Letter I15

Comments

FAX TO: Mr. Gary Shirakata
US Army Corps of Engineers
Honolulu Engineer District, Bldg. 230
Fort Shafter, HI 96858-5440

FAX NO: 438-7801

SUBJECT: Makua EIS Community Resonse

FROM: Mike (Sang) Lee

DATE: October 5, 2005

Number of pages including this one: 5

Responses

Comments

RESPONSES TO THE NOISE SECTIONS OF MAKUA DRAFT EIS

1. – page 3-50

Table 3-12 Summary of Noise Data From 31 January 2003 CALFEX
Parameter Units Mākua Beach Lower Mākua Valley Silva Ranch

I15-1 There were other noise monitoring done (5/22/2002, 1/29/2003, 4/8/2003 and 4/10/2003). Why weren't these included and why only the data from 1/31/2003 monitoring is listed ? Reason(s) for selecting should be cited.

2. page 3-51 to 3-54

I15-2 The reports cites various ADNL levels computed from SEL levels. Do the ADNL levels take into consideration of nighttime flights (during which 10 dB penalty must be included?)

3. page 3-53

The noise generated from these vehicles on Mākua Valley Road and Farrington Highway would result in very short periods of localized noise as the convoys pass by.

I15-3 This statement in too vague. How short is 'very short'? During such 'very short periods' the impact would be significant at noise sensitive areas (e.g., schools, churches, residences, etc.) This needs to be addressed much more thoroughly. Noise-sensitive areas should be identified along the convoy route, the existing conditions should be established by noise monitoring and the impact due to additional traffic should be addressed and if needed, mitigation measures recommended.

4. several pages on Sec 4.1 (pages 4-8 through 4-15)

Here, the reports states that '*Alternative 1 indicate that Mākua Beach would be within Zone III (greater than 70 dB CDNL). In accordance with DA PAM 200-1, this noise zone is not compatible with recreational land use. This conflict with the existing recreational land use is a significant impact under Alternative 1.*'

I15-4 And, of course, under Alternatives 2 and 3, the impact is more severe. The report does not address the possible mitigation measures except '*notifying beach users at least one week in advance of planned training activities. Notices would be posted on the Mākua Beach access gates, in local newspapers, and on the DLNR Division of State Parks Web site or other such Web sites. This notification would provide beach users the opportunity to plan recreational activities around the hours that the Army would conduct training. Because these events are normally scheduled for weekday*

Responses

I15-1
Appendix G-4 provides a summary of noise monitoring data collected from each of the monitored CALFEX events. Table 3-12 in the EIS provides data from a representative CALFEX event.

I15-2
Yes, ADNL calculations apply a 10 dB penalty factor to nighttime noise events

I15-3
Page 4-46 and Figure 4-4 in the Draft EIS summarize estimated maximum pass-by noise levels at a distance of 50 feet for various types of military and civilian vehicles. Most vehicles in military convoys will be Strykers, HMMWVs, trucks, or buses. Noise levels from military vehicles will be similar to noise levels from civilian commercial trucks and buses. Maximum pass-by noise levels from any vehicle will last about one second. Overall convoy pass-by noise events will last less than a minute. Figure 4-4 has been revised.

I15-4
Additional mitigation could require that training activities be re-scheduled, re-located or halted or that access to the beach is closed, which is a significant impact on its own. Due to the shape of the valley and the concerns with wildfires and threatened and endangered species, relocating the exercsies farther to the rear of the valley would not be possible. As far as re-scheduling goes, training activities are on a strict timeline due to the burn index restrictions and would only allow training to take place for a limited amount of time, which would limit the duration of training to hours of the day where the burn index is low enough to allow training to take place. Training occurs primarily on weekdays when public use of the beach is lower.

Comments

5. page 4-11

I15-5 The report states that: '*Mountain bike riders and hikers are aware of these conditions. Their travel up to the Mākua Lookout Point is not necessarily impeded and their recreation use is not significantly disturbed by noise from small arms and explosives and helicopter flights down in Mākua Valley.*'

Any form of a scientific report should not make such statement based of subjective judgment. It should back it up by quantitative data. There are many reports available on this subject matter (flyovers and other noise nuisance in national parks on the mainland.) These should be researched and the result cited.

6. Sec. 4.5, page 4-38

I15-6 The report states that: '*The use of shape and cratering charges was included in the analysis. The type of cratering charge analyzed, 40 pounds (18-kilograms) of B4, which contains various mixtures of RDX and TNT, may differ from the type of cratering charge actually used. The Army may detonate cratering charges containing up to 150 pounds (68 kilograms) of ammonium nitrate. The maximum charge that the Army would detonate in a single explosion during training exercises is 300 pounds (136 kilograms) of ammonium nitrate. This variability in the type of cratering charge used does not affect the results of the CDNL contours, but it does determine the loudness of individual noises. The use of ammonium nitrate at the levels indicated would produce a louder noise level than the use of B4 at the amount analyzed.*

Why weren't the analyses done with heavier charges? It may not affect the CDNL contour lines but, as it states, single-event noise levels are higher. The report should still show the contour lines for all charges to be used.

7. page 4-39

I15-7 The *Summary of Potential Noise Impacts* table states that only the noise form ordnance use would cause significant impact and other activities less than significant impact. The report, however, should include the overall impact (all activities combines.)

8. page 4-40

I15-8 Table 4-4 cites noise levels for various explosive charges. It includes levels for the heavier charges but these are buried and not surface detonation. Is it true that the heavier charges will never by detonated on surface ? If not, the levels should be included and the analyses for CDNL contours redone to reflect the new levels.

9. pages 4-40 to 4-41

I15-9 The report states : '*Continuous exposure to long periods of blast noise with peak level exposures of 128 dB would approach the threshold of pain for many people. However, most of the high-level impulse noise from cratering charges and mines would occur during the early morning hours and late evening hours when the beach is less likely to be occupied.*

Responses

I15-5
The EIS was prepared in accordance with the National Environmental Policy Act and with applicable Federal and Army regulations. Review of the Draft EIS by the US Environmental Protection Agency found the document to be adequate. Further information and background on this issue was provided in Sections 3.5 and 4.5 of the Draft EIS, which discusses noise impacts on recreational users.

I15-6
Section 4.5.1 in the EIS has been revised. Analyses of noise from various sizes of shape and cratering charges are discussed on page 4-40 of the Draft EIS. Table 4-4 of the Draft EIS summarizes peak noise levels from different weights of shape charges and cratering charges. Surface detonation of shape charges would produce higher peak noise levels than the detonation of large buried cratering charges. The modeling of CDNL noise contours was based on a representative level of training under each of the alternatives; this typical training would not include use of a 300-pound ammonium nitrate charge.

I15-7
Section 4.5.3 of the EIS has been revised. The overall noise impact would not be greater than the maximum noise source impact.

Comments	Responses
	(Cont.) I15-8 The purpose of a cratering charge is to damage roads, runways, and similar surfaces. These charges must be buried to accomplish this purpose. The hole for a cratering charge can be produced by manual digging or by detonation of a surface shape charge. I15-9 As noted in Appendix F-1, a peak noise level of 115 dBA or more is likely to produce some degree of permanent threshold shift and the threshold for pain is approximately 130 dBA. Because the human auditory system does not respond instantaneously to noise impulses, it may be more appropriate to apply these thresholds to fast response Lmax noise data rather than than to instantaneous peak dBA data. As shown in Appendix G-4, maximum fast response Lmax noise levels were less than 110 dBA during each CALFEX event at Makua Beach, the Admin Trailer area, and the Lower Valley monitoring sites. None of the observers present at MMR CALFEX events reported any pain from noise exposure even when adjacent monitoring instruments registered instantaneous peak noise levels of 128 dB. Even normal weather conditions can produce very high instantaneous peak noise levels. As shown in Appendix G-4, wind in tall vegetation produced an instantaneous peak dBA reading of over 120 dBA on April 8, 2003 when background noise monitoring was conducted on a day when no CALFEX event occurred. As noted in Appendix F-1, an instantaneous peak noise level of 128 dB is well below the threshold for building damage effects. Building damage from airborne noise requires peak nose levels well above 130 dB (probably 140 to 150 dB for poorly constructed structures). The only structures in the immediate vicinity of MMR are in the administration trailer area of MMR. None of these structures show any signs of damage from airborne or ground-borne vibrations despite the fact that they are closer to ordnance detonation locations than is Makua Beach.

Comments

I15-9 The 128 dB level cited is not only threshold of pain but well beyond possible building damage, let alone hearing damage for humans. Citing information from page 5 of the Appendix F (on noise) the level is beyond 'threshold for immediate NIPTS (Noise Induced Permanent threshold Shift)), meaning it would cause immediate and permanent hearing damage.

I15-10 10. page 4-41
The report states: *'The helicopter hovering time would be approximately three to four half hour periods during the estimated five to six hours for each training week. These short hovering periods would result in noise levels at Mākua Beach of approximately 65.3 dB.*

The cited 65dB level is vague. Is this SEL, Lmax, Lpeak ?

I15-11 11. Appendix F-2 (Sound Level Meter Logs)

- The data does not include basic meteorological data (wind, temp, etc.) All sound monitoring data should include these.
- The data does not include noise sources in the surrounding area during the monitoring (both ambient and single-event). Furthermore, each single event should be noted when it occurs.
- Was the instrument calibrated to 93.8 (or 94.0) dBA ?
- Some of the data show big difference between Lmin and L95. For these L99 should be included.
- There are some intervals during which Lmin is 10 to 15 dBA higher than those of the other intervals on same day. This is very unusual. This should be discussed and stated as to why such big differences occurred.
- Some of the site selections were poor. Monitoring should not be done near any undesirable noise sources such as generators or pumps, as were the cases cited in the report.
- Monitoring done at the Silva Ranch stated the meter was placed *'about 50 to 75 feet'* from the highway. Traffic on the highway is the obvious major noise source. Such situation calls for more accurate distance measurement. It appears the person estimated the distance. He/she should use wheel-tape (or roller-tape) device.
- Monitoring done on May 22, 2002 was not logged. Any particular reason for this? Was the instrument not capable?

Responses

I15-10
Section 4.5.3 has been revised. Helicopter noise level estimates are the Lmax dBA value. For a hovering helicopter, the average noise level (Leq) for the duration of hovering would be very close to the Lmax level.

I15-11
Meteorological data, which provides climatological context for the air and noise studies, has been added as Appendix G-7. Meteorological data are routinely measured during noise monitoring studies for situations that allow permanent or long-term sheltered instrument packages to be installed, and where meteorological towers do not cause conflicts with aviation activities. Meteorological data are rarely measured for short duration noise studies that require portable instruments. Portable instruments were required for the CALFEX noise monitoring because permanent monitoring instrument setups were not practical, key monitoring sites could not be secured against public access, and because instrument locations might have to be varied due to changing conditions at different CALFEX events.

Noise monitoring procedures included collection of 1-second time histories of monitored noise levels. A 1-second time history makes it impractical to identify and note individual noise events. Furthermore, troop activity during CALFEX events was not continuously visible from any location, thus precluding specific identification of individual noise events recorded in the 1-second time histories.

Class 2 meters were used on May 22, 2002 and Class 1 meters were used for subsequent dates. Class 2 noise meters were calibrated using a Larson Davis CAL150 calibrator, which produces 94 dB and 114 dB tones at 1,000 Hz. Subsequent noise monitoring used Class 1 noise meters that were calibrated using the Larson Davis CAL250 calibrator, which produces a 114 dB tone at 250 Hz.

Comments	Responses
	(Cont.) I15-11 Differences between the L95 and Lmin noise levels simply reflect the number of impulse noise events recorded during a time interval. Small differences indicate either very frequent events or no events with disproportionately high peak noise levels. Relatively large differences between the L95 and Lmin levels indicate a small number of intense noise events during the interval. L99 data would not add any further clarification. Monitoring locations inside MMR were limited by accessibility and safety considerations. No locations near the Admin Trailer area were free of potential extraneous noise sources, since public observers had access to this area. Given the logistics associated with monitoring for CALFEX activities, the noise monitoring was conducted near the air quality sampling stations at Makua Beach, Silva Ranch, and the Lower Valley monitoring site. Because the purpose of the monitoring was to collect peak noise level data, inflated minimum noise levels did not affect the analysis. Traffic noise contributions at Silva Ranch influenced minimum noise levels, but were not a factor in determining whether peak noise events during a CALFEX significantly affected areas south of the MMR boundary. On May 22, 2002 noise data was logged. Due to insufficient instrument memory, detailed time histories were not recorded.

Comments

RECOMMENDED ACTION

I15-12 1. Include more noise monitoring data as a part of the main text.

I15-3 2. Perform more thorough analyses and studies for possible impact on noise-sensitive areas along the convoy routes. These would include identifying noise-sensitive areas, establishing existing conditions, analyses to determine possible impact and if needed, mitigative measures.

I15-4 3. Provide more comprehensive mitigative measures to address the 'significant impact' at the beach parks, rather than simply notifying the beachgoers in advance.

I15-5 4. Perform a thorough research on available studies to address noise nuisance to hikers and mountain-bike riders at a natural setting.

I15-13 5. Perform additional analyses to determine CDNL contour lines using heavier charges and other types of denotation (surface, buried, etc.)

I15-7 6. State the overall impact due to all activities (ordnance, airfract, etc.); not separating individual activity.

I15-14 7. Noise monitoring should be redone. It appears that the monitoring was performed rather haphazardly and unprofessionally. This may be so due to lack of noise sensitive areas nearby. However, this should not allow such a lack of care and professionalism. It is further recommended that these work be done by an acoustical consulting firm.

Submitted by:

Sang (Mike) Lee, Assistant Professor
Leeward Community College
Contact no.: 696-6378 ext. 109

Responses

I15-12
Detailed noise monitoring summaries are provided in Appendix G-4. Table 3-12 provides representative data at three locations from the January 31, 2003 CALFEX event. Additional references to Appendix G-4 have been added to Section 3.5 of the EIS.

I15-13
All heavier demolition charges would be buried charges, which have less noise impact than surface charges. CDNL contours would not be changed from those presented in the Draft EIS.

I15-14
The noise monitoring study on May 22, 2002 was conducted using the Larson Davis 720 and 820 models. The other CALFEXs were monitored using the Larson Davis model 824. Monitoring sites selected were based primarily on potential public exposure consideration (the south end of Makua Beach closest to MMR CALFEX event activity), the Admin Trailer area where select members of the public are given access to view CALFEX events, and Silva Ranch, which includes the private residence closest to MMR).

Letter I16

Comments

Please submit my statement!

No.

Date 7.23.05

Earthjustice
223 S. King St.
4 Floor
Honolulu, Hi

Attention: David Henkin

As I am reading article "Army sees high fire risk at Makua" Star Bulletin 7/23/05, I am struggling for another breath of air.

My husband and I both suffer from severe sinus problems. Allergic reaction to pollen, smoke from Volcano, are kinds of pollution in Waikiki are involved in our health problems.

I16-1 Additional smoke from fires caused by live fire training at Makua would exacerbate our already polluted environment. What happens in Makua affects our entire island.

I16-2 Another site must be found. We already are suffering too much.

P.S. Thank you for your efforts in protecting our environment.

Sincerely
Michelene Mayer
425 Ena Rd #305A
Honolulu, Hi 96815

Responses

I16-1
As noted in Section 3.4 and Appendix E of the Draft EIS, air quality conditions in Hawaii comply with all state and federal ambient air quality standards. The Draft EIS addresses the air quality impacts of smoke and other pollutants from wildfires in Section 4.4. Air quality monitoring was conducted during a controlled burn at MMR in October 2002. The results of that monitoring are discussed in the Draft EIS (Section 3.4.4 and Appendix G-6).

I16-2
The Draft EIS considered other training locations in Section 2.5. Based on the analysis in the section, the Army determined that only MMR satisfies the purpose and need for the proposed action.

Letter I17

Comments

From: TP [reelcom1@earthlink.net]
Sent: Sunday, August 21, 2005 2:06 PM
To: Makua EIS, POH
Subject: DEIS Comment

I17-1 I am writing to say I am FOR military training activities at the Makua Military Reservation including live fire exercises with a few provisions;
1) Mon-Fri. 7am -11pm only
2) Pack out/Clean up what you pack in
3) Caution to keep noise, smoke and traffic to a miminum
4) Consider closing 1-2 under used bases on Oahu and converting to parkland.

My reading up on it has led me to beleive that live-fire exercises provide the very best training and in war time our troops deserve no less!

Thanks for listening!

Tom & Sharon McAuliffe
Kaneohe, HI

Responses

I17-1
1. The proposed training would occur primarily Monday through Friday. Further restricting the hours of operation would present unreasonable obstacles to nighttime training. Due to the shape of the installation, noise levels in nearby communities are expected to be minor.
2. All training units are responsible for transporting the supplies they need for training in and out of the installation.
3. The extent of noise levels is greatly limited by the shape of the installation (shown in Figures 4-1 and 4-2 of the Draft EIS); smoke is a minor concern for routine training (see the air sampling report in Appendix G-6), and traffic would be kept to a minimum by avoiding peak traffic hours (see the Movement to the Site discussion in Section 2.4.3).
4. This consideration is beyond the scope of alternatives in this EIS