Directorate of Public Works, Environmental Division, (DPW-E)
Conservation Branch
Attn: John Kipp, Ph.D.
NEPA Planner
Building 624, Room 127
624 Pleasonton Ave
USAG Fort Bliss, TX 79916
Desk: (915) 568-5162

NOTE: Sent via email per your notification letter postmarked July 12, 2017

SUBJECT: Stakeholder Comments for; "Environmental Assessment for Fort Bliss Local Flying Area and Local Flying Rules (FB 95-1), Fort Bliss, Texas and New Mexico" and "Draft FINDING OF NO SIGNIFICANT IMPACT" for that same EA.

August 3, 2017

Dr. Kipp,

Thank you for the opportunity to provide comments to the "*Environmental Assessment for Fort Bliss Local Flying Area and Local Flying Rules (FB 95-1), Fort Bliss, Texas and New Mexico*" and "*Draft FINDING OF NO SIGNIFICANT IMPACT*" Alternative #2 (preferred) for same EA (hereafter called "*LFA Expansion*").

I have identified my comments by prefacing them with the word "**COMMENT:**" in bold type (there are 61). My discussion of these comments (labeled "Discussion") contains important supporting information. You may add some or all of that supporting "discussion" information as additional comments. It is all relevant to the *LFA Expansion* proposal.

I submit the following comments in response to the notification letter from you postmarked July 12, 1017 and hope that they will be considered and influence the obvious need for an EIS or revision of the EA or at the least improving the alternative selections. I ask that each of these comments be addressed, and that these comments and the Army response be part of the public record.

First some background, I am a long time resident in the area affected by the *LFA Expansion*. I have a BSEE degree. I am a private pilot, with about 800 hours flight time. I have owned and built aircraft. I am an amateur radio operator, licensed by the FCC and operate a radio station. I am a volunteer firefighter and have over ten years experience with fires and emergency services in the *LFA Expansion* area (in Otero County, NM). I have experience in business and database management. I own a business in Weed, NM.

As Americans we all understand and appreciate the need for our military to provide the quality training necessary to defend our country when the time for deployment arrives. Moreover, we support the need of the Army to provide this training to ensure that our troops are ready and prepared to serve their country. Indeed the residents affected by much of the *LFA Expansion* have borne this support burden for over 75 years.

Our United States Congress has provided the Department of Defense (hereafter called DoD) with over twenty five million acres (25,000,000) for our solders to use for just this purpose. The Fort Bliss / White Sands Missile Range (hereafter called "Fort Bliss" and "WSMR") complex already covers 3.14 million acres (3,140,000) just for use as the US Army wishes. Much of this land was taken, at gun point, from unwilling citizens. I believe we should acknowledge the historical sacrifices made by these private citizens as DoD has repeatedly expanded the Fort Bliss – WSMR complex. Perhaps the John Prather "taking" is the best example, but there are many more. These sacrifices are germane to the EA as they relate to custom, culture, cumulative impacts and DoD creditability.

In my opinion, a number of issues have not been adequately identified or analyzed in the *LFA Expansion* and additional work must be done and incorporated before NEPA requirements have been met. Certainly a FNSI is not warranted at this point. In fact an EIS is merited.

a. COMMENT: Based on my review of the *LFA Expansion* Project and available data, I request the drafting of an environmental impact statement (EIS) as it is more appropriate for the large scale human impacts in the *LFA Expansion* and is required to meet NEPA requirements. My comments below reinforce this need.

I also feel strongly that we can and should be able to ensure that we can achieve military readiness through appropriate training exercises on those existing twenty five million (25,000,000) acres of DoD controlled lands and millions more cubic miles of DoD controlled airspace, while simultaneously honoring the decades of investment that the American public, the U.S. Congress, federal agencies, States, Counties and local residents have made in conservation, recreation, wildlife and habitat, local economies and the quality of life of rural land owners and rural communities under the planned *LFA Expansion* area.

Taxpayers deserve excellence from Army managers. Facilities should be managed efficiently. Inefficient operations should not be encouraged by overlooking/rewarding sloppy management.

b. COMMENT: An investment of just a few million dollars in civilian facilities can justify 24/7 staffing and use, plus an extensive, ongoing, use (efficiency) analysis. The value of the Fort Bliss / WSMR complex is not just millions of dollars but billions of dollars. As written the *LFA Expansion* proposal fails to address efficient management of Army resources at Fort Bliss and WSMR, and how efficient use might mitigate the need for the expansion of low altitude operations outside Army holdings. In fact, while efforts for efficient use are mentioned, no discussion or analysis is offered leaving the reader to believe it is too difficult for Army management to coordinate use. The *LFA Expansion* EA states, I quote:

> "***The use of WSMR SUA for MTFA and low-level training would require clearance from WSMR for each use to avoid conflicts with fast aircraft traffic from WSMR or HAFB."***

WSMR and Fort Bliss are both DoD, and both Army managed. Priories are set by DoD / Army. Reading this it appears that it is easier for Fort Bliss Army managers to "take" airspace over private property (at 100' above the ground) and subject families to the noise and risks rather than coordinate with another Army command for use of existing Army facilities. Some analysis of this as part of Alternative #1 and #3 should be offered. I ask that the *LFA Expansion* explore these questions as they are germane to building proper alternatives (which the *LFA Expansion* lacks in its present form).

PROCESS RELATED COMMENTS

a. COMMENT: The *LFA Expansion* comments schedule requirements are overly aggressive with only 30 days allowed for comments and lacking any public meetings, or general notification, or any solicitation of input from the civilians, or county governments impacted. While scoping and public meetings are not a requirement under the National Environmental Policy Act (hereafter refereed to as NEPA), they are commonly incorporated by other federal agencies when dealing with a significant and potentially controversial proposal such as this one.

b. COMMENT: Many stakeholders were excluded from participating in the *LFA Expansion* scoping and EA development. These include county governments located in the LFA expansion area. I request that stakeholders be solicited for input early in the NEPA process. I request that the NEPA process for the *LFA Expansion* be restarted to allow stakeholder input and meet NEPA's intent.

c. COMMENT: I am an interested stakeholder and I want to be notified about all Fort Bliss NEPA activities. I have requested this before. I was not allowed to participate in scoping or EA development for the *LFA Expansion*. I want to be added to the notification list for Fort Bliss NEPA actions. Other stakeholders have complained to me that Fort Bliss has not included them, even after repeated requests.

d. COMMENT: Obfuscated information offered to stakeholders? The few stakeholders that were informed by the *LFA Expansion* NEPA team and allowed to provide comments, were given confusing information. The NEPA process should be restarted and the stakeholders provided correct information. Changing basic project scope after stakeholder input is unconscionable (reference the Final EA vs the comment letters concerning minimum altitudes in the low fly areas.).

Discussion: Documents (reference: LFA Expansion EA, Appendix 1) show the *LFA Expansion* was touted to stakeholders to allow flight to a minimum of 200' AGL. However, the *LFA Expansion* was actually written to require helicopter operations at 100' AGL. This is a considerable difference from a safety, noise, antiquities and rotor wash standpoint. Providing inaccurate information, or worse changing project parameters without alerting stakeholders is poor at best. This looks like incompetence or attempted fraud to short cut NEPA.

e. COMMENT: I request that the *LFA Expansion* NEPA team start the NEPA process again. This time include interested stakeholders in the project scoping and alternatives. (see discussion below).

f. COMMENT: The *LFA Expansion* does not define the proposed project properly as required by NEPA. Critical information is missing. The result is that informed comments are very difficult or impossible. This is unsound and should be corrected. The flight corridors formed by the proposed direct flights between Biggs AAF and the outlying civilian airports as well as the flight corridors to the new low altitude training areas are not shown or defined in the EA. These corridors that the Army plans to use will contain the majority of flights and the majority of environmental impacts. (reference the *LFA Expansion,* I quote (emphasis added):

> *"The vast majority of sorties would originate from Biggs AAF and traverse to selected regional airports within the LFA* ***along generally straight-line paths****."*.

It should be obvious that flight path information is important to stakeholders that may live or work under the path, yet none is provided.

Low altitude training areas are not defined in sufficient detail to assess impacts. The *LFA Expansion* contains a pictorial of the low altitude training areas that lacks specificity such as latitude/longitude or kml data. This area is arguably the most impacted by the *LFA Expansion*. Informed comments are difficult when the NEPA documents furnished by the Army fail to properly define "where" the proposed action is taking place.

The *LFA Expansion* also fails to discuss "when". How many flights will take place after dark? After midnight? On Sundays? All flights on one day of the week? The *LFA Expansion* confirms, for example, that flight operations at night present a greater impact, yet no information is provided on the proposed number of night time sorties. (reference the *LFA Expansion,* I quote (emphasis added)):

> *"Noise levels occurring at night generally produce a* ***greater annoyance*** *than do the same levels occurring during the day."*.

g. COMMENT: I ask that the Army reset the 30 day clock, and present stakeholders with complete WHAT, WHERE, WHEN information. Further that the Army direct that Army personnel conduct community information meetings in the affected rural areas. This will help affected stakeholders and will assist the Army with informed comments.

MY COMMENTS ON PREVIOUS NEPA ANALYSIS ERRORS THAT MUST BE AVOIDED

a. COMMENT: Noise is often scientifically measured and those measurements then related to voters complaints (called "annoyance" by federal agencies). That term effectively marginalizes the human impact from noise. Noise causes actual human learning and health damage, not just "annoyance". This real physiological damage includes: learning disability in children, hearing loss and cardiovascular damage and more. Studies in the past five years confirm serious human health impacts from noise. Yet the Army chooses to marginalize or ignore these newly documented impacts in the *LFA Expansion.* I ask that these new physiological impacts be investigated, analyzed and discussed in the *LFA Expansion.* The Army has recognized the problems (see Army report dated 2007 (ERDC/CERL SR-07-24, October 2007) yet failed to act.

Discussion: DoD has failed to acknowledge independent, scientific human health noise studies conducted largely in Europe, relying instead on "research" conducted by DoD contractors, often without independent review.

The DoD (and the EPA) use averages to quantify sound levels and voter "annoyance". This method usually under reports and minimizes noise health impacts. An excellent Army report from 2007 (ERDC/CERL SR-07-24, October 2007) illustrates the errors in "average" noise numbers and the adverse impacts those errors can have on both human health and wildlife. I believe this report has a direct bearing on the *LFA Expansion* project as it makes clear that noise averages are often a poor metric and often used by DoD. I quote the 2007 Army report:

"Long-term-average noise level does not adequately guide land use. As an example, 100 events of 142 dB peak pressure level yield an annualized CDNL of 62 dB, which is supposedly suitable for all land uses. However, a peak level of 142 dB is so loud that it would almost certainly cause a strong negative public reaction, and in fact exceeds the 140 dB threshold for human hearing damage (Military Standard [MIL-STD]-1474D; Occupational Safety and Health Administration [OSHA] 1983)."

and,

"Average noise levels provide no indication of the loudness of individual events to which citizens are exposed."

and,

"Another difficulty is that impact assessment results depend strongly on the selection of the time period over which the noise is averaged. The method ignores any effect of the timing of noise events; there is no difference between 10,000 noise events spread over 1 year or all occurring in 1 day."

COMMENTS ON THE EA "FORT BLISS BACKGROUND" and MISCELLANIOUS COMMENTS

a. COMMENT: Add the existing size of the Fort Bliss/WSMR/Holloman AFB complex: include land area and volume of airspace used (not just the Fort Bliss size which misrepresents the Army's area holdings and the area available for Army operations). This should be added in the Executive Summary and in section 1.1 titled "Fort Bliss Background".

b. COMMENT: The *LFA Expansion* EA is somewhat disingenuous in stating that I quote:

"Fort Bliss aviation training. There have been no accidents involving Fort Bliss rotary-wing aircraft operating in the Fort Bliss LFA outside the SUAs since the LFA and FB 95-1 have been in effect."

This may be technically true but the EA should mention that there have been helicopter accidents at Fort Bliss, with helicopters totally destroyed. This is important since the proposed new low altitude training area, over private land, in the "*preferred*" Alternative involves hazardous training like that that resulted in loss of aircraft on Fort Bliss. (reference Pino, 1997). These hazards are now planned to be shared with the public in the *LFA Expansion* preferred alternative.

c. COMMENT: Disingenuous information is presented as fact in the EA, I quote the EA (emphases added):

> "*Having the capability to use these areas affords a variety of topography that is different or unique from that found within the Installation,* ***most of which consists of flat terrain****."*

I believe that the last statement is false. I have reviewed the Fort Bliss/McGregor topological maps (and WSMR as well). I have traveled the 506 highway (Otero County, NM). Most of the land area has considerable relief and varied terrain. There are hundreds of topological features that would allow a helicopter to (I quote the EA): ***"Pop-up"***. Stating or inferring in the *LFA Expansion* that there are few of the features needed on Fort Bliss is false. There are hundreds of areas with the needed features. Further, the topographic maps show hundreds more suitable topological features next door on WSMR, just a few miles from Briggs Field. The Army does not need to fly over civilian property at 100' AGL because Fort Bliss and WSMR lack topography. That statement, those "facts", are false.

d. COMMENT: It is important to note that one of the proposed low level flight training areas (100' AGL) is over private property and near or over the Brokeoff Mountains Wilderness Study Area (Otero County, NM). The EA marginalizes the private homeowners whose land is under the new, expanded training area by calling their homes, I quote: "*sparsely populated areas"* and implying impacts are less important. "Sparsely" does not mean no one lives there. Impacts to residents are real and the list of their loses from low, heavy, noisy, night flying helicopters is long. Denigrating rural residents as unimportant is poor practice by the Army.

It is also important to note that large helicopters such as the CH-47 are extremely noisy and produce 80+ MPH downwash (see later comments for references), sparsely populated or not..

e. COMMENT: "Live fire" safety a justification? Really? I quote the *LFA Expansion*:

> ***"Because of the potential for live fire interference"*** and ***"Because of the potential for live fire interference and conflicts with other flight and ground operations within the FBTC . . . ."***.

Really? Are we stakeholders and the public actually being told that the Army can not safely manage the FBTC? That helicopter crews might be shot by some kind of accident? This is obviously false and a scare tactic. The helicopter training can in fact be conducted, safely, without "live fire" risks. Throwing this red herring out as an issue, a safety issue at that, is poor and not true. Perhaps the *LFA Expansion* NEPA team meant to say that "safely conducting helicopter training will curtail live fire training"? Helicopter crew safety is not an issue with respect to "*live fire*" unless the Fort Bliss Commanding Officer is incompetent. Is that the implication? Please, this prose should be removed or altered to reflect the true situation. This might allow better alternative development.

f. COMMENT: Again the "safety" red herring. The Army actually admits that they can not safely operate the FBTC! I quote:

> ***"Because of the extensive use of the FBTC for ground training operations, some of which involve live fire of small arms and artillery, there are no safe SUAs for Army aviators to conduct maintenance test flights without the potential for being struck by unseen projectiles from ground training."***

Any competent manager could provide a safe work place. I think what the *LFA Expansion* NEPA Team is trying to say is that providing a safe maintenance flight environment will cause loss of live fire hours, but who knows what they mean? Maybe the Army really can't manage activities safety? I ask that this language be removed and a better description of the problem be written. A more lucid description might spark a better Alternative.

g. COMMENT: A stated "need" is to have trainees on cross country flights divert to practice low altitude (100' AGL) maneuvers. Really? Stop your cross country navigation, divert to the SUA then return to cross country? No one can argue with the Army aviation "experts", but it seems to me that cross country navigation with all the acronyms (VOR, IFR, GPS, ATC, ILS, etc) and low altitude "pop-up" training as separate activities would be an equal quality training plan. Doing both cross country navigation and low altitude combat practice during the same flight seems awkward to me. In any case the two could be easily separated. It seems to be a convenient excuse to claim to "need" both skills simultaneously, as it makes the new low altitude training over private property a "need" rather than a want. A newly just discovered "need" at that.

h. COMMENT: Another justification for expanded airspace over private property involves a stated need for certain terrain and accommodation when the FBTC managers shut down Fort Bliss base areas. According to the EA Fort Bliss has suitable terrain but they need more because pilots are use to the base terrain and FBTC sometimes closes these areas (I'm paraphrasing but I believe that is the gist of all the prose). As I discussed above DoD already controls 25 million acres. The Fort Bliss / WSMR Army complex is already the largest land holding the Army has at 4,900 square miles. Just Fort Bliss has 1,100,000 acres reserved for the sole use of the Army/DoD. These numbers are huge. As I said above, much of this land was taken at gun point from unwilling sellers. Now we are being told that this is not enough. The Army "needs" another special airspace at 100' above private land that impacts local residents. The use is so severe it amounts to a "taking". Meanwhile, I see no utilization analysis of current Army holdings that would justify taking more. I ask that the Army provide a report showing an analysis of terrain utilization (needed for helicopter training) for the FBTC. Include this analysis in the EA NEPA document. This analysis would involve an inventory of suitable terrain and it's utilization throughout the week/year and how that utilization might be improved. This analysis would benefit the Army as a measure of performance and would provide real numbers to justify expansion (rather than prose and platitudes). Further I ask that the Army provide the same analysis for Fort Bliss' sister site WSMR.

i. COMMENT: A claim without support is that WSMR can not be effectively coordinated with for the needed low altitude helicopter training. I quote the *LFA Expansion*:

> "*The use of WSMR SUA for MTFA and low-level training would require clearance from WSMR for each use to avoid conflicts with fast aircraft traffic from WSMR or HAFB"*.

Yet, both commands are Army. I ask that the Army furnish documentation that WSMR can not be utilized rather than state (as it does in the *LFA Expansion*) that it is just too hard. When I questioned the Holloman AFB base Commander several years ago WSMR had minimal utilization on Friday – Saturday – Sunday – Monday (for example). If WSMR is completely utilized that would lend credibility to more takings from the public. No facts or analysis are provided in the *LFA Expansion.*

j. COMMENT: With a total of 3,200 square miles available I find it impossible to believe that helicopter training must be over private land because Fort Bliss / WSMR doesn't have enough land. Without real numbers from the Army it looks like lazy managers looking for a lazy way to operate. I ask that the EA give us numbers and show the need.

k. COMMENT: The land below the 100' AGL training will be adversely impacted. No matter the

administrative controls this land will be significantly impacted (see my rotor wash comments below as an example). I ask that the Army consider using eminent domain to acquire this land rather that destroying its value and giving land owners nothing.

l. COMMENT: I quote:

"Due to the familiarity of most Army pilots with operations in the Fort Bliss SUAs, training can become complacent and lacking in challenges."

Really? Again this is a management problem, not just physical plant issue. I ask what trainers are doing to add interest (other than taking property elsewhere). Perhaps a change in management might correct deficiencies? I ask that this be discussed in the *LFA Expansion* EA as it bears on environmental impacts.

m. COMMENT: I quote:

"***The use of WSMR SUA for MTFA and low-level training would require clearance from WSMR for each use to avoid conflicts with fast aircraft traffic from WSMR or HAFB."***

I ask why this is a problem? Just do it. How hard is it? It is all Army. Pick up the phone, work out an arrangement. It is all Army and all about priorities. I can't help but point out the contradictions raised between Comment "i" and "l".

Discussion: Is WSMR completely utilized across all 3,200 square miles? Or is it just easier to take airspace and private property instead of working together? I ask again, as I did above, for the Army to show utilization numbers that prove a need to take more. I further ask that the Army expand on the above quote explaining why FBTC can not work with WSMR.

MY COMMENTS ON ENVIRONMENTAL IMPACTS

a. COMMENT: Noise impacts must be investigated both at the low altitude training areas and in the ingress / egress flight paths (hereafter referred to as "corridor"). I believe a comprehensive presentation of noise effects for both is essential for understanding of noise, vibration and visual disturbance to the environment. I believe that noise from the *LFA Expansion* project will significantly affect the quality of the human environment including disproportionate health impacts to children, elderly and economically disadvantaged. The most impacted, those in the undefined flight corridors and those in the new 100' low altitude training areas are left with no analysis or representation in the *LFA Expansion*. Why?

b. COMMENT: The *LFA Expansion* fails again, to discuss the visual disturbance caused by helicopter operations over the Brokeoff Wilderness Study Area. The *LFA Expansion* fails to discuss the visual disturbance caused by helicopter operations over the Lincoln National Forest. The *LFA Expansion* fails to discuss the visual disturbance caused by helicopter operations in the LFA.

c. COMMENT: Impacts to archaeological resources from noise and vibration must be investigated. The *LFA Expansion* fails again, to consider facts reported in Fort Bliss's own documents that indicate damage is likely. The Army has previously reported damage from helicopter operations (see in "Discussion", below and reference the Army EIS titled "*The McGregor Range, New Mexico Land Withdrawal Renewal Legislative Environmental Impact Statement, Volume I, United States Army, May 1999*")

d. COMMENT: The LFA Expansion Environmental Assessment and the derived FNSI fail again, to

include important data and analysis. Impacts to soil and vegetation from rotor downwash must be studied and results evaluated. I ask that they be. I ask that impacts from rotor wash be considered. I ask that "multi-ship" operations be considered when evaluating environmental damage at the new low altitude training areas. Using the numbers provided by the Army in the *LFA Expansion*, the new low altitude training areas will experience over 700 instances, day and night, of rotor wash exposures over a ten year period. Rotor wash on the ground will generate wind speeds of well over 80 mph. Damage to the soil and vegetation is inevitable and likely not reversible. (reference "The McGregor Range, New Mexico Land Withdrawal Renewal Legislative Environmental Impact Statement, Volume I, United States Army, May 1999" and the Army document titled, "HELICOPTER DOWNWASH DATA", Leese, et al,)

e. COMMENT: Under the section Geology and Soils the Army *LFA Expansion states*, I quote:

> ***"All impacts are related to actions in the air due to aircraft missions and no ground disturbance would occur."***

This is false, yet more false information. Army data proves that is a false assertion. Both the Army document titled, "The McGregor Range, New Mexico Land Withdrawal Renewal Legislative Environmental Impact Statement, Volume I, United States Army, May 1999" and the Army document titled, "HELICOPTER DOWNWASH DATA", Leese, et al, show that there will be ground impacts and that ground disturbance is likely to occur. In the proposed low altitude training areas the EA Alternative #2 (Preferred) calls for helicopter flights to, I quote:

". . descend to a minimum altitude of 100 feet AGL for low-altitude simulated combat training . "

Yet the Army studies above ("HELICOPTER DOWNWASH DATA", Leese, et al,) show that helicopters hovering at 90' (closest altitude in the report to the 100' listed in the EA) above the ground generate significant rotor downwash. I have personal experience with helicopter Landing Zones and can confirm the Army's report that dangerous downwash winds are generated as a helicopter hovers and maneuvers, even at 100' AGL. Downwash can be intense and dangerous. The Army report, "HELICOPTER DOWNWASH DATA" shows that the CH-47 at 100' AGL generates **velocities of 83 mph (70 feet out from the rotor hubs).** This is significant and dangerous. This downwash will impact and disturb the ground and wildlife and vegetation. Loose objects will be scattered. Wildlife will be impacted by noise, by wind and by flying debris. All on private land. Yet the EA miss-states the impact as, I quote:

"no ground disturbance would occur."

That statement is false. The EA is flawed, perhaps disingenuous. Further, the Army plans to fly not just single helicopters into the low altitude training area. They in fact plan to send a significant number of mufti-helicopter formations to these areas. Impacts would be much worse for these flights. I quote the Environmental Assessment,

> **"Single-aircraft sorties would be most common, with about one third of the sorties comprising multi-ship groups of two or more aircraft."**

The EA fails to address any impacts from "multi-ship" operations. Picture a man's pasture used, over and over by the Army, and subjected to 80+ mph downwash winds, again and again, year after year. Yet the EA states: *"All impacts are related to actions in the air due to aircraft missions and* ***no ground disturbance would occur****."* Does this seem true? Which Army data is correct? Any? Is it "no impact" or 80+ mph impact? One helicopter or a dozen?

f. COMMENT: In addition to the Army study "HELICOPTER DOWNWASH DATA" (see above)

which refutes the *FTA Expansion* EA statement: *"All impacts are related to actions in the air due to aircraft missions and no ground disturbance would occur."*, another, existing Army EIS further refutes it. The Army EIS titled "The McGregor Range, New Mexico Land Withdrawal Renewal Legislative Environmental Impact Statement, Volume I, United States Army, May 1999" states in part, I quote:

> *"Although noise and vibrations from helicopters can be 30 to 40 times higher than ambient levels, as compared to a high of 60 times ambient for low-flying jet aircraft (King et al., 1988), the duration of noise and vibration is considerably longer from helicopter overflight. Close approach helicopter flights have been demonstrated to damage archaeological architectural structures (USAF, 1992). Similarly, low overflights (50 feet) by heavy helicopters have a high probability of damaging architectural resources (Sutherland, 1990)."*

Yes this is 50' rather than the 100' in the LFA EA. However, the Army recognizes variabilities in helicopter data that makes the above Army data for 50' applicable. That variability is documented by the Army, quoting the Army *LFA Expansion* EA ***"For helicopter noise, the effects are highly variable depending on the speed of the helicopter, the altitude AGL, climatic conditions, and the weight of the helicopter."*** I believe the McGregor Range EIS data and USAF information applies to the *LFA Expansion* also. The USAF/Army data poses questions that are not answered in the *FTA Expansion* EA. Again the Statement *"no ground disturbance would occur."* is unlikely to be true. Keep in mind the EA plan includes significant multi-helicopter flights with greater impacts. Yet the LFA Expansion Environmental Assessment fails again, to analyze this given information. Instead the Army NEPA team reaches an obviously false conclusion based on thin air.

g. COMMENT: We need accurate locations (latitude/longitude, etc) for the new low altitude training areas so we may evaluate vegetation and soil damage potential. Detailed information concerning these areas has not been provided in the *LFA Expansion* EA. Stakeholders can not provide useful comments when the Army withholds "where" information necessary to evaluate environmental impacts.

h. COMMENT: Dust and flying debris generated by 80+ mph rotor downwash creates air pollution and an artificial environment around the new low altitude training areas. We need an analysis of these impacts.

Discussion:
Downwash velocities are from US Army source, AD-780 754, HELICOPTER DOWNWASH DATA, Grady W. Leese, et al, Army Engineer Waterways Experiment Station Vicksburg, Mississippi.

i. COMMENT: The project calls for helicopters to travel together in groups of two or more. The Noise, Vibration and Visual Disturbance impact analysis must reflect this. Due to the slow speed and possible tight grouping of helicopter operations the level of environmental impact will be much greater than if a single aircraft were involved.

j. COMMENT: The *LFA Expansion* fails to address any visiting Army units use of LFA. Will there be visiting units? How many? How often? How many flights? Include this in the *LFA Expansion* EA.

k. COMMENT: Noise, vibration and Visual Disturbance will affect recreation. Both the areas under the flight corridors and areas near the new low altitude training areas will be affected. For example recreation in the Brokeoff Wilderness Study Area will be greatly impacted by noisy, day night helicopter operations. These impacts must be analyzed. Recreation is a key economic factor in these "sparsely" populated areas.

l. COMMENT: The LFA Expansion EA offers incorrect data again, and presents it as fact. It uses

data that the Army has acknowledged as flawed to base a NEPA decision. Jet aircraft noise is not the same as helicopter noise. In fact it has little in common. The frequency spectra, duration, vibration are all completely different. I quote the Army: *"Although noise and vibrations from helicopters can be 30 to 40 times higher than ambient levels, as compared to a high of 60 times ambient for low-flying jet aircraft (King et al., 1988), the duration of noise and vibration is considerably longer from helicopter overflight." (Sutherland, 1990).* There are scores of DoD publications that indicate that jet noise studies do not apply to helicopter noise. Yet the LFA Expansion ED uses jet noise to conclude that wild life and livestock are not significantly impacted by multi-helicopter flights at low altitude (500' AGL and below). This is known to be false by the Army. This conclusion is likely false. Here is one example of false information from the *LFA Expansion* EA, (I quote the EA):

> *"Wild ungulates (e.g., elk, mule deer, sheep, and javelina) have been studied for reaction to aircraft overflights.* ***In a study on the effects of simulated low-altitude jet aircraft noise*** *on desert mule deer and mountain sheep, it was documented that heart rates rise during simulated overflights with an equivalent continuous sound level of (Leq) of 92 to 100 unweighted dB at a frequency of one to seven times per day, but return to normal rates after a maximum of three minutes (Weisenberger et al. 1996). Weisenberger et al. (1996)"*

False data presented as facts. Why even bother offering this data? Just make up some "science" and call it "no impact". That is pretty much what all these references to jet noise amount to. I ask that proper impacts from helicopter noise, rotor wash, vibration and visual disturbance be cited. And an accurate NEPA analysis be completed.

m. COMMENT: Noise impacts human health. Impacts must be analyzed. Including impacts on children. The LFA Expansion fails to include proper health impacts.

Discussion:
Noise and vibration affects human health. Noise, vibration and visual disturbance impact areas are important. One key to impact levels is the noise, vibration and visual impacts generated from a specific aircraft. Each aircraft has different characteristics. Helicopters produce noise at levels and frequency spectra that are dependent on helicopter airframe, rotor, engine type and model, and pilot operating techniques (source: US Army).

Numerous studies show that noise and vibration impacts wildlife and livestock. Noise impacts the socioeconomics of the LFA affected area. Noise and vibration affects recreation and hunting. In fact there is little civilian use in the LFA that is not impacted by noise from the preferred alternative in the *LFA Expansion* project. We need a study to understand the magnitude of the impacts. The *LFA Expansion* project offers no estimates of the losses from reduced recreation, impacts on business, astronomers and livestock. Where are the estimates of losses?

The CH-47 Chinook transport helicopter, for example, is a large twin engine, twin rotor heavy helicopter and is likely, in my view, to present the greatest environmental impact to the civilians, Wilderness Areas, forest users, livestock, wildlife, endangered species, invasive species, etc. The Army CH-47F has a takeoff weight up to 25 tons. Unloaded it weighs in at over 12 tons. It has two turbine engines that produce 9,466 horsepower. It is almost 100 feet long and 18 feet high. It carries over 1,000 gallons of jet fuel internally. It uses 360 gallons of jet fuel per hour. It is a big heavy, noisy machine. Early in the service of the Chinook, noise, especially in the low frequency spectrum was a problem for both aircrew and ground crews. The Army implemented several procedures and modifications to protect the aircrews from hearing damage. Numerous studies have been conducted measuring Chinook noise both inside the aircraft and outside. Below are a few of the specific noise impact studies I referenced (there are many more):

1. Army Technical Report USA-CERL TECHNICAL REPORT N-88/04 (AD-A191 059) (1988)
2. USAARL Report No. 96-02 (1995) (Aircrew)
3. FAA-EE-84-7, Noise Measurement Flight Test for Boeing Vertol 234 CH 47-D / September 1984

4. USAHC Readiness through Hearing Loss Prevention, July 2014
5. FAA Report No. FAA-RD-77-57, 11 (April 1977)
6. Etc., Etc., Etc.

With minor variances in these reports the Chinook has 110 dB of noise at 500 ft during overflight and during landing operations. The legal altitude for a helicopter over a home or person may be much lower than 500 feet, 50 feet would be legal for example. The *LFA Expansion* plans flight down to 100' above private property. A fight of two CH-47 over flying a home or business may generate dangerous levels of noise, vibrations and downdraft even at 500'. Now picture that event at night in a home with children, over an isolated camp site.

The US Army Health Command published an informative brochure to help put this noise level into perspective (USAHC "Readiness through Hearing Loss Prevention", July 2014). I am attaching a chart from that Army publication showing how the CH-47 fits in with other noise sources. Yes, it shows a dangerous 110 dBA noise level for the CH-47 helicopter.

n. COMMENT: Health impacts are not properly addressed in the *LFA Expansion* EA. Cardiovascular stress and shortened life expectancy result from noise exposure lower than that proposed in the *LFA Expansion*. Recent, new research has tied aviation noise to cardiovascular stress and shortened life expectancy. Aircraft noise and health effects is a rapidly growing area of research worldwide, and there have been many significant findings published in recent years. In addition, past scientific studies have tied noise levels, such as found from the CH-47, to negative health impacts for children and elderly. These effects are serious. For example one study indicated a 30% hypertension risk increase per 5 dB(A) noise increase.

These noise impacts will most affect rural residents, many of whom are elderly and / or economically disadvantaged. Many of whom now live in very quiet areas (largest health impacts).

Here is a short, partial list of health impact reports demonstrating noise health impacts:

1. Cardiovascular effects of environmental noise exposure, 9 March 2014, European Heart Journal
2. Cardiovascular effects of noise Wolfgang Babisch Department of Environmental Hygiene, Federal Environment Agency, Berlin, Germany, 2011
3. Cardiovascular effects of environmental noise: research in Sweden. (National Center for Biotechnology Information)
4. Exposure and Effect Indicators of Environmental Noise, Hartmut Ising, WHO, 2003
5. Aircraft noise associated with hypertension and organ damage, EuroPRevent 2016 presented by Marta Rojek, researcher at Jagiellonian University Medical College in Krakow, Poland.
6. Aircraft noise and health effects: Recent findings CAP 1278 (Civil Aviation Authority GB). 7. Etc., Etc., Etc.

Quoting one study,

"In conclusion, the results of the present study suggest that chronic exposure to military aircraft noise may be associated with hypertension. The difference in the effects between helicopter and fighter-jet noise implies that different kinds of noise will have different influences on the prevalence of hypertension." (The Effects of Chronic Exposure to Aircraft Noise on the Prevalence of Hypertension, Hypertension Research (2008)).

Another study, I quote:

"noise-based health impacts include sleep deprivation and impacts on cardiovascular and gastrointestinal functions, as well as reduced learning abilities of schoolchildren. These impacts go beyond the quality-of-life annoyances caused when noise disrupts normal daily activities such as

speech, sleeping and relaxation." (Natural Resources Defense Council, 1999).

Discussion: There are scores of studies showing that helicopter noise significantly impacts the human environment. I request that the Army become familiar with current research and use it.

o. COMMENT: The acceptable level of noise and helicopter vibration is arbitrary. In the words of Kirsch (2015) (emphases added), "In the United States, all pollution standards are (or should be) based upon a technical/scientific foundation but the … ***decision as to an acceptable level is, ultimately a policy decision***. *There simply is no scientific or technical standard for what is acceptable: that is a policy decision*". Health impacts are not arbitrary. I request that human health impacts be thoroughly addressed separately from the arbitrary "annoyance" metrics used by the Army and politicans.

o. COMMENT: The Department of Defense pays contractors for science reports about DoD environmental impacts. DoD then uses these studies while ignoring independent scientific reports. I believe noise "studies" published by DoD contractors (Wyle for example) should be verified by independent sources, especially when the research conclusions impact DoD expansions. As I mentioned above, aviation fixed wing noise is very different than helicopter noise. Using the two interchangeably is unsound science *(Fleischner and Weisberg (1986)), (King et al., 1988) (and many more)*. Numerous reports cite the differences in frequency spectra and vibration between fixed wing jet aircraft and helicopters. Citing a report fixated on general noise from aviation rather than helicopter noise is disingenuous. Further, helicopter noise varies, I quote the LFA Expansion: "*For helicopter noise, the effects are highly variable depending on the speed of the helicopter, the altitude AGL, climatic conditions, and the weight of the helicopter."* I'll add to that list (based on Army documents), pilot technique and specific helicopter design. Noise, vibration impacts require very specific study to be accurate according to the US Army. Yet the LFA Expansion fails to offer this accurate analysis. In fact offers know incorrect data. NEPA can not be successful with poor, false or manipulated data.

p. COMMENT: Wildlife impacts. The *LFA Expansion* glosses over impacts to wildlife. I call attention to documented real impacts (see below). Noise and vibration from helicopter operations impacts wildlife. One report (of many) discusses raptor response to helicopter activity, I quote:

"Whereas some medium-sized diurnal raptors flee from approaching helicopters (Andersen, et al. 1989, Platt 1975, Platt and Tull 1977), others refuse to be flushed from the nest (Pool e 1989), and larger ones sometimes attack helicopter s, presumably in defense against a flying intruder (Mooney 1986, Watson 1993). Variability of response by raptors to disturbance in general is also noted in Awbrey and Bowle s (1990) (although the authors make repeated generalizations concerning "raptors")." (source: Effects of military noise on wildlife: a literature review, Ronald P. Larkin, USACERL, Illinois Natural History Survey).

Another study states, I quote:

(Fleischner and Weisberg (1986)) "Reactions of bald eagles to commercial jet flights, although minor (e.g., looking), were twice as likely to occur when the jets passed at a distance of 0.5 mile or less. ***They also noted that helicopters were four times more likely to cause a reaction*** *than a commercial jet and 20 times more likely to cause a reaction than a propeller plane."*

q. COMMENT: The *LFA Expansion* EA alternatives contain incomplete, inaccurate information presented as fact. These misrepresentations, inaccuracies and incomplete data are significant. These failures by the Army NEPA team are such that the Environmental Assessment can not be

relied upon, nor can the resulting Finding of No significant Impact. I believe that the NEPA process must be restarted because of these failings. For example the EA discusses the Mexican Spotted Owl (an endangered species that has cost billions to protect). Quoted by the Army *LFA Expansion* NEPA authors is an excellent study by Delaney. Mr Delaney is recognized for his work with the Owls and helicopters. The Army *LFA Expansion* NEPA authors quote Mr Delaney at length and even discuss Mr Delaney's cautions about extending his results. The NEPA authors then decide to speculate based on no actual data and in contravention to the Delaney study. They ignore Mr Delaney's cautions and come to conclusions that Mr Delaney warned against. Why even bother to cite Delaney if his educated cautions were to be thrown out? Here is what Mr Delaney actually stated in his conclusion to the study, note that he specifically cautions about extending the study to multiple helicopters or helicopters other that the Pave Hawk, I Quote (emphasis added):

> "In conclusion, these research findings are specific to Mexican spotted owls and ***Pave Hawk*** helicopters, as well as to the seasons and habitat associated with our testing. Therefore, extrapolation to different avian genera or species, or other aircraft and locations, must be done with caution. For example, changes in forest type or elevation alone may influence prey availability and delivery rates, which may in tum influence spotted owl response behavior. ***We also caution against use of these findings to infer how spotted owls would respond under different circumstances that were not directly tested, such as spotted owl responses during early courtship and incubation, responses to > 1 helicopter or overflight,*** or responses in different nesting habitat or under different foraging conditions. While our research was effective in answering the original, specific disturbance question, ***these results must be qualified by the limiting context of their derivation when applied to broader managerial questions.***"

The 1999 Delaney study (LNF) of Mexican Spotted Owls considered the impact of a single helicopter, moving at less than 90 miles per hour. The *LFA Expansion* helicopters will be flying at speeds of up to 190 miles per hour and may be flying in packs of four (or more) which will increase the intensity of the noise and lengthen the exposure to the noise. Delaney ***specifically warns against using his study in this circumstance.*** Yet the Army uses his study to set Spotted Owl safety zones for *LFA Expansion*.

Clearly Mr Delaney warned not to do what the *LFA Expansion* NEPA authors have done. Clearly the Army is choosing to misrepresent the environmental impact of the *LFA Expansion*.

u. COMMENT: The Army *LFA Expansion* EA presents noise energy data for best case conditions throughout the EA. Use of best case, not worst case, not average, not most likely, minimizes environmental impacts. This is a poor NEPA analysis. For example, in "Table 3-1. Maximum Noise Level of Aircraft" on page 22 of the EA . This table is misleading and does not present the best data (see my comments on available data below). The table only gives us noise energy impact from one helicopter. Actually for four CH-47 helicopters flying in a tight formation the noise energy over a home 500' below, would be 90 dBA (using the data furnished in the poor EA chart). This a far cry from the 84 dBA presented as fact. This may not sound like much increase but it is significant. 90 dBA is like having a bulldozer running in your front yard. That is not the only error in the Army's *LFA Expansion* noise presentation. A report by the US Army Corps of Engineers, USACERL Technical Report N-91/13, titled "Human Response to Helicopter Noise: A Test of A-Weighting" demonstrates that using ASEL noise measurement does not correctly represent impact to humans from helicopter noise. This Army report suggests that an 8 to 10 dB factor should be added to the ASEL noise numbers to account for a helicopter's greater impact. The report states that every helicopter has a different correction factor. Using the 10 dB correction factor (the CH-47 is a large noisy helicopter) the noise impact from four CH-47 to a home (or campers or cattle or hiker) below rises to 100 dBA (like operating a big, air powered jack hammer without ear

plugs). The 84 dBA number presented by the Army is inaccurate, misrepresents the noise impacts and is disingenuous. The noise impact inaccuracies are significant. Further, these inaccuracies affect large portions of the EA's environmental impact claims, including human impacts, wildlife impacts, livestock impacts, impacts to structures and on and on.

Please note that the above noise numbers are for normal, Army planned operations, night time, day time, any time. Night operations are not precluded. Also note that 500' is not the lowest altitude planned. That would be 100'. The noise below the helicopters would be much greater at 100' AGL, perhaps 114 dBA using the same math. This training could be just 500 feet slant distance from a ranch house or camper.

Even if the above math is flawed (it is not) the fact is that the EA fails to address these factors. Factors reported as important by – the US Army, yet ignored in the *LFA Expansion*. The facts are that noise impacts to the public, wildlife and livestock are grossly understated in the *LFA Expansion* EA.

r. COMMENT: Based on significant noise/vibration/visual impact/safety that have been now raised by the latest Army research, flights over civilians at 500' or lower pose significant adverse impacts to the public. Until a complete EIS is conducted for Army LFA operations these operations must be limited to 3,000 AGL (alternative #3). Contrary to the statement in the EA the Army could meet training needs. This could be accomplished by better utilization of existing land/facilities on Fort Bliss, combined with use of Army resources on WSMR, or the use of other Army holdings. Recall that DoD already controls 25,000,000 acres of land and huge areas of airspace..

Discussion:
DoD has not studied noise vibration, visual disturbance affects on livestock since the 1970s. DoD relies on old studies that are not applicable to the LFA. For example dairy cow studies are often sited as applicable to range cattle. They are not. Helicopter noise has different characteristics than fixed wing jet aircraft. No studies exist for noise and vibration affects on small animals (endangered mice for example) from rotor aircraft. The missing data is an advantage to Army NEPA compliance. It is likely intentional as the Army is aware of the deficiency. The missing scientific information concerning helicopters vs western wildlife and livestock means we are guessing at impacts. How can the impact to small animals be ascertained, for example, with no information, no studies? This is a bad idea and the ignorance is likely to cause irreversible harm to resources such as endangered species if actions proceed.

s. COMMENT: Conduct helicopter noise studies for impacts on small animals (such as the New Mexico Jumping Mouse), range cattle, goats, etc. Until these studies can quantify impacts require helicopter operations over non-Army land to be at or above 3,000' AGL (except when landing at an airport).

Discussion: The proposed new low altitude training areas and flight ingress / egress routes are over or adjacent to both private holdings and over “Multi-Use” users in the National Forest as well as endangered species and species of concern. Many users have livestock and may be mounted on horseback while working in the LFA. Many civilians in the LFA have families with young children. Many elderly people live in the rural areas most affected. Noise and vibration is an important issue and must be properly addressed for complete NEPA compliance.

AIRCRAFT OPERATIONS AND AIRSPACE MANAGEMENT AND USE

a. COMMENT: Part of the *LFA Expansion* EA has a nice discussion about airspace. Not mentioned is that the FAA has allocated perhaps 90% (it is hard to estimate) of the airspace from El Paso, TX to

Socorro, NM to DoD uses. Private pilots are told they are in danger or are excluded altogether. This DoD airspace includes Restricted, SUA, MOA, IR, MTR etc. As an example, an MTR/IR is shown as a single "line" on the Sectional Charts but may in fact be 15 miles wide. Military pilots often fly these routes at 450 knots at 100' AGL. The cumulative result of this DoD airspace grab is an adverse impact on civil aviation, economic development, fire fighting and medical flights. The "preferred" Alternative in the EA and FNSI adds traffic to the Talon MOA (to 100' AGL), for example, and effectively closes more airspace and impacts all the above. The *LFA Expansion* discuss air space "takings" as, I quote:

"In addition, Local NOTAMs could be issued for the low-level training areas to advise civilian aviators of the potential hazard posed by military aircraft in those areas. Impacts on airspace, therefore, would be minor."

This *LFA Expansion* activity affects private aviation and is just another of hundreds that have gradually choked private aviation in the LFA. The *LFA Expansion* EA fails to put the new airspace limits in historical context that discusses/shows the cumulative impact of ever more airspace taking by DoD. In fact while stating "*In addition, Local NOTAMs could be issued for the low-level training areas to advise civilian aviators of the potential hazard posed by military aircraft in those areas. Impacts on airspace, therefore, would be minor."* the LFA Expansion EA goes on to state ten pages later, I quote:

"No airspace conflicts were identified for the Proposed Action; therefore, 1AD CAB helicopter flights in the LFA would not contribute to cumulative airspace impacts in the area."

So which is it? No impacts? Minor impacts? Huge cumulative impacts? I request a proper analysis of the cumulative impacts from DoD activities on civilian aviation in the LFA over time, say from 1950 to date. This should include volume of airspace available for civilian use (without DoD preemption) over time. Taking airspace affects the economic health of the civilian community, it is a limited asset. There have been cumulative affects and the *LFA Expansion* project is contributing. The EA is flawed and factually inaccurate.

b. COMMENT: The Army must monitor actual performance especially flight altitudes. The Army must honor airspace commitments made with respect to environmental impacts. Helicopters may legally fly at very low altitudes (50' or less above ground level). However, damage to the environment intensifies as the flight level lowers. Without minimum altitude commitments and measurements of the actual altitudes used by Army helicopters the Army Commanders and civilian stakeholders can not judge effectiveness of the *LFA Expansion* impact claims. This is a NEPA issue as poor implementation of an alternative will likely adversely affect the environment, and will negate the offered NEPA analysis. The Army fails to address performance assurance. I ask that it discuss this issue and implement controls.

c. COMMENT: The LFA Expansion EA claims that, I quote (emphases added):

"*Fort Bliss aviators are **instructed** to "fly neighborly" within the LFA, avoiding overflight of residences and other man-made structures and livestock, in order to minimize potential noise impacts on civilians.*"

and

"*FB 95-1 flying rules instruct pilots to "fly neighborly" by avoiding overflights of residential dwellings and livestock **whenever possible** to minimize noise disturbance impacts.*"

However, this "fly neighborly" "**whenever possible**" scheme gives the pilot discretion for almost

anything, rather than the Army commanders that rightfully set policy. Environmental impacts, under the "fly neighborly" scheme rest upon the judgment of each individual trainee pilot. I ask that the Army provide pilots detailed charts of approved air traffic "corridors" showing civilian property affected and detailing minimum altitude requirements. These pilot requirements will be set by the Army command. This will allow us to evaluate actual impacts, hold pilots accountable for unauthorized low flight and set the flight altitudes that the Army/NEPA documents indicate are appropriate. Yes pilots must have some discretion but Army Command must take responsibility and set limits. These requirements go straight to the creditability of the NEPA analysis "whenever possible" does not.

d. COMMENT: Underneath this airspace are civilians. Hunters in the woods, campers, Boy Scouts, children, elderly, homes, schools, observatories, cattle, horses, chickens, horseback riders and on and on. A flight of helicopters flying at 500' AGL and 150 kts is not likely to see and avoid a horseback rider in trees or in a draw (as an example). The consequences may be severe for the civilians. The helicopters are unlikely to notice. The same problems arise for all the other land users. The pilots may be trying to "fly neighborly" (or not) but at low altitudes and at the speeds normally flown they are likely to cause both harm and "annoyance" to civilians on their own land below. This can be easily remedied. Fly higher, 3,000 AGL is proven safe. I ask that Alternative #3 be implemented.

Discussion:
The airspace affected by the *LFA Expansion* project is presently complex and busy. A glance at the current FAA Sectional Chart shows SUA, MOA, MTR, IR training routes, restricted airspace, supersonic corridors in the LNF-SRD area.

Altitudes from ground level up have current military use. Civilian and government users also use the airspace. For example USFS firefighting Helitack, spotter, air attack, tankers and NMGF aircraft all use the LNF. Even the German Air Force flies through it at 450 knots at 100 feet AGL. Currently military restrictions and activity affects civilian users, emergency medical flights, as well as air fire support. The result is reduced economic activity, delayed emergency medical service, and delayed fire services. Local airports and private air strips are impacted. The *LFA Expansion* project proposes to add to this mix and yet the *LFA Expansion* claims that there will be no impact. Again no numbers or flight corridors impacts are discussed. How can no impact be claimed by the Army NEPA team?

SAFETY AND SECURITY

a. COMMENT: In the event of an accident what communications methods are available at the new low altitude training areas? The Army should have direct communications with County Emergency Services. Even better would be direct communications between the helicopter unit and emergency services responders. Minutes count in an emergency situation.

b. COMMENT: In the event of an accident at the new low altitude training areas, or while in route, what agency will have control of the scene? Will County and the Federal Land Agencies be notified of an incident immediately, in real time, or will it be reported later? Will the US Army defer to County Emergency Services and the Incident Command System? If not how will emergency response be organized? Who will coordinate? In an emergency minutes count. Organizational responsibilities must be predefined. We need an analysis of these emergency services impacts.

c. COMMENT: DoD and the LNF must establish flight rules for fire Red Flag days and for Forest Closures. During Red Flag fire conditions any aviation accidents will likely be catastrophic as far as fire impact. DoD, Counties and the Federal Land Agencies must establish flight rules for these conditions. Actual performance must be measured. Continued DoD violations should result in a new NEPA process. The *LFA Expansion* fails to address operations during extreme fire danger and the possible environmental impacts. I ask that it address this issue.

Discussion:
Fire and emergency medical services are provided by the counties across the area of operations. Access to some training/flight corridors areas is limited. Response times by County emergency services is affected by the remote locations, weather (snow for example), roads (or lack of) as well as communications issues. All these factors lead to a possible disaster in the event of a medical emergency or a fire. Army personnel are not the only persons likely to be impacted in an emergency.

d. COMMENT: The Army would have commenters and the public believe that flying lower is safer for Army helicopters. Another "safety" red herring? I quote the LFA Expansion EA (emphasis added):

"No Action Alternative, the interim FB 95-1 rules would require that all Fort Bliss Army aircraft maintain a minimum altitude of 3,000 feet AGL within the LFA. ***This flight altitude could compromise aviator and aircraft safety in the event of a loss of aircraft power and the difficulty in safely descending from that altitude under autorotation."***

More false (yet again) data. These "facts" (*difficulty in safely descending from that altitude)* go counter to aviation training and to the CH-47 handbook and the Height–Velocity diagram for the CH-47. In fact lower altitudes are generally LESS safe per the diagram and pilot training. Perhaps the NEPA team is confusing the dangers of hovering a CH-47 at 100' where autorotation is a long shot and the aircraft will most likely be lost (such as in the new low altitude training area directly over private property)? Autorotation from 3,000 feet is SAFER, not less safe. Again the LFA Expansion misrepresents facts. The pilot has time and altitude to safely land the aircraft from 3,000' AGL but not so much from 500' AGL. The facts are just the opposite of the assertions in the *LFA Expansion* EA. This borders on disingenuousness. And there is more.

Yet more fake "safety" red herring:

"It would also place Army helicopters at an altitude where commercial and civilian aircraft operate, increasing the potential for conflicts."

More fake information. 3,000' AGL is safer for aircraft operation than 500'AGL. At 3,000' AGL pilots can see and avoid other aircraft, their aircraft is more likely to be painted on Air Traffic Control (hereafter referred to as "ATC") radar, have better communications with ATC (should there be a conflict) and pilots can address emergencies (such as the need for autorotation to a landing) better. The higher altitude also has the additional benefit of protecting public safety and health. On the other hand, at 500' pilots have much lest time to react to emergencies before they strike the ground, obstructions such radio towers or drones pose a hazard, radio communications will be hampered and ATC radar may not paint the aircraft (and allow a warning of conflict). Plenty of "private" aircraft / helicopters, as well as USAF aircraft operate at 500' (or lower). A pilot must "see and avoid" at any flight altitude (unless you are a fool). Flight at 500' is much more dangerous and harmful to the environment than flight at 3,000' AGL. Again the Army NEPA team has made up "facts" out of thin air while playing the "safety" card. This is a fake NEPA analysis. I ask it be corrected.

ARCHAEOLOGICAL RESOURCES

a. COMMENT: Archaeological resources are likely to be impacted by noise and vibration according to the US Army (but not the *LFA Expansion* NEPA team). According to the *LFA Expansion* the LFA has many historical sites. Some are used by military aviators as flight navigation landmarks (they fly over or close by). Structures such as, but not limited to, the Bluewater Lookout Tower (listed on the

National Register of Historic Places) may be damaged by noise / vibration from heavy Army helicopter operations, according to Army documents (see above and below). The *LFA Expansion* proposes new flight corridors and this will mean new environmental impact areas, including archaeological sites. We need an analysis of these impacts. The Army has reported that heavy military helicopters cause damage to archaeological resources, I quote:

"Although noise and vibrations from helicopters can be 30 to 40 times higher than ambient levels, as compared to a high of 60 times ambient for low-flying jet aircraft (King et al., 1988), the duration of noise and vibration is considerably longer from helicopter overflight. Close approach helicopter flights have been demonstrated to damage archaeological architectural structures (USAF, 1992). Similarly, low overflights (50 feet) by heavy helicopters have a high probability of damaging architectural resources (Sutherland, 1990)." (source; McGregor Range Land Withdrawal Legislative Environmental Impact Statement, May 1999).

As I have stated previously, no ingress / egress routes are shown in the LFA Expansion EA. Helicopters may legally fly at low altitudes, and they will. One such flight may damage a historical site.

VISUAL AND AESTHETIC RESOURCES

a. COMMENT: The visual sensitivity impacts associated with the *LFA Expansion* are great because the areas involved are areas of high, unspoiled, scenic quality and are accessible to and used by the public. There will be groups of helicopters flying low over these scenic areas. Environmental impacts must be analyzed, not ignored or marginalized. This NEPA analysis is missing in the *LFA Expansion*. I ask that it be included.

SOCIOECONOMIC IMPACTS

a. COMMENT: In rural areas such as those proposed for use by the *LFA Expansion* residents depend heavily on ranching, recreation and tourism. What impacts will the day / night multiple heavy helicopter formations proposed in *LFA Expansion* operations have on these economic engines? Noise, visual disturbance and vibration should be considered and analyzed. The *LFA EXPANSION* EA fails again to offer estimated costs from loss of business, property values, recreation, etc.

b. COMMENT: What affect will there be on property values? Specifically on those properties adjacent to the new low altitude training areas, but also to include property under the LFA ingress / egress "noise corridors". Some of these corridors will be flown at 500' AGL under the Preferred Alternative and experience 100 dBA of noise plus significant vibration. The *LFA Expansion* EA fails again to address economic impacts to local adversely affected stakeholders.

c. COMMENT: Impact on Astronomy will be significant. There are well over one hundred observatories in the LFA area. These observatories monitor the entire spectrum, not just optical. The equipment and process require precise mechanical alignments. They require clear air. Noise, vibration, dust and visual obstruction (by a helicopter for example) have negative impacts on these observatories. New helicopter flight corridors are proposed. These impacts must be analyzed. The *LFA Expansion* EA fails to define the Army acknowledged flight corridors. I quote (emphasis added) the *LFA Expansion* EA:

"The vast majority of sorties would originate from Biggs AAF and traverse to selected regional airports within the LFA ***along generally straight-line paths****."*

ENVIRONMENTAL JUSTICE

a. COMMENT: The areas negatively impacted are predominately rural, with many retired elderly

and lower income residents. The positive economic impacts are predominately in the higher income El Paso/Fort Bliss and Alamogordo (refueling) areas. The environmental assessment / EIS must identify if the negative impacts are disproportionately placed on lower income residents. The *LFA Expansion* EA uses general, coarse data, that fails to properly account for the impacted civilian's classifications, instead lumping them in with urban areas that are not affected and are affluent. This analysis must be meaningful and it is not. The *LFA Expansion* EA fails to properly analyze environmental justice.

CHILDREN'S ENVIRONMENTAL HEALTH

a. COMMENT: Low levels of noise have been shown to affect children's health and learning (see citations above). The *LFA Expansion* flight paths cross over camps, churches, home schools at low altitudes, with significant noise and vibration, during both night and day time. The Army has failed to document the planned flight corridors despite acknowledging them. Noise levels must be analyzed and compared to current noise research and an evaluation of impacts made. This analysis must include the new low altitude training areas as well as the noise corridors.

CONCLUSION

a. COMMENT: In my opinion this Environmental Assessment and the derived Finding of No Significant Impact (FNSI) are poorly crafted. The result is not useable as a NEPA document and likely not useable at all due to errors and misinformation. Stakeholders and the public are not given complete “where” and “when” information. Information that is offered as true is often not true. Much information is incomplete and presented in such a manner as to skew environmental impacts. Relevant information, often from the US Army itself, has been ignored and excluded from the Environment Assessment leading to erroneous conclusions.

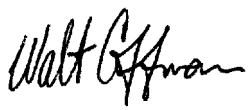
In my opinion the EA shows haste rather than comprehensiveness, and that is being kind in assuming the numerous false statements are “accidents” or ignorance.

The result of all the misinformation and misstatements is a dangerous mis-characterization of the environmental impacts from the alternatives, especially the preferred alternative (all the alternatives are affected by the poor information). Little of this Environmental Assessment is accurate or complete. The resulting FNSI is tainted.

I ask that the NEPA process for this proposed action be restarted and the flawed Environmental Assessment/FNSI be discarded. Correcting the multitude of errors will require a comprehensive rewrite anyway, why not also allow stakeholders to help with NEPA scoping by soliciting comments from all stakeholders?

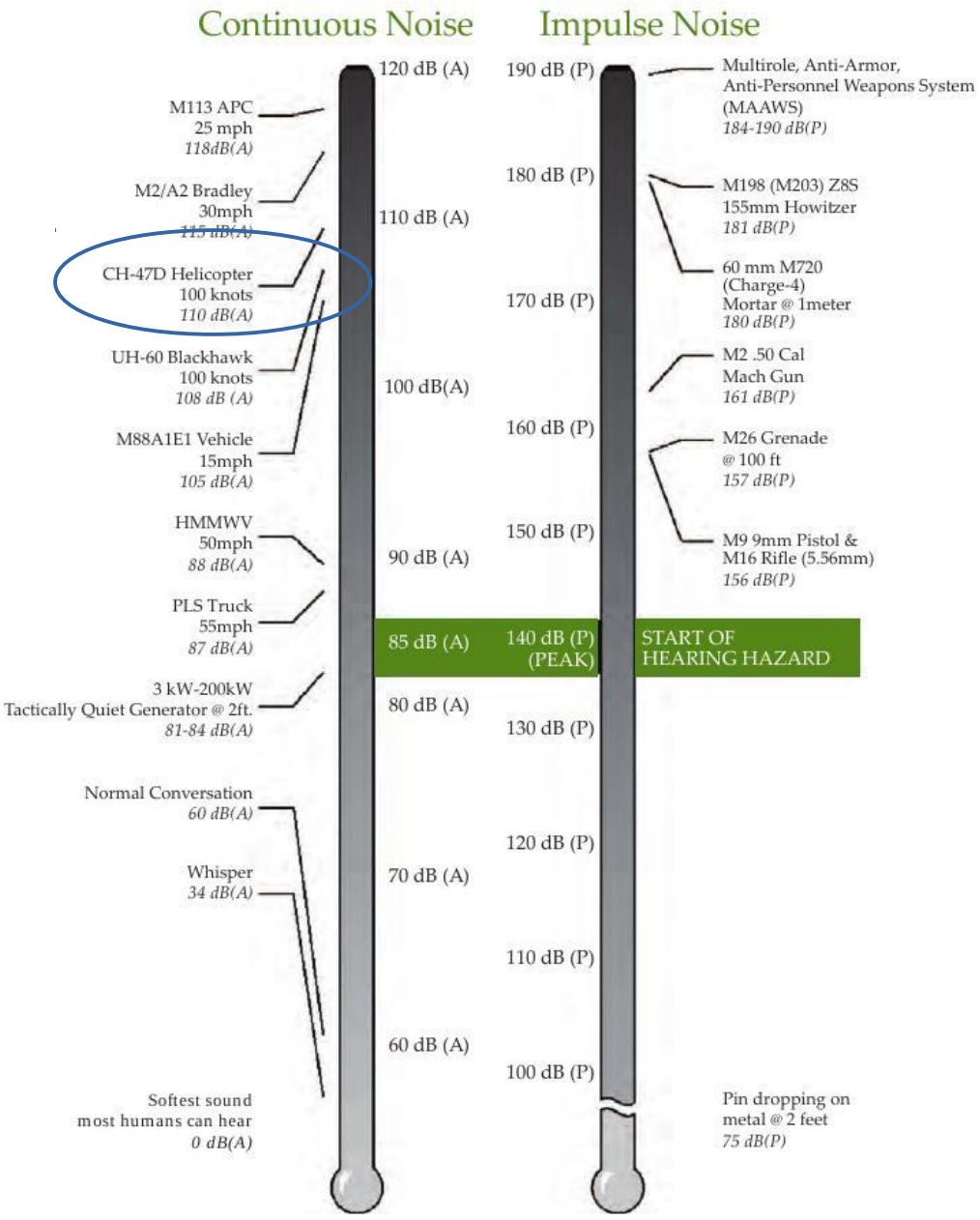
Thank you again for the opportunity to provide these few comments. With more time, and better information about the project, my neighbors and I could provide even more helpful feedback.

Sincerely,



Walt Coffman
1014 NM Hwy 24
Weed, NM 88354

“We have met the enemy and he is us” – Pogo


Continuous Noise
Impulse Noise
120 dB (A)
110 dB (A)
100 dB(A)
90 dB (A)
85 dB (A)
80 dB (A)
70 dB (A)
60 dB (A)
M113 APC
25 mph
118dB(A)
M2/A2 Bradley
30mph
115 dB(A)
CH-47D Helicopter
100 knots
110 dB(A)
UH-60 Blackhawk
100 knots
108 dB (A)
M88A1E1 Vehicle
15mph
105 dB(A)
HMMWV
50mph
88 dB(A)
PLS Truck
55mph
87 dB(A)
3 kW-200kW
Tactically Quiet Generator @ 2ft.
81-84 dB(A)
Normal Conversation
60 dB(A)
Whisper
34 dB(A)
Softest sound
most humans can hear
0 dB(A)
190 dB (P)
180 dB (P)
170 dB (P)
160 dB (P)
150 dB (P)
140 dB (P)
(PEAK)
130 dB (P)
120 dB (P)
110 dB (P)
100 dB (P)
START OF
HEARING HAZARD
Multirole, Anti-Armor,
Anti-Personnel Weapons System
(MAAWS)
184-190 dB(P)
M198 (M203) Z8S
155mm Howitzer
181 dB(P)
60 mm M720
(Charge-4)
Mortar @ 1meter
180 dB(P)
M2 .50 Cal
Mach Gun
161 dB(P)
M26 Grenade
@ 100 ft
157 dB(P)
M9 9mm Pistol &
M16 Rifle (5.56mm)
156 dB(P)
Pin dropping on
metal @ 2 feet
75 dB(P)