Joe Marine, Mayor of Mukilteo, WA, a community situated on the water west of Paine Field, reportedly plans to appeal FAA’s ROD and is meeting with attorneys.

Local governments surrounding the airport, the airport’s proprietor Snohomish County, and a local citizens groups called Save Our Communities have adopted resolutions against the use of Paine Field for commercial airline flights.

However, the City of Everett supports the use of Paine Field for commercial air service. Said Everett Mayor Ray Stephanson, “Commercial air is necessary for economic development and job growth. Hopefully we’ll soon be working with a company to provide commercial air at Paine Field.”

A passenger terminal must be constructed before commercial air service can begin at Paine Field.

Some 95 percent of flights at Paine Field are general aviation. The other 5 percent are comprised of Boeing flights (Everett, located near the airport, is the site of Boeing’s assembly plant for widebody jets, including the B 787), and flights to and from the transport aircraft maintenance and repair facility Aviation Technical Services, formerly Goodrich Aerospace.

AIRPORT NOISE REPORT

Anne H. Kohut, Publisher

Published 44 times a year at 43978 Urbancrest Ct., Ashburn, Va. 20147; Phone: (703) 729-4867; FAX: (703) 729-4528.
e-mail: editor@airportnoisereport.com; Price \$850.

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Airport Noise Report



A weekly update on litigation, regulations, and technological developments

Volume 24, Number 43

December 14, 2012

Portland Int'l

NEW RNAV APPROACH PROCEDURES WILL GO INTO EFFECT AT PDX NEXT YEAR

The Federal Aviation Administration announced Dec. 12 that pilots will start using new NextGen technology and procedures that will enable aircraft to fly more efficient, environmentally-friendly flights into Portland International Airport (PDX) beginning next year.

The NextGen (Next Generation Air Transportation System) program uses cutting-edge technology, including new Area Navigation (RNAV) approach procedures, to create a modern, satellite-based air traffic control system, transforming the national airspace system to make it even safer and more efficient for the traveling public, airports and operators, and facilitating economic growth, FAA explained.

"These new procedures in Portland are the building blocks of NextGen," said U.S. Transportation Secretary Ray LaHood. "NextGen initiatives underway in major regions across the country are helping deliver more on-time flights for consumers, reducing fuel consumption for airlines and creating an even safer aviation system."

RNAV enables aircraft to fly safely on any desired flight path within the cover-
(Continued on p. 181)

ACRP

NEW PROJECT WILL DEVELOP GUIDANCE ON COLLABORATIVE DECISION MAKING

The Transportation Research Board issued a Request for Proposals on Dec. 10 seeking a contractor for a new Airport Cooperative Research Program project on Advancing Collaborative Decision Making (CDM) at Airports.

Project 10-19 will be funded at a level of \$300,000 and is expected to run 15 months, beginning on July 1, 2013.

The deadline for responding to the RFP is Feb. 7, 2013.

The goal of the project is to provide a guidebook to help airports and their stakeholders integrate CDM into their operations or operational plans.

The RFP does not specifically site the collaborative development of RNAV/RNP procedures as the type of operational decision the guidebook will be addressing. However, such collaboration is the process some airports have sought and used in the development of NextGen procedures because it ensures airport and community input. So, the guidance developed in this ACRP project may be beneficial to airports in that regard.

Using CDM to implement NextGen procedures "is not the intent of this project

(Continued on p. 181)

In This Issue...

Portland Int'l ... RNAV approach procedures will go into effect at the airport next year, FAA says - p. 180

ACRP ... Contractor sought for new project on advancing collaborative decision making at airports - p. 180

Litigation ... Dairy farmer near Yellowstone Int'l Airport files lawsuit alleging that NextGen flight path changes resulted in a taking of her property- p. 181

News Briefs ... Vermont Governor, mayors travel to Florida AFB to hear for themselves noise of new F-35 fighter jets, which may be soon based in their state ... Mary Ellen Eagan is appointed new Chairman of the Board of HMMH ... Port Authority of NY/NJ issues an RFP for an Airport Noise & Operations Management System contract for John F. Kennedy International, LaGuardia, Newark Liberty International, Stewart International, and Teterboro Airports - p. 182

Portland, from p. 180

age of ground-based or space-based navigation aids. NextGen GPS technology is the basis for new RNAV approach procedures, which replace procedures that do not have the benefit of precise, satellite-based navigation. Aircraft approaching Portland can now power back sooner, saving fuel, making less noise and emitting fewer pollutants, FAA said.

“These procedures will continue to enhance operational safety and efficiency at this important airport while improving air quality around Portland,” said Acting Administrator Michael Huerta.

RNAV procedures also can increase the efficiency of the air traffic control system. Aircraft using RNAV can fly more precise and predictable routes, resulting in a more efficient use of airspace and fewer pilot-controller communications.

The FAA said it included the PDX Citizens Noise Advisory Committee in the design phase of the new RNAV approaches in support of the PDX Fly Quiet Program. The FAA, the Port of Portland, airlines, and local citizen groups designed six new RNAV approach procedures. The FAA designed these new approaches to link up with future arrival routes from the north, east, and south.

Pilots of aircraft equipped with RNAV can begin flying these new arrival routes in 2013, FAA said.

Yellowstone Int'l**LAWSUIT ALLEGES FLIGHT PATH CHANGE RESULTED IN TAKING**

A dairy farmer near Yellowstone International Airport in Bozeman, MT, filed a lawsuit Nov. 8 alleging that NextGen flight path changes at the airport resulted in a taking of her property, part of which is within the airport's 65 dB DNL noise contour, and disturbed her cows.

The Federal Aviation Administration created new NextGen RNAV/RNP procedures and changed existing ILS procedures between June 2010 and June 2011 in order to de-conflict arrival and departure procedures at Yellowstone International Airport, Airport Director Brian Sprenger explained.

Gerovac contends that the flight path changes occurred in summer 2009 but Sprenger disputes that.

Neither Sprenger nor Gerovac's attorney (William K. VanCanagan of the Missoula, MT, law firm Datsopoulos, MacDonald & Lind) would comment on the case.

The lawsuit, *Carol Gerovac v. Gallatin County; Gallatin County Airport Authority; et al* (No. DV-12-860A), was filed in the Montana Eighteenth Judicial District Court, Gallatin County.

Gerovac asserts that the flight path changes amounted to a taking and/or loss in her property value, created a nuisance and trespass, inflicted emotional distress, and violated both the U.S. Constitution and the Montana Constitution by taking

and damaging her property without just compensation.

In 2003, the airport authority offered to buy Gerovac's 170 acres for \$460,000 (\$2,700 per acre) but she argued that the airport authority had paid three other property owners more per acre for their land (approximately \$5,830, \$10,500, and \$52,000 per acre) during the same year.

2003 Buyout Offer Rejected

Gerovac refused the airport's 2003 offer on her property, which she has owned since 1995. In 2008, she hired an appraiser who concluded that her property was worth \$5.65 million or \$33,185 per acre, significantly more than the airport's 2003 offer.

In April 2010, Gerovac offered to sell her property to the airport for \$5.08 million and the Airport Authority “represented that they were interested in and intended to enter negotiations and ultimately purchase Gerovac's property,” her complaint states. An appraiser for the Airport Authority valued Gerovac's property at \$2.15 million in July 2011.

Her complaint states that Airport Authority minutes show that it would consider purchasing her property if it received a discretionary grant from FAA. However, the motion was opposed by new Airport Board member Carl Lehrkind, IV, who stated, “It's the wrong amount at the wrong time,” according to the complaint.

Gerovac contends that the Airport Authority then “willfully” delayed negotiations on her property for more than a year before informing her that it did not wish to purchase her property.

In September 2011, the Airport Authority received a \$2 million Airport Improvement Program discretionary grant.

Eight months later, in May 2012, the Airport Authority “approved the hiring of an appraiser to appraise property owned by board member Carl Lehrkind, IV, for acquisition despite the fact that the Airport already owned an air easement over it,” the complaint states. Lehrkind had opposed the use of the grant to purchase Gerovac's property.

Gerovac asserts in her complaint that she has sustained “and will continue to sustain in the future, mental distress, mental suffering, outrage, shame, humiliation, embarrassment and other harms that any person of ordinary sensibilities would suffer under like circumstances.”

Gerovac is seeking an injunction barring the airport from allowing airplanes to depart or arrive over her property and also seeks damages in an amount to be set in a requested jury trial, including compensatory damages for the loss of her rights and property value.

ACRP, from p. 180

as airspace is primarily a FAA responsibility and beyond the control of airports,” Marci Greenberger, the TRB officer managing the project, told ANR. “While it very well may be a possible use of CDM, it is not the intent of this project to focus on that. Having said all that, the panel expects each pro-

poser to determine and outline the stakeholders.”

“Collaborative Decision Making (CDM) is the process of data sharing whereby airports, airlines, other stakeholders, and the air navigation service provider (e.g., FAA) share information to make operational decisions,” TRB explained in the RFP.

“Although airlines and the FAA have considerable experience in the use of CDM dating back to the 1990s, airports in the United States have not typically been direct participants. With the advent of surface management systems, high fidelity surveillance, and enhanced means of information exchange, airports have started to play a more direct role in CDM. However, there are challenges in defining the relevant data, methods for sharing, and common terminology and the FAA has established working groups to address these CDM challenges.

“Large airports have found surface CDM programs useful in managing aircraft movements. CDM can enhance gate management, ground service equipment (GSE) coordination, deicing operations, special events, and tarmac delays. Smaller airports can also benefit by participating in regional CDM programs that can augment their irregular operations plans and improve their situational awareness.

“Despite these advancements, many airports are still not aware of what CDM is, the different ways it can enhance their regular and irregular operations, and how to pursue implementation.

Component of Guidebook

The guidebook should include at a minimum:

- An overview of CDM, creating awareness and educating all commercial service airports and stakeholders, of what CDM is, the different ways that CDM can be used to enhance both regular and irregular airport operations, and identification of the different ways in which CDM can be used to improve operational efficiencies;
- Identification of the relevant data and common terminology;
- Identification of stakeholders and their roles within a CDM framework (benefits for all of the stakeholders and definition of the airport role in CDM within the NAS, at the regional and the local level);
- Costs associated with implementation;
- Limitations and challenges to implementation;
- A process for CDM implementation that is scalable depending on the complexity of the operation;
- Lessons learned from implementation from both U.S. and international examples;
- U.S. regulatory constraints and potential future regulations/guidance;
- Best practices;
- Technology and interoperability considerations/requirements; and Glossary.

The RFP for ACRP Project 10-19 is available on line at <http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=3452>

In Brief...

Vermont Governor Wants to Hear F-35s

Vermont Gov. Peter Shumlin traveled to Eglin Air Force Base, FL, on Dec. 12 to experience first hand the noise from an F-35 fighter jet compared to an F-16.

He was joined by the mayors of Burlington, VT, and Winooski, VT, who are concerned about the noise impact of basing the newer F-35s at the Vermont Air National Guard base at Burlington National Airport.

The base is already home to F-16s.

HMMH Announces Leadership Change

At its Nov. 27 meeting, the Board of Directors of the environmental consulting firm Harris Miller Miller & Hanson Inc. (HMMH) appointed Mary Ellen Eagan as Chairman of the Board. She also serves as President and CEO.

In announcing the change, Robert Miller, one of the firm’s founders, praised the new Chairman saying, “Mary Ellen has been with HMMH since 1984 and served as our very capable President for the past eight years. Her new role is well-earned and it is both an honor and pleasure to turn the position over to her.” Ted Baldwin was appointed Vice Chair of the Board.

The Board also appointed Diana Wasiuk as Chief Operating Officer, a new position at HMMH. Diana’s role will be to work with practice leaders to manage operations and implement the company’s strategic plan.

“Diana has a unique combination of business savvy and personal skills that will continue to improve our efficiency, quality, and service to clients. I look forward to working more closely with her,” said Eagan.

PANYNJ Seeks Contractor for NOMS

The Port Authority of New York and New Jersey issued the following Request for Proposals for an Airport Noise & Operations Management System Contract for John F. Kennedy International, LaGuardia, Newark Liberty International, Stewart International, and Teterboro Airports

RFP#: 31644 - Design, furnish, install, host, operate and maintain a secure Noise & Operations Monitoring System (NOMS), that will provide the necessary tools to Airport Staff in dealing with noise issues in communities surrounding John F. Kennedy International (JFK), LaGuardia (LGA), Newark Liberty International (EWR), Stewart International (SWF), and Teterboro (TEB) Airports. The Contractor shall furnish and install necessary field hardware and software in locations selected (i.e. Noise monitoring terminals (NMTs) in surrounding communities and software at Authority facilities), host the System, establish connectivity between the System and external systems, enable secure remote access through the Internet and provide maintenance of the System.

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Pre-Proposal Meeting: A Pre-Proposal meeting is scheduled for 10:00 a.m., Thursday, December 20, 2012. All interested parties may meet at the Port Authority of New York & New Jersey, 233 Park Avenue South, 9th Floor, Conference Room 977, New York, New York 10003. Any questions concerning this RFP should be submitted in writing prior to the meeting so that the Port Authority may prepare responses in advance of the meeting. Additional questions may be permitted at the meeting; however, responses may be deferred and provided at a later date by written addenda.

Attendees interested in attending should contact Mr. Adeel Yousuf at 212 435-3784 or by email at ayousuf@panynj.gov no later than 12 noon (EST) of the business day preceding the scheduled date to confirm their attendance and/or receiving traveling directions. Photo ID is required to attend.

Jan. 15, 2013, is the due date for proposals.

This document is available on-line at <http://www.panynj.gov/business-opportunities/bid-proposal-advertisements.html>. Addenda to the RFP, if any, will be posted at this website. Monitor the advertisement on the website to ensure your awareness of any changes.

If you have any technical problems accessing the documents online, email us at askforbids@panynj.gov or call us at (201) 395-3405 for assistance.

Sealed Proposals will be accepted on until 2PM on the date indicated. Send proposals to: The Port Authority of NY & NJ, Attn: Bid/RFP Custodian, Procurement Department, 2 Montgomery Street, 3rd Floor, Jersey City, NJ 07302

A valid photo ID is required to gain access into the building, if you are hand delivering.

Miami, Ft. Lauderdale Airspace Revisions

FAA will hold three informal fact-finding meetings on Jan. 28, 29, and 30, 2013, to solicit information from airspace users and others concerning a proposal to revise the Class B airspace at Miami and the Class C airspace at Ft. Lauderdale.

Information gathered at the meetings will assist the FAA in drafting a Notice of Proposed Rulemaking on the airspace changes.

For further information, contact Tony Russo, Support Manager, Miami ATCT/TRACON; tel: (305) 869-5403.

The announcement appeared in the Dec. 4 *Federal Register* at <http://www.gpo.gov/fdsys/pkg/FR-2012-12-04/pdf/2012-28991.pdf>

AIRPORT NOISE REPORT

Anne H. Kohut, Publisher

Published 44 times a year at 43978 Urbancrest Ct., Ashburn, Va. 20147; Phone: (703) 729-4867; FAX: (703) 729-4528.
e-mail: editor@airportnoisereport.com; Price \$850.

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Airport Noise Report



A weekly update on litigation, regulations, and technological developments

Volume 24, Number 44

December 21, 2012

Minneapolis-St. Paul Int'l

LEQVE DEFINES TWO KEY CONSIDERATIONS FOR AIRPORTS WORKING WITH FAA ON PBN

The recent, politically-contentious process of implementing NextGen Performance-based Navigation (PBN) procedures at Minneapolis-St. Paul International Airport (MSP) has illuminated for Metropolitan Airports Commission (MAC) Noise Program Manager Chad Leqve two key considerations for airport operators when faced with the development of PBN procedures by the Federal Aviation Administration at their facilities:

- What should the airport's role be in implementing PBN procedures?

Leqve believes that airport operators should focus their role in PBN implementation on acting as a valuable resource to the FAA by defining local expectations of how the PBN design and implementation process should be conducted in order to ensure that the FAA will be successful in meeting those expectations; and

- Who should lead the process?

Leqve contends that the FAA, as the agency controlling schedules and budgets for the design and implementation of PBN procedures, must lead all elements of the process, including those elements intended to meet local expectations, such as

(Continued on p. 185)

LaGuardia

AVELLA DEMANDS THAT FAA RESCIND CATEX GIVEN TO CONTROVERSIAL RNAV DEPARTURE

At a Dec. 15 rally in Queens, NY state Sen. Tony Avella (D) demanded that the Federal Aviation Administration rescind the Categorical Exclusion (CatEx) from environmental review given to a controversial RNAV departure procedure at LaGuardia Airport that has increased noise impact in areas of Queens.

The state senator called on Transportation Secretary Ray LaHood to require that the FAA conduct a full environmental review and engage in an open dialogue with the communities affected by new NextGen procedures prior to any decision being made about their formal implementation.

Supporting Avella at the rally was Congresswoman-elect Grace Meng (D-NY), who said she was eager to address aircraft noise and emissions because it was one of the issues being discussed most in the region.

"We need to let the FAA and Department of Transportation know that the FAA's mission is to be environmentally responsible and accountable to the general public. That is exactly what they are not doing now," said Meng.

Avella told the rally, reportedly attended by over 100 people, "We are here

(Continued on p. 186)

In This Issue...

MSP Int'l ... Two key issues airports must consider in working with FAA on the implementation of PBN procedures are defined by MAC Noise Program Manager Chad Leqve - p. 184

LaGuardia ... NY state Sen. Avella demands that FAA rescind CatEx given to controversial RNAV departure procedure. Newly-elected U.S. congresswoman joins him at rally - p. 184

Heathrow ... A five-month trial is launched to determine whether creating 'noise relief zones' for early morning flights provides respite for airport neighbors - p. 186

Helicopters ... Transportation Research Board issues a Request for Proposals seeking a contractor for a \$250,000, 16-month project to improve guidance on helicopter noise modeling - p. 187

News Briefs ... John Wayne Airport seeks experienced Airport Access, Noise Specialist - p. 188

MSP, from p. 184

noise analysis and public information components.

The crucial factor that led to push back from some elected officials and communities around MSP against the proposed PBN procedures appears to be the FAA's position that a community-requested noise contour analysis and related public information program were not supported by its project scope and budget.

Additionally, after the MSP Noise Oversight Committee (NOC) moved forward to try to ensure these expectations were met, the FAA gave the NOC and the MAC a significantly shortened timeframe to conduct the community-requested analysis and public information program. Local expectations dictated completion of these efforts prior to the MAC's consideration of support for the FAA-proposed PBN package.

The outcome at MSP – in which the MAC did not endorse the full package of PBN procedures that the FAA proposed – may have been the same given the dense homogeneous residential development directly northwest of MSP.

However, it is likely that if the FAA had taken a more assertive role in the noise contour analysis and public information processes, and its procedure publication schedule had been more flexible to accommodate the necessary time to complete these tasks, controversy and community frustration could have been reduced significantly.

MAC under Pressure

On Nov. 19, under intense political pressure from the cities of Minneapolis and Edina, both opposed to having concentrated flight paths moved over them, the MAC backed off endorsing Area Navigation (RNAV) departure flight paths north and west of the airport off Runways 30L and 30R, which would have gone over parts of the cities.

However, the MAC did endorse RNAV/RNP arrival procedures to Runways 12L, 12R, 30L, 30R, and 35 and RNAV departure procedures off Runways 12L, 12R and 17. The RNAV departure procedures direct aircraft to the south and east where noise abatement corridors and unpopulated areas exist, allowing aircraft to gain altitude before overflying residential areas in the cities of Bloomington, Eagan, and Mendota Heights.

Now the FAA must determine if it can safely implement only a portion of the RNAV departure procedure package it proposed. No timeline has been set for the completion of that determination.

MSP Noise Program Manager Leqve reflected that “In the case of the FAA's PBN design and implementation process at MSP, there was a recognition from some communities and the airlines that the procedure design and implementation process could possibly provide mutually agreeable results all around the airport. However, there was a recognition that such results would require that the process adequately evaluate noise, engage the public, and incorporate noise-reducing procedure design elements where possible.”

In an effort to ensure that the FAA's process addressed these elements, in March 2011, the MSP Noise Oversight Committee forwarded five noise criteria for consideration by the FAA in its PBN design and implementation process.

The five criteria were:

- Provide a noise analysis using the MSP 2010 actual noise data analyzing the effects of the procedures on the noise contours and other noise metrics that evaluate the time above impact and single event noise impacts along a given RNAV track at MSP;
- Provide a public information program to the public;
- Reduce the number of sensitive land use overflights;
- Reduce aircraft arrival noise; and
- Maximize use of RNAV noise tracks as part of the Runway Use System.

“Shortly thereafter,” Leqve continued, “the FAA indicated that its project scope and budget did not allow for the noise contour analysis and public information program included in the NOC's criteria.”

“Realizing the importance of these issues to the success of the effort on a local level, the NOC took on a leadership role for the FAA, conducting the noise contour analysis and public information program; the NOC anticipated this would require four months at minimum to complete.”

“However, in September 2012, shortly after the FAA's finalization of the procedure tracks in early August 2012, which was initially planned to be completed in January 2012, the FAA announced that the agency needed a letter of support from the MAC by the end of November 2012 or the publication of the procedures would be delayed by 16 months.”

“This action accelerated the entire process, leading to the MAC Full Commission discussion on Nov. 19 and the concerned reaction from citizens and elected officials in the cities of Minneapolis and Edina,” Leqve told ANR.

Edina, Minneapolis Mobilize

Indeed. Fearful that the FAA was trying to push approval of the RNAV procedures through the MAC on a shorter-than-promised schedule and without adequate study and public information, residents and officials in Minneapolis and Edina went into political overdrive and mounted fierce campaigns in opposition to the PBN procedures.

Edina and Minneapolis residents and officials quickly mobilized, motivating over-flow crowds to turn out at both the NOC and MAC votes on the PBN procedures to voice their opposition.

MAC Chairman Dan Boivin told the local press he had not encountered such intense public reaction since the 1990s, when major airport expansion and relocation discussions were occurring.

Minneapolis and Edina officials “worked together quickly and not-so-quietly behind the scenes contacting federal, state, and county elected officials to seek their assistance in finding a solution to this unacceptable proposal for our two cities,” Edina City Manager Scott Neal explained in a Nov. 20 editorial in the *Richfield Sun-Current*.

“We reached out to staff and appointed officials at the MAC itself to investigate alternatives, and ultimately, to broker the compromise solution that is now on its way to FAA headquarters in Washington, DC.”

There were complaints, especially from Minneapolis and Edina residents, that there was inadequate notification of two public information meetings the NOC held on the RNAV proposal.

However, Leque told ANR that the dates for the two open houses were announced several weeks ahead of time and in various media. There was speculation in the local press that people may have been distracted in early November with the presidential election and the approaching Thanksgiving holiday.

Edina, located several miles beyond the 60 dB DNL contour of MSP, staunchly opposed having RNAV tracks moved over the city even though MAC spokesman Patrick Hogan explained that no part of Edina would have experienced anything approximating 60 DNL impacts. “In fact, the total number of overflights over the city would have declined significantly using the proposed tracks,” he told ANR.

Edina Mayor Jim Hovland agreed there would be fewer departures over Edina, “But those flights would be concentrated over two narrow tracks on our community, and on the northerly track, the volume of departure traffic would be increased from its present volume by 100-150 percent,” he told *McClatchy-Tribune Regional News*.

The FAA “admitted it had done no noise studies in Edina or determined the impact of the increased frequency of flights over the two narrow bands of the city,” the mayor told the paper.

LaGuardia, from p. 184

today to let the FAA know that the communities in northeast Queens will not accept this decision without a fight.”

He urged political leaders at the national level, including U.S. Sens. Charles Schumer (D-NY) and Kirsten Gillibrand (D-NY) and Rep. Steve Israel (D-NY) to lend their political weight to his cause. Avella was joined at the rally by NY state Assemblyman Edward Braunstein and local civic leaders.

They contend that the FAA reneged on a promise that Queens’ residents would have an opportunity to comment on the proposed RNAV procedure at LaGuardia after the completion of a six-month test.

In a Dec. 17 statement, Avella said, that earlier this year, he and Assemblyman Braunstein “began receiving complaints from residents that the deafening sound caused by the constant plane traffic was creating significant quality of life issues for their residential neighborhoods. Avella and Braunstein immediately reached out to the FAA who subsequently indicated that a new departure procedure from La Guardia Airport was being tested and would be completed in six months. They stated that should the agency decide to pursue the use of this new pattern on a permanent basis, comments from the public would be considered before an

environmental determination was made.

“Following a large rally [in late August] that Avella held with Assemblyman Edward Braunstein, Community Board 11, civic leaders, and dozens of fed up homeowners protesting the sudden increase in air traffic from LaGuardia Airport, Avella and Braunstein met with the FAA in September and were subsequently advised that their six-month ‘testing period’ of the new procedures at LaGuardia Airport had [to be] completed by mid-October. They have been attempting to schedule a follow up meeting to discuss the agency’s findings.

“However, Avella was recently informed that following the six-month testing period the FAA performed an environmental review which was quickly followed by the agency’s approval of the new procedures. Furthermore, it appears that the FAA will begin to implement these new procedures on a regular basis in coordination with specific runway configurations at John F. Kennedy Airport.

“Frankly, it is a disgrace that the FAA has apparently instituted this new departure procedure without the proper input from the community,” stated Avella. “This new departure procedure has and will continue to have a profound impact on the quality of life for residents in northeast Queens and they deserve to be heard. I tried to make this point very clear in my meeting with the FAA. Unfortunately, they never scheduled a follow up meeting and they have now decided to move forward with this plan without a more detailed and formal environmental review. This is simply unacceptable.”

FAA Says It Met NEPA Requirements

ANR asked FAA’s Eastern Region to explain the process it used to determine that a CatEx should be given to the LaGuardia RNAV departure procedure.

In response, the region’s public affairs office sent copies of letters to a NY State Assembly member and a member of the New York City Council.

The letters said that the CatEx was given to the LaGuardia RNAV departure procedure on Jan. 1, 2012, and that after the six-month evaluation test was completed on Aug. 10, the “FAA conducted an environmental review according to the requirements of the National Environmental Policy Act. Following the review, the FAA approved the procedure for use when JFK is operating under other runway configurations.”

Heathrow

TEST OF ‘NOISE RELIEF ZONES’ FOR COMMUNITIES UNDERWAY

On Nov. 5, London Heathrow Airport – in partnership with the community group Heathrow Association for the Control of Noise (HACAN), the UK’s air navigation service provider NATS, and British Airways – launched a five-month trial to test whether creating ‘noise relief zones’ for commu-

nities under the flight path could ease disturbance for residents.

Matt Gorman, Heathrow's Sustainability Director said, "We are very pleased to be working with HACAN to find innovative solutions to minimize the impact of aircraft noise on residents. Working with the air traffic controllers at NATS, we are testing whether aircraft can be directed around specified areas to provide some respite and certainty for local residents. A relatively small adjustment in terms of the flight path can have a big impact on those living underneath it."

Added HACAN Chair John Stewart, "Periods of respite are very important for residents under the flight paths. We welcome this initiative."

Ian Jopson, NATS Head of Environmental and Community Affairs, said "NATS has unparalleled expertise in designing and managing airspace. We are delighted to have been able to use that expertise to work in collaboration with Heathrow, British Airways and HACAN to explore opportunities to improve the day-to-day experience of people living under the Heathrow flight paths."

On average, around 17 flights arrive at Heathrow each morning between 4.30 a.m. and 6 a.m., BAA, operator of Heathrow, explained in a Dec. 11 press release. "As air traffic controllers route these aircraft through the sky to achieve the safest and most efficient arrival routes, the flight paths are spread across areas of London – there is no set route."

The Early Morning Noise Respite Trial will explore whether the flights – particularly at the beginning of their approach into Heathrow – can be routed in a more defined way, offering more predictability for residents living below.

The trial will work by defining two zones over each trial area that will be 'active' sequentially week by week. Pilots will be directed by air traffic control to avoid flying through whichever zone is active for that particular week. The aim is to provide communities with definite periods of relief from early morning aircraft noise, BAA explained.

Whether the aircraft land from the east or west depends on the wind direction so there will be four trial areas, two to the east of the airport and two to the west.

The respite zones are not based on noise contour boundaries and would go way beyond the 55 dBA Lden contour, a BAA spokesman told ANR. He said the some parts of the inner boxes may be in the 55-60 Lden contour.

Lden is the aircraft noise metric used in the UK. It is the 24-hr Leq calculated for an annual period, but with a 5 dB weighting for evening and a 10 dB weighting for night.

He said that NATS is vectoring the aircraft into the noise respite areas and not using RNAV/RNP procedures.

The idea for giving communities respite from aircraft noise in the early morning "evolved from an initiative by Heathrow to work with community groups to identify key issues for them and ask how we might address them," the BAA spokesman told ANR. "The solution was put through a workshop with NATS and British Airways as well as Heathrow and the idea was presented back to the community groups who supported it."

He said that community feedback on the respite trial has been limited because it began only recently. But he expects more feedback from Heathrow neighbors as the trial progresses.

The trial will end on March 31, 2013.

ACRP

PROJECT SEEKS TO IMPROVE HELICOPTER NOISE MODELING

On Dec. 18, the Transportation Research Board issued a Request for Proposals seeking a contractor for a \$250,000, 16-month project to improve guidance on helicopter noise modeling.

The deadline for responding to Airport Cooperative Research Program (ACRP) Project 02-44, "Helicopter Noise Modeling Guidance," is Feb. 7, 2013.

In contrast to guidance related to fixed-wing aircraft, there is no peer-reviewed guidance document describing an integrated modeling technique for the prediction of helicopter noise, the RFP notes.

It explains that research is needed to document current practice, improve modeling methods, and provide guidance for using FAA's Integrated Noise Model/Aviation Environmental Design Tool (INM/AEDT) to predict helicopter noise.

"Sound land use planning requires accurate predictions of the acoustic signatures at noise-sensitive receiver points and methods for interpreting the effect of acoustic signatures on public health, safety, and welfare," the RFP states. "Historically, the study of noise impacts from aviation has been focused on fixed-wing aircraft, while the complexity of helicopter and new-technology rotary-wing aircraft has not been given adequate attention."

The FAA INM is currently the agency's required tool for NEPA-related studies and FAR Part 150 studies. The Heliport Noise Model Version 2.2 was recently incorporated into INM Version 7.0 with a helicopter noise database collected through both FAA and manufacturer certification measurements, the RFP notes. Currently, the FAA is incorporating INM, along with emission and fuel burn calculation methodologies, into the AEDT.

Scope of Research

The research conducted in this new ACRP project should include, among other things:

- A review of the methods (e.g., inputs, assumptions, algorithms, database coverage, outputs, methods of estimating uncertainty) and validation history of existing noise models used for predicting helicopter noise, including, but not limited to, HNM/INM/AEDT and the Rotorcraft Noise Model;
- An assessment of the strengths and weaknesses of each method's ability to capture the unique noise characteristics of helicopter operations, including takeoffs and landings at airports and heliports, overflights, hovering, and orbiting;

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- An assessment of the strengths and weaknesses of each model's user experience (e.g., database availability and accuracy, user interface, run-time, output) relative to modeling helicopter activity;
- A prioritized list of potential improvements to INM/AEDT, including options for incorporating new technology aircraft (such as tilt rotors), and a subset of near-term, high-priority improvements for immediate development and incorporation into INM/AEDT that would result in more accurate predictions of helicopter noise;
- Detailed documentation of the near-term, high-priority improvements to INM/AEDT that would result in more accurate predictions of helicopter noise;
- A peer review of the detailed documentation of the near-term, high-priority improvements to INM/AEDT;
- A supplemental document to the User Guide of INM/AEDT, providing guidance for modeling and presenting helicopter noise prediction data, similar in format to the European Civil Aviation Conference's Document 29, Volume 1;
- Research ideas, in the form of ACRP problem statements, proposing research to (1) improve the understanding of community response to helicopter noise; (2) develop guidance for incorporating helicopter operations into land use planning/zoning; and (3) address other research needs identified during the study.

The RFP is available online at <http://apps.trb.org/cmsfeed/TRBNet-ProjectDisplay.asp?ProjectID=3439>

In Brief...

John Wayne Airport Seeks Noise Specialist

John Wayne Airport (SNA) is seeking an experienced Airport Access and Noise Specialist II to perform a critical role in working with a variety of customer groups to interpret and explain the provisions of the Airport's access and noise programs, related laws and ordinances and to monitor the operation of noise monitoring stations.

This position requires a minimum of one year of related experience.

For a full job description and position requirements, please visit our employment website at <http://agency.governmentjobs.com/oc/default.cfm>. Only online applications will be accepted.

AIRPORT NOISE REPORT

Anne H. Kohut, Publisher

Published 44 times a year at 43978 Urbancrest Ct., Ashburn, Va. 20147; Phone: (703) 729-4867; FAX: (703) 729-4528.
e-mail: editor@airportnoisereport.com; Price \$850.

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Airport Noise Report



A weekly update on litigation, regulations, and technological developments

Volume 25, Number 1

January 18, 2013

Regulations

FAA ISSUES NOISE CERTIFICATION STANDARDS FOR TILTROTORS; NOW ARE IN PRODUCTION

On Jan. 8, the Federal Aviation Administration issued a final rule establishing noise certification standards for a new civil hybrid aircraft known as the tiltrotor, which currently is in production after more than six decades of research and development.

The tiltrotor is designed to function as a helicopter for takeoff and landing and as an airplane during the en-route portion of the flight.

In February 2012, the Italian firm AugustaWestland applied for a type certificate for its AW609 civil tiltrotor, which is designed to operate from existing heliports and carry up to nine passengers.

Current FAA Part 36 regulations do not contain noise certification requirements specific to the tiltrotor aircraft and its unique flight capabilities. The FAA's new rule provides uniform noise certification standards for tiltrotors certificated in the United States and harmonizes them with International Civil Aviation Organization (ICAO) Annex 16 standards.

The FAA's final rule included no detailed environmental impact analysis of
(Continued on p. 2)

LAX

A4A, CARGO CARRIERS OPPOSE PROPOSED RESTRICTION ON SOME NIGHT DEPARTURES

Airlines for America (A4A) and the Cargo Airline Association (CAA) strongly oppose a proposed Part 161 restriction on some easterly night departures at Los Angeles International Airport calling it unreasonable, unnecessary, unworkable, and unduly burdensome.

If approved by the Federal Aviation Administration, the use restriction would be the first imposed on Stage 3 aircraft by an airport since passage of the Airport Noise and Capacity Act of 1990 (ANCA).

Both A4A and CAA assert that the analysis supporting the proposed restriction does not demonstrate a noise exposure problem significant enough to warrant a mandatory restriction.

"The proposed restriction is a solution desperately in search of a problem," CAA President Stephen Alterman told Los Angeles World Airports (LAWA) in comments on its proposal.

A4A said it had "grave concerns" about the proposed enforcement provisions and the penalties proposed for non-compliance.

(Continued on p. 3)

In This Issue...

Tiltrotors ... FAA issues noise certification standards, identical to ICAO's, for new civil hybrid tiltrotor aircraft now in production - p. 1

LAX ... A4A, cargo carriers sharply critical of proposed Part 161 restriction on some night takeoffs on grounds it is unreasonable, unnecessary, unworkable, and unduly burdensome - p. 1

NASA ... Planned technology demonstrations will advance green concepts - p. 2

NextGen ... NJCAAN wants FAA to prepare supplement to airspace redesign EIS to include environmental impact of PBN - p. 2

Atlanta-Hartsfield Int'l ... FAA lowers Class B airspace floor but responds to community concerns - p. 3

News Briefs ... ESA seeks noise analyst ... ACRP seeks input for 2014 program; issues progress report ... PARTNER symposium set for March 1 - p. 5

Tiltrotors, from p. 1

tiltrotor aircraft. FAA said it determined that the rulemaking qualified for a categorical exclusion from environmental review.

The final rule is available at <http://www.gpo.gov/fdsys/pkg/FR-2013-01-08/pdf/2013-00111.pdf>

NASA**EIGHT TECHNOLOGY DEMOS WILL ADVANCE GREEN CONCEPTS**

The National Aeronautics and Space Administration said Jan. 7 that it has selected eight large-scale integrated technology demonstrations to advance aircraft concepts and technologies that will reduce the impact of aviation on the environment over the next 30 years.

These research efforts promise future travelers quieter, greener, and more fuel-efficient airliners, the agency said.

The demonstrations are part of NASA's Environmentally Responsible Aviation (ERA) Project and will focus on five areas:

- Aircraft drag reduction through innovative flow control concepts;
- Weight reduction from advanced composite materials;
- Fuel and noise reduction from advanced engines;
- Emissions reductions from improved engine combustors, and;
- Fuel consumption and community noise reduction through innovative airframe and engine integration designs.

Following are the selected demonstrations:

– Active Flow Control Enhanced Vertical Tail Flight Experiment: Tests of technology that can manipulate, on demand, the air that flows over a full-scale commercial aircraft tail.

– Damage Arresting Composite Demonstration: Assessment of a low-weight, damage-tolerant, stitched composite structural concept, resulting in a 25 percent reduction in weight over state-of-the-art aircraft composite applications.

– Adaptive Compliant Trailing Edge Flight Experiment: Demonstration of a non-rigid wing flap to establish its airworthiness in the flight environment.

– Highly Loaded Front Block Compressor Demonstration: Tests to show Ultra High Bypass (UHB) or advanced turbofan efficiency improvements of a two-stage, transonic high-pressure engine compressor.

– 2nd Generation UHB Ratio Propulsor Integration: Continued development of a geared turbofan engine to help reduce fuel consumption and noise.

– Low Nitrogen Oxide Fuel Flexible Engine Combustor Integration: Demonstration of a full ring-shaped engine combustor that produces very low emissions.

– Flap and Landing Gear Noise Reduction Flight Experi-

ment: Analysis, wind tunnel and flight tests to design quieter flaps and landing gear without performance or weight penalties.

– UHB Engine Integration for a Hybrid Wing Body: Verification of power plant and airframe integration concepts that will allow fuel consumption reductions in excess of 50 percent while reducing noise on the ground.

“With these demonstrations we will take what we’ve learned and move from the laboratory to more flight and ground technology tests,” said Fay Collier, ERA project manager based at NASA’s Langley Research Center in Hampton, Va.

“We have made a lot of progress in our research toward very quiet aircraft with low carbon footprints. But the real challenge is to integrate ideas and pieces together to make an even larger improvement. Our next steps will help us work towards that goal.”

NextGen**NJCAAN WANTS PBN ANALYZED IN FAA AIRSPACE REDESIGN EIS**

The New Jersey Coalition Against Aircraft Noise wants the Federal Aviation Administration to prepare a supplement to the environmental analysis done on the New York/New Jersey/Philadelphia Airspace Redesign project in order to address the environmental impacts of NextGen Performance-based Navigation (PBN) procedures.

The noise impacts in the Environmental Impact Statement (EIS) on the Redesign project were analyzed using inputs derived from radar tracks of aircraft during the year 2000, NJCAAN told FAA Administrator Michael Huerta in a Dec. 15, 2012, letter.

“Since almost no Performance-based Navigation (PBN) air procedures existed at that time, their aircraft tracks were not incorporated into the Redesign noise modeling.”

“The FAA acknowledges that PBN procedures, including RNAV/RNP, have the potential to concentrate and generate new aircraft noise and emissions impacts. In addition, the FAA expects NextGen to increase airport annual operations and to induce growth. The full impact of NextGen’s increasing airport operations from all sources at an airport needs to be fully documented and disclosed for public comment,” NJCAAN asserted.

The citizens group noted that, in its July 2008 report to Congress on the NY/NJ/PHL Airspace Redesign project, the U.S. Government Accountability Office (GAO) also commented on the absence of RNAV procedures in FAA’s EIS on the airspace redesign.

In a section of the report entitled “FAA Did Not Fully Account for Future Use of New Technology in Noise Analysis,” GAO noted that that FAA did not model RNAV procedures in the EIS noise analysis used to compare project alternatives “which is inconsistent with the operational analysis.”

NJCAAN told Huerta, “While early descriptions of the benefits of NextGen stated that it would allow design of new air routes which could include limitation of aircraft noise impacts by avoidance of residential areas, this feature has been almost totally omitted in the New York area to date.”

“Instead, new air routes have been solely designed for maximum fuel efficiency and to increase capacity. Existing noise abatement procedures are being superseded by PBN procedures that fail to address noise problems.”

NJCAAN asked the FAA Administrator to prepare a supplement to the airspace redesign EIS that includes:

- Incorporation of NextGen features, such as PBN, and covering “induced growth” in air traffic;
- Changes relative to what was assumed as “current conditions” in the redesign EIS: and
- Changes in the redesign plan and simultaneous airspace projects completed or underway within the Redesign geographic area.

Atlanta-Hartsfield Int’l

FAA LOWERS CLASS B AIRSPACE; SAYS WILL NOT INCREASE NOISE

The floor for the Class B airspace around Atlanta Hartsfield-Jackson International Airport was lowered to encompass current operations of large turbo-powered aircraft under a final rule issued by the Federal Aviation Administration on Jan. 9.

The FAA said it is taking this action to enhance safety and reduce the potential for midair collision in the Hartsfield International terminal area.

However, the FAA did modify its proposed airspace change in response to concerns by residents near DeKalb Peachtree Airport who feared the lowered ceiling would increase noise impact over them by dropping altitudes of aircraft operating at both airports, which are only about 13 nautical miles apart.

FAA stressed that it is not changing air traffic procedures. “Where IFR aircraft fly today is where they will continue to fly after implementation of the Class B modification,” the agency explained.

To accommodate community concerns about increased noise impact, in the final rule FAA lowered the Class B floor over Dekalb Peachtree from the current 8,000 feet to only 7,000 feet instead of the 5,000 feet originally proposed.

“We believe that this accommodation will not compromise safety,” FAA said.

The final rule is available at <http://www.gpo.gov/fdsys/pkg/FR-2013-01-09/pdf/2013-00287.pdf>

LAX, from p. 1

“The aggressive nature of the enforcement provisions that LAWA seeks is frankly shocking; we are not aware of similarly punitive enforcement provisions for such a noise restriction either in the U.S. or internationally,” A4A Vice President for Environmental Affairs Nancy Young told LAWA in comments on the proposal.

On Nov. 1, 2012, LAWA released for public comment a Part 161 study proposing to restrict easterly departures of all aircraft at LAX, with certain limited exemptions, between midnight and 6:30 a.m. when the airport is in over-ocean operations or when it is in westerly operation during those hours (24 ANR 164).

The restriction is being sought to reduce the nighttime noise burden for communities most affected by late night easterly departures that do not conform to a preferential runway use program that is currently instituted on a voluntary basis. LAWA seeks to make this preferential runway use program mandatory.

The proposed restriction would not be in effect when LAX is in easterly operations, which occurs when winds reach 10 knots or greater from the east.

Pilots of heavily loaded aircraft occasionally request easterly departures when winds are slightly below the 10-knot threshold because the departure runway has a slight downward slope in the easterly direction and pilots want to take advantage of that and to take off into the wind.

Mandatory Restriction Not Warranted

Both A4A and CAA argued that LAWA’s preferential runway use program has been very successful in reducing nighttime noise impact and making the program mandatory is not warranted.

“In light of the noise reduction already achieved and the already extensive noise mitigation initiatives in place at LAX and in surrounding areas, what the proposed restriction would address is a very small number of night operations to the east,” A4A said.

“The reason the number of operations is small (estimated to be 65 annual operations on average, 0.1% of total nighttime operations in 2013) is because of the success of the voluntary ‘Over-Ocean Operations Runway Use Program,’ which, as LAWA acknowledges in its application, has significantly reduced the noise exposure of concern.

“While appreciating that any particular person experiencing aircraft sound may have a negative experience, the very small number of operations and the estimated number of people who may (or may not) experience resulting noise exposure do not rise to the level warranting a mandatory restriction,” A4A’s Young argued.

“Ironically,” she continued, “LAWA cites the success of the voluntary measure as a significant part of the justification for imposing a mandatory one, stating that ‘because there are so few aircraft that depart east during Over-Ocean and Westerly Operations, and the airport is rarely in easterly flow,

communities have come to expect no aircraft departures over their homes during late-night hours.’

But Young argued, “That very statement confirms that the voluntary measure has been a success, and such success should not be punished with a mandatory measure. Further, the few aircraft that do depart to the east are doing so because of aircraft certification or regulatory performance limits that dictate such departures.”

A4A and CAA also challenged LAWA’s contention that airlines could reduce payload – cargo or passengers or both – to meet its proposed restriction and that the economic impact of such action would not be significant.

“Such an assertion is not supported by the record and does not make sense,” A4A argued. “As LAWA itself acknowledges, it is extremely difficult to predict when tailwind and other conditions would dictate an easterly departure when the airport otherwise is in westerly/over-ocean conditions. Thus, the airlines cannot plan for reduced payload on the small handful of flights that might be affected. And to reduce payload on all flights in anticipation that some tiny percentage might be affected would have even greater financial and operational effects.”

Overly Punitive Enforcement

A4A called the enforcement provisions in LAWA’s proposed Part 161 restriction “unworkable and overly punitive,” asserting they are fatally flawed in two respects.

“First, by stating that ‘any person’ deemed to ‘counsel, aid, assist, or abet’ in the operation of an aircraft in violation of the restriction would be ‘subject to the same penalty provisions’ as the ‘Operator,’ the proposal would create individual and expansive liability that is not well defined and not appropriate,” A4A wrote.

“Not only would this stray from corporate liability into personal liability (presumably not only the company would be subject to liability, as might be expected for violation of a noise-based operating restriction), but any worker involved or deemed to be involved – from the pilot, to the ramp worker, to the dispatcher and so on and so on – could be subject to this expansive provision. This individual liability is unreasonably broad, unworkable and overly aggressive in general, but even more so in light of the fact that no exceptions to the restriction would be available for commercial operations.”

Second, A4A told LAWA, “the proposal that an airline would be banned from night operations entirely for three years if it had three non-compliant operations within three years is excessive and overly punitive. Again, given that there are no exceptions available for commercial operations, the restriction imposes a strict liability standard. To then turn this into a total operating ban if there are three incidents of non-compliance, regardless of the circumstances, is overly punitive. Simply put, such a penalty would itself be an inappropriate restriction on air travel and inconsistent with ANCA.”

In Brief...

ESA Seeks Senior Managing Associate - Noise

Environmental Science Associates (ESA) is seeking a motivated Senior Managing Associate specializing in noise analysis to join its Sacramento office.

Candidates must have demonstrated experience in noise modeling for a broad range of mobile and stationary sources, development of noise mitigation measures, preparation of noise analyses in support of CEQA and NEPA compliance, and in conducting field noise measurements using Type-1 environmental noise monitoring equipment.

Experience in underwater, highway (Federal/Caltrans requirements), and aircraft noise measurement/modeling/ analysis, as well as experience utilizing the Transportation Noise Model (TNM), the FAA’s Integrated Noise Model (INM), and NOISEMAP is highly desirable.

Candidates must be team oriented and demonstrate the ability to develop and work within project scopes, budgets, and schedules. Excellent written and oral communication skills, problem-solving abilities, and client interaction required. The ideal candidate will also have demonstrated experience in new business development and contract acquisitions.

Qualified candidates must have 10 or more years of experience, with at least a BA/BS in acoustics, engineering, physics, mathematics or related discipline. Institute of Noise Control Engineering (INCE) members or associates a plus.

If interested in applying for this position or obtaining additional information, please visit ESA’s website at www.esasoc.com.

ACRP Progress Report Issued

On Jan. 10, the Transportation Research Board’s Airport Cooperative Research Program (ACRP) released its annual report that provides background on the program, a listing of products developed under the program, a summary of the status of projects in progress or completed, and more.

The Airport Cooperative Research Program has now completed seven years of research for the airport industry and is starting more than 30 new projects for 2013.

The report is available at <http://onlinepubs.trb.org/onlinepubs/acrp/ACRPAnnual2012.pdf>

ACRP Seeking Input for 2014 Program

Research problem statements are now being accepted for the FY 2014 Airport Cooperative Research Program (ACRP). These submittals, which are used to identify potential research needs and form the basis for selection of the annual ACRP research program, are not proposals to conduct research.

It is easy to develop and submit a problem statement for consideration, the TRB said. Most are 1-3 pages in length using the enclosed outline.

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Problem statements in all of these areas are requested and may be submitted to ACRP by anyone at any time; however, the closing date for consideration of problem statements for the FY 2014 program is March 15, 2013.

Further information is available at
<http://www.trb.org/Main/Blurbs/168376.aspx>

PARTNER Symposium Set for March 1

The accomplishments of the Partnership for AiR Transportation Noise and Emissions Reduction (PARTNER) research consortium 10 year effort researching aviation's environmental impact will be presented at a March 1 symposium that will be held in Southern California.

PARTNER's university collaborators have participated in nearly 50 projects examining aviation emissions, alternative fuels, noise, operations, aircraft technologies, and policies. At the symposium, the researchers will discuss the projects and the outcomes.

The day-long symposium will be held at the Westin South Coast Plaza hotel in Costa Mesa California and is open to the public. An agenda will be distributed shortly and posted on the PARTNER website.

To register, email your name, affiliation, and phone number to partner-symposium2013@mit.edu or call (617) 258-5546. There is no fee to attend. Costa Mesa is located about 43 miles South of Los Angeles International Airport and about three miles from John Wayne Orange County Airport.

The UC Davis Aviation Noise and Air Quality Symposium will follow the PARTNER meeting at the same location, March 3-6.

An FAA Center of Excellence founded in 2003, PARTNER is sponsored by the FAA, NASA, Transport Canada, the U.S. Department of Defense, and the U.S. Environmental Protection Agency. The organization's operational headquarters is at the Massachusetts Institute of Technology's Laboratory for Aviation and the Environment.

PARTNER comprises 12 universities, and approximately 50 advisory board members. Its members include aerospace manufacturers; airlines; airports; national, state and local government groups; professional and trade associations; non-governmental organizations and community groups.

UC Davis Symposium

"The Evolution of Green Aviation in the Sea Change Ahead" is the theme of the the 2013 UC Davis aviation noise and emissions symposium, which will be held March 3-6 in Orange County, CA.

Further information about the symposium is available at the conference website: <https://sites.google.com/site/evolutiongreenaviation/>

AIRPORT NOISE REPORT

Anne H. Kohut, Publisher

Published 44 times a year at 43978 Urbancrest Ct., Ashburn, Va. 20147; Phone: (703) 729-4867; FAX: (703) 729-4528.
e-mail: editor@airportnoisereport.com; Price \$850.

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