14 CFR PART 150 UPDATE

NOISE TECHNICAL ADVISORY GROUP (NTAG) MEETING

Thursday, June 26, 2008 1:30 p.m. – 3:30 p.m.

San Diego International Airport, Commuter Terminal,

3rd Floor, Noise Monitoring Room

Meeting Summary

Introductions

Paul Webb, the Authority's Part 150 Project Manager welcomed the NTAG members and introduced Dan Frazee, Director, Airport Noise Mitigation, and turned the meeting over to Gene Reindel, the Consultant's Project Manager from Harris Miller Miller & Hanson Inc. (HMMH). Gene introduced the consulting team: Bob Behr as the assistant project manager from HMMH, Chris Eberhard as the public outreach consultant from CommuniQuest, and Ken Brody as the land use consultant from Mead & Hunt. Each NTAG member introduced themselves and the organization they represent.

Project Review and Schedule

Mr. Reindel reminded the group that a Part 150 study is a voluntary federal program and that this is an update for the original study completed in 1989. He noted that there have been approximately 250 such studies completed at airports around the United States. As it is a federally funded study, Part 150 provides national standards for analysis.

He noted that the study is composed of two parts, the Noise Exposure Map or NEM and the Noise Compatibility Program or NCP. FAA approval of the Part 150 compatibility measures recommended at the end of the study aids in obtaining FAA implementation assistance. The year of submission for the NEM Update will be 2008, which implies that 2013 becomes the 5-year forecast used to analyze future compatibility. Mr. Reindel also noted that the consultants will begin work on the NCP after this meeting.

Mr. Reindel indicated the project commenced in December 2007 and anticipates that the study will take approximately 24 months to submit to the FAA, although the schedule in the contract allows for 30 months for completion. The table below presents the milestones within the schedule.

He told the group that the reason the meeting was delayed was due to the "hill effects" analysis and that the Authority just last week provided the FAA with the recommended "non-standard" modeling requests for review. The FAA asked that the draft NEM not be released until they completed their review of the recommendations as their review could affect the modeling assumptions that produced the noise contours included in the NEM. He also said that the group will get a thorough briefing of the NEM at the next meeting.

A question was asked regarding the Integrated Noise Model (INM) and how accurate it is and whether it is actual noise readings. Mr. Reindel responded that the model is extremely accurate, but of course is only as good as the input. He reminded the group that measured noise isn't 100% accurate either because of other sound interferences. In the end, he said, the model works well and the FAA requires it be used for Part 150 studies.

Mr. Reindel reviewed the preliminary draft contours. He also reviewed the progress of the NEM documentation, which included reviewing the existing Noise Compatibility Program, acquiring radar data for the latest complete year, updating the forecast – which he said SH&E did to ensure it is consistent with the Master Plan. In addition, HMMH acquired noise measurement results, and ran the existing and future operations in the INM. As he mentioned before, the FAA is currently reviewing the request for recommended changes to the standard INM modeling input.

A question was raised regarding extremely noisy aircraft and what are those aircraft? Mr. Frazee noted that those aircraft would be the B707, DC 8 or the Antonov 124. Another member asked a question about run-ups and Mr. Frazee reminded the group that some of the information comes from back in the 1970s.

<u>Review of the Existing Noise Compatibility Program</u>

Mr. Reindel said the last Part 150 was conducted in 1988 and in it the airport proposed 24 measures. Subsequent to submittal of the Part 150, the Authority proposed 3 additional amended measures and received FAA approval of those.

He said that the FAA Record of Approval (ROA) in 1991 approved in whole or part 19 of the proposed measures. After that approval, the Authority developed Airport Use Regulations (AUR) based on the Part 150 measures. He reminded members that they can go to the website to look at those measures.

Mr. Reindel indicated that the NEM will describe the 27 measures, state the FAA action (approval/disapproval) and provide the implementation status of each.

Review of Existing Noise Compatibility Program Summary of AUR

Next Mr. Reindel reviewed the AUR stating that the airport restricts extremely noisy aircraft from operating at the airport. He noted that FAA Advisory Circulars 36-1H and 36-2C are used and provide certificated noise levels of the various aircraft types manufactured.

The other items in the AUR include:

- Nighttime engine run-ups above idle power prohibited between 11:30 pm and 6:30 am (exceptions are possible)
- Nighttime departure curfews (11:30 pm to 6:30 am and 10:00 pm to 7:00 am – non stage 3) (plus aircraft with some exceptions)
- Penalties for violations are $2,000 to $10,000 per violation with a possible suspension of operating privileges at SAN

Mr. Reindel then discussed the snapshot of departure tracks on a slide called "Acquired 2007 Radar Data" that depicts a sampling of Runway 27 flight tracks, and a slide which depicts a sampling of Runway 9 flight tracks. He noted that the primary air traffic flow at SAN is on Runway 27 with approximately 97% of the operations occurring to or from that runway.

Updated Operations Forecast

Mr. Reindel briefed the group on the updated forecast noting that 229,486 aircraft operations occurred at SAN in 2007 and that this number will be used to project the operations in 2008. This includes 177, 404 air carrier operations, 27,582 air taxi operations, 24,284 general aviation operations and 216 military operations.

He indicated that in 2013 the operation forecast using the Master Plan methodology shows a high growth for commercial aircraft and a low growth rate for general aviation, with a total forecast of 251,360 at SAN in 2013. The group discussed the many factors that affect a forecast.

The question was asked if you could use the INM in future years and Mr. Reindel responded that, yes the consultants enter the forecast as part of the INM. Another question was whether the forecast data includes the Master Plan expansion and Mr. Reindel indicated that they used what is expected in the year 2013. Mr. Frazee added that members need to remember that this forecast and the Master Plan forecast different years, noting that the forecasts are close.

Acquired Noise Measurement Results

Mr. Reindel discussed the acquired noise measurement results, the monitoring locations and "standard" INM results. He noted that the annual (2007) CNEL measurements from the 25 permanent noise monitoring sites were compared to the

modeled data to assist in the verification of the modeling process. HMMH conducted supplemental noise measurements to research and document the possible "hill effect" to the northeast of start-of-takeoff roll on Runway 27 at SAN. He indicated that the proximity of the hill caused the noise levels at points on the hill to measure 3 to 5 dB higher than that modeled, which is why HMMH is proposing non-standard modeling.

A question was asked as to where exactly Site 3 is and Mr. Reindel and others responded that it is on State Street and Olive. Mr. Reindel indicated they picked that house because from the backyard, you are looking down at the departure end of the runway with no intervening obstructions.

Mr. Reindel reviewed the measured and modeled CNEL values with the group noting the differences and the general under-prediction of the noise levels by the INM. He then discussed the results of the supplemental measurements that HMMH undertook with the "hill effect" analysis and noted the hill elevations for measurements behind the start of takeoff and which sites had the biggest variation from modeled. The next step was to determine the amount of lateral attenuation that the model was using at each grid point within a grid that covered the hill. Then using the slope of the hill at each grid point to estimate the percentage of lateral attenuation to use, the amount of lateral attenuation to apply to the model was calculated for each grid point. These procedures were submitted to the FAA for review and consideration for correcting the modeled contours for the "hill effect".

A similar discussion was held on developing a grid to account for the difference in noise levels associated with a 3.5-degree approach angle versus the INM standard 3.0-degree approach angle. This procedure was also submitted to the FAA for review.

As a point of comparison, draft contours with and without the recommended adjustments were shown to point out the effects of implementing the recommended changes to the modeling inputs.

As way of summary, Mr. Reindel indicated that they have submitted a recommendation to the FAA to consider allowing an adjustment to the output for the 3.5-degree glide slope instead of the "standard" 3.0-degree glide slope pilots use at most airports on approach. He also reiterated the request for an adjustment to the output of the model for the "hill effects" behind Runway 27 departures. He noted on the draft contours how this adjustment "pushes" out the CNEL contours up the hill.

A question was raised regarding how HMMH determined the 3.5-degree glide slope and Mr. Reindel responded that this is developed by the FAA for proper obstruction clearance due to rising terrain and high structures in the proximity of the approach path. Mr. Frazee added that it corresponds to the alignment of the PAPI. Another member asked about the difference between measured and modeled levels and Mr.

Reindel indicated that for the adjusted contours the difference due to the glide slope on arrival varies by site from zero to less than 1.5 dB within the 65 CNEL.

He also noted that the "non-standard" modeling request includes two aircraft substitutions in the INM for aircraft not specifically identified in the database, but that are flying at SAN.

Mr. Frazee noted that the airport wants to be as accurate as possible so that communities and residents can make informed decisions. A member asked if that was a factor in the EIR and Mr. Frazee said "no" and the member asked if the consultants will go back and look and Mr. Frazee said "no".

Community Outreach

Mr. Reindel turned the meeting over to Christine Eberhard of CommuniQuest who reviewed the public outreach efforts including the advertisement that was placed in the newspapers for the public meeting, the press release that was sent out and noted that it was publicized in "Noise Matters" in May which went out to 38,000 homes. She indicated there will be four more NTAG meetings during the next 15 months. There will also be three public workshops, the first this evening. She encouraged members to attend and to also invite their neighbors and other interested stakeholders. She indicated that all the information is available online at www.san.org/airport_authority/environmental_affairs/airport_noise. She also noted the special toll free phone line that has been established as part of the project. The telephone number is 888-488-7885 and members can use the toll free phone line to contact her as well as provide it to other stakeholders who can use it to voice their issues or to make inquiries regarding the study. She noted that there had been 10 calls to the phone line in May and 12 so far in June. She indicated that most of the calls were regarding the Quieter Home Program (QHP). She also shared two handouts that will be available at the public meeting.

Ms. Eberhard presented the schedule of the next four meetings as follows:

- Thursday, September 18, 2008 – Noise abatement and mitigation alternatives

- Thursday, January 15, 2009 – Presentation of the draft abatement & mitigation recommendations

- Thursday, May 21, 2009 – Presentation of the final abatement and mitigation package

- Thursday, September 24, 2009 – Presentation of the NCP

Group Discussion

Ms. Eberhard facilitated a round table discussion asking each member to identify any issues of concern as well as questions or expectations with the Part 150 study and process. The following are a summary of the comments:

• Members want to be sure there is close coordination on the ALUCP.

• The City wants to make sure that all noise sensitive areas are considered.

• Members liked the "hill effect" noise analysis being added.

• The Navy is also going through land use planning and wants to be sure there is compatibility.

• A member is concerned with the take offs east of the airport and believes the airplanes are too close in the area near 2nd and Maple.

• An approach called an RMP which might help residents is something the airlines are looking at for other airports and may be considered at SAN.

• The FAA indicated that it could take some time to review the recommendations and consider the draft contours.

• A concern was raised about not only today, but future uses of the airport and the close proximity of neighbors near the airport.

Next Steps / Wrap-up

Mr. Reindel noted that the next steps will include obtaining FAA's response to the recommended modeling changes, preparing the NEM and distributing to the NTAG, determining the effectiveness of current measures, and distributing information on noise compatibility program measures, as well as starting work on the Noise Compatibility Program.

He showed the following revised schedule:

Date	**Milestone**
Dec 2007	Notice to Proceed
Dec 2007 – Feb 2008	Data collection & measurements
Feb – Jun 2008	**Prepare draft NEM and present to NTAG and public**

May – Sep 2008	Determine effectiveness of existing noise program and land uses
Sep 2008	Discuss NCP alternatives and present NEM to the NTAG
Oct 2008	Finalize and submit final NEM to FAA
Sep 2008 – Jan 2009	Determine recommended NCP measures and present to NTAG and public (present NEM to public)
Jan – May 2009	Finalize NCP measures and develop the implementation plan
May – Sep 2009	Prepare Draft NCP and present to TAG and public
Sep – Dec 2009	Finalize and submit NCP to FAA

Mr. Reindel concluded the meeting reminding the group of the September 18 meeting. He indicated that at the September meeting the group will discuss the NEM. He reminded members of the toll free number (888) 488-7885 and the website noted above, as well as Ms. Eberhard's email address, C.Eberhard@CommuniQuest.net, for any inquiries. He thanked everyone for their participation and adjourned the meeting.

# # #