

**Key West International Airport
Ad-hoc Committee on Airport Noise
Agenda for Tuesday, October 1st, 2013**

Call to Order 2:00 pm Harvey Government Center

Roll Call

- A. Review and Approval of Meeting Minutes
 - 1. For June 4th, 2013
 - 2. For August 6th, 2013
- B. Discussion of Part 150 Study Update -
 - 1. Role of the FAA and the Part 150 Process
 - 2. Noise Exposure Maps
 - 3. Noise Compatibility Program
 - 4. Mitigation
- C. Other Reports:
 - 1. Noise Hotline and Contact Log
 - 2. Airport Noise Report
- D. Other Discussion
 - 1. Meeting Schedule for 2014

February 4 th	April 1 st	June 3 rd
August 5 th	October 7 th	December 2 nd
- E. Next meeting: December 3rd, 2013

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".

**KWIA Ad-Hoc Committee on Noise
June 4, 2013 Meeting Minutes**

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

ROLL CALL:

Committee Members in Attendance:

Commissioner Danny Kolhage
Kay Miller
Robert Padron
Sonny Knowles
Marlene Durazo
Dr Julie Ann Floyd
Harvey Wolney

Staff and Guests in Attendance:

Peter Horton, KWIA.
Deborah Lagos, URS Corp.
Dan Botto, URS Corp.
Matt Herum
R. L. Blazevic, Resident
Robert Gold, Resident
Brent Robbins, Resident
Stewart Andrews, Resident
Brendan Cunningham, City of Key West

A quorum was present.

**Review and Approval of Meeting Minutes for the February 5th and April 2nd,
2013 Ad Hoc Committee Meetings**

Commissioner Kolhage asked if there were any comments on the meeting minutes for either the February or April meetings. No comments were volunteered. Kay Miller motioned for approval and Marlene Durazo seconded the motion. There were no objections and the motion carried.

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Discussion of Part 150 Study Update

Role of the FAA and the Part 150 Process

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 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.

Dan continued that we are currently in the NCP process and will be discussing items for recommendation in today's meeting. Deborah Lagos mentioned that the handout provided at every meeting lists the criteria or filter that the FAA uses when reviewing the recommended mitigation measures. Deborah further explained that the goal is to make recommendations that will be approved by the FAA.

Robert Gold asked if there is an opportunity for public comment on this document. Peter Horton explained that the NCP has been placed on the agenda for the July Monroe County Board of County Commissioners (BOCC) monthly meeting as a Public Hearing. Dan explained further that today's meeting is also a place for public comments.

Noise Compatibility Program

Deborah Lagos explained that the NCP contains information that had previously been discussed in the Ad Hoc meetings and the NCP was attempting to document those recommendations. Furthermore, if the recommendations do not clearly

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present the ideas of this committee, please provide your comments here and any item will be revised.

Operational Alternatives:

Deborah began by discussing the first section, "Consideration of Operational Alternatives." The previous meetings provided many good ideas, and we put those ideas into the proper format for the NCP. Also, there are items included that are required and if we are not recommending them, the documentation must describe why they are not being recommended.

Dan Botto began the discussion of specific items covered in the Operational Alternatives section.

Barriers and Acoustic Shielding: Dan Botto mentioned that a previous study to determine the applicability of noise barrier at Key West had determined that the distance between the noise producer and noise receptor is too great for the barrier to have any noticeable effect. The NCP is not recommending this alternative.

Ground Power Units: Dan Botto indicated that this was discussed at previous meetings. No definitive research shows the use of GPUs reduce noise, but as the noise source is positioned lower to the ground than the onboard power unit, it may result in less annoyance. Furthermore, there is a reduction in air quality emissions. The voluntary use of GPUs is recommended, when time and safety permits.

Aircraft Run-up Location: Dan Botto explained that there is currently mandatory use between 11 pm and 7 am, and voluntary for the rest of the day. The NCP recommends that this policy remain in place, with the addition of improved education of airport users, including lighted signs on the runway, handouts and Jeppeson inserts. Kay Miller asked if this is primarily for the GA pilots. Dan responded by mentioning a conversation with the Delta station chief where she said that the pilots are constantly being rotated on and off the Key West flights and may not be aware of current noise abatement procedures. Deborah Lagos mentioned that this is more applicable to GA than commercial since most commercial aircraft do not require a preflight warm-up.

Runway Utilization: Dan Botto said that with a single runway system, runway utilization is based on prevailing winds and KWIA is oriented so that prevailing winds produce the most favorable utilization regarding aircraft noise. Aircraft primarily arrive and depart from Runway 09, with quieter arrival operations occurring from the west over the island and louder departure operations occurring

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to the east over water. Furthermore, any utilization change would be minimal as wind dictates flight direction.

Robert Gold questioned the statement at the top of page 8-5 in the NCP discussing that the increased use of Runway 27 would increase the amount of noncompatible land use, therefore there is no benefit of shifting operations to Runway 27. Mr. Gold stated that this was a hasty and not quantified conclusion. Robert says he understands that there are areas that would receive greater impact but there are larger areas that would have reduced impacts. The language implies that there would be no net change. Robert continued that he does not believe this to be true, and that similar logic is used in the Alternate Approach in Section 8-4. Robert also said he would register the strongest disagreement with the logic being used. Robert's interpretation is that if anyone would receive a higher noise level due to a change, this is a rationale for ruling out the use of the alternative, but he feels there is significant opportunity to "spread the pain" in a way that would reduce noise levels for more than would receive higher noise levels.

Dr. Julia Ann Floyd believes that the use of noise levels as a reason to not recommend a change in runway use does not even need to be included in the document because runway use is so dictated by wind conditions that changing runway utilization is not a viable option. Robert Gold suggests that with no statistics to backup that information, operations should land on Runway 27 whenever wind permits. Sonny Knowles explained that the only time this would be an option would be when wind is below 5 knots, and this would result in departures from 27 creating more noise over the island because the ATCT would not be able to operate flights head to head (arrive 27 and depart 09). Dr. Floyd mentioned that calm winds occur very infrequently at KWIA, and when the winds do resume the airport would have to be reconfigured (operationally) to handle into the wind operations, which would most likely result in using Runway 09. Robert Gold stated that his objection is that the language used in the NCP implies that if any person experiences more noise as the result of an alternative, then the alternative is rejected. He objects to the logic of that statement.

Deborah Lagos explained the FAA is going to look at the DNL 65 dB (and above) contour and that is their criteria to determine if an alternative is improving the situation or not, then there is everything outside the 65. There could be changes that show no positive change within the 65 but have changes outside the 65. Unfortunately the FAA does not consider those areas in their decision making. For any type of operational measure that is recommended for approval, we have to show that there is either a reduction in the size of the 65 contour or the shape shifts so there are less people included in the 65 contour. Deborah continued that

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we can rewrite the recommendation so that it does not imply that there couldn't be a benefit, but unfortunately any modeled scenario would show an increase in size or number of impacted people if we increased departures off Runway 27. Departures are louder than arrivals and reversing the flow will immediately cause the contour to enlarge along the departure path.

Mr. Gold reiterates that it is the logic not the strategy of the Runway 27 usage that he objects to. Kay Miller asked what is the solution. Commissioner Kolhage asked what difference does it make if it doesn't change the conclusion. Sonny Knowles interjected that he feels the entire 8-3 section was intended for airports with multiple runways and was not designed for airports with a single runway. Deborah Lagos indicated that the text will be changed to indicate that for a single runway airport, this is not really a viable or appropriate option. Commissioner Kolhage asked if the change will still come to the same conclusion. Deborah Lagos said that the change will be along the lines of "because this is a single runway airport, it is not practical to implement a preferential runway use." Peter Horton continued that this is not a viable option especially when you consider KWIA has concentric airspace with NAS Key West. Dan Botto mentioned that the previous paragraph discusses the other mitigating factors such as wind conditions and interactions with NASKW. Peter Horton also indicated that the 737 and larger aircraft find it safer to arrive to 09 with the 3 mile stabilized approach instead of landing to 27 with possible conflicts with US Navy aircraft. Sonny Knowles mentioned that even if the flights come in east of the Navy there would still be airspace conflicts. Peter Horton said from an operational side, he would not want to see Runway 27 as the preferred arrival runway.

Kay Miller asked Mr. Gold if he accepts these changes. Mr. Gold agreed and said that the text as it stands does not prove the conclusion that current runway utilization "generates the least noise impact."

Intersection Departures: Dan Botto discussed that one of the items from the previous meeting was for smaller aircraft to use the taxiway C intersection for departures. The NCP recommends that smaller aircraft, when weather and safety permit, use the taxiway C intersection, instead of the Runway 09 end, for departures. This change would move single noise events caused by the smaller aircraft approximately 1,000 feet to the east, away from the residential areas off the end of Runway 09. Sonny Knowles indicated that there are currently some aircraft, including one of the island tour biplanes, that use this when possible, which does keep noise away from the residential areas. Dr. Floyd mentioned that one of the first things you learn when flying is to use all the available runway in case there is a mechanical problem. If you were to lose an engine, you would much

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rather have flat runway in front of you instead of water or a salt pond. The pilots look at what is more safe versus less safe, and the pilots would not like to operate if they had to use the taxiway C intersection departure. Dan Botto pointed out that this would strictly be a voluntary procedure. Sonny Knowles said it is definitely more safe to use the whole runway, but it is sometimes more convenient to use the taxiway C intersection.

Modification of Flight Tracks: Dan Botto explained that Section 8-4 discusses the ability to modify flight tracks and then provides figures indicating that currently aircraft do not follow any single flight track into KWIA. Commercial aircraft and jet aircraft prefer to use a 3 mile final, but other aircraft fly the most convenient route, weather, traffic, aircraft handling, and pilot skill permitting. Sonny Knowles indicates that many times the pilot wants to make a short approach to save time and/or fuel and the tower will extend your base leg due to traffic.

Robert Gold mentioned the text on page 8-7, "previously KWIA instituted an alternative voluntary approach from the north for smaller aircraft." Robert continued that the language used in the text does not quantify the level of impact caused by the implementation of the Garrison Bight Approach. Without quantification of the noise complaints then increasing from 1 to 10 complaints could be viewed as the same as increasing from 10 to 100 complaints. The way the language is, any increase in complaints results in the alternative being discounted. Mr. Gold feels that there is a false equation being presented here. Robert believes that there are far fewer homes under the Garrison Bight Approach than under the scenic straight-in approach, and while he does understand that commercial and jet traffic will use the 3 mile final, he is advocating that there are voluntary procedures for the smaller aircraft to mix up the approach paths. Mr. Gold also believes that the figures indicating flight tracks do not relay any useful information and is misleading since most aircraft still use the straight in approach. Robert believes that the information provided does not sufficiently close the issue of alternate approach paths. Dan Botto mentioned that during the analysis of the Garrison Bight Approach; there was a noticeable bulge in the contour along the GB approach path, with the corresponding increase in noncompatible land use. When the suggested use of the GB approach was rescinded, the contour was reduced thereby indicating that the random dispersion already in place resulted in fewer noncompatible land uses than the voluntary use of the GB Approach. Dan continued that due to the density of residential land uses around KWIA, there are not any viable options to direct aircraft flights that will not result in an increase in impacted noncompatible land.

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Robert Gold remarked that he believes the DNL 65 dB noise contour skews the results with respect to the number of homes affected. There certainly will be people under the GB Approach that will experience a higher noise level, but the trade-off will be an equal reduction in noise over a lot more homes on the straight in approach.

Robert Gold continued that he believes that the way in which this has been modeled obscures a more careful analysis and the language precludes voluntary guidelines for noncommercial VFR traffic to mix up their flight paths. Robert feels that the language in the NCP closes the discussion.

Peter Horton commented that the figures of the arrival radar tracks show many aircraft still use the GB Approach, but the tracks also show many aircraft follow the VOR to Fleming Key and then make a left turn to the runway. The departure flight track figure also show many aircraft depart over Garrison Bight, usually in response to direction from the Tower.

Peter continued that, based on his history at KWIA, Mr. Gold's assumption is flawed if he thinks the citizens of Key West will be willing to share the pain. He has yet to have someone approach him and ask to have aircraft fly over their home to relieve others of some of the noise. Mr. Gold responded that the roll of government is to impose burdens on society when society is unwilling to impose those burdens themselves.

Robert continued saying he believes the straight-in approach covers the greatest number of homes of any possible flight track into KWIA. Peter Horton agreed with him. Mr. Gold also wanted to augment his comments to include the business jets and the air tour biplanes to limit the flights of both of these types over Old Town.

Commissioner Kolhage asked where are the noise complaints primarily emanating from. Dan Botto responded that recently there are very few noise complaints, but they tend to be clustered from Linda Avenue, Key West by the Sea, and the areas directly off the end of the runway. Deborah Lagos mentioned the areas between Fourth and Harris, and Stewart Andrews indicated that he has called from his home on Staples Avenue.

Mr. Gold asked if there is any discussion in the NCP of the corporate jets or the air tour biplanes, as these are both louder than the 737's. Dan Botto mentioned that in a later section there is a discussion regarding the phasing out of the older noise stage 1 and 2 corporate jets. Sonny Knowles indicated that the air tours don't fly the straight in approach. They circle the island and then try to get onto

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the ground as quickly as possible to pick up the next tour. If they are on the straight-in approach, it is at the request of the Tower.

Robert Gold then asked if there was any way to help document the noise from the biplanes because it doesn't seem like they are just passing over, but they are actually circling his neighborhood. Marlene Durazo explained that it seems like they do that around Key West by the Sea also. Peter Horton asked that in Section 11 we specifically address the biplane operators and ask them to fly in the most noise sensitive method. Sonny believes that the operators would be more than happy to comply when possible. Peter continues that monitoring their flight paths would be part of the role of the noise compliance officer recommended in Section 11. Peter explained that these are not just strategies that we want to try, but are recommendations of the NCP. Robert Gold believes that the biplane pilots don't know how much noise they produce, or they know and don't care; he believes it is that they know and don't care. He believes that without official policy they will not abide by any requests.

Marlene Durazo asked where would the biplane discussion be placed in the NCP. Deborah Lagos said will put it in as Section 8.4.4, and will be included in Section 11 as a recommended measure. Dan Botto asked what are the biplanes doing. Sonny Knowles said they do air tours, banner towing and aerobatics, but the aerobatics are performed away from the island in a designated area. Dan Botto indicated that the section will be a discussion of air tour and banner towing operations.

Peter Horton indicated that there are multiple pilots that are flying these tours, and the owner is responsible to tell his pilots about the areas to avoid. Peter continued that the airport has been getting complaints about the biplanes for years, so a simple discussion with the operators will not last and there must be an ongoing process. Dan Botto mentioned that as part of the program management measures, better education of the pilots using KWIA regarding noise sensitive areas and noise mitigation methods has been included in the recommendations. Deborah Lagos indicated the NCP will add these particular users to that discussion also.

Helicopter Operations: Dan Botto indicated that there have been complaints regarding helicopters operating to the north of the airport. Because of the ability of the helicopters to fly below areas of US navy activity, the NCP recommends that when conditions permit, helicopters should arrive and depart to the south of the airport. This would be a voluntary recommendation, and obviously would not apply to Coast Guard, Life Flight, and other official and emergency operations. Sonny Knowles felt that was certainly a reasonable request for the helicopter

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operators to avoid noise sensitive areas, but there are times when they are photographing particular areas of real estate and may not be able to avoid these areas. Mr. Blazevic mentioned that the visiting helicopters use the easiest route in and out which is from the north. Commissioner Kolhage indicated that some of the flights could be Mosquito Control and are not going to change.

Airport Use Restrictions: Dan explained that these are ways to limit the louder aircraft from using the airport, or times that the airport may be used.

Denial of use to aircraft not meeting Federal noise standards: All of the commercial aircraft currently meet Federal noise standards and as of December 31, 2015 all of the small business jets and privately owned jets will have to meet the Federal noise standards. There are currently no noise standards for small piston aircraft. Use restrictions based on noise levels are not recommended.

Capacity limitation based on relative noisiness: The louder aircraft will be fully phased out within 2 years, and to limit would require a Part 161 study which could cost upwards of a million dollars. Robert Gold asked what will be the effect of the phase out. Sonny Knowles said there are not many of the older business jets flying into Key West. Dan Botto mentioned that while some of the aircraft will be replaced, re-engined, or hush-kitted, many will just be retired as the owners will not be able to afford to meet the new standards.

Marlene Durazo asked about the effect of opening Cuba up to direct flights. Dan Botto said the aircraft will still have to meet the noise standards wherever they come in from. Sonny Knowles said that there has been a reduction in flights due to fuel costs and that can be expected to continue.

Required use of noise abatement takeoff and/or approach procedures: KWIA already uses the voluntary close-in departure procedures, and the NCP will recommend voluntary use of the NBAA close-in arrival procedures and the propeller and power adjustment procedure, when safety permits. This information will be provided to local and visiting pilots.

Landing fees based on noise levels or time of arrival: Any restrictions based on noise levels or landing fees would require a Part 161 analysis, and due to cost is not being recommended for the NCP.

Partial or complete curfews: Currently KWIA has a voluntary curfew between 11 pm and 7 am. The NCP will recommend that this continues and would be included in the education of local and visiting pilots. Peter Horton said that the monitoring of this would be part of the noise coordinator's job.

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Deborah Lagos mentioned an article that was provided to the committee regarding two California airports that have tried to implement mandatory curfews for years and have not been successful. Burbank Airport says they have spent millions of dollars over a decade to perform a Part 161 Study to approve a curfew. There is now a congressman trying to get this brought up again for Burbank and Van Nuys. Dr. Floyd mentions that these curfews can interfere with flights that may be family emergencies. These late night flights are not usually somebody wanting to go party in Miami Beach. How would you feel if one of these curfews would impact your family, or affected the safety of the flight?

Land Use Alternatives:

Deborah Lagos began the discussion of the Land Use Alternatives, Section 9 of the NCP. The NCP looks at measures that look at existing impacts and preventative measures. The biggest item of land use measures will be the NIP [Noise Insulation Program], but we want to draw your attention to Section 9.2 with the description of the various type of land uses that are not compatible with the noise level, and the description of why some of those particular places are not being considered for the mitigation program, and why some are included, for example, the condominiums at Ocean Walk and Las Salinas, and the Doubletree Hotel. These facilities were warned before they were constructed that they were in a noise impact area. Peter Horton explained that they receive very few complaints from these areas as they were constructed with the noise in mind. Peter asked if transient lodging [hotels] were considered compatible land use. Deborah explained that they are not compatible, but they are not typically mitigated. Deborah mentioned the specific condominiums, apartments, and hotels that are not being included in the mitigation, all along the eastern end of the airport. Deborah also mentioned that the high school is not included in the mitigation because they were part of the previous Part 150 mitigation.

Robert Padron mentioned that the data for Key West by the Sea may not be accurate; it should be 206 units, not 203, which Dan Botto explained that the information was correct in the tables, but had not been changed in the text. Robert pardon also believed the year built and acreage may be off. Deborah asked if anyone had documentation of this information to please send it along, as her only source was the Monroe County Tax Assessor's website.

Deborah Lagos also mentioned the other areas within the contour that are not compatible, such as Grace Lutheran School and parts of the Catholic Charities property. Ray Blazevec asked if this means they are eligible for some form of noise mitigation. Deborah informed him that yes they will be.

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Stewart Andrews said that the building on the back of the Catholic Charities properties are new and should not be included in the NIP. Ray Blazevec also reminded the Committee that these building had previously been a church and now were residences.

Peter Horton asked if there are 346 units to be NIP'ed and Deborah explained that the number might change based on this discussion and other eligibility determinations.

Deborah Lagos directed the Committee to look at Figure 9.1 to see the noise contour with the areas to be included in mitigation identified. Keep in mind that many properties in the mitigation areas have been mitigated previously. Deborah continued describing how the areas were chosen and how the "Block Rounding" was developed.

Stewart Andrews also believes that the townhomes in the Sun Terrace area are new, but Deborah indicates that this area was not in the previous contour so they would still be eligible.

Deborah asked the Committee if they thought there were other areas that should be included or if they thought there were any areas included that should not be included.

Peter Horton asked if all of Key West by the Sea is included in the mitigation. Dan Botto and Deborah discussed altering the mitigation map in the NCP because the areas to be included were not completely clear.

Marlene Durazo asked if the map would be revised before submittal to FAA. Deborah said that it would be revised to show more clearly the areas to be mitigated.

Deborah mentioned that Table 9-1 quantifies all the housing units in the mitigation areas.

Deborah explained that we are not going to go over the land use measures that are not being recommended. Deborah continued that the Land Use Recommendations consist of the Noise Insulation Program, which will be similar to the previous NIP, with the difference of nonparticipants, either by choice or because it is determined that their house does not meet eligibility standards, being offered the purchase of an avigation easement. It is a onetime monetary payment. Kay Miller asked how much the easement would be purchased for. Deborah said they should be in the neighborhood of \$5,000 each. Commissioner Kolhage asked what is the

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purpose of the easement and Deborah explained that the easement is for the acknowledgement of the noise and that the homeowner will not seek damages for noise. Commissioner Kolhage asked what is the homeowner supposed to do with the money or is it just compensation for the noise. Deborah explained that it is just compensation.

Dr. Floyd asked if the easement held up or did people come after the airport at a later date anyway. Kay Miller explained that the Avigation Easements stand up pretty well to legal challenges.

Commissioner Kolhage asked if the new FAA guidance will require every unit in Key West by the Sea to be tested. Deborah explained that the guidance is not completely clear on the testing procedures. Currently the methodology seems to be to group the units by construction type, age, number of stories, and any other number of parameters that can be identified. Then we will quantify the number of units in each category and select a minimum of 10 % of each category will be pretested. The mitigation will be designed based on the pretest, and the test homes will be post tested to determine if the mitigation is effective or if it needs to be adjusted to meet noise reduction standards. Deborah continued that there is a down side to this testing, if a house in any category tests as already having the desired outdoor to indoor noise levels, that house and all the others in that category could be denied mitigation. Deborah explained that the FAA has only recently come out with this guidance and the process will probably evolve as the methodology is actually put into practice.

Stewart Andrews asked if there is a certain level of noise reduction that must be met. Deborah Lagos explained that a minimum of 5 dB is required. She continued that if it is already quiet enough inside then the home could be ruled ineligible.

Deborah asked if the Committee was in favor of offering the easement option. Kay Miller felt that if the people did not want to participate in the NIP, they would most likely appreciate the easement. Dr. Floyd suggested that some homeowners would rather not have the easement because then if they sell their house the next owner has no recourse.

Deborah continued that the NCP will offer a NIP with an avigation easement or strictly the purchase of an avigation easement to the eligible home. She also reminded the Committee that we will review the eligibility of the Catholic Charities facilities.

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Deborah asked the Committee what is their feeling about including Grace Lutheran School. The consensus was that it was an old facility for the most part and should be included.

Deborah continued with the preventative land use measures. She continued that in the previous Part 150, it was recommended that a couple of parcels be rezoned to prevent noncompatible land uses. These recommendations were not completed by the City. The Airport is currently in negotiations to purchase the parcel at the east end of the runway, but the NCP will recommend the purchase of an aviation easement for the vacant lot on Flagler Avenue.

Deborah mentioned that in the previous NCP, it was recommended that the City add compatible land use zoning regulations, but this did not happen. In this NCP, we are recommending they just modify a paragraph in the existing zoning regulations that will make reference to the Airport noise contours and instead of the wording saying "avoid encroaching on the airport hazard zone" and change to "noncompatible land use proposed within the KWIA DNL 65 dB noise contour is prohibited."

Commissioner Kolhage felt that this would probably not be approved by the BOCC since it is prohibiting use of the land, it is almost a taking of the property. Peter Horton suggests it say "prohibited or must be built in a compatible manner." Deborah said she will reword this using language from the Part 150 regulations.

Deborah explained that the other approved recommendations from the previous NCP that were not implemented are being requested to be rescinded so they are no long on the books.

Program Management Measures:

Deborah mentioned that the NCP will recommend that the Airport hire an airport noise coordinator, who would be responsible for overseeing the NIP, monitor compliance with noise abatement procedures, and the education and notification of the pilot community. Peter Horton said that this does not have to be an airport staff person, since there will be a NIP program, and the Ad Hoc committee will continue, and the annual contour update will continue, this could be an outside consultant, as the FAA may pay for it either way. Deborah explained that this will be reworded to be an either airport staff or outside consultant for this position.

Deborah explained that the NCP recommend that the Ad Hoc Committee be continued through the NIP

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She continued that the NCP will recommend that the Airport develop a brochure, Jeppeson insert and other material to assist in the pilot education program regarding noise abatement procedures at KWIA. Stewart Andrews asked if this included the App for electronic access to this information. Deborah explained that this is the Whispertrack® system that the Airport will subscribe to and goes out to all the flight planning services so pilots can get this on their tablets.

The NCP is also recommending informational boards be put into all the accessible pilot's lounges.

Deborah continues that the Airport will install lighted airfield signs to remind the pilots about the noise abatement procedures.

The NCP will also recommend the purchase of a flight tracking and noise monitoring system, which is eligible for FAA funding.

The NCP will recommend the continuation of the annual contour update to keep tabs on the validity of the avigation easement and the boundaries of the noise mitigation program.

Deborah explained that Section 11 is a summary of only the recommendations of the NCP. She asked that the Committee open to page 11-19 showing that the entire NCP mitigation will cost approximately \$25 million; the implementation plan on page 11-20 provides the timeline for the entire mitigation program.

Sonny Knowles asked if current government spending issues are a problem. Peter Horton explained that this comes from a special pot of money from Airport Improvement Program set aside.

Deborah explained that Appendix J lists every single parcel that is in the program area, and Appendix M shows the proposed implementation plan by address. Included in Phase 1 are the 4 homes that did not choose to participate the first time around but now have new owners. If they chose not to participate and still own the property, they are in Phase 8.

The Committee voted to submit the NCP with the changes discussed to the BOCC, Sonny Knowles made the motion and Kay Miller seconded the motion. The "ayes" were unanimous.

The Commissioner adjourned the meeting at 4:00 p.m.

**KWIA Ad-Hoc Committee on Noise
August 6, 2013 Meeting Minutes**

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

ROLL CALL:

Committee Members in Attendance:

Commissioner Danny Kolhage
Kay Miller
Marlene Durazo
Dr Julie Ann Floyd

Staff and Guests in Attendance:

Peter Horton, KWIA.
Deborah Lagos, URS Corp.
R. L. Blazevic, Resident
Ashley Monnier, NASKW

A quorum was not present.

Review and Approval of Meeting Minutes for the June 4th, 2013 Ad Hoc Committee Meetings

Deborah Lagos explained that as there is no quorum present, approval of the June 4th, 2013 minutes will be delayed until the October meeting. Deborah also asked if there were any comments at this time from those present. Kay Miller asked if comments could be emailed prior to the next meeting. Deborah indicated that emailing comments was acceptable.

Discussion of Part 150 Study Update

Noise Compatibility Program

Peter Horton explained that the NCP, the second element of the Part 150 has gone to the BOCC and was approved for submittal to the FAA. Deborah indicated that the Draft NCP has been submitted to the FAA and we are awaiting comments. Peter Horton continued that he knew it had been submitted because KWIA has received indication from the FAA that the NIP for this Part 150 will begin with Phase 1, not as a continuation of the previous NIP (Phase 8). The FAA also indicated that they may be able to fund the NIP in the upcoming fiscal year

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starting this October as opposed to the following fiscal year starting in October 2014. The FAA further indicated that the \$3.6 million of FAA money for year one has been programmed for this upcoming October (2013). This is contingent on the KWIA being able to accept this grant by July 15 of 2014.

Peter explained that this is important for the project because we are looking at a total of 337 homes with construction costs estimated at approximately \$26 million; with 206 units in Key West by the Sea (KWBTs). Peter explained that they were hoping to perform the work at KWBTs for approximately \$50k per unit.

Peter further explained that while KWBTs is in the document and included in the program recommendations, that does not mean it is approved for the NIP until full approval of the NCP comes from the FAA.

Deborah Lagos mentioned that this is a very encouraging sign from the FAA that they feel the recommendations are valid.

Kay Miller asked if the cost for KWBTs would be around \$10 million alone. Peter said just based on current information, without the design and engineering, they would expect the condos would be cheaper than single family homes due to economy of scale. Peter continued that if the cost exceeds that, the funding would still be available. Deborah Lagos explained that in the NCP, she used the \$75K per unit for both single family and multi-family residences to be on the safe side with our estimates.

Peter Horton reiterated that the funding is there, but the NCP has not been approved as of yet. Peter asked what does the Committee need to do to finish the project. Deborah Lagos explained that we are in the waiting mode currently. The NCP has been submitted to the FAA for the preliminary review and when comments are provided, we will incorporate those comments and resubmit the NCP for formal review and approval. Kay Miller asked if it needs to go back to the BOCC at that time. Deborah indicated that as long as there are no substantial changes, it will not need to be re-approved by the BOCC. If the comments are substantial, then the document will probably come back to the committee and the BOCC. Deborah continued that the only item that may be questioned would be where the boundary

KWIA Ad-Hoc Committee on Noise August 6, 2013 Meeting Minutes

lines of the program area were drawn, in particular Building A of KWBTs which is not in the contour at all.

Peter Horton explained that we made a strong case that this is a complex and we need to noise insulate the entire complex.

Kay Miller asked if we may not see a big enough differential in the noise levels inside the unit before and after the insulation. Deborah Lagos explained that we must see a 5 dB improvement and also, the inside must currently be above 45 dB.

Deborah Lagos continued that this would not affect the overall approval of the NCP, but would exclude units that do not meet this standard. Deborah explained that the NCP has proposed a testing phase initially to test representative samples of the houses and condos to indicate which units are or are not eligible for inclusion in the program. Commissioner Kolhage asked how much time would this phase require. Deborah explained that once we resubmit the NCP for final review and approval, the FAA has 180 days to review and approve. Kay Miller asked how long will the preliminary review take. Deborah mentioned that it was submitted around the beginning of July and she expects comments back the beginning of September. With a one month turn-around, URS could have it back to them and expect final approval in March or April of 2014. Peter Horton indicated that this would allow KWIA to have all the grant information in by the July 2014 deadline.

Peter Horton also explained that KWIA has this Email and can use it to expedite the review process by reminding the FAA that we don't want to wait another year now that they have programmed the grant money. Peter also explained that the FAA is in the middle of grant season right now, and that KWIA has programmed their JACIP money.

Mr. R.L. Blazevic asked what was the status of the vacant lot on 11th street. Deborah Lagos responded that the NCP recommended that the airport purchase an aviation easement on the property limiting the use to compatible land use or be built to achieve interior noise levels of 45 dB or less.

Deborah Lagos continued that the handout provided to the committee and attending public is a summary of all the recommended mitigation measures in the

KWIA Ad-Hoc Committee on Noise August 6, 2013 Meeting Minutes

NCP; including the estimated cost and proposed timeline. Deborah also explained that there are other recommendations involved in the NCP that have costs associated with them, such as the pilot education program and the hiring of an airport noise coordinator, and the committee should look at putting some of the initial grant money towards these items.

Peter Horton explained that we will have to put NIP money towards doing the contours every year, and when the NIP is ongoing there will need to be a coordinator, which was URS for the previous NIP. Peter explained that the airport may need to have an employee at the airport for this, but a lot of the cost can be covered by the grant money.

Deborah Lagos explained that other items with costs will need to be covered, like the pilot education, which is not expensive, but the costs will need to be covered. These items are important and should not be brushed aside, although not necessarily putting the noise monitoring system as a priority at this time. Peter Horton felt that most of these items would be eligible for either AIP or PFC funding. KWIA has just received their PFC allocation reports for this year and next year; KWIA expects to receive \$2.5 million this year for capital projects, and for next year, based on 2012 enplanements, KWIA should be getting \$2.9 million in AIP funds and another \$1.5 million in PFCs. Therefore, these modest expenditures can be worked through and there is FDOT money available, and there may be FDOT money for the NIP due to the size of this project. As long as enplanements continue to increase, the costs in the proposed NIP are not onerous for the airport.

Peter also mentioned that the airport has received approval to install EMAS at the other end of the runway, with construction starting this year. R.L. Blazevic asked what is the cost of the EMAS. Peter explained that it is approximately \$6 million.

R.L. Blaazevic asked who will monitor the noise as recommended by the NCP. Peter Horton explained that URS performed this task for the airport previously and that KWIA would like to continue this arrangement.

KWIA Ad-Hoc Committee on Noise August 6, 2013 Meeting Minutes

Other Reports

Noise Hotline and Contact Log

Deborah Lagos reported that there were only four calls and nothing significant to the Noise Hotline, and one call to the contact log regarding the NCP.

Airport Noise Report

Deborah Lagos asked if there were any comments on the Airport Noise Report that were of interest. Kay Miller mentioned that she did not see anything of interest this time.

Deborah mentioned the article in the first issue that discussed that there were no AIP grants in the first 8 months of the year, which was interesting. Peter Horton indicated maybe that is why there is money available at this time.

R.L. Blazevic asked if there is an increase in passengers and is that may be why there is money available. Peter Horton explained that KWIA has seen a continual growth over the last few years at levels that are probably higher than expected and while not continuing at the current pace, he expects KWIA passenger levels to continue to increase in the foreseeable future.

Peter Horton explained that the arrival area construction and expansion is almost complete, and will increase capacity in the arrival area. Peter continues that the next expansion in the five year plan is to move the rental cars across the street to allow more space for arriving passengers.

Deborah Lagos mentioned an article on page 36 discussing a legal case which indicated that noise complaints, if substantiated by names and dates, can be used for enacting aircraft noise restriction. Deborah also mentioned an article also on page 36 discussing the final rule banning stage 1 and 2 jets under 75,000 pounds.

Any Other Discussion

By-Laws

**KWIA Ad-Hoc Committee on Noise
August 6, 2013 Meeting Minutes**

Deborah Lagos indicated that Monroe County was suggesting that this committee should have a set of By-Laws in place. Commissioner Kolhage and Peter Horton indicated that this may not be necessary. Deborah continued that the County has sent URS copies of by-laws from other Monroe County committees to use as a go-by. Commissioner Kolhage asked that the committee allow himself and Peter Horton to look into this subject further before proceeding. Peter explained that this committee has been operating for 15 years without by-laws and would like to continue.

Kay Miller moved to adjourn the meeting
The Commissioner adjourned the meeting at 2:40 p.m.

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**

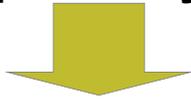


Preliminary Noise Compatibility Program Report



FAA Review

Final Noise Compatibility Program Report



Public Hearing



FAA Review - 180 Days

FAA Record of Approval



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.

**Key West International Airport
Noise Hotline Log**

Date of call	Time of call	Caller	Contact information	Date rec'd	Message
7/27/2013	8:13 AM	Patrick Murphy	KWBTS #218, 610-304-8946	8/5/2013	Hang up
7/27/2013	0.3423611	Patrick Murphy	KWBTS #218, 610-304-8946	8/5/2013	I'm calling regarding the planes that have been flying over my property. Actually, one just a little while ago, a continental, went really close to the corner of our building and yesterday we had quite a few flyovers with Southwest. I thought in February when we last spoke that you told me that it only had to do with the wind direction and that none of this would be happening. There are two things, there's a safety issue and there's also the issue of the noise. Id liked to be contacted and see if we can address this issue. I think the other people in our place have given up hope but quite frankly I didn't spend all this money to sit here and have planes fly over my property. id like to know who, where, what and how someone gave permission for this to start happening.
7/27/2013	0.3423611	Patrick Murphy	KWBTS #218, 610-304-8946	8/5/2013	A plane just took off from the airport it was a Southwest airplane creating an ungodly amount of noise and I just don't know what to do about this. When I moved here everything was going away from us it was going East and now seems as though you're sending them apparently West. I want to know how this changed.
9/2/2013	1:33pm	Marlene Durazo	KWBTS #210C, 296-2094	9/6/2013	A jet came screaming in very loud and too close to KWBTS.
9/13/2013	8:00 AM	Marlene Durazo	KWBTS #210C, 296-2094	9/18/2013	A loud booming run-up and takeoff for a prolonged amount of time. Very loud.

**Key West International Airport
Contact Log**

Date of call	Caller	Contact information	Subject	Response
9/10/2013	Shane Halvorson	East end of Lfagler Ave	<p>I live on the east end of Flagler Avenue. Very rarely do the large commercial airliners fly over our home, but we are directly under the flight past for smaller planes and helicopters. The helicopters in particular create quite a noise, as they fly so low, and with some being emergency transport, they fly at all hours.</p> <p>Could you tell me what is the current plan for the noise reduction program? Is there something I should do, or someone else I should contact, to be considered for the program?</p>	<p>DTB responded with a copy of the noise contour indicated his address in relation to the Program Area. Also added Mr. Halvorson to the AD Hoc Email list</p>

Airport Noise Report



A weekly update on litigation, regulations, and technological developments

Volume 25, Number 23

July 26, 2013

Helicopter

ON HEELS OF COURT RULING, SCHUMER SEEKS FURTHER HELICOPTER ROUTE RESTRICTIONS

Just 12 days after a federal appeals court upheld the Federal Aviation Administration's mandatory helicopter route off the North Shore of Long Island to reduce noise impact on communities, NY Sen. Charles Schumer (D) and Rep. Tim Bishop (D-NY) asked the Secretary of Transportation and FAA Administrator to impose a similar route off the South Shore.

"Now that it's clear that the FAA has the authority to protect Long Islanders from the incessant and often deafening drone of low-flying helicopters, the FAA should move forward with over-the-water routes for the South Shore of Long Island and as well past the North Fork," said Schumer.

"The court's ruling clears the way for new, stronger efforts to protect the residents of Eastern Long Island from helicopter noise," said Congressman Bishop.

Last year, Schumer successfully pushed DOT to finalize and publish regulations that mandate over-water routes for helicopters flying off the North Shore of Long Island.

The Helicopter Association International challenged that restriction but the U.S. *(Continued on p. 91)*

PANYNJ

NY SENATORS, REPS WANT AIRPORT ADVISORY COMMITTEE FOR NYC METROPOLITAN AREA

New York Sens. Charles Schumer (D) and Kirsten Gillibrand (D) and ten congressional representatives of districts in the New York City area are urging the Port Authority of New York and New Jersey to establish an airport advisory committee to address ongoing and future concerns that residents have about noise and other airport issues that negatively affect their quality of life.

In a July 23 letter to PANYNJ Executive Director Patrick Foye, the lawmakers noted that airport advisory committees have been created across the country in areas such as Los Angeles, San Francisco, Chicago, Louisville, Atlanta, Boston and Philadelphia.

"It is simple common sense to say that the largest metropolitan area in the country should have an airport advisory committee like the one we are proposing, a body that would help increase quality of life for locals," said Sen. Schumer.

"With the creation of this committee, those affected by airplane noise can provide a more united front to their elected officials, the aviation community and the FAA."

Presently, no formal forum exists for residents of the NY City region to express *(Continued on p. 93)*

In This Issue...

Helicopters ... Now that a federal appeals court has blessed a mandatory noise abatement route off the North Shore of L.I., Senator Schumer wants a restriction off the South Shore - p. 90

PANYNJ ... NY pols want airport advisory committee for NY metro area - p. 90

NextGen ... FAA Administrator defends agency progress implementing Next-Gen at House Aviation Subcommittee hearing - p. 91

Oakland Int'l ... Winners of 2012 Fly Quiet Program awards honored - p. 92

Technology ... New B&K product gives communities information about long-term noise impacts - p. 92

Heathrow ... Airport officials propose three options for adding a third runway; contend number of people impacted by noise will drop with new runway but London mayor, environmental group skeptical - p. 92

Helicopter, from p. 90

Court of Appeals for the District of Columbia Circuit ruled on July 12 that FAA does have authority to alter air traffic routes and impose mandatory helicopter routes for the sole purpose of reducing the impact of aircraft noise on residential communities (25 ANR 86).

“We believe it is imperative to pursue additional rule-makings that would extend the over water North Shore route to all of Nassau County; establish a South Shore water route; require helicopter operators following the North Shore route but landing at South Fork airports to fly completely around Orient Point and Shelter Island; and significantly prohibit helicopter operators’ ability to ignore these noise-mitigation routes by utilizing other over-Island pathways like the so called ‘track route’ across the middle of Nassau and Suffolk,” Sen. Schumer and Rep. Bishop wrote in a July 24 letter to Secretary of Transportation Anthony Foxx and FAA Administrator Michael Huerta.

They asked that the regulatory action begin immediately and that FAA provide “an update shortly after Labor Day on the data the FAA has collected since the implementation of the North Shore rule last September. It is important that we continue to have your technical experts monitor the efficacy of the rule and use the data to understand whether the FAA needs to increase its enforcement capabilities.”

NextGen**HUERTA DEFENDS PROGRESS IN IMPLEMENTING NEXTGEN**

FAA Administrator Michael Huerta defended his agency’s progress in implementing the NextGen satellite-based air navigation system but told the House Aviation Subcommittee that funding uncertainty brought about by sequestration poses a significant challenge to NextGen implementation.

“The sequester and future funding unpredictability requires the FAA to make sizeable budget cuts that affect our operations and our future,” Huerta said in testimony to the Subcommittee at a July 17 hearing.

But Administrator Huerta insisted, “We are delivering NextGen on time and on target.”

FAA is projecting that NextGen will reduce overall airspace delays by 41 percent by 2020, “compared with what would have happened if we did not implement any NextGen improvements,” he told the Subcommittee.

“These delays reductions will provide an estimated \$38 billion in cumulative benefits through 2020. We estimate 16 million metric tons in cumulative reductions of carbon dioxide emissions through 2020, and 1.6 billion gallons in cumulative reductions of fuel use,” Huerta told the Subcommittee.

House Aviation Subcommittee Chairman Frank LoBiondo (R-NJ) convened the hearing to focus on factors that he said are causing delays in the implementation of NextGen.

Only two witnesses were called before the Subcommittee: Huerta and U.S. Department of Transportation Inspector General Calvin Scovel, who asserted that FAA has made little progress in moving from planning to implementation of NextGen and delivering benefits to airspace users.

IG Details Problems with Implementation

“FAA’s difficulties in advancing NextGen and transforming the National Airspace System (NAS) stem from a number of underlying causes, including the lack of an executable plan and unresolved critical design decisions,” the DOT Inspector General told the Aviation Subcommittee in written testimony.

“For example, FAA’s initial plans for NextGen did not address implementation costs or how technologies would be developed or integrated. Also key to NextGen’s success is integrating new performance-based navigation (PBN) routes and procedures at key airports in order to maximize near-term benefits and gain user support. Yet, FAA’s lengthy procedure development process has delayed the implementation of new routes, and unresolved obstacles, such as the lack of updated controller policies and procedures, make it uncertain when airspace users can expect widespread benefits.

“Advancing NextGen also depends on successfully deploying new automation systems that controllers use to manage air traffic. However, FAA continues to face technical, cost, and schedule risks with its efforts to modernize or replace automation systems at terminal facilities because the Agency has not identified and finalized all needed software and hardware requirements.

The DOT Inspector General told the House Aviation Subcommittee that, although FAA has implemented over 100 RNP procedures to date at large airports, the benefits of those procedures remain unrealized because air carriers and airports are not widely using them.

His analysis of preliminary data compiled by MITRE shows that RNP use is high at some small- to medium-sized airports, such as Oakland International, but overall RNP use is low, particularly at busy airports, such as those in the New York City area.

At the six large airports where FAA has implemented advanced PBN procedures (Reagan National, Dulles International, Chicago Midway International, LaGuardia International, Newark Liberty International, and JFK International) only about 3 percent of eligible airline flights actually use them, Scovel said.

“Several obstacles have undermined FAA’s efforts to increase use of PBN procedures,” he told the Subcommittee. These include (1) lack of controller tools to manage mixed operations – merging aircraft using straight-in approaches with those on curved paths – at busy metroplex locations; (2) the lack of clear procedure design objectives; (3) outdated controller procedures; and (4) the lack of standard training for pilots and controllers.

FAA is addressing an action plan to address these obstacles but it unclear when it will be issued, he told the Subcommittee.

*Oakland Int'l***AIRPORT HONORS WINNERS OF 2012 FLY QUIET AWARDS**

Five aviation companies received Fly Quiet Awards for achieving outstanding compliance with Oakland International Airport's Fly Quiet Noise Abatement Program for calendar year 2012.

The winners of the Fly Quiet Awards were recognized by the OAK Airport – Community Noise Management Forum at an awards banquet held July 17.

The Forum created the Fly Quiet Program to recognize those operators who comply with all noise abatement policies and procedures and achieve the highest level of compliance.

“We are proud of this year's award recipients,” said Michael McClintock, OAK Noise Forum Facilitator. “The Fly Quiet Program encourages aviation businesses to be responsible neighbors.”

The Fly Quiet award winners for 2012 are:

- Airline Award – Southwest Airlines, the dominant air carrier serving OAK has been an active participant in the Port's aircraft noise abatement activities for many years.
- Commercial Business Jet Award – NetJets Aviation, the worldwide leader in private aviation with the largest and most diverse private jet fleet in the world.
- Private Business Jet Award – Chevron Corporation.
- North Field Cargo/Charter Award – West Air Inc.
- General Aviation Award – Oakland Flyers, a flying club and training facility.

Technology**NEW B&K PRODUCT SHOWS LONG-TERM IMPACT OF NOISE**

On July 24, Brüel & Kjær announced the launch of WebTrak MyNeighbourhood, which is described as “a new feature rich website that ties into your airport noise monitoring system to give the community answers about long-term noise impacts.”

“We've been really pleased with the success of WebTrak which is now operational at over 50 airports. Now WebTrak MyNeighbourhood takes airport community noise engagement up another level. We've spent a lot of time focusing on ease of use and presentation that communicates longer term noise impacts effectively,” said Matthew Barry, Product Manager for Airports at Brüel & Kjær.

“Because the metrics are calculated from data in the airport noise monitoring system, it presents information the community can trust and believe.”

WebTrak MyNeighbourhood works in conjunction with an airport's ANOMS airport noise monitoring system. It is delivered as a subscription based web service that operates automatically, requiring no day-to-day operation from the air-

port once set up.

Using WebTrak MyNeighbourhood, the public is able to understand current operations and explore how these have changed over time, B&K explained. MyNeighbourhood is driven directly from the ANOMS system and so it presents accurate data that is always consistent with other published data.

“WebTrak MyNeighbourhood allows an airport to engage the public with accurate information about airport operations without the need to show individual flight tracks.”

For further information, go to <http://www.bksv.com/Products/EnvironmentManagementSolutions/AirportEnvironmentManagement.aspx> (Click on “My Neighbourhood”).

UK**AIRPORT PROPOSES 3 OPTIONS FOR NEW RUNWAY AT HEATHROW**

On July 17, Heathrow Airport officials proposed to the UK Airports Commission that a new runway be added at Heathrow to solve the lack of hub airport capacity in the UK rather than building a new greenfield airport outside of London, which is being considered.

They offered three options for a third – and, if needed in the future, fourth – Heathrow runway: to the north, northwest, or southwest of the existing airport.

Each runway option would raise the capacity at Heathrow to 740,000 flights a year (from the current limit of 480,000), which would allow the UK to compete with international rivals and provide capacity at the UK's hub airport for the foreseeable future, Heathrow said.

All three options were said to be quicker and cheaper than any rival hub option and could deliver extra capacity by 2025-2029.

Each option has its particular benefits, but Heathrow believes the two westerly options offer clear advantages. They deliver a full-length third runway while minimizing the impact on the local community from noise and compulsory house purchases, the airport said.

“The northwest option performs better on noise and residential property impact than the north option whilst costing slightly more and taking slightly longer to build. The southwest option further improves the situation for local residents but increases the cost, timescale and construction complexity. The north option is the quickest and cheapest, but offers the least noise benefits and has the biggest residential property impact.”

“Despite the increase in capacity, the total number of people affected by noise from aircraft will fall, Heathrow said. This is due in part to the westerly options being positioned further from London than the existing runways. Each mile the runway is moved to the west puts arriving aircraft approximately 300 ft. higher over London. Continued improvements in aircraft and air traffic technology will also result in fewer

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people being disturbed. As a result, even with a third runway there will be 10-20 percent fewer people within Heathrow's noise footprint in 2030 than today."

London Mayor Boris Johnson said the airport's proposal to add a new runway at Heathrow was politically, environmentally, and socially unacceptable.

"There will be more pigs flying than aircraft, if we are to believe the claim that three runways at Heathrow will make less noise than two," he reportedly said.

The mayor advocates building a new hub airport for London at a greenfield site and a major expansion of Stansted Airport near London.

The Aviation Environment Federation (AEF), the principal UK environmental association concerned with the environmental effects of aviation, said that the case for adding a third runway at Heathrow "rests on a series of half truths and promises not backed by evidence."

"On noise, Heathrow's proposals suggest that the number of people affected will fall over time, even with a new runway. But their analysis is based on the number of people in the 57 Leq noise contour, a measure that has been widely discredited as a marker of the point at which community annoyance sets in. Even with two runways, Heathrow scores worst of any UK airport under a range of noise metrics being considered by the Airports Commission, and more people are affected by noise from Heathrow than from any other European airport.

PANYNJ, from p. 90

how they are impacted by flight patterns, construction, times and frequency of arrivals and departures, new runway configurations, and other airport matters, the NY lawmakers told Foye.

They asserted that the establishment of a formal forum would give elected officials, the aviation community, and the Federal Aviation Administration an understanding of the concerns affecting area residents, and allow all stakeholders to work together to reach agreeable solutions.

The lawmakers sent their correspondence in the wake of new flight patterns into and out of LaGuardia Airport that have increased airplane noise for people living in northeast Queens.

The letter also was signed by NY Reps. Joseph Crowley (D-Queens/Bronx), Eliot Engel (D-Bronx/Westchester), Steve Israel (D-Queens/L.I.), Grace Meng (D-Queens), Jerrold Nadler (D-Manhattan/Brooklyn), Hakeem Jeffries (D-Brooklyn/Queens), Carolyn Maloney (D-Manhattan/Queens), Carolyn McCarthy (D-L.I.), Gregory Meeks (D-Queens/Nassau) and Jose Serrano (D-Bronx).

AIRPORT NOISE REPORT

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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 24

August 2, 2013

Ft. Lauderdale-Hollywood Int'l

DANIA BEACH LOSES LAWSUIT CHALLENGING WETLANDS PERMIT FOR RUNWAY EXTENSION

The City of Dania Beach, FL, lost another lawsuit in its battle to block expansion of the south runway at Ft. Lauderdale-Hollywood International Airport, which is being done to increase capacity but also will increase noise impact on residents of the city.

On July 22, a U.S. district court judge dismissed the city's lawsuit against the U.S. Army Corps of Engineers ruling that the Corps did not violate the National Environmental Policy Act (NEPA) in issuing a permit that allowed Broward County, FL, to fill wetlands in order to expand the south runway.

The city contended that the Corps issued the permit without considering the impact of increased noise levels on the health of residents and that NEPA does not allow the Corps to ignore recent health effects studies done in Europe that show a relationship between exposure to high noise levels from aircraft and other transportation sources and cardiovascular disease, high blood pressure, and poorer cognition in children.

(Continued on p. 95)

Part 161

LAWA SUBMITS SLEEP AWAKENING CONTOUR REQUESTED TO COMPLETE 161 APPLICATION

On June 28, Los Angeles World Airports submitted to the Federal Aviation Administration additional data on sleep awakenings that FAA said was needed to complete LAWA's Part 161 application supporting a mandatory nighttime departure restriction at Los Angeles International Airport.

In March, FAA told LAWA that its Part 161 application was incomplete because the primary problem asserted in the application – sleep awakenings that extend beyond the 65 CNEL contour – falls outside the airport noise study area selected by LAWA, which ended at the 65 CNEL contour line (25 ANR 70).

The mandatory nighttime restriction LAWA seeks to impose through FAA's Part 161 Regulations on Notice and Approval of Airport Noise and Access Restrictions process is intended to stop pilots of heavily loaded aircraft from making easterly departures at night over neighborhoods near LAX where they disturb sleep and provoke complaints.

"If LAWA intends to retain its definition of the problem as nighttime sleep awakenings extending to geographic areas beyond the CNEL 65 dB, then LAWA must select a noise contour that encompasses those sleep awakenings as well as the

(Continued on p. 96)

In This Issue...

Ft. Lauderdale-Hollywood Int'l ... Dania Beach loses lawsuit against Army Corps of Engineers challenging approval of wetlands permit for runway extension - p. 94

Part 161 ... LAWA submits sleep awakening contour, as requested by FAA, to complete application supporting nighttime runway use restriction at LAX - p. 94

Santa Monica Airport ... CA Congressman Henry Waxman asks FAA to participate in forum on future of general aviation airport in light of pending expiration of legal settlement agreement with FAA in 2015 - p. 95

Awards ... University of VA students win FAA design competition with idea for turboelectric-powered cleaner, quieter regional jet - p. 96

Complaints ... D.C. Court of Appeals ruling affirming use of noise complaints as basis for FAA flight restrictions could be boon for Plane-Noise - p. 96

Ft. Lauderdale, from p. 94

The lawsuit also cites a 2011 World Health Organization (WHO) report, “Burden of disease from environmental noise: Quantification of healthy life years lost in Europe,” which concluded that there is “overwhelming evidence that exposure to environmental noise has adverse effects on the health of the population.”

But, U.S. District Court Judge James I. Cohn of the Southern District of Florida, ruled that “the Corps, as a mere coordinating agency on this airport expansion project, was required to defer to the FAA regarding all matters of ‘aviation expertise’ which includes impacts to residents from increased aviation noise.”

Dania officials have not yet decided if they will appeal the ruling in *City of Dania Beach, FL, v. U.S. Army Corps of Engineers* (Case No. 12-60989-CIV-COHN/OTAZO-REYES).

Dania earlier challenged the FAA’s approval of the south runway extension project at Ft. Lauderdale International. However, in December 2010, the U.S. Court of Appeals for the District of Columbia Circuit upheld the FAA’s approval of the project, finding that there was nothing arbitrary or capricious in the agency’s determination that extending the runway to the north – as Dania had sought – was not a prudent alternative.

Trial Date Set in Other City Lawsuit

A trial date of Dec. 9 has been set in yet another lawsuit the City of Dania Beach filed in May 2012 in Broward County Circuit Court pertaining to the runway extension.

In that case, the city asked the court to make Broward County abide by the terms of a 1996 Final Stipulated Judgment under which the County agreed to operational restrictions (limits on night flights, the size of aircraft, and the direction of takeoffs and landings) and the city agreed to drop its litigation in state court challenging the airport’s expansion. The operational restrictions were part of a 1995 Interlocal Agreement between the County and City that was part of the 1996 Final Judgment.

The County also agreed in that Final Judgment that it would not proceed with construction of the south runway extension unless FAA approved the operational restrictions on it. FAA has not done that even though the County has proceeded with the runway extension.

Santa Monica Airport

WAXMAN WANTS FAA TO BE PART OF FORUM ON AIRPORT’S FUTURE

California Congressman Henry Waxman (D) wrote Federal Aviation Administrator Michael Huerta July 16 asking that the FAA participate in a forum in Santa Monica with local residents and city officials to discuss options for the fu-

ture of Santa Monica Airport.

The airport, one of the oldest and busiest general aviation airports in the country, is currently operating under the Santa Monica Airport Agreement, a legal settlement with the FAA that was established in 1984 and will expire in 2015.

Under the agreement, “the city must operate and maintain the airport as a viable functioning facility without derogation of its role as a general aviation reliever airport...or its capacity in terms of runway length and width, taxiway system, and runway weight bearing strength until July 1, 2015.” In return, the city prohibits the takeoff of aircraft between the hours of 11 p.m. to 7 a.m. on weekdays and from 11 p.m. until 8 a.m. on Saturday and Sunday. Single event noise exposure levels are capped at 95 dB.

“The Santa Monica Airport is just feet from many homes in Santa Monica. For years, residents have had to live with safety, noise, and pollution issues at the airport,” said Rep. Waxman.

“I share the concerns of the residents living around the airport and have been fighting for improvements for many years. The operating agreement with the FAA is due to expire in 2015, and the future of the airport is at a critical juncture. It’s time to start having frank conversation with the FAA about SMO post-2015. I am asking the FAA to participate in a forum to hear from local residents and the City about their priorities for the airport.”

Since December 2010, the City of Santa Monica has been involved in a “visioning” process to engage the public and airport stakeholders in an in-depth, public discussion of the various options for the airport’s future.

In the past, such discussions have been limited to the options of either closing the airport or continuing its operation as is. The “visioning” process, however, is designed to explore options for the airport’s future in between these two extremes so that the City can avoid the long and costly legal battle that would ensue if it moved to close the airport.

City staff is trying to determine if it is possible to reach a voluntary agreement with FAA and airport stakeholders that will govern the airport’s future.

At this point, the City and FAA still disagree on when federal grant agreements will expire. Santa Monica believes they will expire in 2014 but the FAA says the last grant agreement does not expire until 2023.

There also is a question of whether post-World War II transfers of airport land from the federal government to the City require the airport to be operated into perpetuity. And how much of the airport land the transfer applies to.

Airport Commissioner David Goddard recently told the Santa Monica City Council that the 1948 Instrument for the airport land transfer to the City covers only about 3,000 feet of the 5,000-foot runway, which could allow the City to shorten the runway by 2,000 ft., thus achieving its long-sought goal of keeping out larger, faster business jets.

If FAA believes that the City has the legal authority to do that, it could give Santa Monica significant leverage to get the FAA and airport users to agree to stringent noise and op-

erational restrictions as a condition of not reducing the runway length.

Santa Monica residents have made clear in the visioning process that they want the airport to be operated “in a manner consistent with the City’s core values of environmental stewardship and sustainability,” City Attorney Marsha Moutrie Jones and Public Works Director Martin Pastucha told the City Council last year in an update on the visioning process.

Awards

U.VA. STUDENTS WIN FAA DESIGN COMPETITION FOR GREENER RJ

A 16-member undergraduate student team from the University of Virginia’s School of Engineering and Applied Science has won a Federal Aviation Administration design competition, the university announced in July 16.

The team’s design, “The Sustinere: A Turboelectric Distributed Propulsion Regional Jet for 2025,” took first place in the Electric/Hybrid-Electric Aircraft Technology Challenge, tying with a team of graduate students from the Georgia Institute of Technology.

The U.Va. team members included Matthew Abelmann, Sohail Ahmad, Thomas Arnot, Clifton Bumgardner, Brian Connolly, Daniel Flowers, Stefan Ha, Jane Hawkins, Aaron Lam, Frederick Lothers, Stephen Moore, Chris Reuter, T. Brandon Smith, Sean Thompson, Kha Tran and Jodi Yim.

“The students designed a regional aircraft, carrying 50 passengers at Mach 0.72 for 500 miles and to be in service by 2025,” said James McDaniel, a professor in the Department of Mechanical and Aerospace Engineering and mentor to the team. “The goals of the design were to reduce emissions, noise and fuel burn relative to today’s regional aircraft.

“The most innovative part of their design was the propulsion system, which used turboelectric generators under the wings, with cryogenically cooled electric transmission lines, to banks of thrust-producing fans mounted on the aft of the fuselage.”

The students received their prize July 17 at the FAA headquarters in Washington, D.C., and presented their design at an Airport Consultants Council and Transportation Security Administration summer workshop series in Arlington, VA, on July 18. They may also present their design at the Continuous Lower Energy, Emissions and Noise Consortium meeting in November.

“The design was well-written with outstanding supporting information and an excellent open-minded methodology that resulted in an original approach to hybrid electric propulsion for a regional aircraft,” said Lourdes Maurice, executive director of the Office of Environment and Energy at the FAA.

McDaniel, who will attend the awards ceremony with some of the students, said the judges were impressed by the skills of the U.Va. students.

“What really impressed the reviewers is that the Georgia

Tech team was a graduate student team, with three well-known aircraft designers as instructors, whereas my class was composed of all undergraduate students and I was the sole instructor,” McDaniel said.

“We are a small program, but have excellent students and a strong curriculum,” McDaniel said. “This recognition will help to recruit the best students to our aerospace program.”

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CNEL 65 dB and higher noise contours,” FAA told LAWA.

So LAWA submitted to FAA what it dubbed the Noise-Induced Awakenings Change (NIAC) contour. It is described as an area beyond the traditionally recognized Airport Noise Study Area that directly applies to changes in sleep awakenings.

The NIAC contour encompasses the outermost boundary of the entire set of population centroids experiencing changed awakenings in 2013 (the year the Part 161 restriction would be imposed) and in 2018 (five years following implementation of the restriction), plus a 3,500-foot buffer at the limits.

While LAWA submitted that additional noise contour data that FAA requested, LAWA Airport Environmental Manager Scott Tatro told the FAA in his letter, “LAWA respectfully suggests that its original Part 161 Application was filed in accordance with the provisions of the FAA’s [Part 161] regulations and is complete.”

“LAWA acknowledges that the justification for the proposed nighttime runway use restriction at LAX is unique because it relies upon nighttime awakenings rather than on traditional CNEL contour analysis and land use compatibility criteria. This, however, does not render the Application incomplete under Part 161,” Tatro wrote.

“Whether the FAA will accept LAWA’s analysis of nighttime awakenings as an adequate justification for the proposed restriction, as LAWA believes the FAA should, is a separate and distinct issue” from whether the application is complete, he added.

It is unclear at this point whether the submission of the new NIAC contour data is sufficient for FAA to declare LAWA’s Part 161 application complete.

If FAA does deem the application to be complete, the agency has 150 days to respond to it.

Complaints

COMPLAINT RULING COULD BE BOON FOR PLANENOISE FIRM

The D.C. Court of Appeals’ recent ruling in *Helicopter Association International v. FAA* was bad news for the helicopter industry but could be a boon to PlaneNoise, the Port Jefferson, NY-based firm launched in 2011 to manage aircraft noise complaint data for airports and others.

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The federal Appeals Court said July 12 that noise complaints – if substantiated by names and dates – can be used by the FAA instead of noise levels as the basis for enacting aircraft noise restrictions (25 ANR 86).

The ruling – which upheld FAA’s imposition of a mandatory, over-ocean noise abatement route one mile off the North Shore of Long Island – is thought to be the first ever affirming that noise complaints can be used as the basis for FAA noise regulations. It is likely to be cited in the future by airports, local governments, and community groups seeking the imposition of aircraft noise restrictions.

“A major precedent coming out of this decision is that noise complaints can now be used as the primary basis for the FAA’s establishment of new air traffic regulations to control and address community quality of life issues, especially those outside an airport’s 65 DNL contour. This is not just a helicopter ruling,” Robert Grotell, founder of PlaneNoise, stressed in July 29 message to airports.

The message continues:

“It’s now more important than ever that your complaint data be in a readily usable format to foster objective noise discussions with community groups, individual residents, operators, FAA, elected officials and other stakeholders.

“PlaneNoise Complaint Box is the affordable, web-based aircraft noise complaint management solution that simplifies and standardizes your entire complaint handling process from collection to GIS mapping to detailed reporting with our innovative, automated tools.

“With just a quick glance at your Complaint Box Dashboard you’ll know where your noise complaints are being generated, how often and by whom. Whether using Complaint Box in-house or as an outsourcing solution, you’ll always have complete access to your complaint data.

“Join our growing list of Complaint Box airports and users:

- John F. Kennedy International (JFK)
- LaGuardia (LGA)
- Newark Liberty International (EWR)
- Teterboro (TEB)
- Stewart International (SWF)
- Naples Municipal (APF)
- East Hampton (HTO)
- Eastern Region Helicopter Council.”

For further information on Complaint Box, contact Grotell at tel: (613) 938-1116 or go to www.planenoise.com.

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 25

August 9, 2013

ACRP

ACRP 2014 RESEARCH PROGRAM UNVEILED; AIRCRAFT NOISE, NEXT-GEN ADDRESSED

The Airport Cooperative Research Program's Fiscal Year 2014 Research Program, unveiled on Aug. 1, includes 28 projects, six of which focus on aircraft noise and another four address Next-Gen issues that have implications for noise impact.

Three of the noise projects focus on current hot topics: helicopter noise, noise level reduction test methods for airport residential sound insulation programs, and electrified aircraft taxi operations. Another noise project is a follow-on to an earlier ACRP project on the effects of aircraft noise on student learning. And two noise projects seek to improve noise modeling capabilities related to aircraft climb and descent profiles and hard and soft ground sound absorption.

The Next-Gen projects will develop a primer on NextGen for airport operators, a model for engaging communities in airspace procedure development, strategies for incorporating NextGen elements into airport planning and policy, and guidance on how airports can engage with stakeholders on Performance Based Navigation (PBN) deployment.

TRB's announcements on the 2014 ACRP Research Program and how to participate on panels that will guide individual research projects are available at <http://www.trb.org/ACRP/ACRP.aspx>

Detailed project statements (requests for proposals) formally soliciting research proposals for the 2014 ACRP projects are expected to be released beginning in November.

Following are descriptions of the 2014 ACRP Research Program projects pertaining to aviation noise and NextGen:

Project 02-47: Assessing Aircraft Noise Conditions Affecting Student Learning – Case Studies (\$600,000 allocation)

The objectives of this research are to (1) develop a case study design for classroom observations to identify the most appropriate metric and criteria for determining the effect of aircraft noise on classroom learning, (2) conduct a pilot case study, and (3) integrate results with previous ACRP research on the topic. The research should differentiate between aircraft noise impacts and those related to other types of classroom noise.

There is evidence that chronic exposure to noise is associated with reading deficits in children, and community concerns over the effects of noise on children's learning often present potential challenges to airport expansion.

Decisions to proceed with public school insulation projects are often based on a criterion of Day-Night Average Sound Level (DNL) 65dB in order to mitigate these effects; however, to date there are no data to determine whether this criterion is appropriate for identifying aircraft noise impacts on schools. In 2010, ACRP

In This Issue...

ACRP ... The Transportation Research Board announces the 2014 research agenda for its Airport Cooperative Research Program.

It includes projects that focus on helicopter noise assessment, noise level reduction test methods for airport residential sound insulation programs, the environmental benefits of electric aircraft taxi operations, and improvements in modeling of aircraft climb and descent profiles and modeling of sound absorption on hard and soft ground.

The 2014 ACRP Research Program also includes projects critical to the successful deployment of NextGen: development of a primer on NextGen for airport operators, design of a new and expanded model for engaging communities in airspace procedure development, development of strategies for incorporating NextGen elements into airport planning and policy, and preparation of guidance on how airports can engage with stakeholders on PBN deployment - p. 98

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began research to assess whether the DNL 65dB criterion is appropriate for identifying noise impacts on schools. ACRP Project 02-26 is a nationwide macro-analysis of the relationship between noise exposure and student performance taking into account the effect of school sound insulation and other confounding factors.

The ACRP Project 02-26 research relies on student test scores as a measure of performance. The research does not examine the effects of aircraft noise on student/teacher interactions.

Classroom observations are needed to determine at what level noise events cause interruptions and how student and teacher communication and behavior are affected by aircraft noise. Such observations would enable a more refined approach to developing the most appropriate metric and criteria for determining the effect of aircraft noise on classroom learning.

Project 02-48: Assessing Annoyance of Helicopter Noise Compared with Jet Aircraft Noise
(\$700,000 allocation)

The objective of this research is to develop and implement an approach to relate surveyed helicopter noise annoyance to modeled helicopter noise.

Helicopter use has become more popular for commuting, law enforcement, medical response, and information gathering. These uses tend to take helicopter operations away from airport areas and over predominantly residential areas. Airports, hospitals, and government officials receive complaints about helicopter noise and are asked to control their operations.

Helicopter noise is currently evaluated with the same land use compatibility guidelines used for other aircraft noise, with sound exposure levels at or above 65dB Day-Night Average Sound Level (DNL) judged as a significant impact. However, DNL values produced by helicopters are usually well below this level, even for relatively high levels of helicopter activity.

ACRP research is already underway to update the noise dose-annoyance response relationship for jet aircraft operations (e.g., ACRP Project 02-35). However, the noise characteristics of fixed-wing aircraft and helicopters are very different: frequency content, altitudes and speeds flown, corridors used, schedules of operations, sound level onset and decay rates and detectability all differ between the two aircraft types.

The most recent studies exploring the effects of helicopter noise were in the mid-1980s and were primarily done for military helicopters. In 2004, an FAA Report to Congress, "Non-military Helicopter Urban Noise Study," recommended that "additional development of models for characterizing the human response to helicopter noise should be pursued." To date, no such work has been done.

Project 02-50: Energy and Environmental Benefits of Electrified Aircraft Taxi Operations
(\$300,000 allocation)

The objective of this research is to identify the potential energy and environmental benefits of electrified aircraft taxi operations, describe potential challenges to their use, and to develop a set of evaluation factors to help the aviation community determine whether the technologies would be beneficial and implementable at the airport.

As demand for air travel continues to grow, airports are facing increased pressure to reduce their contribution to local air emissions and noise. Electrified taxi options may provide an overall net energy and environmental benefits to an airport by removing the need for aircraft main engines to be operating during the majority of the taxi phase of operation.

Several concepts for non-engine powered taxi have recently been developed by industry and government research organizations, including an electric motor permanently fixed to the aircraft, or an electric tug. While these options may provide an energy and environmental benefits, their use may introduce potential challenges to aircraft operators and air traffic control.

There is therefore a need to evaluate the potential net energy and environmental benefits of electrified taxi options through the consideration of fuel burn, emissions, and noise effects, and to consider the potential challenges of implementing this technology.

Project 02-51: Evaluating Noise Level Reduction Test Methods for Dwellings
(\$300,000 allocation)

The objective of this research is to evaluate current and proposed noise level reduction test methods for dwellings and develop guidance for selecting the most appropriate testing method.

Since the early 1980s, the FAA has funded voluntary noise compatibility projects under the Federal Aviation Regulation Part 150 Noise Compatibility Program. Funded projects include soundproofing homes and public buildings, acquiring noise-sensitive properties and relocating their uses, implementing noise abatement procedures, and encouraging compatible zoning. The availability of funding for eligible programs through the Airport Improvement Program (AIP) has allowed many airports to implement sound insulation programs.

The goal of residential sound insulation programs is to modify construction elements to provide an interior noise environment of 45dB Day-Night Average Sound Level "DNL" (CNEL in California) due to aircraft noise, while achieving a minimum 5dB reduction in the interior noise level. Eligible sound insulation projects usually are located in areas where the DNL is 65dB or greater, and AIP funding is available for the implementation of dwelling modifications plus "before-and-after" noise testing.

Although the criterion for the design of dwelling modifications is fairly well-defined, there is no standard procedure specified for the measurement of the “before-and-after” noise reduction to confirm a dwelling’s eligibility and the resulting benefit from the implemented building modifications.

Project 02-52: Hard and Soft Ground Absorption Methodology (\$250,000 allocation)

The objective of this research is to develop an improved method for modeling hard and soft ground absorption of aircraft noise effects in the Aviation Environmental Design Tool/Integrated Noise Model (AEDT/INM). Having this method would help analysts more accurately model aircraft noise levels in the vicinity of airports.

When conducting a FAR Part 150 noise analysis, airports are required to use FAA’s INM, soon to be replaced with the AEDT. INM and AEDT use the same methodology for modeling noise in the vicinity of airports; this method assumes “soft” ground sound absorption in the calculation of lateral attenuation, based on SAE-AIR-5662, Method for Predicting Lateral Attenuation of Airplane Noise (2012).

In reality, areas around airports are often covered with a variety of ground types, including “hard” or reflective ground (such as large areas of pavement or water). Hard ground can have a significant effect on the noise level around an airport due to a decrease in ground absorption effects.

By ignoring hard ground effects and effects from multiple ground types, noise analyses may under-predict the noise due to aircraft operations in the vicinity of airports.

Project 02-55: Modeling Noise for Non-standard Aircraft Profiles (\$350,000 allocation)

The objective of this research is to develop technical guidance to identify situations when airports conducting environmental studies should use alternate performance modeling techniques in their analyses and to provide guidance on the specific modeling techniques and practices to carry out the modeling of customized profiles, with the ultimate goal of identifying potential improvements to future versions of AEDT.

Models used to estimate the environmental impacts of airport activity continue to improve. The new Aviation Environmental Design Tool (AEDT) features improvements including changes in acoustic, emissions, and performance modeling capabilities, as well as improvements to noise-power-distance curves, lateral attenuation algorithms, and relative-humidity absorption.

Continual modeling improvement saw the introduction of procedure step profile capability, which allows for performance-based profile computation within prescribed limits for nonstandard airport environmental conditions. Additionally, the associated aircraft-specific coefficient database has also been expanded.

Yet, other improvements in the modeling capabilities of the current tools are still needed, especially for the more ac-

curate representation of aircraft climb and descent profiles.

The AEDT contains “standard” departure and approach profiles for every aircraft type in its database. The standard profiles and the associated aircraft performance data have been developed by the FAA in collaboration with the aircraft manufacturers to ensure valid three-dimensional flight trajectories that lie within the aircraft performance envelope.

For departures, the standard profiles and AEDT modeling “procedure step” process do not account for the variations in thrust settings utilized at the majority of airports for the vast majority of aircraft operations. For arrivals, the standard approach profile in AEDT is modeled as a continuous glide slope, yet the modernization of the National Airspace System would accelerate the use of non-standard profiles.

Project 01-27: NextGen – A Primer (\$750,000 allocation)

The objective of this research is to generate a document that presents the basic elements of NextGen, in terms and context that are relevant, familiar, and understandable to airport operators. This primer would include how existing FAA plans could potentially affect airports of all sizes and roles, the larger aviation industry, and the public. A timeline would be included that would highlight the FAA’s planned rollout of near and medium-term elements, and the long-range vision. A description of major components and a glossary of terms would also be provided to airport practitioners.

Three components of this research are envisioned: First, a “NextGen and Airports” general educational report suitable for community members, local leaders, and the public designed to raise awareness of NextGen and the role of airports.

Second, a “NextGen Resource Guide” that would provide a comprehensive list of NextGen technologies and initiatives categorized and described for airport practitioners. The audience for this document would be airport staff with a working knowledge of airports.

Third, a “NextGen and Airports” overview guide targeting airport decision makers that would provide a high-level description of the NextGen initiative, including the benefits and costs to the airport and its various stakeholders.

Project 01-28: NextGen – Guidance for Engaging the Airport Community (\$300,000 allocation)

The objective of this research is to develop a new and expanded model for engaging communities in airspace procedure development efforts (including planning, environmental, review, and design). This new and expanded approach would enable airports and the FAA to proactively inform the community about the benefits and costs of potential procedural changes as well as to take into account community opinions, which can be considered in making refinements to final procedure design.

Such an approach would also consider the important balance between enhanced community engagement and efficient

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airspace procedures development (including managing procedure development schedule and costs) in order to expedite implementation of NextGen benefits.

This report would provide an approach for community engagement that calls on lessons learned from airports that have successfully navigated the process of changing arrival and departure procedures. Research should include an examination of the FAA's process for engaging airports and their communities on new arrival and departure procedures, including statutory, regulatory and policy requirements.

Project 03-33: NextGen – Airport Planning (\$500,000 allocation)

Because many airports have the perception that NextGen is far off in the future, airport planners may neglect or put on hold future NextGen-related projects that offer potential benefits (e.g., improved safety, efficiency, and environmental performance).

The research would discuss how NextGen technologies and procedures might lead to better design so as to improve safety, efficiency, and environmental performance, and reduce long-term cost. The target audience for this research would be airport planning directors and would focus on near to medium-term initiatives (i.e., expected implementation in the NAS within the next 10 years). In addition, potential long-term future concepts would be identified, along with corresponding implementation uncertainties and risks.

Project 03-34: NextGen – Understanding Optimal- Efficient Procedure Changes for Aircraft and Airspace (\$500,000 allocation)

The objective of this research is to describe how airports can engage with the FAA, their aircraft users, and their surrounding communities on PBN deployment, including the airport's role in the study and design phases of the FAA's Optimization of the Airspace and Procedures in the Metroplex (OAPM) initiatives. Research could also provide suggested guidance on measures and metrics to allow airport operators to assess "success factors" regarding effects (both positive and negative) on their communities.

Research is needed to provide an overview of existing PBN developments and future capabilities and detail how these near-term improvements would increase the efficiency of operations, including fuel savings, more direct aircraft routings, potentially decoupled airspace at closely-spaced airports (increasing airspace capacity), improved airfield efficiency and safety, and other possible benefits.

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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 27

August 23, 2013

ACRP

TRB ISSUES UPDATED, EXPANDED GUIDELINES FOR AIRPORT SOUND INSULATION PROGRAMS

A 313-page Airport Cooperative Research Program (ACRP) report, which updates and expands previous guidance on airport sound insulation programs, was released by the Transportation Research Board on Aug. 20.

ACRP Report 89: Guidelines for Airport Sound Insulation Programs was prepared to help airport and non-airport sponsors develop and effectively manage their aircraft noise insulation projects.

As the guidelines were being finalized last year, the Federal Aviation Administration issued Program Guidance Letter (PGL) 12-09, "AIP Eligibility and Justification Requirements for Noise Insulation Projects," on Aug. 17, 2012.

The PGL replaced existing guidance on the implementation of AIP-funded noise insulation projects as had previously been provided per Section 812 of the AIP Handbook, FAA Order 5100-38C.

"At the time that the ACRP Report 89 guidelines were finalized, there were outstanding questions regarding the PGL. These outstanding questions and related is-

(Continued on p. 107)

Naval Air Station Key West

COUNTY ADVOCATES FOR MITIGATION NAVY REJECTED IN FEIS ON EXPANDED BASE OPS

Monroe County, FL, Commissioners are seeking the ear of as many influential people as they can to express concerns about the Navy's plans to increase fighter jet training operations at Naval Air Station Key West without implementing the noise mitigation measures the County seeks, including sound insulation of civilian homes in the high noise zone near the air station.

On Aug. 21, the Commissioners authorized the County Administrator, staff, and consultants to meet with senior Navy policy officials, White House Council on Environmental Quality and Office of Intergovernmental Affairs staffs, members of the Florida congressional delegation, and the County lobbyist to discuss the County's continuing concern with the Final Environmental Impact Statement on the project.

The County's concerns focus on the Navy's rejection of all the major substantive recommendations it made on a Draft Environmental Impact Statement the Navy released in August 2012 on its plan to increase operations at the naval air station.

Monroe County disagreed with the Navy's conclusion that expanding operations at Naval Air Station Key West would not cause significant noise impact in the

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Key West ... Monroe County Commissioners advocating for noise mitigation Navy rejected in FEIS on expansion of operations at Naval Air Station Key West - p. 106

MSP Int'l ... Forum scheduled to solicit questions community wants answered prior to RNAV implementation at airport - p. 107

NASA ... Agency releases new vision for aeronautics research; includes innovation in commercial supersonic aircraft that will provide data for a low-level sonic boom standard that could lead to permission for supersonic flights over land - p. 107

Awards Reno-Tahoe Airport Authority is recipient of the 2013 Randy Jones Award for Excellence in Airport Noise Mitigation - p. 108

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sues are discussed throughout the text with advice to users to contact their ADO project manager regarding any further guidance or information that has been provided since the publication of these guidelines,” TRB Staff Officer Theresia H. Schatz explained in a *Forward* to the report.

“This research will be very helpful to improve current practices and ensure compliant airport sound insulation programs. The research significantly expands information available on best practices and current standards and requirements for sound insulation of homes as well as for other eligible noise-sensitive buildings. The guidelines are a very useful tool for airport staff, consultants, and FAA offices to use with the AIP guidance provided in the AIP Handbook as updated by PGLs from time to time,” the *Forward* notes.

The updated guidelines were prepared under ACRP Project 02-24. The effort was led by the Jones Payne Group in association with URS Group, Freytag & Associates, Larson Manufacturing, CSDA Architects, S&L Specialty Contracting, Robert R. Smith, R.W. Sullivan Engineering, and Hill International, Inc. Each of the team members was expert in a specific area or aspect of sound insulation addressed in the guidelines.

A separate contractor’s final report, which provides background to the research conducted in support of the guidebook, has been posted on the ACRP Project 02-24 web page at <http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=2795>.

Unlike earlier sound insulation program guidance, the ACRP report also addresses energy performance and sustainability, community outreach, improvements in products, current code and other regulatory requirements, and bidding methodologies and project costs.

The report is available online at <http://www.trb.org/ACRP/Blurbs/169358.aspx>

MSP Int’l**FORUM TO SOLICIT QUESTIONS ON MSP RNAV IMPLEMENTATION**

Congressman Keith Ellison (D-MN) will hold a public forum on Aug. 27 to discuss the questions Minneapolis residents would like to have answered before RNAV procedures are implemented at Minneapolis-St. Paul International Airport.

Expected to attend the forum are Administrator of Federal Aviation Administration Great Lakes Region Barry Cooper, Minneapolis Mayor R.T. Rybak (D), State Sen. Scott Dibble (DFL), state Rep. Frank Hornstein (DFL), and representatives of the Metropolitan Airports Commission (MAC).

The forum will be held from 5:30 to 7 p.m. at Washburn High School, 201 W. 49th St., in Minneapolis.

“Last fall, the FAA attempted to implement RNAV at the airport with minimal notification and no input from the residents directly affected by the changes. Minneapolis and partners were able to prevail upon the Metropolitan Airports Commission to request more time and to develop a better plan,” the City of Minneapolis said in an Aug. 12 press release announcing the forum.

Officials of Minneapolis and the community of Edina, west of the airport, were so fearful that FAA was trying to push through airport commission approval of the RNAV departure procedures it wanted to impose at MSP that they mounted a scorching campaign against them (25 ANR 184).

Portions of both Minneapolis and Edina would have had concentrated overflights from the RNAV procedure package FAA proposed.

The political pressure on the Metropolitan Airports Commission was so intense from Minneapolis and Edina that the MAC backed off endorsing the RNAV procedures that would have taken aircraft over those cities and only approved those that took aircraft to the south and east of the airport.

Consequently, FAA is now determining whether it can safely implement only a portion of the RNAV departure procedure package it proposed at MSP International.

NASA**NASA RELEASES NEW VISION FOR AERONAUTICS RESEARCH**

NASA Administrator Charles Bolden has unveiled a new strategic vision that will better align the work of the agency’s Aeronautics Research Mission Directorate to address looming challenges in global air transportation.

Continuing a tradition of nearly a century of aviation research, NASA’s aeronautical innovators will bring to life new technology and ideas in flight to ensure the United States will maintain its leadership in the sky and sustain aviation as a key economic driver for the nation, the agency said.

Bolden shared the strategic vision as a keynote speaker during a gathering of the nation’s leading aviation engineers and managers at the American Institute for Aeronautics and Astronautics’ Aviation conference in Los Angeles on Aug. 14.

The new strategic vision greatly expands the relevancy of NASA’s research and is based on three themes: understanding emerging global trends, using those trends to drive research directions and then organizing NASA’s aeronautical research work in response to those drivers.

The new vision addresses key drivers that are expected to change the face of aviation during the next 20 to 40 years. Those drivers include significant growth in planet-wide demand for air mobility, mounting concerns related to climate and energy, and the convergence of technologies ranging from new materials to embedded sensors to ubiquitous networking.

Six Research Areas Defined

Reflecting inputs contributed by the aviation community and national policymakers, six areas of research were identified in the vision that will allow NASA to best deploy its resources and prioritize its goals:

- Safe, efficient growth in global operations that will enable the Next Generation Air Transportation System in the United States by 2035 and safely expand capacity of the global airspace system to accommodate growth in air traffic.
- Innovation in commercial supersonic aircraft that will provide data for a low level sonic boom standard that could lead to permission for supersonic flight over land.
- Ultra-efficient commercial transports that will pioneer technologies for future generations of commercial transports that simultaneously reduce noise, fuel use and emissions.
- Transition to low-carbon propulsion that will enable industry to move toward and adopt use of low-carbon fuels and alternative propulsion systems.
- Real-time, system-wide safety assurance in which tools are developed for use in creating a prototype of an integrated safety monitoring and assurance system that can detect, predict and prevent safety problems in real time.
- Assured autonomy for aviation transformation that will enable the utilization of higher levels of automation and autonomy across the aviation system, particularly as it relates to unmanned aerial systems and remotely piloted vehicles.

A NASA White Paper on the agency's Aeronautics Research Strategic Visions is available at http://www.aeronautics.nasa.gov/pdf/armd_strategic_vision_2013.pdf

Awards

RENO-TAHOE AIRPORT AUTH. WINS 2013 RANDY JONES AWARD

The Reno-Tahoe Airport Authority is the recipient of the 2013 Randy Jones Award for Excellence in Airport Noise Mitigation, the Planning Committee for the American Association of Airport Executives (AAAE) Airport Noise Mitigation Symposium announced.

This award is given every year to an individual or organization that has made a significant contribution to the airport noise mitigation industry.

The RTAA has undertaken noise mitigation efforts at Reno International Airport since 1995. To date it has insulated over 4,600 dwellings and expects to insulate the 5,000th home in the summer of 2013. During the 2010 seven-month-long construction season, the RNO program was treating over 110 dwellings per week.

"Since the program began in 1995, the RTAA has shown a dedication to improve the quality of life for individuals in the community that live near RNO airport and are impacted by high levels of aircraft noise," the Planning Committee said in announcing the award.

The Randy Jones Award will be presented at the 13th Annual AAAE Airport Noise Mitigation Symposium during the awards luncheon on Oct. 7 at the Eldorado Hotel in Reno.

A draft symposium agenda is available at: <http://noise-mitigation-symposium.com/>

The symposium sessions will focus on an update of FAA regulations, an airport survey on the status of sound insulation programs, "practical realities" of the Airport Handbook revisions, acoustical testing protocols, winding down a sound insulation program, and public relations strategies for airports implementing sound insulation programs.

In addition, a contractor/supplier roundtable discussion will be held as well as an overview of the Reno-Tahoe Airport sound insulation program and a tour of homes in the program.

Key West, from p. 106

nearby community, asserting that there were substantial flaws in the Navy's noise analysis, including an inadequate assessment of the baseline noise condition at the air station and surrounding community.

In the Final EIS on the project, released on Aug. 2, the Navy selected a project alternative that will add up to 4,500 additional annual operations at the Key West Naval Air Station, increasing the total number of annual operations to approximately 52,000. It also approved transitioning to next-generation F-35 aircraft at the air station and conducting carrier air wing Field Carrier Landing Practice (FCLP) operations there.

The Navy is expected to issue a Record of Decision on the project in September.

Monroe County Commissioners authorized staff and its consultant on the EIS (the Fort Lauderdale, FL-based engineering firm Keith and Schnars) to advocate for the following noise mitigation measures recommended by the County:

- An absolute limit on all types of flight operations at the naval air base, including FCLP and night flights.
- The "proper evaluation" of the baseline condition for existing operations at Naval Air Station Key West. Although the FA-18E/F Super Hornet aircraft is already operating at the air station, Monroe County wants the Navy to exclude its noise from the baseline conditions analysis on the basis that the noise impact of the aircraft on the surrounding community was never properly evaluated in earlier NEPA documents that the Navy relied on in this FEIS. The County asked the Navy to evaluate the FA-18E/F as a new, Next Generation aircraft in the noise analysis of the current project.
- The Navy should contract with an independent consultant "to conduct a noise study to establish an actual noise baseline with actual noise sampling based on industry accepted protocols, and should the Navy choose not to conduct a noise study, it should request authorization for the County to contract an independent consultant to conduct a noise study to establish an actual noise baseline with actual noise

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sampling to document the full impacts to surrounding community and the necessary mitigation by the Navy to alleviate the impacts”;

- Full mitigation by the Navy for the impacts associated with the proposed increases in flight operations to ensure the impacts on existing surrounding community are minimized. This includes, but is not limited to:

- (1) Navy request for statutory authority, where necessary, to provide mitigation to the surrounding community impacted by the proposed increases in flight operations included in the preferred alternative. Also, as a result of the FA-18E/F Super Hornet, mitigation should include but not be limited to soundproofing;

- (2) The use of alternative runways to alleviate impacts to the surrounding community; and

- (3) Modification of operational procedures and full enforcement of course rules (e.g., altitudes, flight paths) to minimize impacts to the surrounding community.

Navy’s Response to Comments

In the FEIS the Navy responded to Monroe County’s criticisms and recommendations.

It said “the analytical methodology and results presented in the EIS for noise are consistent with current Navy policy regarding the modeling of aircraft noise. The Navy has determined the noise analyses presented in this EIS is an accurate representation of the current and future noise environment.”

The Navy said the noise environment at the NAS Key West airfield was modeled using NOISEMAP software suite, which “represents the best noise modeling science available today for military airfields.”

Regarding mitigation of noise impacts, the Navy said it “will continue to make every attempt to minimize its noise impacts to nearby communities through the continued use of designated flight paths, procedures, and noise abatement measures for military aircraft,” which include restricting the manner in which aircraft climb, limiting late night flying to only mission essential activities, minimizing flights over heavily-populated areas, and accepting input from the public to ensure these measures remain as effective as practicable.”

The Navy explained in its FEIS that Congress has not given the military services the authority to install soundproofing in homes and buildings that are not owned by the federal government.

Under existing conditions, an estimated 1,273 housing units off the air station are within the 65 dB DNL or greater noise zone, according to the FEIS. Expanding operations at the air station under the alternative selected is estimated to add another 184 homes to that zone.

The FEIS is available at <http://www.keywesteis.com/>

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 28

August 30, 2013

Las Vegas McCarran Int'l

SHRINKING NOISE CONTOURS AT LAS OPEN UP LAND FOR RESIDENTIAL DEVELOPMENT

By Jeffrey M. Jacquart
 Airport Program Administrator
 Las Vegas McCarran International Airport

[A change in FAA policy in 2008 requires airports to sell land they acquired within their 65 dB DNL contours for noise compatibility purposes rather than hold onto such land as a noise buffer. But airports' 65 dB DNL contours are in the process of shrinking, which moves land that had once been barred from residential development – through restrictions in aviation easements and zoning codes – into areas where airports have no legal ground to prevent it.

Following is a Special Report by Jeffrey M. Jacquart, Airport Program Administrator for Las Vegas McCarran International Airport, explaining how Clark County, NV, addressed this issue by allowing property owners to buy back the right to develop their property for residential use through a deed modification.

Clark County's novel program could be instructive to other airports that are under strong pressure to allow residential development on land no longer within their 65 dB DNL contours.]

Governmental entities across the country face challenges with land use planning around airports in trying to ensure that properties that may be affected by aircraft-related noise are developed with uses that are compatible with airport operations. However, such challenges don't always end with the adoption of appropriate land use ordinances and/or the use of other means to ensure compatible development because the noise environment around many airports has changed in the last decade.

Many of the land use compatibility tools that airports use today were developed in the 1970s and 1980s when it was presumed that noise contours would remain static or would grow with increased aircraft operations. That assumption was prudent and appropriate in the years before the phase out of Stage 2 large commercial aircraft (2000) and general aviation aircraft (scheduled for 2015) and before new engine technology. Today, however, increased operations do not necessarily mean larger noise contours and few commercial service airports will ever see contours of the size that existed in the previous decades.

Technological improvements have significantly reduced aircraft-related noise in current aircraft mixes at airports in the United States and have resulted in an actual reduction in the size of the areas off airport runways that are deemed to be noise-affected under federal laws and regulations – even as the level of air traffic has increased.

(Continued on p. 111)

In This Issue...

Las Vegas McCarran Int'l Airport ... In a Special Report, Jeffrey M. Jacquart, Airport Program Administrator for Las Vegas McCarran International Airport, describes a deed modification program recently approved by Clark County, NV, that opens up land outside the airport's shrinking 65 dB DNL noise contours to residential development - p. 110

Toronto Billy Bishop Airport ... City of Toronto begins a public consultation process on a request by Porter Airlines to extend runway and allow jet traffic at the airport, which is located very near the city center - p. 112

AIP Grants ... Buffalo Int'l and Louisville Int'l airports receive AIP grants for noise mitigation projects - p. 112

Dulles Int'l Airport ... FAA issues final rule establishing two new low-altitude RNAV routes west of the airport that procedurally separate aircraft that are circumnavigating Dulles - p. 113

McCarran, from p. 110

This has been the experience at McCarran International Airport (LAS) in Las Vegas.

Even more than most communities near airports, the Las Vegas valley population has grown substantially over the past several decades and residential development around LAS has been a concern since the early 1990s.

For over two decades, the Clark County Department of Aviation (CCDOA) has worked effectively with local planning agencies and the federal government to ensure new residential development was minimized within areas that had been identified as being affected by aircraft noise.

One key tool used to achieving this goal was a 1992 agreement between Clark County and the U.S. Department of the Interior – Bureau of Land Management (BLM) referred to as the Cooperative Management Area (CMA) Agreement.

Under the CMA Agreement, BLM agreed to place conditions and restrictions on any land that it sold or disposed of within the boundaries of the CMA in order to preclude development of such land with any “incompatible uses,” as defined in the CMA.

One of the primary defined incompatible uses was residential development. The CMA boundaries were based upon the 1988/1989 FAR Part 150 study for LAS and encompassed all land identified as being exposed to the 60 decibel, A-weight, day-night annual average noise level (60 dB DNL) and higher.

This unique agreement protected approximately 5,000 acres of land near LAS that were managed by the BLM and located within the 60 dB DNL from incompatible development. The CMA did not cover privately owned parcels that were scattered throughout the CMA, which had been sold or otherwise released to private parties prior to the CMA.

BLM Land Transferred to County

Compatible land use efforts continued after the passage of the Southern Nevada Public Land Management Act of 1998 (SNPLMA), which provided for the transfer of the BLM’s CMA lands to Clark County. The Act permitted the County to sell, lease, or otherwise transfer the CMA parcels to private entities but required that any such transfer contain conditions and restrictions precluding development of any parcel with any incompatible uses, as defined in the CMA.

Since 1999, approximately 2,200 acres (more than 40 percent of the original CMA lands) have been conveyed to private parties for compatible development. At the time of each conveyance, Conditions, Covenants and Restrictions (CC&Rs) were recorded against these parcels to prohibit uses incompatible with airport operations, including but not limited to, residential development. Fair market value of these lands was determined after taking the CC&Rs into consideration, and therefore was often less than the unrestricted value.

At this time, almost 1,200 acres (more than 50 percent) of the previously conveyed property remain undeveloped.

In 2006, CCDOA updated its FAR Part 150 study for

LAS. Not surprisingly, even though air traffic had increased, the updated noise exposure maps showed a significant reduction in the size of the area within the 60 dB DNL noise environments.

Almost 70 percent of the CMA land included in the 1988 60 dB DNL noise contour is shown as having noise levels less than 60 dB DNL in the 2006 maps. Of the 2,200 acres conveyed to private parties for development, half of those parcels are now located outside the revised 60 dB DNL noise contour.

More importantly, almost 70 percent of those lands remain undeveloped – and pressure to allow residential development on these lands is high. Notwithstanding the CC&Rs, residential development is no longer an incompatible use for airport operations on parcels which are now located outside the revised 60 dB DNL noise contour.

County Allows Deed Modification

The County obtained the CC&Rs legally and has no obligation to permit a modification of the current restrictions placed upon permitted land uses on the CMA parcels.

However, on May 7, recognizing the substantially smaller contour, the Clark County Board of Commissioners adopted a policy to permit current CMA landowners an opportunity to apply for the modification of certain CC&Rs which no longer need to be imposed upon land outside the 60 dB DNL noise contour according to federal laws and regulations.

Notices were mailed to over 500 affected property owners informing them of the deed modification policy.

Applications for removing the CC&Rs must be received within six months and various fees apply. Since the properties were sold based on appraisals which took the then-existing CC&Rs into account in determining fair market value, the County is requiring payment for the increased value that a deed modification will bring to the properties.

The Deed Modification Fair Market Value cost to allow residential development outside the 60 dB DNL can vary from just over \$19,000 per acre to more than \$36,000 per acre, based on the submarket within which the parcel falls. To date, the land use applications received by Clark County contain development proposals that could allow development of more than 4,400 residential units on the previously conveyed CMA lands.

The innovative CCDOA program blazes new territory for airports that have had long standing and highly effective land use compatibility programs. Clark County’s experience is likely to be useful as other airports consider how to address shifting – and often shrinking – noise contours.

CCDOA’s land use compatibility point person for its program is Jeffrey M. Jacquart, Airport Program Administrator, who can be reached at (702) 261-5510 or at jeffj@mccarran.com.

Toronto Billy Bishop Airport

TORONTO STUDYING REQUEST TO ALLOW JETS AT CITY AIRPORT

The City of Toronto announced Aug. 27 that it is conducting a public consultation process on a request to permit jet airplanes at Billy Bishop Toronto City Airport, which is located on a small island just offshore from the city center.

The consultation process was sparked by an application by Porter Airlines to extend the airport's runway by 168 meters (551 feet) at each end and to modify a 1983 operating agreement to allow the carrier to use Bombardier CS100 jets at the airport.

At its May 7 meeting, Toronto City Council asked City staff to undertake a review of Porter Airlines' request to amend the 1983 Tripartite Agreement between the City of Toronto, the Government of Canada, and the Toronto Port Authority (TPA) to permit the landing of commercial jets at Billy Bishop Toronto Centre Airport.

The city's review of Porter's request excludes an expansion of the airport into the Toronto Islands Park or the current Marine Exclusion Zone and any change to existing airport noise guidelines.

The Tripartite Agreement places restrictions on the types of aircraft that may be operated at the airport, hours of operation, noise conditions, and access to the facilities. The City of Toronto, the TPA and the Government of Canada each own part of the lands on which the airport is located.

The Tripartite Agreement may be amended with the written consent of all parties. Any amending agreement would be brought back to Toronto City Council for approval before being signed.

In 2012, more than two million passengers went through Billy Bishop and that number is expected to grow.

Focus of Consultation

The focus of the consultation is to assess how changes to the airport would impact the city, including the ongoing revitalization of the waterfront and nearby communities on the water's edge.

Issues to be considered in the consultation process are aviation noise, safety and infrastructure; economic impacts; land use and community impacts; marine navigation, coastal and habitat assessments; public health impacts; and transportation impacts.

The City of Toronto urged its residents to participate in the consultation process and to provide the City with feedback about this important issue through the following means:

- Participate online at http://www.toronto.ca/bbtca_review to obtain more information and complete an online survey;
- Attend one of two workshops that will be held on Sept. 4 and 9 to talk with City staff and technical consultants and share ideas;
- Participate in a Sept. 12 Town Hall meeting that will include a presentation and discussion.

A final report on the consultation will be presented to the Toronto Executive Committee on Dec. 5.

AIP Grants

FAA ANNOUNCES ONLY THIRD AIP NOISE GRANT IN FISCAL 2013

Niagara Frontier Transportation Authority (NFTA) has received a \$5,169,399 federal Airport Improvement Program grant to complete noise mitigation measures on 187 homes near the Buffalo-Niagara International Airport, NY Sens. Charles Schumer (D) and Kirsten Gillibrand (D) announced Aug. 27.

Thus far in fiscal year 2013, only three airports have received AIP grants for airport noise mitigation projects.

In July, FAA announced that Louisville International Stanford Field received an AIP grant of \$18,118,943 to acquire land for noise compatibility in the 65-69 DNL contour and for noise mitigation measures for residences in the 65-69 DNL contour.

The agency also announced in July that Westover Air Reserve Base/Metropolitan Airport received an AIP grant of \$153,614 to conduct a noise compatibility plan study.

In past years, the FAA has announced awards of AIP noise mitigation grants to airports throughout the fiscal year. ANR asked FAA why things were different this year.

An FAA spokeswoman said there have been no specific delays in the award of noise program grants this fiscal year. "The entire AIP grant program was significantly delayed this year primarily due to delays in the full-year appropriation process as well as other external factors," she explained, adding that FAA is working to finalize the 2013 grant program by Sept. 30, the end of the fiscal year.

Regarding the AIP grant to fund residential sound insulation at Buffalo-Niagara International Airport, Sen. Schumer said, "This \$5 million investment in the NFTA and the community surrounding the Buffalo-Niagara International Airport will go a long way in improving the quality of life for nearly 600 local residents. The funding will help address noise pollution from the airport and mitigate the disturbances for nearby residents, who will now be able to better enjoy the benefits of having an airport close to home without as much of the trouble."

Added Sen. Gillibrand, "This is an important investment for the Buffalo Niagara International Airport and the surrounding community. Improving the airport's infrastructure to reduce noise can help improve the quality of life and real estate value for the nearly 600 residents who live in the area."

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Washington Dulles Int'l

FAA RULE ESTABLISHES TWO NEW LOW-ALTITUDE RNAV ROUTES WEST OF IAD

The Federal Aviation Administration issued a final rule issued on Aug. 29 that establishes two new low-altitude RNAV routes (T-287 and T-299) west of the Washington-Dulles International Airport (IAD) area.

The new routes were developed to allow aircraft to navigate via routes that are procedurally separated from the NextGen Optimized Profile Descent arrival procedures in the IAD area.

“The new routes support the Washington, DC, Optimization of Airspace and Procedures in a Metroplex (OAPM) project and enable aircraft to circumnavigate IAD arrival flows,” FAA explained in its *Federal Register* notice.

“Aircraft transiting through the Washington, DC, area are routinely vectored to the west of the IAD area in order to separate them from the major arrival flows into the IAD area. T-287 and T-299 are designed to mimic the flight paths currently used for vectoring these transiting aircraft. The routes provide consistent and predictable routing for aircraft to ... navigate while being assured of separation from larger turbojet aircraft entering and exiting the Washington, DC, area. Further, the routes reduce air traffic controller workload and enhance efficiency within the National Airspace System.”

The FAA has determined that the final rule qualifies for categorical exclusion under the National Environmental Policy Act in accordance with FAA Order 1050.1E, Environmental Impacts: Policies and Procedures, paragraph 311a.

“This airspace action is not expected to cause any potentially significant environmental impacts, and no extraordinary circumstances exist that warrant preparation of an environmental assessment,” FAA said.

The Aircraft Owners and Pilots Association (AOPA) opposed the new RNAV routes east of Dulles and predicted in comments to the FAA that pilots will not use them because they are “inefficient and lack benefits.”

But FAA said, “Since they mimic the tracks already used for vectoring aircraft, the T-routes provide more consistent, predictable, and precise routing. The FAA believes that these routes do benefit both pilots and air traffic controllers.

For further information, contact Paul Gallant in the Airspace Policy and ATC Procedures Group of FAA’s Office of Airspace Services; tel: (202) 267-8783.

AIRPORT NOISE REPORT

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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 29

September 6, 2013

AIP Grants

19 AIRPORTS AWARDED AIP GRANTS FOR NOISE MITIGATION PROJECTS THUS FAR IN FY 2013

Some 19 airports have received Airport Improvement Program (AIP) grants to fund noise mitigation projects thus far in fiscal year 2013, according to data placed on the Federal Aviation Administration's website on Sept. 3.

Most of the noise mitigation grants announced go to fund airport residential sound insulation programs.

The three highest grant awards went to Louisville International Airport (two grants totaling \$18.1 million for land acquisition and residential sound insulation); to Chicago O'Hare International (two grants totaling \$11.3 million for residential and school sound insulation), and to Milwaukee Gen. Mitchell International (one grant of \$9.2 million for residential sound insulation).

It is likely that FAA will announce additional AIP fiscal 2013 grant awards before the end of fiscal year on Sept. 30.

The FY 2013 grant awards for noise mitigation and other airport projects are posted at http://www.faa.gov/airports/aip/grantapportion_data/

(Continued on p. 115)

Guest Editorial

A 'PERFECT STORM'

Recent actions by all three branches of the federal government address more types of aircraft noise and acknowledge that adverse effects extend beyond traditional noise contours.

by Ted Baldwin

Senior Vice President, Harris Miller Miller & Hanson Inc.

Serious federal attention to aircraft noise began around 1960, largely in response to community concerns (okay, complaints) related to the introduction of early air carrier jets ("airliners"), in particular the Boeing 707 and Douglas DC-8.

For the past half century, the federal government has largely focused its attention on aircraft noise associated with succeeding generations of airline jets at commercial service airports. General aviation (g.a.) airports, g.a. jets, propeller aircraft, and helicopters have been a secondary focus of attention to all branches of the federal government, as illustrated by the following examples:

(Continued on p. 115)

In This Issue...

Grants ... Some 19 airports have received AIP grants to fund noise mitigation projects thus far in fiscal year 2013, data placed on FAA's website on Sept. 3 show. Most of the grants fund airport sound insulation programs. The three airports receiving the highest grant award totals are Louisville International, Chicago O'Hare International, and Milwaukee Gen. Mitchell International - p. 114

Guest Editorial ... Ted Baldwin, Senior Vice President of the consulting firm Harris Miller Miller & Hanson Inc., documents how the federal government is turning its focus to previously neglected and lower profile aircraft noise issues and diverging from prior positions relating to the longstanding "line in the sand" that had been drawn at the 65 dB DNL contour line. He explains how FAA's imposition of a mandatory helicopter route off the North Shore of Long Island illustrates this divergence - p. 114

Grants, from p. 114

Following is the entire list of airports that have received AIP grants for noise mitigation projects as of Sept. 3:

- Anchorage Ted Stevens International Airport received a grant of \$7,028,849 for noise mitigation measures for residences in the 65-69 DNL contour (an estimated 90 homes);
- Bradley International Airport in Windsor Lakes, CT, received a grant of \$960,000 for noise mitigation measures for residences in the 65-69 DNL contour;
- Chicago O'Hare International Airport received a grant of \$375,000 for noise mitigation measures for a school;
- Chicago O'Hare International Airport received a grant of \$11 million for noise mitigation measures for residences in the 65-69 DNL contour;
- Indianapolis International Airport received a grant of \$112,500 to conduct a noise compatibility plan study;
- Louisville International Airport – Standiford Field received a \$2.7 million grant to acquire land for noise compatibility in the 65-69 DNL contour and for noise mitigation measures for residences in the 65-69 DNL contour;
- Louisville International Airport – Standiford Field received a grant of \$15,418,943 to acquire land for noise compatibility in the 65-69 DNL contour and for noise mitigation measures for residences in the 65-69 DNL contour;
- Boston Logan International Airport received a grant of \$1,947,992 for noise mitigation measures for residences in the 65-69 DNL contour;
- Westfield Barnes Regional Airport in Westfield, MA, received a grant of \$2,145,869 for noise mitigation measures for residences in the 70-74 DNL contour;
- Westfield Barnes Regional Airport in Westfield, MA, received a grant of \$350,590 to acquire land for noise compatibility in the 70-74 DNL contour;
- Westover Air Reserve Base in Springfield-Chicopee, MA, received a grant of \$153,614 to conduct a noise compatibility plan study;
- Buffalo Niagara International Airport in Buffalo, NY, received a grant of \$5,105,945 for noise mitigation measures for residences in the 65-69 DNL contour (sound insulation construction for 187 homes and sound insulation design for 70 homes);
- Piedmont Triad International Airport in Greensboro, NC, received a grant of \$3.5 million for noise mitigation measures for residences in the 65-69 DNL contour;
- Pitt-Greenville Airport in Greenville, NC, received a grant of \$1.5 million to improve runway safety area (noise land acquisition);
- Lehigh Valley International Airport in Allentown, PA, received a grant of \$1,396,309 for noise mitigation measures for residences in the 65-69 DNL contour;
- T.F. Green Airport in Warwick, RI, received a grant of \$800,000 for noise mitigation measures for residences in the 65-69 DNL contours (development of plan and mitigation of sound insulation program pilot homes);
- T.F. Green Airport in Warwick, RI, received a grant of \$5 million to acquire land for noise compatibility in the 70-74 DNL contour;
- Houston George Bush Intercontinental Airport received a grant of \$3,482,140 for noise mitigation measures for residences in the 65-69 DNL contour;
- Burlington (VT) International Airport received a grant of \$1,179,000 to acquire land for noise compatibility in the 65-69 DNL contour;
- Boeing Field/King County International Airport in Seattle, WA, received a grant of \$3.5 million for noise mitigation measures for residences in the 65-69 DNL contour;
- Seattle-Tacoma International Airport received a grant of \$3.9 million for noise mitigation measures for public buildings;
- Milwaukee Gen. Mitchell International Airport received a grant of \$9,208,677 for noise mitigation measures for residences in the 65-69 DNL contour (115 homes);
- Jackson Hole Airport in Jackson, WY, received a grant of \$1 million to conduct a noise compatibility plan study.

Editorial, from p. 114

- *Legislative branch:* Congress has focused on laws phasing out older noisier aircraft over 75,000 pounds, which largely represent the air carrier class.
- *Executive branch:* The FAA's development of the Integrated Noise Model (INM) has largely focused on modeling air carrier jets, as exemplified by the database's most extensive coverage for that category of aircraft, with increasing dependence on substitute modeling surrogates as aircraft weight decreases.

- *Judicial branch:* Legal decisions have largely accepted arguments that significant noise exposure and associated liability extend only to the 65 decibel (dB) Day-Night Average Sound Level (DNL) contour, on which g.a. aircraft and helicopters have relatively little effect; typically the 65 DNL contour from these aircraft alone encompass little – if any – off-airport land.

Federal Focus Changing

To build on the “ocean” metaphor in the title of this editorial, the airline jet noise “tide” is ebbing, largely as the result of federal legislation and FAA regulations that force the retirement of 14 C.F. R. Part 36 Stage 1 and 2 jets over 75,000 pounds, and require applications for new “type certification” to meet Stage 4 requirements. Local noise abatement and land use compatibility programs have complemented these federal actions (and frequently benefited from federal funding and implementation support).

One potential federal response might be to declare “*mission accomplished*” on the noise front, and turn the focus to areas where the tide is rising – both literally and figuratively; e.g., emissions-related contributions to climate change, which appear to be associated with storms that threaten coastal airports and result in operational delays at airports at all elevations.

However, recent actions show that the federal government is taking a different approach, and turning its focus to previously neglected – or at least lower-profile – noise issues associated with g.a. airports, g.a. jets, and even helicopters. Again, this “changing tide” is reflected across the board at the federal level:

- *Legislative branch:* In the “FAA Modernization and Reform Act of 2012,” Congress prohibited, after December 31, 2015, regular operation in the contiguous 48 states of civil aircraft weighing 75,000 pounds or less that do not meet Stage 3 noise levels. See <http://www.gpo.gov/fdsys/pkg/FR-2013-07-02/pdf/2013-15843.pdf>.

- *Executive branch:* As summarized in its “Aviation Noise Impacts Research Roadmap,” the FAA is supporting a number of initiatives recognizing a broader range of noise issues, such as the accuracy of the INM for modeling g.a. aircraft and enhanced modeling of taxiway noise.

- *Executive Branch:* In a more applied case, the FAA adopted a final rule on July 6, 2012, that requires helicopter pilots to use the North Shore Helicopter Route when operating along the north shore of Long Island, New York. The purpose of the rule is to “protect and enhance public welfare by maximizing utilization of the existing route flown by helicopter traffic one mile off the north shore of Long Island and thereby reducing helicopter overflights and attendant noise disturbance over nearby communities.” (see http://www.faa.gov/regulations_policies/rulemaking/media/NYShoreHelicopterFinalRule.pdf)

- *Judicial branch:* In a recent opinion that denied a petition by the Helicopter Association International (HAI) for judicial review of the preceding mandatory helicopter route, the U.S. Court of Appeals for the District of Columbia Circuit supported the other federal government branches in their focus on lower levels of noise exposure related to operations by non-airline aircraft. (See [http://www.cadc.uscourts.gov/internet/opinions.nsf/1C20D137DFF53DAD85257BA600539826/\\$file/12-1335-1446255.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/1C20D137DFF53DAD85257BA600539826/$file/12-1335-1446255.pdf))

It should be noted that the Long Island helicopter route rule addressed in the preceding two bullets was initiated by two federal legislators representing Long Island residents – Senator Charles Schumer and Representative Tim Bishop – who conducted a meeting in October 2007 with the FAA, local helicopter operators and airport proprietors to specifically address noise complaints stemming from helicopter operations along the north shore of Long Island. While only the executive and judicial branches took formal action, the process involved significant input by these legislators as well.

Divergence from Prior Federal Positions

The mandatory helicopter route is particularly significant because it represents divergence from several prior federal positions related to the longstanding “line in the sand” that the federal government has drawn at the 65 decibel (dB) Day-Night Average Sound Level (DNL) contour:

- First, it reflects major divergence from the prior federal position that reduction of sensitive land uses exposed to noise above 65 dB DNL was a *de facto* prerequisite for approval and support of support of noise abatement or compatible land use actions. In its brief responding to the HAI petition, the FAA acknowledged that the route would not produce any benefit at or above this level of exposure, and noted that it “has authority to act without first demonstrating that a specific noise level has been exceeded.” Furthermore, the FAA brief cited the “Long Island North Shore Helicopter Route Environmental Study,” which it had tasked the John A. Volpe National Transportation Systems Center to conduct. That study concluded that prior to the adoption of the mandatory route, no residential population along the route was exposed to noise above 45 dB DNL, even on busy holiday weekends (e.g., around Memorial Day and July 4th, 2011).

- Second, it reflected the first time – of which this author is aware – that the FAA relied on complaints as a fully sufficient basis for adoption of a formal noise abatement procedure. In perhaps its most blunt statement regarding complaints, the FAA brief responding to the HAI petition stated “[w]hen people take the time to complain about helicopter noise to the FAA and their elected officials, there is a noise problem.”

The FAA’s justification for and defense of adopting a mandatory noise abatement rule based on noise complaints

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and with open acknowledgement that the benefit was outside the 65 dB DNL contour by a 20-decibel margin is an extraordinary divergence from decades of FAA policy and decisions regarding noise compatibility actions. As just one example, readers may recall that in its determination that the Naples (FL) Airport Authority (NAA) ban on Stage 2 operations “was unreasonable and unjustly discriminatory” and therefore in violation of federal law, in part because the “NAA’s use of complaints ... does not support a finding that the Stage 2 ban is reasonable.” (“Director’s Determination,” FAA Docket No. 16-01-15, March 10, 2003.)

The Tide Is Turning

These recent actions by all three branches of the federal government clearly acknowledge that aircraft noise impacts worthy of addressing in the most formal manner need not be justified by federal land use compatibility guidelines, are not limited to particularly noisy aircraft, and do not even require quantification in decibel-based terms.

While the applicability of these actions as precedents in addressing other noise concerns across the U.S. will undoubtedly be the topic of vigorous debate for some time, airport noise stakeholders – including aircraft operators, pilots, airport proprietors, state and local government land use jurisdictions, airport neighbors, and others – should follow the federal lead in taking a fresh look at creative bases for demonstrating benefits and considering – or reconsidering – the full spectrum of noise abatement and compatible land use measures that might be applied to aircraft noise sources.

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 30

September 13, 2013

Research

FAA SELECTS WASHINGTON STATE, MIT TO LEAD NEW CENTER OF EXCELLENCE

Transportation Secretary Anthony Foxx this morning announced that the Federal Aviation Administration has selected a team of universities to lead a new Air Transportation Center of Excellence (COE) for Alternate Jet Fuels and the Environment.

Led by Washington State University and the Massachusetts Institute of Technology, the COE will explore ways to meet the environmental and energy goals that are part of the Next Generation Air Transportation System (NextGen).

“This innovative partnership supports President Obama’s national plan to address climate change,” said Secretary Foxx. “The Center of Excellence will tap talented universities to help us take environmentally friendly, alternative jet fuel technology to the next level. Airlines and their customers will both benefit from their work developing cleaner fuel that supports the environment and continued aviation growth.”

Core team partners include Boston University, Oregon State University, Purdue University, the University of Dayton, the University of Illinois at Urbana-Cham-

(Continued on p. 119)

Environmental Review

TABER SAYS CATEX 2 COMPLIANCE METHOD NAC PROPOSED IS ‘LEGALLY INDEFENSIBLE’

Aviation Attorney Steven Taber is talking to several individuals and organizations that might be interested in challenging the method recommended to the Federal Aviation Administration by the RTCA NextGen Advisory Committee (NAC) for complying with the “CatEx 2” provision of the FAA Modernization and Reform Act of 2012.

Taber told ANR he is not currently representing anyone who might challenge the CatEx 2 provision and he stressed “there is a long way to go before any legal challenge would be realized.”

FAA is in the process of evaluating the “Net Noise Reduction Method” for complying with CatEx 2, which was developed by a Task Group of the NAC and approved and forwarded to the agency by the full NAC in June (25 ANR 74). Any method for complying with CatEx 2 would not be ripe for legal challenge until the agency formally adopted it.

The CatEx2 provision is intended to categorically exempt from environmental review any performance-based navigation procedure (RNAV and RNP) that “would result in measureable reductions in fuel consumption, carbon dioxide emissions,

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Research ... FAA’s new Center of Excellence for Alternative Jet Fuels and the Environment will be headed by Washington State University and MIT, Secretary of Transportation Foxx announces - p. 118

CatEx 2 ... ‘Legally indefensible’ is how attorney Steven Taber describes the method developed by NAC Task Group for complying with CatEx 2 provision of FAA Modernization and Reform Act; FAA is in the process of evaluating it - p. 118

DFW Int’l ... Irving City Council approves zoning change that allows developer to build over 600 homes near two runways - p. 119

Centennial ... Installation of 12 B&K noise monitors expected to be completed this month - p. 119

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Research, from p. 118

paign, the University of Pennsylvania, the University of Washington, Missouri University of Science and Technology, Georgia Institute of Technology, Pennsylvania State University, Stanford University, the University of Hawaii, the University of North Carolina at Chapel Hill and the University of Tennessee.

Research and development efforts by the team will focus on NextGen environmental goals for noise, air quality, climate change and energy. Areas of study will include new aircraft technologies and sustainable alternative aviation jet fuels.

The FAA's COE program is a cost-sharing research partnership between academia, industry and the federal government. The FAA anticipates providing this COE with \$4 million a year for each of the 10 years of the program.

The selected university members all have nationally recognized collegiate environmental and aviation-related education programs. Research projects will be performed through a partnership of senior scientists from these universities. The COE universities also will engage both graduate-level and undergraduate students in their research activities.

"The FAA continues its goal to improve National Airspace System energy efficiency by at least two percent per year, and to develop and deploy alternative jet fuels for commercial aviation, with a target of one billion gallons of alternate jet fuel in use by 2018," said FAA Administrator Michael Huerta. "This Center of Excellence is a valuable tool to provide the critical data we need to reach these goals."

The COE industry and other organizational partners include: Aerodyne Research, Airbus/EADS, Alaska Airlines, Boeing, Cathay Pacific Airways, Clean Energy Trust, CSSI, Delta Air Lines, General Electric Aircraft Engines, Gevo, Gulfstream, Harris Miller Miller & Hanson, Honeywell UOP, InnovaTek, KiOr, LanzaTech, Metron Aviation, NREL – National Bioenergy Center, PNNL, Rolls Royce, SAFRAN, U.S. DoD – AFRL (Wright Patterson Air Force Base), UTRC (Pratt and Whitney), Weyerhaeuser, Wyle Laboratories and ZeaChem.

Centennial Airport**NOISE MONITOR INSTALLATION TO BE COMPLETED IN SEPTEMBER**

This month, Centennial Airport – the third busiest general aviation airport in the U.S., located 13 miles from downtown Denver – expects to complete the installation of airport noise monitors.

Brüel & Kjær is the vendor for the monitors, which will be used in conjunction with the airport's radar data to provide a complete picture of the noise impact on the community, Scott Drexler, Centennial's noise and planning specialist, told ANR.

Some 12 noise monitors (six each in Arapahoe and Douglas Counties) are being installed under a \$1.5 million Federal Aviation Administration Airport Improvement Program grant. The airport's share is \$75,000.

The Arapahoe County Public Airport Authority began site selection in 2009. Five monitors, all solar-powered, already have been installed and the airport recently received clearance to install the remaining seven monitors.

"It will give us the capability to measure the actual noise of aircraft departing from and arriving at the airport," Michael Fronapfel, deputy director of planning and development for Centennial Airport, told the local press.

"Having a noise system is not necessarily a requirement; however it's one of the things the FAA is willing to fund to assist airports with addressing some of the noise impacts on the community."

Fronapfel said the noise monitoring sites were selected to provide a broad representation of flight paths into the airport and areas where the airport has received noise complaints in the past.

"This study allows us to be able to go back to the FAA and say if a particular route is problematic for us," Fronapfel said. "It's good to have a historical picture of where we are making improvements or if we are going in the wrong direction."

Dallas-Ft. Worth Int'l**IRVING CITY COUNCIL APPROVES NEW HOMES NEXT TO RUNWAYS**

The Irving, TX, City Council on Sept. 4 approved a zoning change that allows a developer to build over 600 new homes next to two runways at Dallas-Ft. Worth International Airport.

Around 140 to 150 of the new homes will be within DFW's 65 DNL contour.

The proposed housing development is located only 0.6 miles from the end of DFW's Runway 17L. The nearest houses will be 500 feet laterally from the runway's final approach corridor. The proposed development also is only 0.3 miles from DFW's Runway 13L/31R, David Magana, DFW's senior manager for public affairs, told ANR.

The northern boundary of the proposed development borders Texas State Highway 114, which is a major six-lane freeway connecting Dallas to its northwest suburbs of Irving and Coppell, as well as to DFW Airport.

The housing development also will be situated near a 24-7 freight handling facility.

Irving's Planning and Zoning Commission voted to oppose the zoning change from "airport industrial" to "residential" at its July 15 meeting in light of DFW's concerns about the high noise impact the homeowners would experience.

Sandy Lancaster, DFW's assistant vice president for environmental affairs, told the Planning and Zoning Commission

that it is not unusual to have as many as 150 daily arrivals within 550 feet of the area where the homes will be built and that aircraft will be on final approach as low as 200 feet above ground.

In addition to overflight noise, homeowners also will be subject to noise from thrust reversers upon landing and from engine maintenance run-ups, which are typically done at night, Lancaster explained.

She told the Commission that, if the City of Irving wanted to approved the residential development so near the airport, it should require the developer to sound insulate the homes to reduce the indoor noise level by at least 25 dB from the outdoor level; require that avigation easements be obtained; and require public disclose to potential home buyers of the property's location near the runways.

Because the developer agreed to those conditions, the Irving City Council approved the zoning change allowing the residential development.

A representative of the developer – Houston-based Hines Interests L.P.; one of the largest real estate development companies in the world – told the City Council that it will use extra insulation double-paned windows, solid core doors, and extra insulation in the attics, which would easily provide the 25 dB DNL reduction between inside and outside noise levels.

A representative of Forward Air, the freight company, told the Planning and Zoning Commission that the firm opposed the land use change from airport industrial to residential use for several reasons, one being inconsistent land use with the surrounding zoning and development. He also said the firm had safety concerns about mixing 24-hour truck traffic with automobiles and that the freight company had picked its location so that the company's operations would not infringe on residents.

He also expressed concerned about the impact of lighting of the facility on the residential development.

The home-builder agreed to install vegetative screening and walls to address those concerns.

CatEx 2, from p. 118

and noise, on a per flight basis, as compared to aircraft operations that follow existing instrument flight rules procedures in the same airspace."

CatEx 2 is intended to speed the implementation of RNAV/RNP procedures at airports around the country so that the benefits of these advanced satellite-based procedures – mainly reduced fuel burn and emissions – can begin to accrue. Environmental reviews of such procedures could take years to complete and defend and delay their introduction.

But the lack of environmental review has outraged communities that have had RNAV/RNP procedures, which concentrate flight paths into pin-point-tight corridors, moved over them. They are demanding that FAA analyze the noise impact of PBN procedures with single-event noise metrics and in areas beyond the 65 dB DNL contour line.

FAA had a problem in developing a method to comply with CatEx 2: it could not stay within the language of the statute, which requires noise reductions from PBN procedures to be measured 'on a per flight basis' and still use its preferred DNL noise metric, which does not measure noise on a per flight basis but aggregates it over time and numbers of aircraft operations.

The NAC Task Group found a solution to this problem. While the language in the legislation required noise to be measured 'on a per flight basis,' language in the Conference Report accompanying the legislation referred to noise reduction "on an **average** per flight basis."

The Task Group said that the language in the Conference Report allowed it to develop a method of determining compliance with CatEx 2 that is based on DNL and "allows for averaging the noise impact on a representative basis over flights undertaking a particular procedure."

Language Is Not Defensible

But in a recent blog post, Taber – a former FAA attorney who now heads his own law firm, the Taber Law Group – asserted that the Task Force's assumption that the language in the Conference Report could replace the language in the legislation is "legally indefensible."

"If Congress meant 'noise on an average per flight basis,' it would have included the word 'average' in the statute instead of leaving it out ... The Task Group cannot read the word back into the statute without congressional action," Taber asserted in his blog post. And he does not think it likely that a court would even consider the language in the Conference Report.

"... from a legal perspective, it is highly unlikely that a court would look past the clear and plain language of the statute to conclude that Congress meant to allow averaging the noise impact on a representative basis undertaking a particular procedure.

"This is a huge issue for the Subgroup, since the 'Net Noise Reduction Method' developed by the Task Group is dependent on using averaging. The desire to use averaging is based on the fact that the FAA and its noise consultants have been using DNL as their noise metric since the 1970's. To change to a single-event noise level, as indicated by the statute, would call into question the existing regulatory structure that the FAA has in place to measure and (poorly) regulate aircraft noise.

"In the end, if neither the FAA nor the Task Group can come up with an approach that fits with the plain language of the statute, then the statute must be changed. Just because the statutory language does not fit in the FAA's and the Subgroup's noise metrics Procrustean Bed, the Task Group cannot blithely assume away the difficulty presented by the language of CatEx 2," Taber wrote.

He said another problem with the Net Noise Reduction Method for complying with CatEx 2 is that it does not address noise at levels below 45 DNL.

In light of the U.S. Court of Appeals for the D.C. Cir-

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cuit's recent ruling in *Helicopter Association International v. FAA* (25 ANR 86), which held that it was acceptable for the FAA to require the use of flight paths to reduce noise impacts below 45 DNL, "it would stand to reason that any method developed to implement CatEx 2 should include levels below 45 DNL," Taber wrote.

His blog post is at <http://airportlaw.wordpress.com/2013/08/12/rtcas-paper-on-catex-2-for-nextgen-implementation-is-legally-indefensible/>!

ANR asked Nancy Young, vice president, environmental affairs for Airlines for America (A4A), who served as co-chair of the NAC Task Group that developed the CatEx 2 recommendation, to respond to Taber's criticism of the compliance method developed by her Task Group.

Young did plan to respond but ANR did not receive her response by deadline. It will be included in next week's issue.

In Brief...

UC Davis Symposium Announced

The annual UC Davis Aviation Noise and Air Quality symposium returns to Palm Springs, CA, on Feb. 23-26, 2014, with "game-changing" offerings on critical topics for airport staff including :

- Performance-Based Navigation
- FAA's Noise Research Roadmap
- NextGen & NEPA
- Alternative Aviation Fuels
- General Aviation Noise Issues
- Fuel Consumption, Local Air Quality & GHG
- Finding & Using Products of COEs
- Sound Insulation: Community Perspectives
- Conducting NEPA Studies
- Highlights from the ACRP
- Health Risk Assessments
- CLEEN

In addition there will be a Noise 101 Tutorial on Sunday afternoon, Feb. 23, 2014, and a new Tools Showcase & Demos presentation on Wednesday, Feb. 26, 2014.

You can explore details of the symposium location and vote for your favorite 2014 Walt Gillfillan Award recipient at the symposium website:

<https://sites.google.com/site/ucdavisaviation/innovative-game-changing-solutions>

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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