

RESPONSE SECTION

Broad Issue: Noise Analysis Methodology (BR-1)

Letter #	Response
0013 0027 0045 0072 0105 0136 0145 0149 0158 0191 0202	Noise is an issue of concern not only for the U.S. Air Force and the Department of Defense, but other Federal agencies such the Federal Aviation Administration (FAA), National Aeronautics and Space Administration (NASA), U.S. Environmental Protection Agency (EPA), Occupational, Safety and Health Administration (OSHA) and the Housing and Urban Development (HUD), among others. These agencies have both independently and collectively studied various sources of noise, including aircraft noise. Particularly since the introduction of jet aircraft, more research has been devoted to aircraft noise than to any other environmental noise problem. Concern over potential effects has prompted many studies on humans, animals and structures. Research focus has included health effects, interruption of activities (e.g., speech interference, sleep disturbance, recreation), wildlife and livestock and property values. Recent concerns over quality of life issues and impacts to solitude and wilderness experiences have emerged in the last few years.
0217 0223 0288 0318 0323 0329 0365 0416 0417 0452 0507 0531	Noise is typically one of the primary concerns voiced when an action involving military aircraft is involved. It is unquestionable that military aircraft generate high noise levels. The levels experienced by an individual or a receptor on the ground vary according to several factors such as location of the receiver (such as a person or sensitive receptor), the distance of the aircraft from the receiver (such as altitude or lateral/slant distance) and how the aircraft is operating at the time (i.e., what is the speed and power setting). In other words, where an individual is in relation to the aircraft and how the aircraft is operating, determines what the noise “dose” will be. The noise levels generated by fixed wing aircraft in the U.S. Air Force inventory, have been measured by noise specialists from Armstrong Laboratories (Wright-Patterson AFB, OH), with sound recording equipment arrays while flying at a variety of speeds and power settings. These measurements are contained within the acoustical data set known as NOISEFILE used in computer modeling.
0634 0674 0713 0784 0827 0828 0877 0906	Predictive computer modeling is standard practice not only in noise analysis, but also in areas such as weather and air quality, transportation, bird avoidance modeling (BAM), personal finance, economic forecasting and urban planning, among others. Computer models utilize a set of known data or information, such as measured noise levels, then make predictions based on the modeled situation (airspeed, power setting, altitude). To determine the correct situational factors for military aircraft noise modeling, information is gathered from aircrews, airspace managers, training requirement syllabi and flying hour allocations. This data collection is performed for each new proposal to ensure the planned training operations are characterized according to the current and future requirements.
0957 0983 01129 01130 01131 08057 08082 08085 08146 08202 08221 08239 08246 08250 08253	The technology used by the Air Force to model aircraft noise is based on the best available technology at the time. Currently, the Air Force uses a computer program known as MR_NMAP (MOA Range NOISEMAP) to model aircraft noise in training areas away from the installation. Over the years as technology has increased, the programs have been refined and updated to reflect the latest information and data. For example, as additional aircraft have been added to the inventory, the acoustical database has changed. Likewise, as our research studies have provided additional information on effects such as annoyance, the modeling programs have been updated to include the additional penalties for intrusiveness above those determined in the previous studies. As technology increases, the programs will continue to evolve as well. The Air Force is often criticized for our efforts in this area, particularly as it relates to the identification of noise related technology needs. It is inappropriate to assume the mere identification of a new research need is an admonition that current technology and modeling procedures are inadequate or inaccurate. The Air Force’s continued involvement in the research arena, along with that of other Federal agencies and the scientific community, has brought the understanding of noise exposure, computer modeling and noise effects to its current the level of sophistication.
08255 08279 08303 08331 09012 09013	In light of this ongoing process, we will continue to submit research needs to the USAF Office of Environment, Safety and Occupational Health (ESOH) Technical Planning Integrated Product Team (TPIPT) at Brooks AFB which serves as the central repository for research ideas and needs. ACC and other major commands utilize the Technology Needs Survey program to compile, rank and prioritize the Air Force research needs in order to compete for limited research funding. Additional information on this program can be accessed on the internet at: http://xre22.brooks.af.mil/98 99TNS/TNSintro.htm .

09018 This program, along with locally funded research, helps the Air Force continue to improve our
09020 methodologies and analyze potential impacts in compliance with the National Environmental Policy Act (NEPA).

In accordance with NEPA, each time an action involving military aircraft is proposed, whether it be a realignment or establishment of an aircraft squadron, creation or modification of airspace or a change in the way aircraft operate and utilize training areas, an environmental analysis is accomplished to determine the potential impacts. The noise analysis is a very important part of the overall analysis. The objective of the noise analysis is to present what the current or baseline noise environment is today and to estimate what the change would result if one of the proposed alternatives were selected and implemented. The RBTI EIS noise analysis was prepared with the computer program, MR_NMAP (MOA Range NOISEMAP, 1994), which represents the best available technology for modeling military aircraft training operations. MR_NMAP calculates noise levels under Military Operations Areas (MOAs), Military Training Routes (MTRs) and on air-to-ground ranges. The RBTI proposal only involves a MOAs and MTRs, so a range analysis is not included.

To account for all military activity currently occurring in the affected airspace, each sortie operation in the existing parcels of airspace, including those beginning in the near future, were included in the baseline. In addition, sortie-operations on coincident routes that overlay the primary route and sortie-operations at locations where other routes cross or intersect the primary RBTI route were included. The coincident or intersecting airspace, identified as secondary airspace in the EIS, is important to the overall noise environment. By including each sortie-operation occurring in the affected primary or secondary airspace, all of the contributing noise or the noise “dose” was accounted for. The process was then repeated for each alternative to include the proposed sortie-operations from the various alternatives of RBTI. The results provided not only the new noise levels in the affected airspace, but also provided the change or “delta” to the baseline noise level or how much the noise increased or decreased.

The noise levels in the RBTI EIS are A-weighted which approximates the hearing of the average human ear. Individuals interested in the what the noise exposure may be from a single flyover event should refer to both the maximum noise level (L_{max}), the highest sound level occurring during a single aircraft flyover, and the sound exposure level (SEL) which combines the maximum level of a single event with its duration based on distance. To present the cumulative noise exposure or to account for all the aircraft activity occurring in an area, the Day-Night Average Sound Level or DNL is used. DNL (also known as L_{dnmr}) has been proven applicable to infrequent events and to rural populations exposed to sporadic military aircraft noise. Contrary to the myth that this metric dilutes or diminishes the noise over a 24-hour period, the DNL in fact accounts for all the relevant factors associated with aircraft operations. It accounts for the total number of events occurring, the duration of the events and the maximum noise levels associated with the events.

In addition, the DNL metric includes penalties for operations occurring after 10:00 PM and before 7:00 AM (to account for the added intrusiveness of nighttime operations) and a penalty of up to 11 dB for the startle or “surprise” effect from the rapid onset of aircraft noise (resulting in an onset-rate adjusted DNL, also know as L_{dnmr}). Therefore, the total “noise dose”, including penalties, was calculated for each piece of affected airspace. DNL is the principal metric for describing long-term noise exposure of military aircraft and is sanctioned by the Federal Interagency Committee on Noise (FICON). During the most recent federal review of noise methodologies agencies including EPA, Department of Transportation (with FAA participation), Department of Defense (represented by the Air Force, Army and Navy), HUD, the Department of Veteran Affairs, the Department of Justice, the Council on Environmental Quality and the Council on Historic Preservation, concluded in its final report, “[t]here are no new descriptors or metrics of sufficient scientific standing to substitute for the present DNL cumulative noise exposure metric” (FICON 1992). Collectively, the three metrics used in the RBTI EIS provide adequate analysis of both the existing environment as it occurs today and the future noise environment should one of the action alternatives be implemented.

FICON. 1992. Federal Agency Review of Selected Airport Noise Analysis Issues. Federal Interagency Committee on Noise. August.

Broad Issue: Civil Aviation Conflicts (BR-2)

Letter #	Response
00043	08005 Throughout the areas potentially affected by RBTI, many commentors raised concerns regarding conflicts between civil aviation and the proposed increase in flight activity by the B-52s and B-1s. These concerns ranged from inhibiting civil aviation conducting commercial and agency management activities to a belief that air traffic safety would degrade to the perception that civil aviation pilots would lose the freedom with which they currently operate. Civil aviation activities that have been noted in the areas potentially affected by RBTI include: weather modification (cloud seeding), pest (e.g., boll weevils) eradication, crop spraying, range distribution and water assessments for livestock, emergency medical flights, pipeline surveillance, predator control, wildlife management, drug smuggling interdiction, and pleasure flights.
00136	08010 As described in the EIS (Section 4.1), the FAA manages the entire national airspace system for the collective benefit of all users, general, commercial, military, and other agencies. To accomplish this goal, the FAA has established rules, regulations, and procedures designed to promote safe and effective operations by all types of aircraft. These rules, regulations, and procedures help promote awareness of all pilots' operations and, thereby, promote safety.
00142	08011 One primary way the FAA promotes the beneficial use of the national airspace system for all types of users is by defining different types of airspace for different purposes. The FAA also dictates how aircraft must operate and interact within these different types. Under the RBTI alternatives, two types of military training airspace, MTRs and MOAs, are the focus. As detailed in Section 4.1.1 of the EIS, MTRs and MOAs are designated by the FAA for military aircraft training activities. But this airspace is not exclusive to the military. FAA procedures allow for other aircraft (civilian and non-participating military) to transit in MTRs and MOAs. There is a broad misperception that MOAs and MTRs function like restricted airspace and non-military pilots must fly around these airspace units. No pilot is prevented from flying in an MTR or MOA as long as they follow the rules applicable to the particular situation (i.e., VFR or IFR). This applies to the full range of general and agency aviation activities occurring in the area affected by RBTI.
00191	08012 FAA procedures provide for non-military users to fly safely through MTR and MOA airspace. This is accomplished in three ways. First, scheduling serves as a means to help avoid conflicts between military users of the airspace and others needing to fly through it. As presented in Section 4.1.1 of the EIS, the FAA requires the responsible military organization to publish the hours of operations for each MTR and MOA; these publications are available to anyone and updated every two months. The FAA's Aeronautical Information Manual urges pilots planning to fly in or near a MTR or MOA to consult these publications. The Air Force recognizes that civil aviation pilots do not believe this is a convenient or effective means to get current information on when and where military aircraft would be operating in an MTR or MOA. For that reason, the Air Force proposes to set-up an 800 telephone number that would provide the planned weekly schedule of use for the MTR and MOA used under RBTI (see Mitigations, Section 2.6.2).
00243	08025 Second, FAA procedures for planning to fly in an MTR or MOA provide means to avoid conflicts between civil and military aviation. Military aircrews, in planning training flights, identify airfields under and near an MTR and MOA. By applying FAA order 7610.4, the aircrews then avoid charted and uncontrolled airfields by 3 NM laterally and 1,500 feet vertically. For civil aviation pilots planning to fly through an MTR or MOA, the Aeronautical Information Manual recommends they contact the nearest flight service station for detailed information on the use of military training airspace at that time.
00259	08027 Third, the FAA prescribes procedures during flights to avoid conflicts between aircraft. VFR flights by non-participating aircraft through an MTR or MOA must employ see and avoid techniques. This means that VFR conditions must apply and all pilots, whether civilian or military, must use extreme vigilance to look for and avoid other aircraft. Many commentors expressed a lack of faith that see and avoid techniques would suffice to prevent potential
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conflicts between fast moving, large military bombers and small, slower civilian aircraft. However, this technique has been used successfully and safely throughout the country where civil and military aviation interact. Military aircrews flying IFR consistently communicate with air traffic control to ensure avoidance of other aircraft. Similarly, civil aviation pilots flying IFR need to communicate with air traffic control; they must also receive air traffic control clearance to enter and active MOA. Aircraft responding to emergencies, like rescue or medical flights, are given priority by air traffic control.

Broad Issue: Overflight Effects on Livestock (BR-3)

Letter #			Response
00017	00642	00984	<p>Analysis on the effects of noise on livestock have been modified in section 4.3.3 and Appendix G in the EIS. It is possible that aircraft flying below 2,000 feet could startle domestic animals. However, animals have been shown through numerous studies to adapt and habituate to various sound sources, including jet aircraft noise. Under some circumstances aircraft flying at low altitudes may result in incidental livestock startle that could lead to injury if these animals are confined or have not been exposed to aircraft overflights. Overflights could stress cattle, although it is a small portion of the aspects that contribute to the overall stress to cattle and horses. Livestock stress is more likely to occur because of extremes in weather, illness, or predators.</p> <p>A 1956 study found that the reactions of dairy and beef cattle to noise from low-altitude, subsonic aircraft were similar to those caused by flying paper, strange persons, other moving objects (USAF 1993), or even to the sound of a tractor engine (97 dB) (Gladwin <i>et al.</i> 1988). Overall, the U.S. Forest Service has concluded (USFS 1992) that “evidence both from field studies of wild ungulates and laboratory studies of domestic stock indicate that the risks of damage are small [from aircraft approaches of 50 to 100 meters], as animals take care not to damage themselves. If animals are simply overflown by aircraft at altitudes of 50 to 100 meters, there is no evidence that mothers and young are separated, that animals collide with obstructions (unless confined) or that they traverse dangerous ground at too high a rate.” A study in 1972 by Frazier observed that bison “appeared oblivious” to the aircraft noise and continued grazing throughout all aircraft passes (Gladwin <i>et al.</i> 1988). Bowles (1995) cites Kruger and Erath as observing pregnant mares (horses) exhibiting intensive flight reactions, random movements, and biting/kicking behavior. However, no injuries or abortions occurred, and there was evidence that the mares adapted somewhat to the flyovers over a month’s time (USAF 1993). Espmark <i>et al.</i> (1974) also reported that stock occasionally jumped backwards when startled, but that they ceased responding within a few days.</p> <p>The potential effects of low-altitude flights on horses and cattle could result in short-term behavioral changes, ranging from simply looking at the aircraft or vocalizing to scattering over short distances (up to about 50 yards) and jumping. These reactions may occasionally result in damage to fences or injury to animals. If damage or injury occurs, citizens may lodge a complaint with the Public Affairs Office at Dyess Air Force Base at (800) 699-5169. The Air Force also had established procedures to handle claims, see Broad Issue: Overflight Effects on the Economy and Land Use (BR-4). No evidence was found to justify claims associated with the direct loss of productivity (feed intake, weight, or growth rates) or loss of marketability from overflights, since overflights are sporadic. No effects due to startling would occur under the MOA, where military flights associated with RBTI would occur above 3,000 feet AGL.</p> <p>Bowles, A.E. 1995. Responses of Wildlife to Noise. Pages 109-156 in R.L. Knight, and K.J. Gutzwiller, eds. <i>Wildlife and Recreationists: Coexistence Through Management and Research</i>. Island Press, Covelo, CA.</p> <p>Espmark, V., L. Falt, B. 1974. Behavioral Responses in Cattle and Sheep Exposed to Sonic Booms and Low-Altitude Subsonic Flight Noise. <i>The Veterinary Record</i> 94:106-113.</p> <p>Gladwin, D.N., K.M. Mancini, and R. Villella. 1998. Effects of Aircraft Noise and Sonic Booms on Domestic Animals and Wildlife: Bibliographic Abstracts. NERC-88/32. U.S. Fish and Wildlife Service National Ecology Research Center, Fort Collins, Colorado.</p> <p>USAF. 1993. <i>The Impact of Low Altitude Flights on Livestock and Poultry</i>. Air Force Handbook, Volume 8, Environmental Protection, 28 January.</p> <p>USFS. 1992. Report to Congress: Potential Impacts of Aircraft Overflights of National Forest System Wilderness. U.S. Government Printing Office 1992-0-685-234/61004.</p>
00040	00648	00985	
00043	00653	01052	
00044	00660	01078	
00045	00661	01089	
00046	00669	01109	
00068	00673	01127	
00089	00676	01129	
00113	00710	01130	
00137	00711	01131	
00140	00713	08006	
00144	00715	08019	
00165	00719	08025	
00179	00740	08026	
00191	00747	08030	
00231	00763	08039	
00242	00770	08043	
00247	00771	08051	
00257	00774	08069	
00282	00775	08075	
00290	00788	08079	
00292	00793	08091	
00324	00800	08092	
00326	00808	08095	
00327	00812	08096	
00336	00824	08103	
00342	00828	08112	
00351	00835	08115	
00354	00836	08141	
00370	00839	08144	
00374	00840	08145	
00376	00847	08148	
00383	00863	08149	
00387	00868	08171	
00396	00877	08182	
00401	00878	08209	
00404	00884	08215	
00411	00889	08265	
00414	00896	08320	
00500	00927	09000	
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Broad Issue: Overflight Effects on the Economy and Land Use (BR-4)

Letter #			Response
00012	00441	01030	The public hearings raised the concern that military overflights would affect the economies of underlying communities. Many commentors mentioned that noise would negatively affect the economic viability of ranching, hunting, tourist-related, and retirement-related businesses, as well as property values.
00016	00446	01031	
00017	00452	01034	The issue of noise impacts on various economic resources such as those mentioned above is not new to the Air Force. Studies have been conducted in areas of special use airspace (training airspace away from an installation) to examine the influence of noise. An extensive economic impact study was performed by the Air Force in the early 1980s in association with establishment of the Valentine and Morenci Military (USAF 1980) Operations Areas (MOAs). These MOAs (or certain portions) were proposed for the purpose of conducting supersonic operations, in addition to subsonic training activity. (<i>Note</i> : RBTI does not include supersonic operations.)
00020	00458	01035	
00024	00470	01036	
00027	00484	01037	
00032	00494	01039	
00033	00506	01040	
00034	00507	01042	
00035	00517	01044	
00036	00531	01078	
00037	00538	01080	
00039	00547	01089	The Valentine MOA is located above portions of Jeff Davis, Culberson, Hudspeth, and Presidio counties in the Trans Pecos region of southwest Texas and the Morenci MOA lies above southwestern Arizona and the southeastern portion of New Mexico (the supersonic area lies entirely within Catron County, New Mexico, and later became Reserve MOA). An analysis of the economic conditions was performed for the two proposed MOAs, as well as for four other existing MOAs authorized for supersonic operations, with focus on the following areas: population, assessed property valuations, real estate development, employment, personal income, retail trade, tourism, ranching, farming, mining, and forestry. Public concerns related to this action were very similar to those expressed by the public during the comment period for RBTI. The Valentine and Morenci (USAF 1980) analysis results showed general net gains in economic health both before and after initiation of the sonic boom activity (and hence, the increased subsonic activity). Overall, there is no evidence to suggest military aircraft training, with or without supersonic operations, significantly or adversely affects the economic health of an area with respect to ranching, tourism, and recreation (including hunting), property value, development potential, or enjoyment of the land.
00043	00565	01096	
00055	00568	01097	
00059	00591	01110	
00064	00592	01115	
00094	00608	01127	
00101	00611	01129	
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00103	00615	01131	
00105	00619	08002	
00108	00623	08006	Ranching. As discussed in Section 4.3 (Biological Resources) and Appendix G (Noise) of the EIS, studies have shown that there is no evidence that military overflights increase death rates, reduce productivity rates, or otherwise have long-term negative effects on domestic animal and wildlife populations. Individual animals, especially those unaccustomed to the aircraft noise, or those that may be under stressful situations (i.e., being worked by cowboys or bad weather conditions) may startle when surprised by a low-altitude flying aircraft. However, studies have shown that populations habituate to these overflights and display no long-term, negative effects. In fact, there has been free-ranging livestock grazing at Air Force ranges like Avon Park Range in Florida, Melrose Training Range in New Mexico, and Saylor Creek Range in Idaho for over 30 years. These livestock (cattle and sheep) have been overflown by the full range of fighter and bomber aircraft in the Air Force inventory at altitudes as low as 100 feet AGL and have not shown any negative impacts, nor have ranchers experienced decreases in their operations due to these low-altitude overflights. Please refer to Broad Issue Response 3, <i>Overflight Effects on Livestock</i> for further discussion.
00113	00626	08007	
00118	00628	08009	
00121	00633	08010	
00123	00642	08011	
00125	00647	08013	
00128	00652	08014	
00137	00653	08015	
00141	00654	08016	
00142	00659	08018	
00143	00661	08024	Hunting. Section 4.2 (Land Management and Use) of the EIS has been modified to include discussion of hunting leases in Texas. While individual game animals may be startled by aircraft noise, especially those unaccustomed to the overflights, the data suggest that populations of animals would not be significantly affected.
00147	00666	08030	
00149	00668	08033	
00151	00672	08036	
00152	00674	08037	
00153	00675	08038	
00154	00683	08042	
00168	00684	08047	
00172	00699	08063	
00174	00701	08082	
00175	00706	08083	
00177	00710	08091	
00178	00713	08092	
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00180	00722	08112	
00188	00727	08122	
00190	00729	08129	
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00199	00740	08163	
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00207	00744	08168	
00209	00745	08178	The behavior of game animals would not be expected to change such that hunting
00210	00746	08180	would be affected (personal communication, Rollins and Trail 1990). Also see
00212	00755	08181	Section 4.3, Biological Resources.
00214	00765	08182	As discussed in Section 4.1 (Airspace and Aircraft Operations), general patterns
00216	00770	08185	concerning the perception and effect of aircraft noise on people have been identified,
00218	00774	08198	but attitudes of individual people toward noise is subjective and depends on their
00219	00782	08199	situation when exposed to noise. Also, as discussed in Section 4.2 (Land
00233	00784	08202	Management and Use), the likelihood of any one location being repeatedly overflowed
00234	00791	08203	is low. The dispersed military overflights would not be expected to negatively affect
00235	00800	08205	hunting in the overflowed areas such that the value of land leased for hunting would
00236	00803	08218	be significantly affected. While individual hunters may be startled and annoyed by
00242	00806	08224	intermittent aircraft overflights, there is little to suggest that hunters as a group would
00243	00808	08225	modify or cease their hunting activities as a result of the proposed alternatives.
00244	00811	08237	
00245	00812	08243	For example, a MOA and several MTRs overfly Sutton County. Laughlin MOA had
00248	00815	08249	over 9,500 sortie-operations in 1997 and over 4,000 sortie-operations in 1998. The
00251	00824	08253	MTR s include portions of IR-123, VR-143, and SR-282 and account for 1,002 sortie
00253	00833	08271	operations in 1997 and 2,226 sortie-operations in 1998. The MOA and MTRs
00275	00836	08272	overlie most of Sutton County; a county that has historically received revenues from
00276	00837	08278	hunting leases (Ward 1985). Hunting, therefore, has existed at the same time as
00282	00839	08279	thousands of sortie-operations have occurred and these operations have not
00283	00842	08282	frightened wildlife away, nor dissuaded hunters from visiting the area.
00287	00843	08290	Tourism and Recreation. Studies of areas where military aircraft training occurs
00288	00845	08293	have not shown a decrease in tourism or recreational opportunities due to the
00291	00853	08294	occurrence of military overflights. This applies not only to areas where subsonic
00292	00854	08295	flights occur, as proposed with RBTI, but also in areas where supersonic operations
00293	00856	08300	occur as well. In addition to the Air Force study discussed above, the U.S. Forest
00294	00860	08313	Service and National Park Service prepared Reports to Congress pursuant to Public
00296	00865	08314	Law 100-91, the <i>National Parks Overflights Act of 1987</i> . As discussed in the EIS
00325	00867	08321	Section 4.2, research supporting these reports found that wilderness area visitors did
00327	00868	08322	not generally notice aircraft noise intrusions. However, if noticed, low-altitude,
00329	00877	08327	high-speed aircraft were reported as the most annoying types of aircraft to hear or see
00336	00878	08329	due to the startle effect. In general, noise from aircraft can affect the solitude
00338	00882	08332	expected by recreationists in wilderness areas and can cause both humans and
00348	00883	08342	animals to startle.
00349	00906	08360	
00351	00907	09000	There are a number of factors other than aircraft operations that may affect tourism
00352	00927	09005	and the use of recreational areas. These could include weather, proximity to other
00354	00928	09007	attractions in the area, lack of snow, airport access, and service amenities. While it is
00357	00931	09008	possible that a tourist visiting an area may find an aircraft overflight to be annoying,
00358	00938	09012	no significant change to the tourist industry would be expected. In addition, the
00359	00950	09020	sorties proposed for RBTI (10 or less per weekday) would not result in a continuous
00361	00952	09023	noise source and would not typically be scheduled on weekends. The majority of
00364	00953		RBTI airspace has existed for many years and the relevant influences from military
00365	00955		aircraft operations are not significantly changing in a majority of the study area.
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00383	00959		Property Values. As discussed in Section 4.4 of the EIS, studies have been
00385	00971		conducted to assess the change in property values near airports with increasing noise
00391	00979		levels. However, these studies (such as the Noise Depreciation Sensitivity Index,
00392	00982		NDIC) are specific to the near-airport environment, and are not applicable to the
00393	00983		dispersed, higher altitude, episodic noise experienced under an MTR or MOA. In
00395	00984		general, there is little evidence to support the estimation of loss in property values
00396	00985		due to low-level military overflights in an MTR or MOA. Again, other variables
00399	00993		such as drought, market prices, community amenities, and proximity to urban areas
00400	00994		are more likely to affect property values than military overflights. Please also refer
00404	01008		to response AO-56.
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Conclusion. As discussed in Section 4.1 of the EIS, annoyance, which is based on perception, is the primary effect associated with aircraft noise. Given the subjectivity of how noise is experienced, it is difficult to translate overflight-noise-generated annoyance into changes in human behavior, especially for noise events that do not equally or consistently affect groups of people. As discussed in Section 4.2, the likelihood of any one location or person being directly and repeatedly overflown is low. Certain commentors have stated they may become highly annoyed and decide to stop visiting a certain hunting location or tourist attraction, or change their minds about purchasing property because of military overflights. However, other less-annoyed people may not change their behavior and still return to hunting locations, visit a tourist attraction, or buy a home. Military aircraft overflights occur across the United States and overfly public and private lands, including recreational areas. There is little data to suggest these overflights have significantly affected the economies of these underlying communities (Fidell *et al.* 1996 and USAF 1980).

The Air Force has specific procedures that they follow when claims for damages are made against the Air Force. Real property and economic losses are determined by reviewing the circumstances of each individual case and cannot be generalized into an overall impact. Noise and other aircraft operational complaints can be reported by the public by calling the Public Affairs Office at Dyess AFB (800-699-5169). When reporting an incident, the time and place of the incident should be provided. In many cases this information is all that would be necessary to identify the source of the incident. Information such as type of aircraft, tail-numbers, and insignia are often helpful in identifying the cause of a specific incident, but are not necessarily essential.

Fidell, S., B. Tabachnick, and L. Silvati. 1996. Effects of Military Aircraft Noise on Residential Property Values. BBN Systems and Technology. Canoga Park, CA. BBN Report No. 8102, October.

Rollins, D. Wildlife Specialist. Texas Agricultural Extension Service. San Angelo, Texas. June 1999.

Trail, J. Project Development Director. Wildlife Systems, Inc. San Angelo, Texas. June 1999.

USAF. 1980. Economic Impact Study: Valentine & Morenci Military Operations Areas, Final Report. May.

Ward, A. 1985. Hunting Lease Impacts on Rural Communities' Economics. Sutton County Extension Range and Wildlife Committee. Sonora, Texas.

Broad Issue: Airspace Ownership and Compensation (BR-5)

Letter #	Response
00017	00865
00023	00870
00032	00969
00033	00972
00034	00975
00035	00983
00036	01050
00037	01118
00040	01130
00041	08005
00044	08014
00045	08018
00110	08022
00247	08025
00264	08029
00272	08035
00279	08044
00283	08053
00284	08073
00295	08089
00300	08095
00308	08101
00327	08103
00330	08112
00333	08115
00355	08117
00370	08128
00394	08141
00408	08155
00494	08157
00625	08236
00655	08319
00681	08373
00707	09018
00822	
00853	
00856	
	<p><i>Airspace Ownership.</i> Several commentors on the draft RBTI EIS stated that airspace over their private lands was part of their private property. The commentors stated that as private property, any flights crossing through that airspace would be “trespassing,” and the landowner should be compensated for that use. Law and regulation, however, demonstrate the federal government’s control of all airspace within the United States. According to 49 U.S. Code 49.40103(a), the United States Government has exclusive sovereignty of the airspace of the United States. This sovereignty supersedes all prior claims through mechanisms like Spanish Land Grants.</p> <p>Federal government sovereignty over all airspace began with the Air Commerce Act of 1926 and the Civil Aeronautics Act of 1938. The Federal Aviation Administration (FAA) originated with the Federal Aviation Act of 1958. This law gave the FAA the authority and responsibility to control airspace in the United States and to operate an air traffic control system. In 1994, this act was replaced without substantive change by Public Law 103-272 and further codified under Title 49, U.S. Code.</p> <p>Under FAA Regulation Part 71.71(a), the airspace of the U.S. extends from ground level to above 60,000 feet MSL. No upper limit to the extent of the airspace above 60,000 feet MSL has been established. The FAA has established different kinds of airspace for different uses like the MOAs and MTRs to those proposed for use under RBTI. The FAA also established rules and regulations for aircraft operating in the airspace in order to ensure safety and effective operations. For example, the FAA defines and operates airspace under certain circumstances to separate civil aviation from military training activities.</p> <p>The FAA and each military service have very strict rules to ensure pilots stay within defined training airspace. The rules govern minimum altitudes, maximum speed, and type maneuvers that can be performed inside and outside designated training airspace. Military commanders have the authority to suspend pilots who willfully violate flight rules, such as flying outside designated training airspace. The military closely manages the airspace they use to ensure they do not exceed planned parameters.</p> <p>In addition, the FAA sets rules about the altitude that any aircraft can fly over certain areas. As noted in Section 4.1 of the EIS, FAA rules direct aircraft to avoid congested areas of a city, town, settlement, or open-air assembly by 1,000 feet above the highest obstacle and within a horizontal radius of 2,000 feet of the aircraft. Outside of congested areas, aircraft must avoid visible people, vessels, vehicles, and structures by 500 feet (either horizontally or vertically) (FAA Sec. 91.119(b)). Even though the FAA imposes such restrictions, it does not mean that private citizens “own” the airspace within 500 feet of their house or barn. Rather, the federal government has sovereignty over the airspace and controls its use through the FAA. The imposition of such restrictions by the FAA does not grant private citizens “ownership” of airspace outside of those restricted areas, nor do such restrictions limit federal sovereignty of airspace.</p> <p><i>Compensation.</i> Commentors during the public comment period also raised issues concerning compensation for the effects of overflights on underlying private property. These ranged from concerns about property damage to potential impacts to livestock to the concept that property could lose value. Additionally, commentors asked whether the Air Force could pay compensation for the “nuisance of noise.” The Air Force can only make payments to members of the public if authorized to do so by law, such as the Federal Tort Claims Act (FTCA). The Air Force considers each damage claim on a case by case basis. Air Force regulations provide an established process through which damage claims can be submitted, investigated, and resolved.</p>

The impact of noise on private property may also be addressed under “takings” law. The seminal case in this area is the Supreme Court *United States v. Causby* case. Briefly, *Causby* established that landowners are entitled to compensation only when overflights are so low and so frequent as to directly and immediately interfere with the use and enjoyment of the land. Subsequent cases have elaborated on this concept so that today, the general rule is that a successful plaintiff must prove: 1) the flights take place directly over plaintiff’s property, *and* 2) the overflights are of such a frequency that, 3) plaintiff’s use and enjoyment of the land is substantially interfered with, *and* 4) the flights are below navigable airspace (500 feet AGL for uncongested areas and 1,000 feet AGL for congested areas). Our review of the RBTI airspace indicates that flight paths would not impact landowners to this degree.

Broad Issue: Effects on Philmont Scout Ranch (BR-6)

Letter #				Response
00007	00520	00685	00939	Many people, including past and present Boy Scouts, have raised concerns regarding the potential effects of proposed overflights on Philmont Scout Ranch that could occur if RBTI Alternative D were chosen. All of these individuals have expressed their pride in the experience they or members of their family gained when they attended the Ranch or the opportunities future generations would attain when they visit the Philmont Scout Ranch in northeastern New Mexico.
00008	00521	00688	00940	
00010	00522	00690	00941	
00011	00523	00691	00942	
00015	00524	00692	00943	
00026	00525	00693	00945	
00028	00526	00700	00946	
00030	00527	00702	00947	
00031	00528	00709	00949	
00044	00529	00716	00964	
00247	00530	00723	00965	
00291	00532	00724	00966	
00298	00533	00725	00967	
00299	00534	00726	00991	
00301	00535	00731	00992	
00302	00536	00733	00996	
00303	00537	00734	00997	Safety. Flight safety is of paramount importance to the Air Force. Safe flying procedures, adherence to flight rules, and knowledge of emergency procedures form consistent and repeated aspects of training for all aircrews, including those at Barksdale and Dyess AFBs. B-52s have one of the best safety records of all aircraft in the Air Force inventory and the B-1s have an excellent safety record as well. B-52s have had 97 Class A mishaps in over 44 years of operation (1955-1999) and over 2 billion flight miles. The B-1 has also flown for 15 years (1984-1999), more than 160 million miles, and has had 11 Class A mishaps. Given these excellent safety records, the probability of future accidents is extremely low.
00304	00539	00735	00998	
00305	00540	00736	00999	
00306	00541	00737	01000	
00307	00542	00738	01002	
00309	00543	00741	01003	
00311	00544	00743	01004	
00312	00546	00748	01005	
00313	00548	00749	01006	
00335	00549	00750	01007	
00340	00550	00751	01046	
00341	00551	00752	01047	
00349	00552	00753	01048	
00351	00553	00754	01051	
00382	00554	00756	01053	
00384	00555	00757	01054	
00388	00556	00758	01056	
00390	00557	00759	01057	
00422	00558	00761	01058	
00425	00559	00766	01060	
00432	00560	00767	01061	
00433	00561	00773	01062	
00434	00562	00776	01063	
00435	00563	00777	01064	
00436	00564	00779	01065	
00437	00567	00781	01066	
00438	00569	00783	01068	
00439	00570	00785	01069	
00440	00573	00794	01070	
00442	00574	00795	01071	
00443	00575	00796	01072	
00444	00576	00797	01073	
00449	00577	00798	01074	
00451	00578	00799	01075	
00453	00580	00801	01076	
00454	00581	00802	01077	
00456	00582	00807	01079	

00459	00583	00809	01081	Population Numbers and Recreation. The EIS has been modified to recognize the visitors Philmont Scout Ranch receives during the summer season. Section 4.2.5 narrative, discusses the importance of camping, hiking, and other outdoor activities to the area during the Spring to Fall seasons.
00461	00584	00810	01082	
00463	00585	00816	01085	
00464	00586	00817	01087	
00465	00588	00818	01090	
00467	00594	00819	01091	
00468	00595	00820	01092	
00469	00596	00821	01094	
00471	00597	00825	01095	
00472	00599	00829	01098	
00473	00600	00830	01102	Land Use. In the EIS, Figure 4.2-7 depicts general land use of areas overflowed under proposed Alternative D, therefore, some of Philmont Scout Ranch may appear as rangeland. This figure is not meant to show terrain elevation, however, Figure 4.3-6 provides information on vegetation found under the proposed airspace and includes montane forests and grasslands. Further, Figure 4.2-8 illustrates the special use areas, including Philmont Scout Ranch. This figure has been modified to clarify the Philmont Scout Ranch location and include the Carson National Forest Valle Vidal Unit.
00474	00601	00831	01105	
00475	00602	00832	01106	
00476	00603	00841	01111	
00477	00604	00844	01112	
00478	00605	00849	01113	
00480	00609	00850	01114	
00481	00610	00857	01116	
00482	00613	00859	01119	
00483	00614	00861	01120	
00485	00616	00866	01121	Threatened, Endangered, and Sensitive Species. These species potentially found under Alternative D, and in particular the whooping crane, bald eagle, mountain plover, and Mexican spotted owl, were analyzed in the EIS in Sections 4.3.1 and 4.3.5.
00487	00618	00869	01125	
00489	00620	00873	01126	
00490	00624	00874	01132	
00491	00627	00875	08161	
00492	00630	00876	08170	
00493	00631	00879	08172	
00495	00637	00897	08174	
00496	00638	00898	08178	
00497	00639	00901	08268	
00498	00640	00902	08329	Livestock. Please refer to BR-3, Overflight Effects on Livestock. In general, a broad range of studies have found that livestock, including horses, may or may not react to noise from low altitude overflights of aircraft.
00499	00641	00908	09004	
00501	00644	00909	09017	
00502	00645	00910	09019	
00503	00646	00912		
00504	00649	00913		
00505	00651	00915		
00509	00656	00916		
00510	00657	00920		
00511	00662	00922		
00512	00663	00924		
00513	00664	00930		
00514	00667	00934		
00515	00678	00935		
00516	00679	00936		
00518	00680	00937		

Broad Issue: Quality of Life (BR-7)

Letter #	Response Text
00027	08011
00039	08025
00055	08032
00062	08033
00123	08047
00153	08125
00195	08154
00293	08161
00321	08176
00327	08184
00328	08185
00337	08191
00352	08205
00383	08244
00392	08250
00397	08251
00400	08256
00403	08266
00414	08272
00418	08280
00421	08294
00426	08295
00612	08296
00634	08297
00730	08304
00763	08305
01118	08309
01130	08330
	08336
	08356
	09008
	09020
	<p>Many citizens at both the public scoping meetings and the public hearings have expressed concern that their quality of life, which is based directly on the kind of lifestyle that they can enjoy in western Texas and northeastern New Mexico, will be changed by implementation of RBTI. Quality of life, traditional lifestyles, and the effect of overflights and noise on solitude, recreation, and wilderness are discussed in the EIS in Sections 3.3 and 4.2.</p> <p>Measuring quality of life can be very subjective. Even within a single community, notions on quality of life can vary a great deal. Each individual has a different perspective on how his or her quality of life has been affected by changes within the community. Some of the components that define quality of life include: population density, traffic, ethnic or social character, businesses, recreation, education, and crime level. The ability to maintain their traditional lifestyle may also be an important element in determining quality of life. There are many kinds of traditional lifestyles in the region, including ranching, oil exploration, Native American, and military. The Air Force has been conducting military aircraft operations in this region for over 50 years.</p> <p>Citizens may notice changes in military overflights in certain areas associated with RBTI, in other areas however, changes would not be discernible. The number of sorties is proposed to increase from 1 to 10 per weekday in some areas and decrease in others. An increase of overall sorties would not exceed 2,660 per year under the action alternatives. Less than 5 percent of the time, RBTI aircraft overflights could extend as low as 300 feet AGL in the MTRs in some areas, but in the MOA would not go below 3,000 feet AGL. With an average corridor width of 8 to 16 nautical miles, the likelihood of repeated overflights above a specific area is low.</p> <p>Many other factors, including fluctuations in the national and regional economy, population changes, land investment by urban interests, and changes in cultural amenities could affect the quality of life. External economic fluctuations in the cattle market, decreases in income, or changes in weather could affect local ranching and recreation industries to a greater degree than aircraft overflights. As under current conditions, noise from military aircraft operations may periodically disturb citizens and affect their enjoyment of solitude; however, opportunities for abundant periods of peace and quiet would continue as under present conditions. Rural lifestyle could be characterized as having shared traditions and values, emphasis on personal relationships, family orientation, and ties to the land. Increase in overflights and noise would not affect these characteristics.</p> <p>Additional military use of the airspace would not preclude civil use of the area or restrict access to areas for recreational or economic activities. In fact, these activities have coexisted in the area for half of this century. Most of the military airspace proposed under any of the alternatives is currently in use. Commercial aircraft overflights have also been taking place and will continue to do so. Therefore, existing quality of life should not be degraded. Nevertheless, public concern about reductions in quality of life due to the project will be considered in the decision-making process.</p>

Thank You (TY)

Letter #							Response
00002	00126	00268	00571	00892	08004	08252	Thank you for your comment during the public comment period for the draft EIS for RBTI. Public and agency involvement is an important part of the NEPA process. You and many others can be proud that your participation and comments have become part of the record and will contribute to the decision-making process.
00003	00127	00269	00572	00893	08045	08257	
00004	00129	00273	00590	00895	08055	08260	
00006	00130	00278	00593	00900	08056	08261	
00009	00131	00280	00607	00903	08058	08267	
00014	00132	00282	00621	00904	08059	08269	
00022	00146	00285	00622	00905	08060	08270	
00025	00150	00286	00629	00911	08062	08273	
00029	00159	00289	00650	00917	08064	08275	
00038	00160	00310	00658	00918	08066	08281	
00047	00162	00314	00665	00919	08074	08283	
00048	00163	00315	00670	00921	08077	08284	
00049	00164	00316	00671	00923	08080	08286	
00050	00166	00317	00677	00925	08102	08298	
00051	00169	00339	00687	00926	08104	08302	
00054	00170	00343	00695	00933	08106	08306	
00056	00171	00344	00696	00948	08109	08316	
00058	00173	00346	00697	00958	08110	08317	
00060	00176	00347	00698	00961	08114	08325	
00061	00182	00350	00705	00963	08118	08326	
00063	00183	00353	00708	00968	08119	08328	
00065	00184	00362	00714	00978	08120	08334	
00066	00185	00363	00717	00980	08121	08335	
00067	00186	00366	00718	00981	08123	08339	
00069	00187	00367	00720	00986	08130	08340	
00070	00192	00368	00732	00987	08134	08346	
00071	00193	00371	00762	00988	08135	08350	
00073	00197	00372	00764	00990	08136	08351	
00075	00201	00373	00768	01009	08137	08354	
00077	00203	00377	00778	01022	08140	08358	
00078	00204	00378	00787	01023	08142	08362	
00079	00205	00379	00789	01024	08150	08365	
00081	00206	00380	00790	01028	08169	08366	
00082	00211	00381	00804	01029	08173	08368	
00083	00213	00386	00823	01049	08175	08369	
00084	00221	00389	00834	01059	08183	08371	
00086	00229	00402	00848	01067	08194	08372	
00087	00238	00415	00851	01083	08197	08374	
00091	00249	00420	00852	01084	08200	08375	
00093	00251	00424	00855	01086	08212	08376	
00095	00252	00428	00858	01088	08213	08380	
00096	00254	00429	00864	01093	08214	08382	
00098	00255	00430	00872	01101	08216	08383	
00099	00256	00450	00885	01117	08219	08385	
00100	00258	00457	00886	01122	08226	09003	
00107	00260	00460	00887	01123	08238	09006	
00109	00261	00462	00888	08000	08241	09022	
00117	00262	00479	00890	08001	08245	09024	
00122	00263	00488	00891	08003	08248		

General (GE)

Letter #	Response #	Response
00019 01130 00983	GE-1	Under NEPA and CEQ Guidelines, a fiscal cost-benefit analysis for training or training assets is not required.
00046 08146 00954 08156 01131 08289 08013 08290 08041	GE-2	Selecting locations for public hearings was based on the affected area, where scoping meetings had occurred, and on providing sites offering reasonable access to the greatest number of people. Meetings were scheduled for evenings in many locations to accommodate people working during the day. The Air Force conducted 15 hearings in 11 locations throughout west Texas, northern New Mexico, Colorado, and Arkansas. See also response GE-22.
00080 08177 00194 08201 00232 08217 00296 08246 00447 08276 00871 08321 01130 08338 08126 08348 08168	GE-3	Through the NEPA process, the public has numerous opportunities to help shape proposals and influence decision-making for a project. While public comments under NEPA are not a “vote” on whether to proceed or not with a proposed action, substantive comments on this EIS can and do influence the decision and final outcome.
00080	GE-4	The Air Force has solicited input on the RBTI proposal since 1997 through a public involvement process detailed in Chapter 6 of the EIS.
00085	GE-5	Each public hearing included an open house where Air Force representatives were available to answer questions.
00085 08113 00976 08231 08105	GE-6	The time limit placed on comments was designed to ensure that all people who wished to speak had that opportunity. At every public hearing, the hearing officer permitted those individuals with additional or longer comments to speak again.
00110 08355	GE-7	The analysis is performed objectively, fairly, and in accordance with NEPA requirements. Proponent agencies are responsible for preparing NEPA analysis for their proposed actions. Agencies commonly seek specialized technical support in performing analyses and preparing NEPA documentation.
00245 08168	GE-8	Completion of the environmental impact analysis process involving an EIS commonly requires two or more years. In addition to the necessary analysis, consultation with agencies, and writing, this process includes several steps required by regulation and law. Each of these steps has a specified duration.
00246	GE-9	Analysis in the EIS considered the principles of biodiversity.
00283 01129 00970 08299	GE-10	This EIS has been prepared in accordance with NEPA to analyze potential environmental consequences. Detailed analyses of potential impacts are presented in Chapters 4.0 and 5.0 of the EIS. Section 2.5.4 demonstrates the conformance of the analysis to NEPA requirements.
00296 08206 00970 08254	GE-11	The Air Force reviewed each comment. Responses to comments are presented in this volume of the EIS. No decision regarding RBTI will be made until after publication of the EIS. The decisionmaker will use all the analysis in the EIS plus public and agency comments to arrive at a decision.
00334	GE-12	Federal, state, and local government officials in the affected communities were all sent newsletters announcing the time and location of public hearings.
00387 09009	GE-13	The suggestion you made will be forwarded to the decisionmaker for consideration.
09013	GE-14	The table is merely a qualitative summary intended to provide the reader with a basic understanding of the difference magnitude of impacts among the alternatives. Table 2.6-1 in the body of the EIS provides a detailed comparison of impacts.
09013	GE-15	The Air Force analyzed and considered the effects of the RBTI proposal on these resources. The Air Force believes the summary presented in the EIS is adequate to understand the lack of effects.

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09013	GE-16	Appendix A is referenced in this section on page 2-5 of the draft EIS.
09013	GE-17	Analysis of all primary and secondary airspace under Alternative A is included in the referenced section. For example, Table 4.1-4 includes noise levels for all these airspace units and the preceding text describes these conditions.
09015	GE-18	Cumulative impact analyses were prepared in accordance with NEPA and CEQ guidelines. The inclusion of current and recent past activities in Alternative A (No Action) allows analysis of the cumulative effects.
08170 09020	GE-19	The Air Force attended those meetings at the invitation of Senator Bingaman. The format and recording of comments were established by the Senator's office, not by the Air Force. The Air Force did, however, have four representatives present. Comments from those meeting were considered in preparing the RBTI EIS.
09020	GE-20	The variety of Air Force activities in the region and throughout the nation are not part of a single program or policy initiative regarding training and airspace use. Separate analyses of these various activities will adequately address their combined cumulative effects. Consequently, a programmatic EIS is not needed.
09020	GE-21	The settlement in the referenced lawsuit includes no requirement to preclude assessment of Alternatives B and C.
00046 08041 00288 08082 00334 08093 00635 08103 00786 08127 00846 08146 00881 08206 00899 08215 00962 08381 00970 09014 00982 09021 01100	GE-22	The Air Force performed a comprehensive public involvement process. Chapter 6 of the EIS details this process. Advertisements for the meetings were run in local newspapers 1 to 2 weeks prior to the meetings. Over fifty newspapers in the affected areas were also sent press releases detailing the time and location of each meeting. In addition, over 900 newsletters were sent out to individuals that participated in scoping. These newsletters described the time and location for each meeting. In addition, over 900 copies of the draft EIS were sent to the public and agencies.
00486 00962 00970	GE-23	Two meetings were held at Alpine, Texas on two consecutive days. The location and starting time for each meeting was advertised well in advance (see response GE-22). At the referenced meeting, all attendees were given multiple opportunities to comment for the record. The meeting was adjourned only after no one wished to speak further.
00713 00786 00806 00846 00906 00971 00977 01131 08050	GE-24	Descriptions of the field surveys for biological resources, cultural resources, and hazardous waste for the candidate emitter and Electronic Scoring Sites are presented in Appendix E. Analysis in the EIS used the most recent, available data. Data were collected from federal, state, and local agencies and an extensive examination of available literature pertinent to the area was conducted. Pertinent studies were reviewed and used in the analysis irrespective of their implications for the project. Note the discussion of overflight effects on wildlife in Section 4.3 as an example. NEPA and CEQ Guidelines do not require original studies or research in preparation of an EIS.
00786	GE-25	The referenced officials originally told the Air Force that the cafeteria location would be adequate for the meeting. When informed later of potential limitations with the cafeteria, the Air Force acquired use of the auditorium.
00786 08041 08041 08127 08171 08278	GE-26	More than 900 copies of the draft EIS were mailed out at least two weeks in advance of the first public hearing in April 1999. Copies were express shipped to the repositories prior to that time. The repositories were located in the communities within the affected area and were ones that were reasonably accessible from other nearby communities. The Air Force also sent copies of the draft EIS to four additional repositories in the area under the proposed Lancer MOA. Those individuals receiving a draft EIS either requested one or were participants in the scoping process.
00786 01130	GE-27	This comment is inaccurate. Air Force officials informed every landowner that the sites were being evaluated as part of the RBTI proposal. The right-of-entry

		was granted by each landowner to allow survey of their land included this information. In addition, each landowner was contacted by telephone and several met with Air Force representatives.
00868 01131	GE-28	It is neither a CEQ requirement nor the standard practice of federal agencies in New Mexico to publish EISs in Spanish. Based on the extensive public participation and comments, the Air Force believes that a broad cross-section of the public had access to the EIS and expressed their concerns. The Air Force provided a Spanish-speaking representative at each public hearing.
00962 08085 00983	GE-29	Any future proposals to change the nature or amount of use of the airspace would require assessment in accordance with NEPA.
00970 08231 00976 08258 08113 08277 08124 08364 08211	GE-30	The purpose of a public hearing under NEPA is to provide the opportunity for the public to comment on the adequacy of the draft EIS. The format of the RBTI public hearings fulfilled this requirement and the open house prior to the hearing allowed for discussion.
00983	GE-31	Proposed IR-153 would be scheduled by Dyess AFB and Cannon AFB would continue to schedule the Mt. Dora MOA.
00983 08026	GE-32	All projected airspace users are documented in Section 2.4 and Appendix B.
01001	GE-33	All project records would be available at Dyess AFB, Public Affairs Office.
01129	GE-34	Mitigation measures have been added into Section 2.6.2 of the EIS.
01131 08179 08206	GE-35	Detailed maps and Geographic Information Systems analysis were used in assessing impacts. The maps presented in the EIS reflect summaries of that information, and fulfill the requirements of NEPA to inform and disclose.
08177 08232	GE-36	A court reporter recorded (verbatim) all statements made at each public hearing. The transcripts are presented in Volume II of the EIS.
08190	GE-37	The counts used in the EIS were relatively accurate estimates. See also response GE-19.
08199	GE-38	The opinion of the FWS is presented in Section 4.3.1 of the EIS.
08263 08276 08319	GE-39	Under NEPA, the agency proposing the action also makes the decision concerning the action. The Secretary of the Air Force or a designated representative will make the final decision with substantial input from other members of the Air Force staff. A decision will be made only after reviewing all the environmental analysis, comments, and other pertinent factors (e.g., training requirements).
08289	GE-40	The public had several ways to provide comments: oral comments at public hearings, written comments submitted at public hearings, or written comments mailed to the Air Force. Information on how to submit comments was provided at each hearing, in newsletters, and in the Notice of Availability for the draft EIS.
08129	GE-41	The No Action Alternative is thoroughly described in Section 2.2 of the EIS.

Editorial (ED)

Letter #	Response #	Response
00324 00326 00326	ED-1	This has been modified in the EIS in section 4.2.5.
00906 08215 08139 08355 08180	ED-2	Valle Vidal Management Unit has been added to section 4.3.5.
08139	ED-3	Clayton Lake State Park was discussed in Table 4.2-12. The discussion of migratory birds and waterways was modified in section 4.3.5.
08170	ED-4	The Air Force conducted a number of informal meetings with communities, agencies, and public organizations for RBTI. Although not discussed directly in the document, the concerns expressed during these meetings were considered during the environmental impact analysis process.
08170 08178	ED-5	Figure 4.2-7 represents general land use information from the U.S. Geological Survey. The mountainous coniferous forest of the Philmont area is presented in Figure 4.3-6.
08170	ED-6	The effects of noise on structures are discussed in section 4.5.1.
08179	ED-7	The relationship of the proposed route under Alternative D to the boundaries of the town of Angel Fire is accurate based on the best available information at the time the DEIS was produced. The exact distance of the town to the proposed route is not discussed directly in the EIS.
08188 08282	ED-8	The letter has been included in Appendix H.
08215	ED-9	These sites are incorporated into the Special Use Land Management areas in Figure 4.2-8.
08237	ED-10	Given the vast region covered by the proposed airspace, every community was not identified by name in the EIS. However, the EIS has been modified to reflect the total number of people overflown under each proposed alternative.
08254	ED-11	The impact analysis process examines project effects on the environment, resources, land management and use, and on people. There is no requirement to analyze the effects on individual private property owners.

Purpose and Need, Description of the Proposed Action and Alternatives, and Cumulative Effects (PD) and (CE)

Letter #	Response #	Response
00001 00983 00021 01013 00076 08047 00121 08138 00506 08202 00538 08247 00625 08301 00772 08356 00929	PD-1	Sections 1.2 through 1.4 of the EIS detail the need for RBTI, including the specific airspace and ground assets associated with the RBTI proposal. This section provides basis for the need for low-altitude training. It also demonstrates that refueling the bombers to access distant training assets would not resolve the deficiencies prompting the RBTI proposal.
00015 01129 00019 08083 00085 08254 00291 08347 00296 08355	PD-2	Section 2.1.3 of the EIS explains that basing the additional bombers at Dyess and Barksdale AFBs was a decision of Congress and the President through the Base Realignment and Closure process. Moving the aircraft to other locations would require a similar authorization or basing decisions outside of the scope of this analysis.
00019	PD-3	As described in the EIS, a MOA meeting the realism requirements for RBTI must overlie lands suitable for the placement of electronic emitters.
00018 00721 00112 00722 00121 00772 00161 00800 00224 00813 00231 00914 00236 00931 00237 00969 00266 00974 00275 01021 00277 01110 00291 01130 00293 08010 00295 08014 00360 08016 00385 08030 00390 08036 00401 08069 00419 08122 00500 08131 00517 08162 00538 08217 00619 08242 00634 08318 00632 08320 00682 08324 00686 08333 00694 09012 00704	PD-4	Chapter 1.0 and Section 2.1 define the rationale and the process defining the alternatives. As this shows, the Air Force examined over 70 MTRs located within approximately 600 nm of Barksdale and Dyess AFBs as possible candidate alternatives. All locations outside the 600 nm radius from the bases were excluded from consideration. Those presented in the EIS are the only three candidates that wholly or partially meet the purpose and need. All others, as specified in Section 2.1, failed to meet one or more of the criteria for inclusion.
00052 08300 00409 08307 00579 08310	PD-5	The EIS addresses the use of simulators, and demonstrates that they can provide a small proportion of training, however, they lack the realism necessary to fulfill the purpose of RBTI.
00112	PD-6	Requirements for military readiness derive from the National Command Authority with the President as its leader.
00144 00770 00257 00814 00267 00870	PD-7	The alternative identification process focused on identifying existing MTRs and MOAs meeting the needs defined for RBTI. Out of the more than 70 MTRs evaluated, only 3 met the needs. They were selected as

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00284 00336 00359 00370 00374 00404 00484 00587 00652 00654 00668 00715	00927 00928 01052 01055 08006 08017 08028 08037 08050 08061 08116 08144		alternatives irrespective of the underlying land ownership. The alternatives overlie a mixture of federal, state, and private lands. Alternatives B and C overlie more private lands than Alternative D; Alternative D overlies more federal lands.
00215 00217	00296 00760	PD-8	Section 2.1.3 describes why simulators alone would not provide adequate realism or training. See also response PD-5.
00321		PD-9	To meet the training requirements for all aircrews and ensure readiness for combat, training needs to occur throughout the year. Training tempo may vary season to season.
00334 08229		PD-10	Section 2.1 describes the size and location requirements for emitters and electronic scoring sites. A thorough evaluation of these requirements was performed before identifying locations and alternatives. Section 2.4.1 describes emitter operations.
00342		PD-11	Section 2.3.1 of the EIS indicates that flights would occur on weekends only occasionally.
00369 09012		PD-12	The RBTI alternatives were designed to provide training realism while also reducing the potential effects of the action. A first priority in identifying alternatives was a requirement to maximize the use of existing airspace. By using more than 75% existing airspace in each of the alternatives, the Air Force sought to reduce the potential to affect lands and resources not previously under military airspace.
00370		PD-13	As described in Sections 1 and 2 of the EIS, no requirement exists for variable terrain under a MOA.
00983		PD-14	Depending upon conditions, training requirements, and airspace type, aircrews could fly IFR or VFR. Night vision goggles would normally be used during night operations.
00983		PD-15	Aircrews would include those from Formal Training Units and those from operational units conducting Continuation Training.
00983 01020 01033		PD-16	Section 2.3.1 of the EIS describes the proposed hours of use for the MTR and MOA. The B-52s and B-1s would fly 80 to 85 percent of the time during the day.
00417 00792 08081 08268		PD-17	The alternative identification process focused on identifying existing MTRs and MOAs meeting the needs defined for RBTI. Out of the more than 70 MTRs evaluated, only 3 met the needs. Selection of these alternatives used operational criteria. No particular location was defined for the alternatives other than those meeting the operational needs as described in Section 2.1 of the EIS.
00191 00194 00291 00421	00486 00899 08254	PD-18	In the draft EIS, all alternatives were evaluated equally; none received preference over another. In the final EIS (Section 2.1.5 and Appendix K), the Air Force recommended a preferred and environmentally preferred alternative. However, no decision to select or not select a particular alternative has been made at this time. Such a selection will be presented in the Record of Decision.
00494		PD-19	The RBTI proposal is designed to provide realistic training on a daily basis. Such training includes both low and high altitude training activities. Aircrews could not achieve this level of training through temporary duty assignments at other bases.

00589 00944 08295	PD-20	As detailed in Chapter 1.0 and Section 2.1 of the EIS, the training needed by the B-52 and B-1 aircrews requires terrain following and terrain avoidance. MTR airspace used for such training must overlies lands offering terrain variability. Flying over the ocean or using simulators would not fulfill this need.
00727	PD-21	Both the federal budget and past decisions related to base closures or realignments are beyond the scope of this EIS.
00962	PD-22	The FAA, under its authority to manage airspace over the United States, has charted all existing MTRs. See also response PD-1.
00970	PD-23	The No Action Alternative, as presented in Section 2.3, includes only existing airspace and would support only baseline sortie-operations.
00983	PD-24	Section 2.4 details the proposed process for obtaining the land for emitter sites and Electronic Scoring Sites.
00995	PD-25	Section 2.1.3 of the EIS explains why increasing funding to provide more flight hours is not a reasonable alternative to the RBTI proposal.
01130	PD-26	Refueling for the B-52s and B-1s is a training activity that includes set-up along a refueling track, linking to the refueling aircraft, disengagement, and flight to the next training activity. Even if no fuel or a nominal amount of fuel is delivered, the training to accomplish the refueling is essential.
01130	PD-27	Should the Air Force propose to fly at lower altitudes in an MTR or MOA than those assessed in this EIS, the proposal would be environmentally assessed under NEPA. See also Response AF-2.
01130	PD-28	Average sortie duration is derived by dividing the number of required sorties for a unit into its total annual flying hours. As stated in Section 1.3.3, average sortie durations do not always correspond directly to the time needed to achieve realistic training. To achieve such training, the aircrews from Barksdale and Dyess AFBs would need to fly slightly longer durations. These durations are hours less than current flight times that include substantial low-value transit time.
01130	PD-29	Section 1.2.3 of the EIS clearly describes the relationship between a sortie and a sortie-operation. Total sortie-operations are presented for each alternative and used in all appropriate analyses.
01130	PD-30	Additional detail on emitter operations and safety is presented in Section 2.4 of the final EIS. See also Response AO-32.
01130	PD-31	Section 2.4.2 clearly states that all existing segments of IR-178 north of proposed segment ZAA would be eliminated. This includes the segments under the proposed Lancer MOA.
01130	PD-32	All secondary MTRs intersecting or overlapping with primary airspace were analyzed in all pertinent resource categories. No part of the RBTI proposal includes changing the use of VR-1116 or IR-154. For IR-128/180, the EIS indicates that sortie-operations would decrease under Alternatives B, C, and D.
00827 01130 08133	PD-33	<p>The baseline sortie-operations legitimately include activities resulting from analyzed and approved actions affecting the same study area as RBTI. All of these sortie-operations were accounted for in the analysis. To eliminate these sortie-operations from baseline would also necessitate eliminating them from projected flight activities for Alternatives B, C, and D. Thus, the amount of change in noise levels (from baseline to proposed action) would remain the same as that reported in the EIS.</p> <p>NEPA requires analysis to focus on the affected area. Section 2.2 of the EIS clearly defines the affected area and describes the primary and secondary airspace units within that area. Sortie-operations for all the airspace units are analyzed under each alternative and the synergistic effect of the interaction of those units is analyzed. In this way, the EIS accounts for the airspace use in the affected area. No programmatic treatment of additional areas is required under NEPA or CEQ Guidelines.</p>

08032	PD-34	Very little land would be involved in RBTI. Only about 200 acres would be affected, and the Air Force would compensate private landowners through lease or purchase payments. See also response BR-4.
08103 08176	PD-35	The EIS considers the cumulative effects of both primary and secondary airspace use within the study area. It also accounts for all users of the primary and secondary airspace. Sections 2.3 and 5.1.2 describes how past, present and baseline sortie-operations were incorporated into the analysis.
08177	PD-36	Accurate, scaled maps are provided throughout the EIS to provide the reader the ability to find specific towns or locations in relation to the alternatives. Angel Fire is approximately 5 nm distant from the nearest part of the proposed IR-153.
08202	PD-37	Operational considerations defined the need for the RBTI proposal and directed the alternative identification process. In that process, environmental considerations were used. The EIS is devoted to assessing the environmental impacts of the proposal.
08313 09020	PD-38	The Air Force is familiar with the noise sensitive areas in northeastern New Mexico. Locations of these areas are included on the operations supplements at Cannon AFB who manage the majority of the airspace where the sensitive sites occur. Should Alternative D be selected, the established flight restrictions and/or operating procedures would be incorporated into the RBTI operations.
01018 08229 01027 09008 01039	PD-39	As shown in the EIS (Figure 2.4-11), no portion of the proposed MTR (IR-153) in northern New Mexico would occur over the City of Taos. The proposed MTR would lie more than 30 miles away from the City of Taos and behind mountain ranges.
08113 09008	PD-40	The EIS states that the proposed flight activities would occur between 300 feet AGL and 15,000 feet. Flights could occur anywhere within that range of altitudes, but flights would be between 300 and 500 feet AGL for only 5% of the time. For an average training flight along the MTR, this 5% would represent roughly 2 to 3 minutes within the total flight time for the route. In the portions of the MTR in the region north and east of Taos, B-52 and B-1 flight levels would be no lower than 400 feet AGL.
01130 08037 09012	PD-41	Sections 1.2, 1.3, and 1.4 in the EIS describe in detail the requirements for the airspace to meet the training needs of the B-1s and B-52s. Section 2.1 details the application of those requirements to existing airspace in order to identify potential alternatives to meet the need. Over 70 MTRs were evaluated, including those associated with La Junta and Harrison. The EIS in Section 1.3 establishes that neither La Junta nor Harrison have the integrated assets required for the training and the areas lack required terrain variability. As such, even with airspace modifications, neither would fulfill the purpose and need for RBTI. These sections of the EIS also demonstrate why use of the Belle Fourche and Granite Peak assets would not fulfill the purpose of reducing low value transit time and increasing combat training time. Both of these sites lie well outside the 600 nm area in which frequent realistic training could occur.
08132 09012	PD-42	There is more than a single alternative. The EIS includes analysis of three action alternatives, with two in west Texas and one in northern New Mexico.
09012	PD-43	NEPA and CEQ guidelines require that a proponent of a major federal action present the decision-maker with reasonable alternatives. If reasonable, these may include alternatives not meeting the full need. Use of the Harrison and La Junta facilities and associated airspace would not even fulfill part of the need for RBTI. Furthermore, all of the proposed alternatives include continued training in airspace associated with La Junta, Harrison, Belle Fourche, and Granite Peak. As such, the existing alternatives incorporate the important aspects of the alternative concept suggested in the comment.

08067 09012	PD-44	Realism in training is important, as stated in the EIS Section 1.0. However, the requirements for realism must focus on the crucial combat activities rather than transit time that yields only low-value training. Under RBTI, aircrews would continue to fly a proportion of their training with longer distance sorties to locations like Belle Fourche and Granite Peak. As such, they would receive that portion of training requiring long-range missions.
08247 09013	PD-45	Defining reasonable alternatives was a focus of RBTI, as shown in the draft EIS in Section 2.1 and in Appendix A. As this information demonstrates, over 70 MTRs were examined for operational suitability. These included MTRs associated with the Smoky Hill Range, as well as those associated with the existing ESS's at La Junta and Harrison. The systematic and rigorous process used to identify RBTI alternatives (Section 2.1) demonstrated that none of the suggested potential alternatives met the purpose and need.
09013	PD-46	As shown throughout Section 1.0, particularly in Section 1.6, the goal of RBTI would be to reduce the overall flight times from the bases to the training assets. Section 1.3 details the reasons why these assets need to be closer to the bases and how this would reduce overall flight time.
09013	PD-47	The same "side bar" discussed in the comment states that "all ordnance delivery would be electronically simulated". This clearly indicates that nothing of any type would be released from the aircraft.
09013	PD-48	The section preceding Figure 1.3-3 describes, in detail, the current situation of flying activities for the B-52s from Barksdale AFB and the B-1s from Dyess AFB. The sentences leading up to this figure "call out" state the locations to which the current sorties fly. Optimum was determined based on the Air Force syllabi and training requirements of the B-52s and B-1s.
09013	PD-49	This has been modified in the final EIS.
09013	PD-50	Section 2.2, Description of the Study Area, details each source and date for the data used to define the sortie-operations in Table 2.3-2 and in Appendix B. For Alternatives B, C, and D, the estimated timing of implementation has been added to the EIS.
09013	PD-51	Additional information on average hours of use are included in 2.3.1. Typically, 1 to 2 bomber aircraft would operate in the MOA over a 30 to 45 minute period. On average, about 5 periods would be scheduled per day. A two-aircraft formation would require 45 to 60 minutes to complete a training flight through an MTR. On average, about 5 periods would be scheduled per day.
09013	PD-52	This has been modified in the final EIS.
08086 09014	PD-53	The analysis in the EIS accounts for the primary (those used or proposed for use by the B-52s and B-1s) MTRs and MOAs affected by the alternatives as well as the secondary (not used or proposed for use, but intersected by primary airspace) MTRs and MOAs within the entire study area. Data tables in Section 2.2-2.4 and in Appendix B detail the projected sortie-operations in each airspace unit by aircraft type. Movement from one airspace unit to a separated unit will follow the same FAA regulations to which all air traffic must adhere.
09014	PD-54	Proposed segment WAWB of IR-153 does not overlie any portion of Lake Merideth National Recreation Area. The segment terminates approximately 6 nm west of the area. The Canadian River drainage is not assessed in specific in the EIS because it does not include any designated special land use management areas. Effects of Alternative D on recreation activities such as those that could occur in the river drainage are assessed for all lands underlying the affected airspace.
09014	PD-55	Their use would remain unchanged as shown in Appendix B of the EIS.
09014	PD-56	Flight activities in MOAs are detailed in Sections 1.4, 2.1.1 (including an example of a mission in Figure 2.1-1), and 2.3.1. All of these discussions

		apply to the Mt. Dora MOA as well as the other alternatives. Typically, 1 to 2 bomber aircraft would operate in the MOA over a 30 to 45 minute period. On average, about 5 periods would be scheduled per weekday.
09014	PD-57	As shown on Figure 4.2-8, this NPS unit would lie 4 to 5 nm outside the proposed Mt. Dora MOA.
09014	PD-58	As shown on Figure 4.2-8, this NPS unit would lie 2 to 3 nm outside the proposed IR-153.
09015	PD-59	As described in Section 2.2, all aircraft activities in the affected primary and secondary airspace are analyzed in the EIS.
09020	PD-60	The Air Force has and will continue to adhere to all pertinent FAA regulations. Military pilots flying over sparsely populated areas will avoid all visible persons, vessels, vehicles, and structures by 500 feet. Over congested areas, pilots will overfly no lower than 1,000 feet above the highest obstacle within 2,000 feet. Meeting these requirements would not degrade the training effectiveness of the MTR.
09021	PD-62	Sections 1.2, 1.3, and 1.4 in the EIS describe in detail the requirements for the airspace to meet the training needs of the B-1s and B-52s. Section 2.1 details the application of those requirements to existing airspace in order to identify potential alternatives to meet the need. Over 70 MTRs were evaluated, including those associated with La Junta and Harrison. The EIS in Section 1.3 establishes that neither La Junta or Harrison have the integrated assets required for the training and the areas lack required terrain variability. As such, even with airspace modifications, neither would fulfill the purpose and need for RBTI.
01124 09021	PD-63	Realism in training is important, as stated in the EIS Section 1.0. However, the requirements for realism must focus on the crucial combat activities rather than transit time that yields only low-value training. Under RBTI, aircrews would continue to fly a proportion of their training with longer distance sorties to locations like Belle Fourche and Granite Peak. As such, they would receive that portion of training requiring long-range missions.
00868	CE-1	Sections 2.4 and 2.5 of the EIS present information on the location and use of both primary and secondary airspace under each alternative. All secondary airspace that intersects or overlaps with primary airspace is included in the analyses. In this way, the cumulative effects of other, non-RBTI flight activities are addressed.
00113 00292 01129	CE-2	Cumulative impact analyses were prepared in accordance with NEPA and CEQ Guidelines. The EIS considers the cumulative effects of both primary and secondary airspace use within the study area. It also accounts for <i>all users</i> of the primary and secondary airspace. Section 5.1.2 describes how past and present actions were incorporated into the analysis.
01129	CE-3	Section 4.3 of the EIS addresses the impacts of construction, loss of habitat, and aircraft overflights. The first two factors are related. The EIS demonstrates that less than 20 acres would be affected by construction, so less than 20 acres of habitat would be affected. All of the candidate sites have been subject to previous disturbance that has degraded the habitat. Since the potential impacts to wildlife are negligible to nonexistent, they would not add to any potential impacts from aircraft overflights.

Airspace and Aircraft Operations (AO)

Letter #	Response #	Response
00001 00983 00045 01020 00088 01027 00106 01034 00119 01041 00140 01118 00149 01130 00217 08086 00297 08103 00327 08108 00336 08265 00466 08292 00846 08303	AO-1	Section 4.1 of the EIS presents the air emissions projected to result from implementation of RBTI. All emissions of criteria pollutants monitored by the EPA would be less than one tenth of one percent (0.1%) of the standards set by the EPA to protect human health, the environment, and visibility.
00005 08082 00398 08095 01129 08128 08023 08157 08035 08337 08078	AO-2	Section 4.1 of the EIS discusses the effects of wake turbulence. This analysis establishes that vortices from B-1s or B-52s flying at 300 feet AGL would produce no more than a temporary, light breeze incapable of damaging structures, livestock, or people. Wake turbulence from one aircraft can affect another aircraft that is trailing it too closely. The FAA has established guidelines for separation of aircraft in flight. Adherence to these guidelines by all pilots, military and civilian, would prevent any problems.
00005 01130	AO-3	IR-178 has been used by low-flying bomber aircraft for roughly two decades. Prior to that time, its predecessor routes, IR-144 and IR-165, covered much of the same area. Bomber aircraft used these routes since their inception. All changes to the use of IR-178 have been assessed in accordance with NEPA. Prior NEPA documentation shows that as early as the 1970s, use levels were equal to or greater than baseline sortie-operations. Established avoidance procedures for airfields would remain in force. See also response AO-2.
00013 00938 00383 08005 00517 08097	AO-4	The EIS addresses noise effects on humans (Section 4.1) wildlife and livestock (Section 4.3 and Appendix G), special use land management areas (Section 4.2), and cultural resources (Section 4.5).
00020 08108 00042 08167 00200 08170 00365 08337 00983	AO-5	B-52s are unable to eject (dump) fuel. For B-1s, if an emergency were to occur, B-1s are required to climb to 10,000 feet AGL or higher before jettisoning fuel. This provides enough altitude to ensure that jet fuel evaporates before it reaches the ground.
00042 08166 00057 08247 01129	AO-6	Air Force aircrews are the most highly trained in the world. These aircrews regularly deal with the effects of winds and turbulence both at high altitude and low altitudes without any effects on safety or navigation.
00043 00448 00097 00507 00113 00538 00120 00625 00292 01011 00361 08186 00393 08187 00399 08190 00405 08193 00416 08331	AO-7	The safety records of B-52s and B-1s are both exceptional and the probability of a mishap is extremely low. If a crash did occur, its potential to start a fire would be dependent on many factors including the season, wind, moisture, terrain, as well as the nature and density of the vegetation. No restrictions on flight activities would be expected. See also responses AO-16 and AO-49.

00044 00247 08172	AO-8	As described in Section 4.1 of the EIS, speech interference could occur. Most people when faced with an outside noise raise their voices sufficiently to be heard. The potential for overflights to “interfere” with instruction would be extremely low since the number of direct, low-altitude overflights would be less than 10 per weekday and flights would be dispersed within a broad MTR corridor. In addition, low altitude overflights currently occur over at least two areas with very difficult rock climbing routes: Joshua Tree National Monument and City of Rocks (Idaho). The Air Force is not aware of any evidence of an effect on climbing safety in either area.
00044 00247	AO-9	The EIS in Section 4.1 addresses sleep disturbance and indicates that it is a function of myriad factors, not only noise.
00044 00247	AO-10	Military aircraft communications and electronic combat equipment operate at different frequencies than other radio and communication equipment, so no effects are anticipated.
00046 08023 00466 08084 00625 08086 00969 08088 01129	AO-11	The EIS describes the emissions from the jet engines in Section 4.1. All emissions of criteria pollutant monitored by the EPA would be less than one tenth of one percent of the standards set by the EPA. These would also include water vapor, but not unburned fuel.
00053 00835 00218 00837 00325 00845 00407 08012 00694 08165 00765 08309 00803 08352 00811	AO-12	Vibrations to structures from low-altitude overflights are addressed in Section 4.5 of the EIS. The analysis in the EIS demonstrates that the proposed overflights would not cause structural damage to homes, historic structures, or other structures.
00062 00349 08218 08249 08344	AO-13	No airspace associated with the RBTI alternatives overflies Taos, Taos Pueblo, or the Taos Ski Valley. Figure 2.4-9 shows the distances of the airspace to these areas. Taos lies 30 or more miles from the nearest portion of the proposed MTR. Noise from aircraft would not be audible at that distance.
00068 01108 00293 01130	AO-14	Flight activities under RBTI would not involve supersonic speeds or produce sonic booms.
00074 08228	AO-15	Figure 2.4-11 presents the increase in sortie-operations per MTR segment for Alternative D.
00092 00427 00105 00445 00120 00447 00124 00458 00140 00466 00144 00500 00165 00566 00200 00760 00225 00784 00227 00906 00240 00983 00241 01019 00295 08012 00308 08016 00322 08096 00355 08218 00361 08287 00370 08311	AO-16	As demonstrated in the EIS (Section 4.1), the safety records of B-52s and B-1s are both exceptional and the probability of a mishap is extremely low. Should the Air Force implement one of the RBTI action alternatives, it would prepare the necessary plans and procedures to deal with responses to mishaps.

00374 00382 00391 00410	08331 08343 08377		Continued from AO-16.
00101 00441 00800		AO-17	The analysis of noise annoyance addresses community noise effects and the basic research considered people from a wide range of occupations. Additionally, the probability of repeated overflights of a single location is small.
00101 00118 00120 00125 00500 00611 00800 00826 00862 08006	08090 08223 08247 08265 08278 08307 08323 08337 08367 08370	AO-18	<p>The effect of aircraft noise on children is a controversial area. The reactions and behaviors of children described in the comments have not been documented in any research on the effects of aircraft noise on children or supported by anecdotal evidence. Also no evidence has been reported about these kinds of reactions to military overflights that have occurred over the last 30 years. It has been proposed that children are potentially more sensitive to noise sources as compared to adults, however, studies completed to date have produced no unequivocal evidence of auditory or non-auditory impact due to aircraft operations. Further, many studies (which have occurred primarily in Europe around airports) have been plagued with serious design problems including failure to incorporate control variables and account for exposure to other loud noise or small sample sizes. Numerous studies have also concluded no likelihood of permanent hearing loss, psychological or physiological health effects on children or young people. The RBTI proposes a small increase in sortie-operations (up to 10 per day) primarily in areas where military activity has occurred for many years. Neither children nor adults exposed to noise levels associated with either the existing military aircraft operations occurring today (Alternative A) or any of the actions alternatives (Alternatives B, C, or D) are anticipated to suffer serious health effects. Mental and emotional effects, as well as hearing loss due to the low noise exposure levels associated RBTI, can generally be ruled out.</p> <p>The Air Force has reviewed the referenced study entitled, “Jets over Labrador and Quebec: noise effects on human health,” by Jeannie Rosenberg. The paper focuses on the issue of effects of low level flights on human health (hearing loss, annoyance, startle, and physiological effects). These issues are addressed in Sections 4.1 and 4.2 of the EIS. Also, see above for a discussion of effects on children. The other unnamed German study referred to, was not specifically reviewed, however, the preponderance of scientific literature indicates no long term health effects, including “post traumatic stress syndrome,” result from occasional overflights such as those associated with the RBTI.</p>
00105 00207 00223 00245 00274	00323 00643 01131 08163	AO-19	The potential for bird-aircraft strikes is analyzed in the EIS (Section 4.1). That analysis demonstrates the very low probability of such occurrences.
00113 00124 00136 00137 00219 00292 00374	00399 01011 01104 08011 08263 08337	AO-20	Section 4.1 of the EIS addresses health effects and aircraft noise. The body of scientific evidence does not support the commentor’s claim concerning the aircraft noise generated under the RBTI proposal and hearing damage, physical ailments, and pain.
00114		AO-21	The FAA has the responsibility for establishing, modifying, and eliminating airspace. The duration that such airspace continues to exist is also up to the FAA. Airspace is not permanent. For example, should the

		Air Force implement Alternative B, hundreds of miles of IR-178 would be eliminated and portions of existing MOAs would also be eliminated.
00120	AO-22	Depending upon the nature and location of the training mission, the Air Force has pre-designated alternate landing locations. Aircrews are highly trained to respond to difficult emergency situations and would plan for all possible contingencies.
00134 08085	AO-23	Analysis in the EIS accounts for all aircraft using the defined airspace units irrespective of their base of origin or service affiliation. Appendix B shows all current and projected airspace use.
00138 08192 00412 08341 00547	AO-24	Life flights and other emergency aircraft activities are always given priority over training activities when the two may be in conflict. For fires involving aerial fire fighting, the FAA transmits a Notice to Airmen to avoid the area of operations.
00156 08019	AO-25	Section 4.1 of the EIS presents the noise levels associated with all aircraft associated with the RBTI proposal. See also response BR-1.
00157 08043 00531 08099 01044 08320 01045 08321 00130 08361	AO-26	Sleep disturbance studies have used both the DNL and the SEL metric in evaluating noise-related awakenings. As such representative studies using both metrics are discussed in the EIS in Section 4.1. It has been determined that arousal from sleep is a function of a number of factors including age, gender, sleep stage, noise level, frequency of noise occurrences, noise quality and pre-sleep activity. Under the RBTI proposal, a maximum of 15% and 20% of the B-52 and B-1 sortie operations, respectively, would potentially be flown at night, i.e., after 10:00 PM. Additionally, nighttime sorties are required to land back at their home station no later than 2:00 AM during the summer and prior to 1:00 AM during the winter season, which effectively reduces the overall potential for sleep disturbance to some degree. The SEL for a single overflight varies depending on the altitude, the lateral distance from the receiver and the aircraft operating characteristics. At the lowest operating altitude band of 300 to 500 feet AGL, accounting for 5% of the proposed operations, the SEL ranges from 116 to 113 dB for a B-1 and 111 to 107 dB for the B-52. In some situations, sleep awakenings have occurred, however studies have shown noise-related awakenings are far less than spontaneous awakenings. The variability of the aircraft position within the airspace structure also reduces the probability of repeated awakenings and significant impact.
00167 00977 00220 08217 00387 08255 00689 08285	AO-27	As presented in Appendix G, the body of scientific knowledge reveals no instances of subsonic aircraft overflights causing landslides, rock slides, or avalanches.
00195 00625 00806 08067	AO-28	The potential effects of aircraft noise on people, livestock and wildlife due to current and proposed operations are discussed in the RBTI EIS Sections 4.1, 4.2 and 4.3. Additional, information on the effects of noise is found in Appendix G, pages G-9 to G-17. Although individual situations can not be predicted, overall, studies have shown that the noise levels associated with RBTI do not cause catastrophic, long-term impacts. Individual overflight events are temporary intrusions into the local environment and do not represent lasting effects. Also see responses BR-1 and AO-42.
00198 00360	AO-29	The presence and use of military airspace over wilderness areas is not in conflict with any stipulations in the Wilderness Act of 1964. Numerous wilderness areas were established under existing military airspace that is still used today.
00243 08164 08181	AO-30	As shown in the EIS, Section 2.4.4, no airspace associated with Alternative D would occur within 5 nm of the Angel Fire airport. No restrictions on the use of that airport would be expected as a result of

		RBTI.
00265 00333 08034	AO-31	Jet fuel (JP-8) does not contain ethylene dibromide.
00267	AO-32	The systems within military aircraft do not emit at frequencies that could affect automobile operations.
00267	AO-33	The aircraft would be training and would not carry nuclear weapons of any kind.
00272	AO-34	As stated in Section 2.4.2 of the EIS, the MOA airspace in the vicinity of Big Lake, Texas would have a floor (base) of 3,000 feet above ground level, not sea level.
00283	AO-35	Section 4.1 of the EIS details both baseline and potential direct and indirect impacts for noise and air quality. Section 5.0 discusses cumulative impacts.
00291	AO-36	Proposed IR-153 would overlap and intersect with numerous existing MTRs that are used for low-altitude training by a variety of aircraft, including some B-1s and B-52s. Appendix B presents the breakout of all current aircraft users of these MTRs.
00291	AO-37	The EIS does show that much of the airspace over the area including Philmont Scout Ranch would be newly established airspace. Refer to Figure 2.4-9 in the EIS.
00324 00326 01129	AO-38	The EIS cites the findings of the National Forest Service accurately. The EIS goes on to note that low-altitude, high-speed overflights were considered most annoying and that the associated startle effect can negatively affect wilderness experiences.
00324 00326	AO-39	The EIS shows the projected amount of change in noise levels as described in the comment. The EIS also defines this amount of change as an adverse impact.
00334	AO-40	In Section 2.4.1, the EIS discusses RF emissions and the safety zone to be established around the emitters. This zone provides more than sufficient separation for the RF emissions from the emitters. Additional discussion of RF emissions has been presented in the EIS.
00334 00983 08087	AO-41	The basis for the sortie-operations is presented in Section 2.2 of the EIS. Actual counts of sortie-operations flown were used based on the records of the airspace managers for the appropriate airspace units. All proposed users are accounted for in these data.
00342 00383 08046	AO-42	It is possible that aircraft noise could startle domestic animals. However, animals have been shown through numerous studies to adapt and habituate to various sound sources, including jet aircraft noise. Likewise, human response to jet aircraft noise can also include startle or “surprise” effect. While the experience may be annoying in the short-term, no long-term health effects have been shown to occur. The overflights and associated noise levels from current operations or those that would result from an RBTI alternative, are intermittent and short in duration as opposed to regularly scheduled flights, such as at an airport. Additionally, the varied altitude structure and horizontal distribution of the flights make repeated overflights of the same location infrequent.
00354	AO-43	The EIS details the potential impacts of the RBTI proposal from noise, air emissions, and safety in more than 50 pages in Section 4.1.
00361	AO-44	The low probability of mishaps as presented in the EIS reflects the number of proposed flights under RBTI.
00361 08210	AO-45	The analysis of the effects of noise on humans is presented in Section 4.1 of the EIS; analysis of the effects of noise on wildlife is presented in Section 4.3.
00365	AO-46	The use of live ordnance for training is not part of the RBTI proposal.

			Rather, aircrews would electronically simulate ordnance delivery training.
00448 00517 00636 00894	08048 08126 08321	AO-47	No part of the RBTI proposal involves flights by B-1s or B-52s at 200 feet AGL; the lowest altitude flown by these aircraft is 300 feet AGL.
00531		AO-48	The noise analysis presents information on the cumulative exposure in the form of DNL that is appropriate for community response. Noise levels for single events, i.e., single overflights, provided by the L _{MAX} and SEL metrics supplement this.
00538 01104 01130 08337		AO-49	While the probability of a mishap is extremely low, it could occur. When an aircraft crashes, it may release fuels, oils, lubricants, and other materials that could enter the ground. The potential for contamination would depend upon many factors including the nature of the accident, porosity of the soil, geologic features, and season of the year. As part of the Air Force’s accident response, the presence of contamination would be investigated and, if found, the affected area would be cleaned-up according to Federal standards.
00565 08016 08100 08166 08167		AO-50	B-52s are unable to eject (dump) fuel. For B-1s, if an emergency were to occur, B-1s are required to climb to 10,000 feet AGL or higher before jettisoning fuel. This provides enough altitude to ensure that jet fuel evaporates before it reaches the ground. Jet fuel (JP-8) contains no ethylene dibromide.
00689		AO-51	The OSHA standard applies to sustained noise over a 30-minute period. As shown in Figure 4.1-2 and Table 4.1-1 of the EIS, the maximum sound levels of 117 dB (B-1) and 110 dB (B-52) would be instantaneous and not sustained. This noise level would occur for a fraction of a second. As the aircraft recedes from the receiver, the noise levels decrease with distance.
00689		AO-52	The EIS in Section 4.1 discusses studies on aircraft noise and hearing loss. These studies indicate that RBTI flight activities would neither generate noise levels nor occur with such frequency as to affect hearing.
00712		AO-53	As shown in Figure 4.1-2 and Table 4.1-1 of the EIS, the maximum sound levels of 117 dB (B-1) and 110 dB (B-52) would be instantaneous and not sustained. This noise level would occur for a fraction of a second. As the aircraft recedes from the receiver, the noise levels decrease with distance.
00727 00827 01129		AO-54	No “rural” or “wilderness” guidelines exist, however the referenced guidelines are useful in evaluating the impact of aircraft noise. Additionally, use of the DNL metric is has been recommended as the principal means for describing long-term noise exposure of civil and military aircraft operations.
00742 00744 00745 00746 00853 00856 00865 00878 00896 00950 00953 00955	00956 00970 00984 00985 00993 00994 01078 01089 08182 08237 09014	AO-55	Use of the DNL cumulative metric, as recommended by the Federal Interagency Committee on Noise (FICON), is accepted as the principle metric for describing environmental noise exposure. DNL is appropriate because it not only accounts for the total number of events occurring and the time they occur, it also accounts for the duration of the events and the maximum levels noise levels associated with the events. There are no new descriptors or metrics of sufficient scientific standing to substitute for the DNL cumulative noise exposure metric. As noted, inclusion of the L _{max} and SEL metrics is useful to further describe the noise levels attributed to an individual overflight. Collectively, these three metrics provide adequate analysis of the existing environment as it occurs today and the future noise environment should RBTI be implemented. Although DNL can be supplemented with other metrics to characterize specific effects, to date there is no consensus among various agencies on the desired metrics relative to the new field of wilderness psychoacoustics. Additionally, the RBTI action alternatives were structured to avoid NPS properties to the

		maximum extent, however public feedback on the proposal has indicated a preference for overflights to occur over Federal property verses private lands. See also response BR-1.
00827	AO-56	In the RBTI EIS, the AF has presented the noise levels of the existing environment, i.e., that occurring today, and presented the resulting changes if one of the three action alternatives were implemented. It is intuitive that if property values have not suffered due to the historical activity (which includes not only military activity, but management agency flights as well as general and commercial aviation), the addition of 10 flights per day at varied horizontal and vertical distribution will not suddenly result in drastic impacts to property values. Factors which are likely to contribute to fluctuations in property values is the economy, employment opportunities, community amenities, community and education services, as well as historical ties to the land. These factors drive property values, not sporadic military overflights.
00868 08126 08193	AO-57	As stated throughout the EIS, the analysis was based on a floor of 300 feet AGL for proposed MTRs. The floor altitudes of 200 feet AGL noted in Appendix C are structural remnants of the existing MTRs from which the proposed MTRs were developed. See also response for AO-47.
00868	AO-58	The sortie-operations presented in Tables B-1 through B-4 are yearly. As stated in the titles for Tables B-6 through B-8, the sortie-operations denote average daily use. Section 4.1 of the EIS addresses the potential effects of the RBTI alternatives on civil aviation. See also response BR-2.
00894	AO-59	It is possible that aircraft noise could startle domestic animals. Animal responses may vary but generally large, studies have failed to provide conclusive evidence of any serious effect except trauma due to panic reaction. Animals have been shown through numerous studies to adapt and habituate to various sound sources, including jet aircraft noise. In the literature review of Mancini <i>et al.</i> (1988), behavior reaction observed in livestock exposed to low-altitude subsonic overflights have generally consisted of startle reactions that were considered minimal. The RBTI low-level overflights may result in incidental livestock startle that may or may not lead to livestock damage. The expectation that overexertion of cattle raised for food purposes would result in death or weight loss, is speculation.
00827 00906 08021	AO-60	The data set from which the “Schultz curve” is synthesized is not a model, but rather a dose-response relationship for noise exposure levels and the prevalence of annoyance. The original curve was derived from a body of 161 paired observations in the 1970’s (T.J. Schultz, “Synthesis of Social Surveys on Noise Annoyance,” <i>Journal of the Acoustical Society of America</i> , 64(2):377-405, 1978). The set of data was updated from 161 to 453 data points by Dr. Sanford Fidell and colleagues in a 1991 publication (Fidell, S., Barger, D.S., and T.J. Schultz, “Updating a Dosage-Effect Relationship for the Prevalence of Annoyance Due to General Transportation Noise,” <i>Journal of the Acoustical Society of America</i> , 89:221-223, 1991). The expanded analysis revealed only minor differences in the prevalence of noise-induced annoyance as predicted by Schultz and by the newly derived relationship for all transportation noise. This research also pointed out that the prevalence of aircraft noise is somewhat greater than that attributable to surface traffic (e.g., street/highway traffic and railroad noise). This finding was acknowledged by the Air Force in the article entitled “Community Annoyance and Sleep Disturbance: Updated Criteria for Assessment of the Impacts of General Transportation Noise on People” (Finegold, L.S., C.S. Harris, and H.E. von Gierke, <i>Journal of the Acoustical Society of America</i> , 42(1):25-30, 1994). According to the 1992 Federal Interagency Committee on Noise

		(FICON), “the dose-effect relationship, as represented by DNL and ‘Percent Highly Annoyed’ (%HA), remains the best available approach for analyzing overall health and welfare impacts for the vast majority of transportation noise analysis situations.” The RBTI EIS provides this information to assist the public and decision-makers in understanding the degree of community annoyance resulting from the noise levels associated with the alternatives. Additional single event noise metrics have been provided to fully describe the potential noise environment.
00950 00955 00956 00984 00985 01078 01089 08020 08187	08262 08272 08288 08303 08310 08312 08315 08337 09018	AO-61 No human endeavor is entirely without risk, yet the potential for aircraft mishaps (as reported in Section 4.1 of the EIS) is extremely low. The EIS describes the nature of Class A mishaps, provides the overall history of Class A mishaps for the life span of B-52s and B-1s, and presents the estimated rate of mishaps. All sources and causes of mishaps are included in the calculations used in the analysis. On average, B-52s have had a Class A mishap for every 28 million miles flown; B-1s have a record of one mishap per 14.5 million miles flown.
00970 01041 01130 08034 08076 08100 08100 08132		AO-62 Section 4.1 and Appendix F details the methods and assumptions used for the MAILS modeling. The MAILS air quality analysis used a conservative approach by assuming all aircraft would fly at 300 feet AGL for the entire duration of flight in an MTR segment. This distribution over-emphasizes the lowest altitudes whereas only 5 percent of flight activity would actually occur there. An altitude of 5,000 feet AGL was not used as a mixing height for the MAILS model. Even using this conservative approach, the criteria pollutant concentrations would be less than one tenth of one percent of the human health standards set by the EPA.
00983		AO-63 Section 2.4.4 and Appendix C (Table C-2) present information on the length, corridor width, and altitude structure of the airspace associated with Alternative D.
00983		AO-64 Section 2.4.4 and Appendix D present data on the number and location of emitter sites. Section 2.4.1 indicates that all emitter sites would be located on leased or purchased private land and that the emitters would be unmanned.
00983 08363		AO-65 On average, the B-52s would fly at 360 knots and B-1s at 420-550 nm/hour. No supersonic speeds would be employed.
00983 08337 01130 08100		AO-66 The fuel used by B-52s and B-1s is JP-8. JP-8 is basically low-grade kerosene with other additives totaling less than 1 percent. The Air Force switched to JP-8 a few years ago, in part, to reduce jet fuel’s potential effects on the environment and to standardize with NATO forces.
00983		AO-67 Table 2.3-2 in the EIS presents information on current sortie-operations on existing MTRs associated with the RBTI proposal. Tables 2.4-5, 2.4-9, and 2.4-13 present the proposed use of the MTRs under each alternative in comparison to current usage. Appendix B provides additional data on sortie-operations within the airspace.
00983		AO-68 As shown in Section 4.1 of the EIS, the analysis of noise emphasizes the differences in noise levels under existing and projected conditions.
01033		AO-69 No landings would occur in northern New Mexico. Landings would occur at Barksdale AFB, Louisiana, and Dyess AFB, Texas.
01044 01130 09018		AO-70 In section 4.1, the EIS details the emissions from the proposed aircraft activities and compares them to standards established by the EPA for human health. As the analysis demonstrates, the aircraft emissions would represent less than 1% of the threshold for 15 of 16 categories, and about 2.5 percent of the threshold for the other category. These emissions would not affect human health and would not be “smelled” by people on the ground.

01128	AO-71	Establishment of a MOA would not limit civil or agency VFR air traffic. FAA regulations permit non-participating VFR traffic to transit a MOA. See also Response BR-2.
01129	AO-72	Sortie-operations associated with IR-102/141 have been eliminated from all four alternatives and affected resource categories have been re-analyzed to reflect this change.
01130	AO-73	Section 2.4 of the EIS demonstrates that all of the MTRs mentioned in the comment were considered in the noise analysis.
01130	AO-74	Information on average speeds of aircraft has been added to the EIS. The altitude distribution per aircraft type is presented in Table 2.3-3.
00827	AO-75	<p>The noise analysis and modeling performed in the EIS represent the best available, scientifically validated methods. The Air Force’s approach to characterizing noise exposure consisted of summing the acoustic energy produced by individual aircraft operations over a period of time, and expressing this quantity in terms of time-weighted sound levels. Expressing aircraft noise exposure in time-weighted average sound levels has been standard practice since the early 1970s. Although variant methods have been proposed, none has received the scientific or agency validation of time-weighted sound average for noise exposure. No other method of assessing aircraft noise impacts is demonstrably superior.</p> <p>Many of the concepts and arguments presented in the comments have been reviewed by Dr. Sanford Fidell, world renown noise expert and cited as such by the commentor. Dr. Fidell’s assessment concluded that the comments are incomplete, internally inconsistent and misleading. The assertion in the comments that DNL is inappropriate as a measure of noise impacts and annoyance is not borne out by the scientific literature or agency procedures. The Federal Interagency Committee on Noise, as late as 1992, validated the use of DNL for analysis of aircraft noise impact and community annoyance. No credible alternative to DNL for prediction of human response to noise exists. Neither the literature review (which is incomplete) nor the invalid replacement for the Schultz curve presented in the comment demonstrates that the analysis in the EIS is inaccurate or inappropriate. See also response AO-60.</p>
01131	AO-76	<p>Although “surges” can generate an unusually large number of sorties for fighter aircraft, the maintenance and coordination requirements, along with the limited number of airframes make a “tremendous increase in daily flights” improbable for bombers.</p> <p>Both Barksdale and Dyess AFBs conduct a few exercises annually designed to strengthen maintenance and operational practices. Barksdale AFB conducts exercises approximately twice a year, with a typical exercise involving a total of 10 aircraft taking off within 1 to 2 hours and following predetermined routing. Dyess AFB exercises approximately four times per year during a three to four day time frame, typically using six sorties per day.</p> <p>Normally, these exercises take place on non-routine MTRs and the MTRs are closed to non-participating aircraft during the time of the exercise. In addition, these MTRs are chosen to develop the operators’ experience, therefore, the routes commonly traversed for training would not be used. Since RBTI proposed airspace would be routine training, these exercises could reasonably result in fewer sorties within RBTI airspace during these times.</p>

	AO-76	If RBTI airspace were the designated routing during an exercise, the six sorties per day for Dyess AFB or the ten from Barksdale AFB are already accounted for and analyzed in the RBTI EIS.
08007	AO-77	The EIS in Section 2.4.2 states that the proposed Lancer MOA would not expand the area currently under MOA airspace, and indicates that airspace use would increase substantially.
08007	AO-78	As indicated in Table 2.3-3, different types of aircraft would operate at different percentages of time within the MOA. For example, out of a 45-minute sortie-operation in a MOA, a B-1 would spend, on average, 18 minutes (40%) between 3,000 and 5,000 AGL. The remaining 27 minutes would involve flight above 5,000 feet AGL. Since noise decreases with altitude, and 35 to 80 percent of the flight activities would be above 20,000 feet AGL, noise levels in the MOA would remain low.
08011	AO-79	Speech interference sometimes occurs when background noise levels exceed 65 dB. Within houses, which usually provide insulation that reduces noise levels by 20 dB or more, the potential for speech interference decreases.
08019	AO-80	B-1 aircraft already fly on the MTRs mentioned in the comment. Refer to Appendix B of the EIS. Any changes to the altitude of flights within the MTRs or to the amount of sortie-operations performed by specific aircraft would need to be assessed through the NEPA process.
08027	AO-81	The maximum A-weighted sound level (L_{max}) of a B-1 overflight ranges from 117 dBA at 300 feet above ground level (AGL) to 75 dBA at 10,000 feet AGL. The A-weighted sound exposure levels (SEL) which is the single number representation of the noise energy dose, ranges from 116 dBA at 300 feet AGL to 83 dBA at 10,000 feet AGL. The data are found in Section 4.1.1, Tables 4.1.1 and Figure 4.1.3. The referenced levels of 45 and 62 dBA are the Day-Night Average Sound Levels or DNL. Refer to Appendix G for additional information on various noise metrics.
08085	AO-82	The analysis uses the most recent data on aircraft operations, noise factors, and emissions. B-52s have been flying since the 1950s and B-1s have been flying since the mid-1980s. Past use of the airspace has included sortie-operations by these aircraft types.
08094	AO-83	As detailed throughout the EIS, an average of 10 sortie-operations would occur on a daily basis in the parts of the MTR proposed for the heaviest use.
08103	AO-84	All flight activities proposed under RBTI are reported in the EIS, Section 4.1. The Air Force has no additional proposals with regard to the affected airspace. Should such proposals arise in the future, they would be assessed through the NEPA process.
08103	AO-85	The EIS details aircraft emissions throughout Section 4.1. Information on increases in PM_{10} is presented for each alternative. $PM_{2.5}$ was not assessed as the EPA has yet to establish a standard for this metric. The analysis does evaluate aircraft activities at 300 feet AGL. See also response for AO-62.
08103	AO-86	No refueling tracks associated with RBTI occur over the area mentioned in the comment. See also response to AO-50.
08122	AO-87	The baseline for the RBTI noise analysis correctly presents the noise levels attributed to existing or previously approved aircraft operations. Each of the proposed alternatives are analyzed to determine the change in the noise levels (increases or decreases) resulting from the addition of the RBTI. Evaluation of the changes in the noise environment against a non-existent baseline would present an inaccurate characterization of the impacts.
08122	AO-88	Since its designation in the early 1990s, IR-178 has encompassed the same

		area. Predecessor MTRs such as IR-165 also overlay much of the same area and supported bomber sorties since the 1970s.
08170	AO-89	Approximately 12 average daily sortie-operations (260 days/year) could occur in the segments of proposed IR-153 overlying Philmont Scout Ranch. As detailed in the EIS, these flights would be dispersed horizontally and vertically, thereby minimizing the potential for a single location to be overflown repeatedly.
08184	AO-90	Noise will not be trapped in the valleys of northeastern New Mexico. Noise traveling in rays away from aircraft reaches the surface of the earth at an angle relative to the position of the aircraft. The noise level experienced in the valley would depend upon the altitude and lateral distance of the aircraft from the valley as well as the location of the receiver. Dispersion of overflights across a Military Training Route corridor and vertically within its altitude structure, limit the probability of exclusively flying over the same spot.
08193	AO-91	Balloon and glider flight activity must also adhere to FAA regulations. Pre-planning of such activities to avoid areas of other civil and military aviation would prevent conflicts.
08196	AO-92	The cumulative noise levels (DNL) presented in EIS are complimented by single event noise levels for the B-1 and the B-52, as well as other aircraft who use the affected airspace. Data on A-weighted maximum sound levels (L_{max}) are found in Tables 4.1.1; A-weighted sound exposure levels (SEL) are presented in Figure 4.1.3.
08227	AO-93	Use of all airspace is managed by the FAA. All proposed sortie-operations for RBTI are presented in the EIS and detailed according to airspace units. Should the Air Force propose to use other airspace units not environmentally assessed for a particular type or number of aircraft, it would undertake an analysis governed by the NEPA process.
08323 08331	AO-94	As demonstrated in the EIS (Section 4.1), the safety records of B-52s and B-1s are both exceptional and the probability of a mishap is extremely low. The coincidences necessary to result in an event such as described in the comment would reduce the probability of occurrence to the infinitesimal level.
01130 08337	AO-95	Neither the B-52 nor the B-1 carry hydrazine. F-16s, which carry small canisters of hydrazine, would represent a minor (about 2%) user of the airspace.
09011	AO-96	The Air Force has reviewed the recently adopted Final Regional Haze Rule. Analysis in the EIS shows that the amount of particulate matter (PM_{10}), a common source of haze, generated in New Mexico would be less than 0.3% of the PSD Class I increment. Similarly, NO_x emissions from RBTI would represent approximately 2% of the PSD Class I increment (Section 4.1.5 and Table 4.1-21). These small amounts would only occur in the most intensively used segments which account for about 10% of the proposed MTR. All other segments would contribute less PM_{10} and NO_x based on fewer daily flights and/or use of higher altitudes. For this reason, and because the flight activity would be dispersed over thousands of square miles, it is unlikely that RBTI aircraft emissions would represent a factor affecting New Mexico's compliance with the Regional Haze rule.
09011	AO-97	The Pecos Wilderness Area would lie 17 to 18 miles from the edge of the proposed MTR, Wheeler Peak Wilderness Area would be roughly 7 miles from the MTR's edge, and Carlsbad Caverns National Park would lie more than 30 miles from any of the airspace units proposed for increased use under RBTI. Given this distance, the infrequency of flight activities, the volume of air in which the emissions would dissipate, and the

		extremely low concentrations of emission (see Section 4.1 of EIS), these PSD Class I areas are not expected to be affected.
09011	AO-98	Section 4.1.1 (Aircraft Emissions and Air Quality) describes that total emissions of criteria pollutants were derived for all alternatives by calculating military aircraft emissions for affected MOAs and MTRs in each alternative. All military aircraft flying in the airspace were included. Appendix B provides information on the total number and type of sortie-operations for each affected airspace unit.
09012	AO-99	The EIS does account for the effects of increased numbers of sortie-operations within the defined limits of the airspace units, whether they would be expanded or decreased under a particular alternative. For example, the DNL noise analyses (section 4.1) accounts for the horizontal and vertical “concentration” of aircraft sortie-operations within the MTRs and MOAs. The model used in this analysis incorporates the “concentration” and/or “dispersal” of aircraft within the particular airspace unit and the results of the analysis reflect the size of the airspace unit. In addition, for each alternative the EIS does describe the probability of any single location being overflowed based on the size of the airspace unit and the nature of its proposed use.
09013	AO-100	The referenced section and appendix describe the methodology used to assess noise from all types of Air Force aircraft, including B-52s and B-1s. This methodology addresses the noise from B-52s and B-1s specifically for the airspace affected by the RBTI alternatives. Other, older reviews, such as those prepared for basing of aircraft would not be pertinent to the analysis in this EIS.
09013	AO-101	The definition of DNL in the Executive Summary has been enhanced.
09013	AO-102	In Section 4.1.1, the draft EIS did address the noise generated by single event overflights at altitudes ranging from 300 feet AGL to 25,000 feet AGL. It details how the both instantaneous (Table 4.1-1) and single overflight noise energy doses (Sound Exposure Levels) generate noise and are perceived by observers on the ground. Under each alternative in Section 4.1.1, the probability of any single location is discussed along with existing FAA procedures for avoiding overflight of persons, structures, and vehicles. Section 4.1.2 also addresses the potential effects of noise on communities underlying the affected airspace and on other types of land uses. The EIS shows that flights within MTRs would be dispersed and sporadic. For MOAs, the flights would be dispersed within a large volume of airspace. In either case, the probability of repeated, low-altitude overflights over a specific location would be unlikely.
09013	AO-103	This has been modified in the final EIS.
09013	AO-104	These locations and procedures for each noise sensitive area under each MTR are published in the AP-1A/B circulars. This reference is included in the final EIS.
09013	AO-105	The percentages of potential mishaps per year are correct as published in the draft EIS.
09013	AO-106	For each alternative in Section 4.1, the EIS discussed the potential effects of the action on civil aviation. See also response BR-2.
09014	AO-107	Section 4.1, Aircraft Noise Assessment Methods, presents the methodology used to model noise for all airspace units. Appendix G provides further detail on this and other noise topics.
01130	AO-108	These references are available at the Air Force’s project files at Dyess AFB, Public Affairs Office.
09018	AO-109	The EIS does not make this argument. The alternatives for RBTI overlie federal, state, and private lands. Alternatives B and C overlie more private lands, but identification of these alternatives was based on operational

		factors (Section 2.1) and did not “target” any particular land ownership.
09020	AO-110	The use of 65 DNL in the referenced section of the EIS was not used as a threshold for impacts. It simply provided a point of reference. The same paragraph recognizes that the aircraft noise would be expected to affect wilderness and solitary experiences.
01129 01131	AO-111	The EIS recognizes that neither 65 DNL nor 55 DNL is a standard or threshold used solely to determine potential impacts. Many factors were considered in addressing the effects of aircraft noise from RBTI. The amount of change in noise conditions, the number of overflights, the timing of those overflights, the vertical and horizontal dispersion of overflights all formed a part of the analytical process. Description of the potential effects of noise on sleep disturbance, speech interference, and other factors is presented in Section 4.1 of the EIS. Various noise levels are discussed in regard to evaluating these effects.
01130	AO-112	The airspeeds reported in the EIS and used in the analysis are those which the aircraft are expected to fly. Use of maximum airspeeds would be inappropriate for the type of training and airspace.
01130	AO-113	Figure 4.1-2 is an illustrative example. The airspeed used for the B-52 is 10 nm/hour less than the aircraft would be expected to fly in an MTR and MOA.
01130	AO-114	All the requested information is presented in the EIS in Chapters 2.0 and 4.0.
01130	AO-115	Both nighttime and startle penalties were used, as appropriate, in the noise analysis. See also response BR-1.
01130	AO-116	Other aircraft users would represent minor users (less than 2%) of the MOA. With such minor use, the probability of mishaps for such aircraft would be even lower than that defined for the B-52s and B-1s.
01130	AO-117	Halon 1211 and 1301 are being replaced with an EPA approved agent.
01130	AO-118	Refueling for B-52s and B-1s occurs at altitudes above 10,000 feet AGL. Although the potential for minimal leakage during refueling exists, fuel would evaporate before reaching the ground.
01130	AO-119	The low noise levels and associated lack of change in annoyance are a result of the emphasis on use of higher altitudes. See Table 2.3-3 in the EIS.
01130	AO-120	Aircraft would avoid emitters since they represent threats. See also response AO-60 and AF-6.
01130	AO-121	Section 4.1.1 describes the rationale for using less than 45 DNL rather than lower, potentially inaccurate values.
01131	AO-122	L_{max} and SEL metrics apply to a single overflight irrespective of the location or alternative. A B-52 at 500 feet AGL generates the same sound level in Alternative A, B, C, or D.
01131	AO-123	The percent probability of mishaps already accounts for the total annual sortie-operations for the B-1s and B-52s. Also, the mathematical operation performed in the comment is inaccurate, since the probability of both events occurring is derived by multiplying the percent probabilities, not adding them. Thus the combined probability of a Class A mishap would be 0.0014 percent.
01131	AO-124	The analysis, in Section 4.1, addresses hearing loss, speech interference, sleep loss, and physiological health.
08076 08088 08103 08103	AO-125	This issue has been addressed in Section 4.1 of the EIS. Aircraft emissions are not anticipated to effect soils, surface waters, or ground water.
01130	AO-126	The EIS describes that hearing loss occurs due to consistent, long duration exposure to noise, such as that in a factory. The noise from aircraft using

		an MTR or MOA would be sporadic, brief, and dispersed. Moreover, no noise levels generated by aircraft would approach those noted in hearing loss studies. The studies used in the EIS are pertinent to the kinds of noise generated under the RBTI proposal. See also response BR-1.
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Air Force Policy (AF)

Letter #	Response #	Response
00001	AF-1	Although there was no way of telling the exact years you were in the Air Force, we queried the Luke AFB Airspace Management Office to find the Range you referred to in your comment. As far back as the 1960s, one range was used by both Williams AFB and Luke AFB and it was known as the Luke Range; it is still in use, but has been renamed as the Barry Goldwater Range.
00005 08083 00189 08090 08067 08126	AF-2	Aircraft observed at low-altitude are likely on military training routes that already exist in this area (see Figures 2.4-3, 2.4-6 and 2.4-9). However, when individuals observe military aircraft that they feel are in violation of a federal air regulation should report them to the Dyess Air Force Base at (800) 699-5169. See also response BR-5.
00019	AF-3	See Sections 1.3 and 1.4 of the EIS.
00020 00039 00349 00365	AF-4	Aircrews are governed in their flying practices by both Federal Aviation Administration rules and Air Force regulations. “Zooming up” inhabited ski slopes is not acceptable. The Air Force takes disciplinary measures for breaking flight rules. These can vary from a reprimand, establishing an Unfavorable Information File, taking a pilot’s wings, grounding a pilot, to dismissing a pilot from the Air Force. Whenever a citizen sees an Air Force aircrew member breaking flight rules, the Air Force encourages you to note your location, exact time, and nature of the incident and report it as soon as possible to the nearest Air Force Base Public Affairs Office. If you can identify the type of aircraft it helps, but the time and location are essential in helping track the responsible party. The Air Force's relationship with citizens and communities are important to us.
00023	AF-5	There are presently two large ranges, over mostly government owned land, that are used on a limited basis by both Barksdale and Dyess AFBs. These ranges are the Nellis Range Complex near Las Vegas, Nevada, and the Utah Test and Training Range (UTTR) near Salt Lake City, Utah. The problem with using either, or both of these ranges exclusively is the transit distance, range accessibility, and available flying hours. Under the budget constraints of today's environment it is incumbent on the Air Force to make the most out of every training dollar. Traveling these long distances on a regular basis to achieve limited training objectives would not allow us to train the number of crew-members essential to sustain our forces at even the present levels. Since several other bases use Nellis and UTTR, range access is limited. While developing the RBTI alternatives every effort was made to use existing airspace. Alternatives B and C would use existing IR-178 (which is already flown approximately 6 times per day) for low-altitude, terrain avoidance training and would expand existing MOAs for high altitude training. Even if RBTI were not adopted, the use of IR-178 and the MOAs would continue at present levels. For a more thorough comparison of the existing airspace versus the RBTI proposal see Section 2.4 of the EIS.
00042 08097 00137 08129 00152 08171 00983 08208 08006 08220 08083 08222 08094 08314	AF-6	Aircraft observed at low-altitudes below or around the proposed military operations areas are likely on military training routes that already exist in these areas (see Figures 2.4-3, 2.4-6 and 2.4-9). Aircraft operating within a military training route or military operations area are required to remain within the confines of their assigned airspace. Military pilots flying over sparsely populated areas will avoid all visible persons, vessels, vehicles or structures by 500 feet. Air Force aircraft operate under instrument flight rules to the maximum extent possible (AFI 11-202V3, Chap 8), and will be under an air traffic control clearance and on an assigned radio frequency. See also response BR-5.

00074	AF-7	RBTI flights would occur on weekdays, 260 days out of the year. Dyess AFB airspace management office is planning to record a schedule that can be reviewed by calling (800) 699-5169.
00094 00345 00983 08039 08044	AF-8	Aircraft observed at low-altitude are likely on existing military training routes that already exist in this area (see Figures 2.4-3, 2.4-6 and 2.4-9). However, when individuals observe military aircraft that they feel are in violation of a federal air regulation should report them to the Cannon Air Force Base, Public Affairs Office, (505) 784-4131.
00111	AF-9	Selection of the RBTI proposed alternatives was based primarily on operational criteria, Chapter 2 describes these in detail. Also, see Section 4.4 for a discussion on Socioeconomics and Environmental Justice.
00116 08127	AF-10	The flying unit that manages the airspace over that particular area determines areas designated as noise sensitive. Determination is based on many factors including mission requirements, overflight rules and good neighbor policy. Once it is determined to designate an area noise sensitive, the appropriate coordination is accomplished to publish it.
00156	AF-11	Pilots wear two forms of ear protection, depending on the situation. One set serves as protection during ground operations while preparing for flight. The second form is in the helmets that pilots wear for protection during flight.
00244 00266 00598	AF-12	In case of an Air Force mishap (accident) there are, in most cases, mutual aid agreements between geographically located Air Force Bases and local fire fighting departments. If RBTI were implemented the Air Force would address this issue and enter into agreements with the appropriate federal, state, and/or local fire fighting and emergency response organizations.
00246	AF-13	The purpose of the Partners in Flight program is to establish a mechanism to bring together federal, state, and non-governmental organizations involved in the conservation and management of neotropical migratory birds. The objectives of the program are to determine the status and causes of population changes, to maintain habitat for healthy neotropical migratory bird populations, and to facilitate a cooperative partnership effort among concerned groups. In contrast, the objective of the environmental impact analysis process is to anticipate impacts. However, while not specifically working through the Partners in Flight Program, the Air Force's process has involved federal, state, and non-governmental organizations which are involved in that program.
00283 08195	AF-14	The National Environmental Policy Act ensures the public is actively involved and informed during the environmental impact analysis process. The EIS does include a discussion of cumulative effects (Section 5.0) to ensure the public is informed of all actions that could possibly be impacted by the RBTI proposal. In addition, the Federal Register provides a public record of all EISs published by the federal government. See also response AF-13.
00044 00247 00296 00333 00721 00973 01130	AF-15	Compensation claims for damages associated with aircraft overflights are handled on a case-by-case basis. If damage occurs, affected citizens should contact Dyess AFB legal office. The address is 7BW/JA, 466 5 th Street, Suite 224, Dyess AFB, TX 79607. The telephone number is (800) 699-5169 and ask for the claims office or (915) 696-2034. See also response BR-5.
00331	AF-16	No restricted airspace is planned or proposed as part of this project. The airspace proposed near Angel Fire is an MTR that is located over an already existing training route.
00332	AF-17	No restricted airspace is planned or proposed as part of this project. The airspace that is proposed is an MTR and a MOA. To the maximum extent possible, in selecting the locations for this airspace, the Air Force used existing airspace.
00334	AF-18	ACC/SCCF is the office responsible for frequency-related requests. Formal requests for RBTI have been submitted and are currently awaiting approval. ACC/SCCF will ensure all ACCR 11-456 requirements are met.

00334	AF-19	This issue has been identified and is being addressed, along with other construction-related issues, by a team of operational and design experts. Construction design with equipment raised to required heights should remedy the issues raised.
00334	AF-20	Technicians working at an associated Electronic Scoring Site typically maintain mini-MUTES. Parts for RBTI Mini-MUTES would be supplied through the Dyess AFB supply system. Technicians would transport the parts to the various Mini-Mutes in specially designed trucks that also serve as maintenance work areas. In the past, Mini-MUTES have been successfully maintained and logistically supported in numerous places with varying climate conditions.
00334	AF-21	If RBTI were implemented, the ESSs at La Junta, Colorado and Harrison, Arkansas would be closed because the training available now would be available in the RBTI airspace complex. The money, manpower, logistics, etc. needed to maintain those sites would not make fiscal sense. La Junta and Harrison both lack the desired variable terrain and/or assets needed to fully optimize and integrate aircrew training. Belle Fourche (now known as Colony) offers both the terrain and, with its associated Powder River MOA and Mini-MUTES, the training opportunities desired. The Colony complex, however, is too distant to meet the daily training requirements of Barksdale and Dyess AFBs on a regular basis. The main customers of the Colony Range are Ellsworth AFB, located within 75 nm, and Minot AFB located within 250 nm. These two bases will still use Colony extensively, while Barksdale and Dyess AFBs would be the main users for the RBTI airspace complex.
00387	AF-22	Training at low altitudes through mountainous terrain has been a regular part of Air Force training for many years. While not flawless, the safety record for this type of training has been extremely impressive. Special routes, called MTRs (Military Training Routes), are designed to allow low-altitude training with as little impact on surrounding communities as possible. When developing the RBTI alternatives every effort was made to use existing MTRs whenever possible, and/or link already existing routes to avoid any undue burden on areas not already under military airspace. For a comparison of existing special use airspace versus the RBTI proposed airspace for Alternative D (New Mexico alternative), see Section 2.4 of the EIS.
00689	AF-23	The Air Force does not set aside funds for defense or compensation of lawsuits.
00846	AF-24	Dialogue has and will continue to occur with federal, state, and local agencies. The Air Force is currently consulting with the U.S. Fish and Wildlife Service. Other state and local agencies have been notified of the RBTI proposal and their comments reviewed and addressed.
00962	AF-25	Please refer to Section 1.2 of the EIS for a description of the current mission and training requirements. However, tactics that were used in the Persian Gulf are still used today and will be into the future.
00970	AF-26	There have been no recent modifications to MTR IR-178. There are, however, several options available to the aircrew (see Figure 2.3-1 in the EIS). For example, one option would enter at point "A" and exit at point "CK," another could exit at points "AT" or "BK." Since aircrews will often not include on their flight charts parts of the route that will not be flown, it is possible to view several different maps of IR-178.
00983	AF-27	The electronic equipment that would be used for RBTI is carefully controlled to not interfere with radio, television, satellite dishes, microwaves, and other similar devices.
00983	AF-28	No weapons or ordnance would be stored at the emitter sites.
00983	AF-29	As indicated in Section 2.0 of the EIS, ordnance delivery training would be electronically simulated and no ordnance of any kind would be involved in these training missions.
01130	AF-30	Refer to Section 2.1.3.

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00983	AF-31	Both the MTR and MOA could be used under instrument meteorological conditions.
00983	AF-32	Specific altitudes are mission-dependent. In Section 2.3 (Table 2.3-3) there is a discussion and the table shows the proposed altitude distribution for the RBTI proposal.
01131	AF-33	Aircrews fly within the corridor, not necessarily along the centerline.
01131	AF-34	The EIS has been prepared in accordance with NEPA and CEQ regulations, neither of which establishes a requirement to consider a national cope for the proposed action. Therefore, a national needs assessment is beyond the scope of what is required for decisionmaking.
00983	AF-35	Under RBTI, no training would involve supersonic flight. However, all Air Force pilots that engage in supersonic flight are required to log the time, altitude, and position at the time they go supersonic. All supersonic activity has occurred within current authorized guidelines.
08008 09005	AF-36	For the areas in Texas associated with the RBTI proposal, the Dyess AFB Public Affairs Office (800) 699-5169 is available to address aircraft noise complaints. This office takes all such calls seriously.
08009 08095 08152 08160 08233	AF-37	For complaints within Texas, the Dyess AFB Public Affairs office 1-800-699-5169 is available to address aircraft noise complaints. All calls are taken seriously. For complaints within New Mexico the Cannon AFB Public Affairs office (505) 784-4131 is available to address aircraft noise complaints.
08050	AF-38	Both surface-to-air and air-to-air threats were analyzed and risks associated with those threats were determined before our aircrews were sent into harms way. Initially, during Desert Storm, it was safer for B-52 aircrews to accomplish low-altitude bombing missions against Iraqi targets. As Desert Storm progressed, the risks associated with high-altitude bombing were lessened and B-52s were mainly used at the higher altitudes. B-1s and B-2s were not used in Desert Storm. In contrast, B-1s and B-52s were used mainly for higher altitude bombing missions in Desert Fox (Iraq) and Operation Allied Force (Yugoslavia). The B-2s were also used for the first time in Operation Allied Force (Yugoslavia) at high-altitude.
08094	AF-39	Balmorhea is inside the boundary of the existing IR-178 military training route. Officials at Barksdale and Dyess AFBs have modified their aircraft flight paths to avoid Balmorhea and Saragosa. Should RBTI Alternative B or C be chosen, avoidance of these towns would continue.
08103	AF-40	Thank you for your request to participate as a cooperating agency in the preparation of the Realistic Bomber Training Initiative (RBTI) Environmental Impact Statement (EIS), however, we respectfully decline your offer. The Air Force welcomes and encourages the cooperation, contributions, and participation of local citizens, agencies, and governmental entities at any time during the EIS process. We have found the scoping, public hearings, and the public participation process as set forth at CFR Part 1501.7 and 40 CFR Part 1503 to be effective in gaining the valuable input we need to complete such documents.
08103	AF-41	No such records exist to base legitimate estimates. Analysis in this document was accomplished using programs accepted by the Federal Aviation Administration and Environmental Protection Agency. See response BR-1 and Appendix G for how the actual flight aircraft noise levels are measured.
08103	AF-42	Anticipated sortie-operations are provided in Appendix B. Each alternative has a detailed description of aircraft flight operations in a section entitled "Airspace and Flight Operations, see Sections 2.3 and 2.4. Section 4.1 provides an analysis of the topics you have described.
08107 08363	AF-43	The FAA has made a provision for military training below 10,000 feet MSL at speeds above 250 knots. This exemption is allowed on military training routes and in special use airspace (restricted areas and military operations area). These areas are charted on civil aviation sectional charts so those civilian pilots will know where this training is being accomplished. See also

		response BR-2.
08129	AF-44	All known aircraft at Dyess AFB, who would participate in the RBTI proposal, are addressed in the EIS and would fly on the routes described in the EIS.
08151	AF-45	The Air Force does try to accommodate traditional and recreational land uses as much as possible. When agencies, like Game and Fish, coordinate with the Air Force, these needs may be accommodated depending upon Air Force mission requirements.
08188	AF-46	The entry point for the proposed IR-153 avoids the Chama River Canyon Wilderness Area and other sensitive areas. Aircraft would be entering the route at 17,000 feet MSL or as assigned by air traffic control. They would not be descending to low altitude until after they enter the route and are heading away from the Chama River Canyon Wilderness Area.
08188	AF-47	The RBTI proposal involves only simulation of ordnance delivery. See Sections 2.4.1 and 4.1 of the EIS.
08234	AF-48	Military training airspace is scheduled in accordance with agreements between the Federal Aviation Administration and the scheduling authority. When the airspace is scheduled for use, the Federal Aviation Administration is notified and if this time is outside that already published on the aeronautical charts, the FAA is responsible for publishing a Notice to Airman. This notice provides the active time of the airspace. The Air Force also proposes to establish an 800 number to provide the planned weekly use of the RBTI airspace.
08246	AF-49	Under RBTI, the B-52s (or B-1s) would not be taking-off or landing in the MTRs or MOAs. The FAA, however, does state that controllers are required to apply separation of at least 5 miles to aircraft operating directly behind a heavy [e.g., B-52] jet at the same altitude or less than 1,000 feet below due to the possible effects of wake turbulence (Aeronautical Information Manual 99 [AIM] para. 7-3-9. In addition, AIM 99 (para. 7-3-8) states that the flight disciplines necessary to insure the pilot must exercise vortex avoidance during VFR operations.
00431 08182 08251 08313	AF-50	We appreciate your request to extend the public comment period for the draft EIS for RBTI. However, the Air Force has already extended the comment period from 45 to 90 days. We believe the additional 45 days allowed adequate time for individuals to provide comments on the draft EIS.
00566 08301	AF-51	(Part 1) Commercial airlines replace aircraft quicker due to their higher use when compared to the average number of service hours of the B-52. The B-52s service life is estimated to last until 2048. Two of the factors that contribute to this longevity are the number of years that the B-52 remained on the ground for generated alert during the Cold War and the structural upgrades received by the B-52. (Part 2) B-52 maintenance uses parts from decommissioned aircraft. All parts used are thoroughly tested to the same standards as new parts. (Part 3) The B-52 started flying low-altitude, high-speed flight in 1961 due to the development of Soviet fighters having the capability to destroy high-altitude flying aircraft. By August 1964, all B-52s were structurally modified to increase wing strength to handle the additional stresses of low-altitude flight. (Part 4) Flying at low altitude gives the B-52 several tactical advantages. All radar is line-of-sight and cannot see through terrain or over the natural curvature of the earth—the lower an aircraft can fly, the greater reduction of the range of detection by the radar, therefore, less time for an enemy to react. This also allows the B-52 to achieve one of the most basic principles of combat—surprise. Concealing one’s intentions creates an opportunity to strike the enemy when they are unaware or unprepared.
08384	AF-52	Analysis in the EIS did review the complete mission of both sites that are

		proposed for decommissioning under RBTI, including C-130 use from Little Rock AFB.	
09013	AF-53	Operational requirements for B-52s and B-1s are detailed in the Air Force's Description of Proposed Action and Alternatives which is part of the project file. The information is synthesized in Sections 1.0 and 2.0 of the EIS.	
09018	AF-54	Assuming that the tactics applicable to one conflict, like Kosovo, will apply to a different future conflict would be a costly mistake. Each conflict and each tactical situation within a conflict calls for identifying the best tactics capable of achieving the mission safely. The use of low altitude flight provides important tactical advantages. For example, all radar is line-of-sight and cannot see through terrain or over the natural curvature of the earth. By flying at low altitudes, aircrews can hide from enemy radar and achieve surprise—an important factor in war. Many aircraft, including B-52s, used these tactics during the Gulf War. Since the need for low-altitude tactics continues, aircrews must receive realistic training in their use.	
00375 08092 08096	08111 08174	AF-55	The Air Force does comply with federal aviation regulations. Over sparsely populated areas, pilots will avoid all visible persons, vessels, vehicles, or structures by 500 feet. Over congested areas, pilots will overfly no lower than 1,000 feet above the highest obstacle within 2,000 feet.

Land Management and Use (LU)

Letter #	Response #	Response
00104 00105 00245	LU-1	Under Alternative D, aircraft would fly over a portion of the Wild and Scenic Rio Grande River. FAA regulations do not prohibit flight over such designated rivers, however, FAA does suggest that flight altitudes of greater than 2,000 ft AGL be maintained when flying over these areas.
00191 01131 00244 08176 00328 08179 00531 08190 00565 08237 00906 08256 01103 08332	LU-2	Communities under the airspace were identified using databases from the states of New Mexico and Texas, as well as U.S. Geographic Services maps. Analyses were done using a Geographic Information System (GIS). Not all communities were included in these data sources. Given the vast region covered by the proposed airspace, every community was not identified by name in the EIS. However, the EIS has been modified to reflect the total number of people overflown under each proposed alternative.
00361 01131	LU-3	As stated in Section 4.2.5 of the EIS, all the special use land management areas under proposed IR-153 would experience changes in noise levels greater than 10 dB. Most visitors in these areas would notice the change in noise level and noise could be expected to adversely affect the recreational experience. As also stated in the EIS, visual intrusion of military aircraft could adversely affect the recreational experiences of visitors to public recreation areas underlying the proposed airspace.
00780	LU-4	While Nature Conservancy lands were not specifically recognized in the EIS resource maps, state and federal special use land management areas were identified and the vegetation delineated in west Texas. In Section 4.3, the habitat and biological diversity of west Texas, whether private, state, or federally owned was described.
01130	LU-5	As stated in the EIS, the proposed emitter sites are not immediately adjacent to any recreational areas. Site #88 would be 3.5 miles from Big Lake, site #59 about 10 miles from Lake Toyah, and site #65 approximately 3 miles from Lake J.B. Thomas. The emitters themselves should not represent visual intrusions for recreationists nor would overflights occur directly above any of these sites. As described in Section 2, the emitters are simulating enemy threats, therefore, the aircraft are training to avoid such threats.
01130	LU-6	Emitters would be placed more than 400 feet from the highway. The maximum height of the emitter would be about 17 feet high, lower than most windmills found along this route.
01130	LU-7	Aircrew members must follow Air Force and FAA regulations that dictate the altitudes aircraft can fly over buildings and people. Whether over private, state, or federal property, the regulations are the same so that everyone is protected equally.
01130	LU-8	As described in the EIS, airspace was proposed over less populated areas and to take advantage of existing routes. Visitors, because of their short-term stay would be flown over less than permanent inhabitants would be overflown.
08279 08332	LU-9	The special use land management areas (e.g., national parks and forests, wildlife refuges) are listed in Section 4.2.5 of the EIS. The Chama River Canyon Wilderness Area is located in the Santa Fe National Forest. The Valle Vidal Unit is located in the Carson National Forest. The EIS has been modified to reflect the Valle Vidal Unit. Alternative D proposed airspace does not overlie Santa Rosa State Park.
09013	LU-10	This has been modified in the final EIS.
09014	LU-11	Maps in the EIS do include the locations of: Capulin Volcano National Monument and Fort Union National Monument (Figure 4.2-8) and Big Bend National Park (Figure 4.2-4 and others). The legend coding these sites includes national parks and monuments. Information on the Sante Fe

		National Historic Trail has been added to Section 4.5 of the EIS. Lake Merideth National Recreation Area and the Alibates Flint Quarries National Monument were not depicted because they lie well outside the affected area.
09014	LU-12	In accordance with NEPA and CEQ guidelines to focus on those aspects of the environment potentially affected by an action, the EIS addressed only those potentially affected NPS units. Fort Union National Monument, Lake Merideth National Recreation Area, and the Alibates Flint Quarry National Monument all lie more than 4 nm away from the edge of any affected airspace unit. Therefore, these sites are not addressed in the EIS. In contrast, the document has been modified to include discussion of Capulin Volcano National Monument because it underlies the existing Mt. Dora MOA. The Sante Fe National Historic Trail is discussed further in Section 4.5.
09015	LU-13	Review of the referenced section did not reveal the contradiction in the number of special land use management areas addressed for Alternative D.
09015	LU-14	This has been modified in the final EIS.
09015	LU-15	While individual hunters may be startled and annoyed by sporadic overflights, there is nothing to suggest that hunters as a group would modify or cease their hunting activities as result of the proposed alternatives. For example, the Laughlin MOA situated over Sutton County, Texas, (a county that has seen increased hunting revenues over the past 15 years) had over 9,500 sortie-operations in 1997, over 4,000 sortie-operations in 1998. The increase in hunters and hunting that has occurred, at the same time as thousands of sortie-operations, indicates that aircraft overflights have not frightened wildlife away nor dissuaded hunters from using the area.
09015	LU-16	Based on available map data, the northern limits of the Latir Peaks Wilderness Area lies 3 to 4 miles south of the proposed corridor of IR-153.

Biological Resources (BI)

Letter #	Response #	Response
00012 00024 00046 00105 00116 00209 00222 00239 00245 00507 00565 00615 00634 00674 00773	00828 00846 00863 00954 00979 01017 08156 08162 08180 08203 08204 08230 08291 08353	BI-1 Scientific evidence suggests that the effects of noise on large mammals (deer, elk, bighorn sheep, bear, bison, and others) is transitory and of short duration and that the animals appear to habituate to noise through repeated exposure without long-term discernible negative effects. Animals unaccustomed to noise can be startled and may injure themselves, especially confined. The discussion on the effects of noise and overflights on wildlife in section 4.3 and Appendix G has been clarified in the EIS. Even though the RBTI under Alternative D may overfly the Valle Vidal area, studies indicate that aircraft overflights should not have a long-term effect on the elk herds.
00023 00097 00189 00215 00219 00223 00245 00323 00416 00441 00565 00611 00703 00826 00880 00960 00977	01020 01103 08010 08012 08027 08091 08096 08098 08133 08187 08221 08228 08274 08282 08332 08337 01130	BI-2 The discussion of bird migration routes, such as those of the sandhill crane and the whooping crane, has been modified in the EIS. Even with increases in sortie-operations, the potential for bird-aircraft strikes in IR-178 and proposed IR-153 would be negligible, however, there is a small potential for impacts to migratory birds from overflights. Few bird-aircraft strikes have occurred in IR-178 and the secondary MTRs that overlap and intersect proposed IR-153. Use of the Bird Avoidance Model by the Air Force for planning and flying training sorties is expected to further reduce the number of strikes. Migratory birds often make brief flights in response to aircraft overflights, although they are unlikely to leave a food source. If individuals startle and injure themselves, then impacts due to overflights may occur. Monarch butterflies, which are not a species of concern, threatened or endangered, migrate through central Texas and New Mexico in October and March to reach winter and summer breeding areas. They may fly in groups of up to millions, as low as 3 feet above the ground, or singly, to over 3,000 feet depending upon the direction of the prevailing winds (Brower 1996). If aircraft overflights correspond to specific areas of butterfly migrations, then some butterflies may be affected by direct contact, but should not affect the monarch populations as a whole. The effects of noise on large mammals are discussed in response BI-1 and on wildlife in BI-3.
00043 00055 00064 00092 00105 00149 00168 00177 00181 00190 00202 00212 00224 00225 00226 00227 00228 00230 00243	00399 00400 00405 00413 00414 00423 00547 00612 00619 00623 00689 00719 00784 00808 01008 01011 01014 01025 01038	BI-3 The effects of noise on wildlife have been expanded and are discussed in detail in section 4.3 and Appendix G. Although some conflicting results exist, when using recent, applicable studies, the majority of the scientific evidence suggests that effects are short-term and that animals habituate to noise through repeated exposure without long-term effects. Military aircraft presently overfly most of these areas. See response BI-2 for a discussion of Bird-Aircraft Strikes and BR-3 for a discussion of the effects of noise on domestic livestock. No effects to plants from overflights have been demonstrated. The construction of the emitter and scoring sites would disturb less than 20 acres of native and cultivated vegetation.

00283 00342 00351 00354 00385 00392 00393 00395 00398	01052 01107 08098 08162 08168 08190 08296 08309		See BI-3
00045 00045 00711 00804 08084		BI-4	Like many other species, doves or owls may be momentarily startled or be flushed from trees, but they are unlikely to permanently leave a food source. Owls have been known to roost and nest near runways and under overflight paths on military installations. They habituate to overflight noise and have not been known to abandon such areas because of aircraft effects. They are more likely to be upset by ground-based activities. Please see section 4.3 and Appendix G for the effects of noise on wildlife.
00104 00113 00157 00178 00181 00188 00195 00208 00209 00210 00287 00288 00292 00294 00356 00418 00421 00507 00565 00950 00953 00955 00956 00979	00984 00985 00989 01016 01030 01031 01036 01037 01042 01078 01089 01099 01103 08178 08180 08199 08240 08264 08297 08343 08349 08355 08359 08378	BI-5	As stated in the EIS, federally listed threatened and endangered species, such as spotted owls and eagles, are found in the area. Numerous studies regarding these and similar species have not found aircraft overflights to affect the breeding success or the survivability of these species. See response BI-2 for a discussion of bird-aircraft strikes and the effects of noise and overflights on migrating birds. However, the FWS considers aircraft flights below 1,600 feet AGL in the months of March through August to be potentially harmful to Mexican spotted owls and flights below 2,000 feet AGL from October to March to be potentially harmful to bald eagles. Please see response BI-2 for effects to migratory birds, BI-3 for the effects of noise on wildlife, BR-3 for effects on livestock, and BI-1 for effects on large mammals.
00191 08228		BI-6	The EIS has been changed to reflect the Rio Grande as a bird migration flyway.
00246 08180		BI-7	Although fish do startle in response to low flying aircraft noise and probably to the shadows of aircraft as well, they have been found to habituate to the sound. See BR-4 for the effects of noise and overflights on the economy.
00568		BI-8	As is preferred by the FWS, the biological impacts analysis for RBTI is included within the EIS. Effects from noise, overflights, other aircraft operations, construction, and ground operation are discussed in section 4.3.
00868 00868 00868 01129 01130 01131		BI-9	An expanded version of the effects of noise on wildlife is presented in section 4.3 and Appendix G. Several authors, in addition to Ellis <i>et al.</i> 1991, have been cited to support the conclusion that raptors and other animals habituate to noise. As stated in the EIS, naïve animals, or those not previously exposed to noise, may be startled by sudden loud sounds and as a result could occasionally be injured. However, military aircraft currently overfly the area. A number of articles, including more recent studies on bighorn sheep and others, support the interpretation that the effects of noise on large mammals such as deer, elk, bighorn sheep, bear, and others are transitory and of short duration and that the animal habituate to noise

		through repeated exposure without long-term discernible negative effects. However, particular responses may vary by individual or species.
00983 08195	BI-10	The Air Force complies with the intent of the Migratory Bird Treaty Act as a stipulation under Attachment 4 of AFI 32-7064. They participate in the “Partners in Flight” program as a part of this compliance. Please see response AF-13.
01130 01131 09014 09016	BI-11	Although the FWS has given the project a consultation number, the information regarding FWS consultation has been clarified in the EIS to reflect that the Air Force informally discussed RBTI with the FWS prior to publication of the draft EIS. Since that time the Air Force has identified a preferred alternative and entered into further consultation with the FWS.
01130	BI-12	The effects of noise on game animals such as deer, quail, migratory birds, and other game birds is similar to effects on other wildlife. Scientific evidence suggests that the effects of noise on wildlife is transitory and of short duration and that the animals appear to habituate to noise through repeated exposure without long-term discernible negative effects. However, animals unaccustomed to noise can be startled and may injure themselves, especially if confined. Migratory birds often make brief flights in response to aircraft overflights, although they are unlikely to leave a food source. If individuals startle and injure themselves, then impacts due to overflights may occur.
01130	BI-13	In general, wildlife habituate to the noise associated with low-altitude aircraft overflights. Avoidance and flight tend to occur with naïve animals, although differences in individual reactions to noise do occur.
01131 09015	BI-14	This has been modified in the final EIS.
01131	BI-15	Common wildlife species are listed in Appendix H.
01131	BI-16	The effects of noise on birds have been expanded in Appendix G. Several authors, in addition to Ellis <i>et al.</i> 1991 have been cited to support the conclusion that raptors and other animals habituate to noise. As stated in the EIS, naïve animals, or those not previously exposed to noise, may be startled by sudden loud sounds.
01131 09015	BI-17	This has been modified in the final EIS.
01131	BI-18	Please see response CE-2.
08023	BI-19	Jet engine emissions either burn and dissipate, or fall to the ground as small inert particles. These particles are not injurious to wildlife.
08342	BI-20	Even with increases in sortie-operations, the potential for bird-aircraft strikes in IR-178 and proposed IR-153 would be negligible. Few bird-aircraft strikes have occurred in IR-178 and the secondary MTRs that overlap and intersect proposed IR-153. Use of the Bird Avoidance Model by the Air Force for planning and flying training sorties is expected to further reduce the number of strikes.
09013	BI-21	The draft and final EISs include a description of the FWS estimate (Section 4.3.5) of potential impacts to threatened and endangered species due to aircraft overflights like those under Alternative D. The Air Force considered this viewpoint along with the data and studies available on overflight effects to wildlife in defining the overall magnitude of effects.
09013 09013 09013	BI-22	The field surveys were current, specifically conducted for RBTI. Section 2.4.1 notes that biological surveys were conducted and references Appendix E, which summarizes the results of the survey. Appendix E has been augmented with further details on survey methods. This summary indicates that no threatened, endangered, or other species or their habitats would be affected. A separate Biological Assessment is not necessary because the Air Force intends to use the information presented in the EIS for consultation.
09013	BI-23	The Air Force believes available map data would not adequately portray the level of detail necessary for appropriate analysis. Available map data are

		either spotty in coverage or based on incomplete surveys. In addition, the FWS discourages publishing locations of sensitive species.
09013	BI-24	This has been modified in the final EIS.
09013	BI-25	The draft EIS in Section 4.1, clearly states that all bird migration activity is consistently monitored and modeled by the Air Force to prevent bird-aircraft strikes. The EIS states that aircrews use current information on bird activity to plan and conduct training. This information is more accurate than a simple comparison of flight routes and airspace use.
09014 09016	BI-26	Data on the distribution and abundance of the northern aplomado falcon was derived from the available literature and data resulting from surveys and other studies. The FWS served as a primary source for information on this species, and Mr. Angel Montoya, an aplomado falcon expert with the FWS in New Mexico, provided considerable information on the subject. In addition, data were derived from the EIS and Biological Assessment for the Proposed Expansion of German Air Force Operations at Holloman AFB (1998). Subsequent data provided by the FWS has been added to the EIS to indicate that 11 sightings have been documented since 1991. FWS contends that the aplomado falcon is a possible resident along the Texas/Mexico border. This was modified in the EIS.
09014	BI-27	As stated in the EIS and reflected by the species occurrence tables in Appendix H, the referenced species and/or their habitat are found in the region. Individual maps would merely reflect the same information already described in the EIS. This information was derived from recent data provided by the FWS and state wildlife agencies, as well as scientific literature and professional knowledge pertinent to the topic. The text was modified in the EIS.
09015	BI-28	Summaries of past studies presented in the draft EIS along with clarifications in the final EIS indicate that it is possible that individual elk may or may not react to jet overflights. Available data have not shown that if such reactions occur, they would be of a nature affecting migration or reproduction. Please see response BI-1.
09015	BI-29	Clarification of noise effects studies on wildlife has been included in Section 4.3. Many of the sources listed by the commentor either pertain to species that are not relevant to this analysis or concern supersonic noise, helicopters, or have been addressed in more recent studies. Please see an expanded version of the effects of noise on wildlife in Appendix G.
09016	BI-30	Appendix H has been updated with the 6 April 1999 list from FWS.
09020	BI-31	The statement in the EIS is intended to provide a context for understanding impacts. It is important in that wildlife previously exposed to overflights and aircraft noise are not “naïve,” and may respond differently than wildlife never exposed to overflights.

Socioeconomics and Environmental Justice (SE)

Letter #	Response #	Response
08085	SE-1	Council on Environmental Quality Regulations (40 CFR 1508.8(b)) state that the EIS must assess “indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonable foreseeable.” Future land uses of privately owned land cannot be reasonably foreseen at this time. A reasonable assumption is that future land use patterns would be similar to those in the affected area today. Also, please see BR-4.
08236	SE-2	While there are various economic approaches to measure goods and services that do not have prices associated with them, there are no widely accepted, proven methods that could accommodate the variability in perceived noise annoyance and behavioral changes associated with the proposed alternative.
00133 08379 08381 09002 09021	SE-3	The methods used in the analysis of the EIS are appropriate and proven. The analysis used county-level economic multipliers supplied by the U.S. Department of Commerce and takes into account the cities (including La Junta) within the county. This method ensures consistency and comparability of analysis for any location. This method established that changes in population and jobs would be less than one percent countywide. Such a change would not be expected to impact population-affected resources such as schools, libraries, and fire and police protection.
00983 00983 09008	SE-4	Section 4.4.5 of the EIS demonstrates that northeastern New Mexico would receive 44 new long-term jobs and 133 short-term jobs should Alternative D be implemented. Direct and indirect revenues from construction would total about \$12 million, and long term revenues would be about \$2 million per year.
00191 00364 00531 00828 00868 00970 01130 01131 08009 08081 08096 08148 08279 09013 09014	SE-5	<p>As stated in Section 4.4 of the EIS, no populations of any kind, including minority or low-income populations, would be subject to noise levels of 65 DNL or greater under any alternative. As such, minority and low-income populations would not be disproportionately affected.</p> <p>The concept of environmental justice addresses the actions of federal agencies and determining if those actions disproportionately impact human health and environmental conditions in minority and low-income communities (Executive Order [EO] 12898). The use of 65 DNL as a guideline, not a firm “standard,” for the evaluation of environmental justice issues, relative to sporadic military training flights, is consistent with the intent of EO 12898. While the DNL of 65 is the level most often recognized as being compatible with residential land use, it was only one of several criteria, not the sole criterion, which was used in the environmental justice analysis.</p> <p>Various components of the proposed action were considered individually and collectively, namely construction, commissioning/decommissioning of facilities, and aircraft operations. The facility-related components either contributed to or removed revenue from the affected areas. Construction and commissioning contributions would occur primarily in Reeves and Taylor Counties (Texas) for Alternatives B and C, or in the tri-county area of Quay, Harding, and Union (New Mexico) and Taylor County (Texas). Boone County, Arkansas and Otero County, Colorado would experience a revenue decrease from the decommissioning of facilities.</p> <p>With respect to aircraft operations, first, the majority of the proposed alternatives occur in existing airspace where military activity has occurred at varying levels for many years. Only 11 to 17 percent of the RBTI proposed airspace is new (Alternative B, 15%; Alternative C, 17%; and Alternative D, 11%). Second, demographic analysis of the census tracts and block numbering areas show the majority, i.e., over 50 percent, of the affected</p>

		population does not belong to either a minority or low-income group (the final EIS Section 4.4 has been modified to reflect this information).
01130	SE-6	The 1990 census data were used because only these data are comprehensive, validated, and comparable from one geographic area to another.

Cultural Resources (CU)

Letter #	Response #	Response
00039 01032 00045 01035 00090 01036 00155 01037 00195 01038 00215 01040 00224 01043 00228 08084 00230 08097 00290 08143 00294 08147 00351 08149 00445 08159 00455 08209 00634 08249 00689 08250 00775 08271 00808 08299 00835 08301 00979 08304 00983	CU-1	The effects of noise and vibrations from aircraft overflights are discussed in section 4.5.1 and Appendix G. Studies of adobe structures, in particular, and stone and concrete structures as well, show that damage is unlikely to occur from subsonic noise or vibrations from overflights. Aircraft must generate a maximum sound level (L_{max}) of greater than 120 dB at less than 150 feet to potentially result in structural damage. RBTI aircraft would not exceed this level. The proposed IR-153 would not overlie Taos Pueblo, but would be located approximately 10 miles east of the pueblo.
00043 01015 00072 01020 00104 01021 00115 01025 00154 01026 00179 01031 00196 01033 00283 01034 00392 01039 00407 08178 00423 08189 00728 08210 01008	CU-2	The effects of noise and aircraft overflights on archaeological and historical resources are discussed in section 4.5. Historic structures and petroglyphs are unlikely to be affected by vibrations (please see response CU-1). Since most of the route underlies existing military airspace, noise and overflights would not represent an intrusion to the setting, where setting is an important criterion for historic significance. In addition, the most important of these properties, those on the National Register, are unlikely to be overflown in the MOA and would only occasionally be overflown on MTRs. The proposed IR-153 would not overlie Taos Pueblo, but would be located approximately 10 miles east of the pueblo.
00074	CU-3	There are no Native American reservations or pueblos underneath the proposed MOAs or MTRs.
00149 00983 00287 00984 00294 00985 00421 01078 00950 01089 00953 08161 00955 08235 00956	CU-4	The effects of the RBTI proposal on traditional cultural properties of Native American groups is discussed in section 4.5. No traditional cultural properties have been identified under the affected airspace. Taos Pueblo and the Blue Lakes area are located up to 10 miles to the west of a segment of the proposed IR-153. The Air Force will continue to conduct Government-to-Government consultation with Native American groups to solicit their input on the effects of overflights on traditional lifestyles.
00838 00882 00880 00883	CU-5	Structural damage is unlikely from subsonic noise and vibrations, please see response CU-1. The RBTI proposal does not include supersonic flights.
00983	CU-6	The Air Force initiated Section 106 consultation at the beginning of the project and obtained information on known sites as well as conducting archaeological surveys at candidate emitter and electronic scoring site locations. The selected alternative will not be undertaken before measures, if any, are taken to reduce, avoid, or mitigate any adverse effects to eligible National Register properties.

01103	CU-7	Christ in the Desert Monastery and Ghost Ranch are not located underneath the RBTI affected airspace. It is unlikely that these sites would be damaged directly by the noise and vibrations or that noise would be intrusive to the setting.
08170	CU-8	A specific discussion of the Villa Philmonte and the Kit Carson/Maxwell Abreu House has been added to Section 4.5. These sites were considered in the analysis of overflight effects in the draft EIS as National Register historic properties.
9013	CU-9	The Executive Summary is not the appropriate location for this level of detail. Section 4.5 of the EIS has been clarified to include discussion of the potential effects on non-National Register listed cultural resources.
9013	CU-10	Mitigation measures are presented in Section 2.6.2 of the final EIS.
9013	CU-11	This statement is included in the EIS in Section 2.6.2, Mitigations.
9014	CU-12	Fort Union National Monument lies 2 to 3 miles from the edge of proposed IR-153. Noise levels of 61 DNL would occur in the nearest segment of IR-153. Even without attenuation from intervening terrain, noise levels at the NPS unit would be 20 to 30 dB lower for an SEL.
9014	CU-13	A specific discussion of the Santa Fe Trail and National Historic Landmark sites has been added to Section 4.5. These sites were considered in the analysis of overflight effects in the draft EIS as National Register historic properties.
9020	CU-14	This information has been clarified in the EIS.
9025	CU-15	Maps (7.5' quadrangles) showing the locations of the candidate emitters were sent to the Texas Historical Commission (Texas Archeological Research Laboratory) on July 21, 1998.
9025	CU-16	In April 1998, Bill Martin of the Texas Historical Commission was contacted regarding survey techniques. He stated that Texas had not yet finalized standards for survey intervals but that the Secretary of Interior's standards and guidelines of 30-meter intervals should be used.

ACRONYMS AND ABBREVIATIONS

AFB	Air Force Base	MAILS	Multiple-Aircraft Instantaneous Line Source
AFI	Air Force Instruction	MOA	Military Operations Area
AGL	Above Ground Level	MR_NMAP	MOA Range NOISEMAP
AQCR	Air Quality Control Region	MSL	Mean Sea Level
ATCAA	Air Traffic Control Assigned Airspace	MTR	Military Training Route
AWAC	Airborne Warning and Control System	NAAQS	National Ambient Air Quality Standards
BLM	Bureau of Land Management	NEPA	National Environmental Policy Act
BNA	Block Numbering Area	NM	New Mexico
CAA	Clean Air Act	nm	Nautical Miles
CEQ	Council on Environmental Quality	NOI	Notice of Intent
CRP	Conservation Reserve Program	NMGF	New Mexico Department of Game and Fish
dB	Decibels	NWR	National Wildlife Refuge
DNL	Average Day-Night Sound Level or L_{dn}	PSD	Prevention of Significant Deterioration
DoD	Department of Defense	RBTI	Realistic Bomber Training Initiative
EIS	Environmental Impact Statement	RF	Radio Frequency
ESS	Electronic Scoring Site	RSAF	Republic of Singapore Air Force
FAA	Federal Aviation Administration	SEL	Sound Exposure Level
FWS	U. S. Fish and Wildlife Service	SHPO	State Historic Preservation Officer
FY	Fiscal Year	TPWD	Texas Parks and Wildlife Department
GAF	German Air Force	TSP	Total Suspended Particles
GIS	Geographic Information System	USEPA	U. S. Environmental Protection Agency
IFR	Instrument Flight Rules	UTTR	Utah Test and Training Range
IICEP	Intergovernmental/Interagency Coordination of Environmental Planning	VFR	Visual Flight Rules
IR	Instrument Route	VR	Visual Route
L_{max}	Maximum Sound Levels	WMA	Wildlife Management Areas