1.0 PURPOSE AND NEED FOR ENHANCED TRAINING IN IDAHO

The purpose of the proposals assessed in this Final Environmental Impact Statement (FEIS) is to provide an enhanced training capability in the State of Idaho for the 366th Wing at Mountain Home Air Force Base (AFB) (Figure 1.1-1). As the Air Force's rapid-response air expeditionary wing, the 366 Wing's mission is to deploy to a theater of operations and conduct combat operations. These operations include gaining air superiority, attacking ground targets, and providing support to those forces conducting air-to-air and air-to-ground activities. Preparing to effectively accomplish these complex demands requires training. The closer this training mirrors anticipated combat conditions, the better prepared the wing will be to fight when required. In addition to realism, which improves training quality, training should also incorporate flexibility, and be conducted efficiently to maximize training benefit from a given expenditure of resources. The activities collectively proposed for Enhanced Training in Idaho (ETI) satisfy these requirements.

The integration of a cohesive training complex comprised of conventional and tactical training ranges, threat emitters, and supporting military training airspace is needed to develop varying training scenarios that realistically reflect battlefield conditions. The location of the training complex in Idaho provides high-training efficiency since time available for training in combat tactics is maximized and travel time to the training complex is minimized.

The ETI proposals are designed to meet the need for enhanced training by providing high-quality training within available airspace with minimum impacts to the environment and traditional land uses in the region. The Air Force proposes a combination of ground and air assets that will, in conjunction with the existing Saylor Creek Range (SCR), provide a tailored training complex to enhance the training of the aircrews supporting the 366th Wing's unique mission.

These assets include the following:

- A 300-acre primary ordnance impact area within a 12,000-acre tactical training range. Non-explosive training ordnance would be dropped on targets on the 300-acre site.

- One 640-acre and four 5-acre no-drop target areas. Ordnance would not be used on the no-drop targets.

- Thirty emitter sites (20 consisting of one-quarter-acre and 10 consisting of one-acre) would be used, 6 to 8 at a time, during a typical training exercise to electronically simulate anti-aircraft artillery or surface-to-air missile radar emplacements.

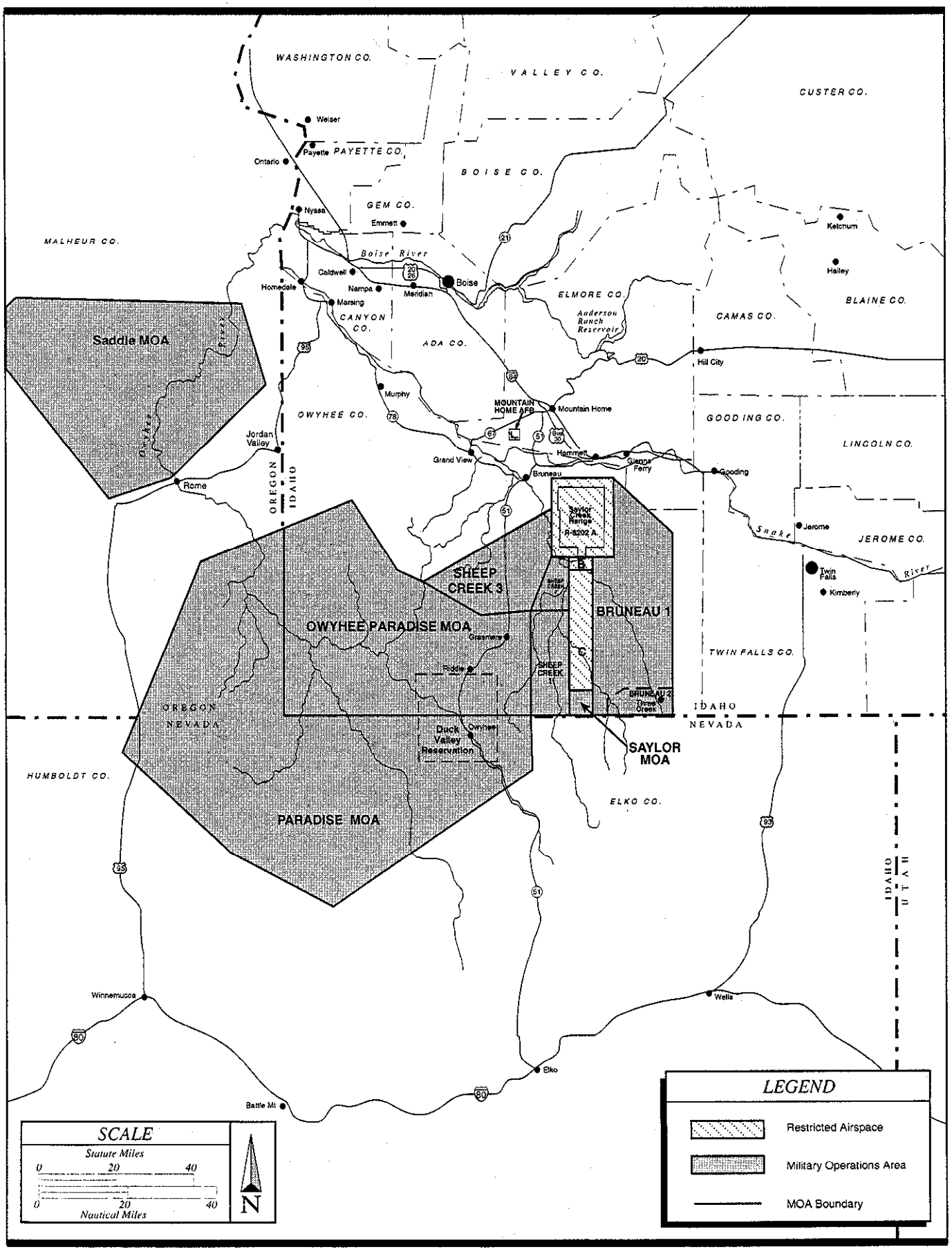

Figure 1.1-1 Regional Location of Mountain Home AFB and Local Military Training Airspace

- A modified airspace structure to support the full potential capabilities of the range and improve the flow of aircraft performing training through the airspace.

The following sections provide background on military aviation activities in Idaho, elaborate further on the purpose and need for ETI, and describe the various processes and coordination being conducted in support of the proposal.

1.1 BACKGROUND TO ENHANCED TRAINING IN IDAHO

1.1.1 History of Aircraft Training in Southwest Idaho

Military aircraft training and operations have been conducted over southwest Idaho since 1942. To train aircrews for combat in the Second World War, the U.S. Army Air Force established training airfields in Boise (now Gowen Field) and Mountain Home (now Mountain Home AFB). Flying B-29, B-24, and B-17 bombers, as well as P-38 and P-63 pursuit aircraft, the aircrews conducted training over much of southwest Idaho, but particularly in the 420,000-acre Saylor Creek Bombing Range and four other Precision Bombing Ranges (PBRs) (Figure 1.1-2). Training included a wide variety of activities such as aerial gunnery, bombing practice, low-altitude flight, and navigation.

As a Strategic Air Command (SAC) base in 1949, Mountain Home AFB supported B-29 bombers that continued to train over the lands in southwest Idaho. Between 1949 and 1960, the base and the training facilities were used by reconnaissance aircraft, transport wings, and bombers. Flight operations and training activities varied considerably during this period, depending upon the nature of the aircraft and the mission.

SAC added B-47 jet bombers to the aircraft inventory in 1960, using the base, Saylor Creek Bombing Range, and the airspace over southwest Idaho. Also, construction of three Titan missile complex sites in Owyhee and Elmore counties occurred at the same time. Although aircraft continued to fly over large portions of the high desert lands and canyons of southwest Idaho, new tactics, missions, and technology permitted the Air Force to return approximately 310,000 acres to the public lands inventory during the 1960s, including the four PBRs. The remaining 110,000 acres of SCR has remained essentially unchanged to the present.

Tactical Air Command (now Air Combat Command [ACC]) assumed control of the base and range in 1966, using SCR and southwest Idaho and its vicinity for low- and high-altitude reconnaissance and tactical fighter training. Thus, jet aircraft activities have had an influence on the environment of the region for more than 30 years. With the arrival of F-111 fighter-bomber aircraft at Mountain Home AFB in 1972, jet aircraft activities over southwest Idaho increased in frequency and duration. About a decade later, electronic combat EF-111 aircraft replaced one of the three F-111 fighter-bomber aircraft squadrons, and intense flying activities at the range and in the airspace continued.

During the period from 1972 through 1991, the F-111 and EF-111 aircraft operated intensely throughout the airspace above southwest Idaho, using SCR and the Military Operations Areas (MOAs) as they exist today. In addition, these and other transient aircraft used segments of two low-altitude (100 feet above ground level [AGL]) military training routes (MTRs) that crossed Owyhee County from west to east. These segments of MTRs visual route (VR)-1301 and VR-1302 were eliminated in 1993 to remove a source of concentrated noise over the Owyhee River canyon.

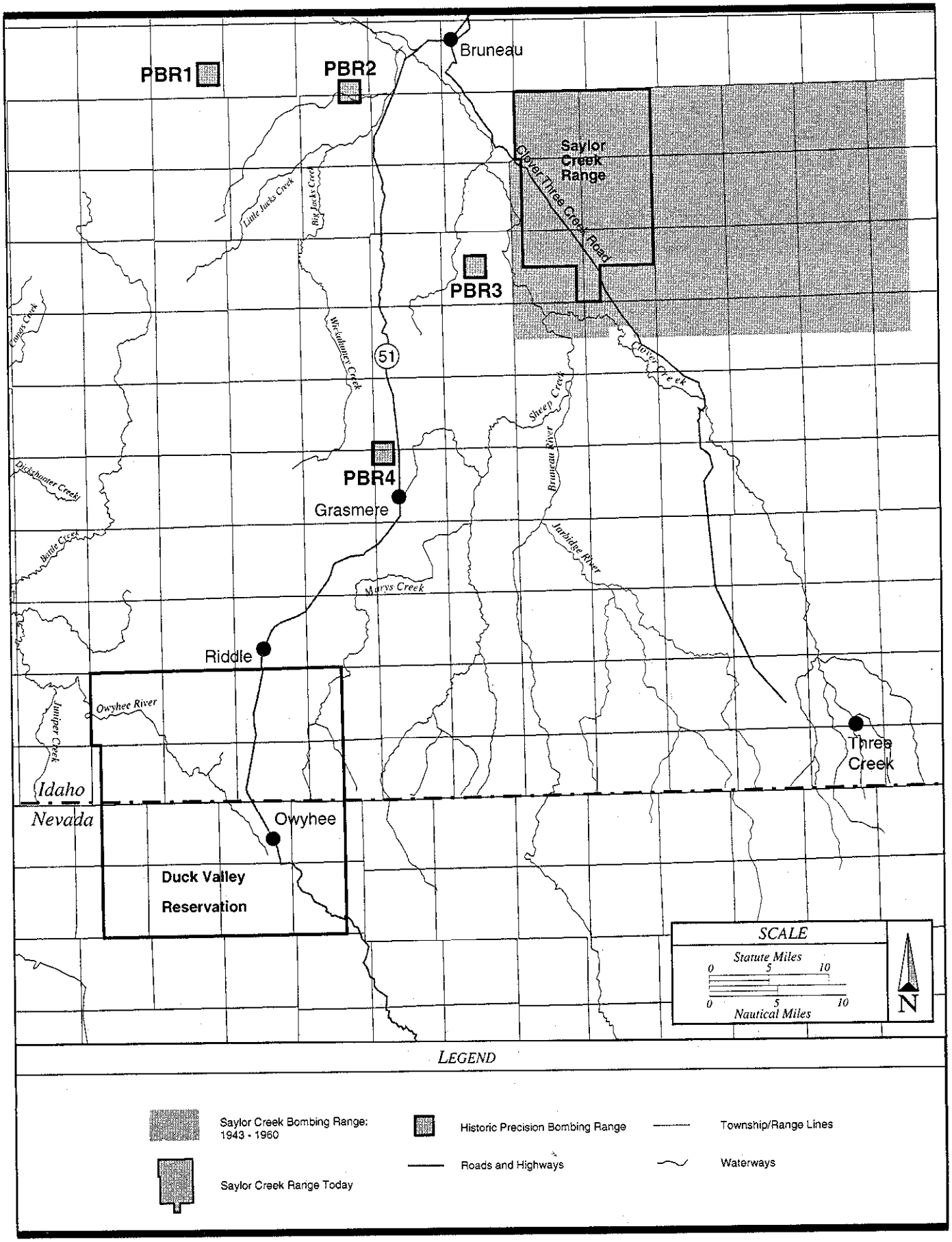

Figure 1.1-2 Historic Precision Bombing Ranges and Saylor Creek Bombing Range: 1943-1960

Potential enemy threats and mission training for F-111 and EF-111 aircraft focused on low-altitude flight tactics to evade detection by radar. To train for this tactic, F-111 and EF-111 aircrews commonly flew 1.6 to 1.8 hours in the MOA and range airspace at 300 to 500 feet AGL for the majority of their 3-hour sorties. From 1972 through 1986, use of the airspace including the Owyhee MOA averaged more than 7,000 sortie-operations per year; this equated roughly to 11,200 to 12,600 hours of low-altitude flight annually. At this time, RF-4C aircraft from the Idaho Air National Guard (IDANG) and transient aircraft from other bases and services also used the airspace and range assets in southwest Idaho. Given the tactics of the time, many of these other users also conducted longer duration sorties at low altitudes.

At the close of the 1980s and the start of the 1990s, changes in force structure, base closures, and realignments led to changes in the inventory of aircraft based at Mountain Home AFB. Transfer of F-111 aircraft from the base to other locations resulted in a reduction in the aircraft inventory, personnel, and amount of flying in the local airspace. By 1991, realignment recommendations approved by the President and adopted by Congress resulted in the transfer of the F-111s from Mountain Home AFB and the establishment at the base of a Composite Wing, the 366th Wing.

1.1.2 Establishment of the 366th Wing

By the early 1990s, the dramatically changed world situation and other factors prompted a reevaluation of the United States' policies and strategies, resulting in a revised defense orientation that emphasized a need for readiness to respond to at least two major regional conflicts simultaneously. These policies placed a substantially greater responsibility for readiness on forces based in the United States to respond to overseas threats. Achieving immediate effectiveness represents an important requirement for U.S.-based forces, no matter where they are deployed or the nature of their mission. One important way the Air Force achieved broad, flexible, effective response capabilities with fewer total forces was by establishing a Composite Wing at Mountain Home AFB.

Establishment of the Composite Wing began in 1992 and was essentially completed in 1994, and concluded with the basing of B-1B aircraft in 1996[1].

1.1.2.1 THE 366TH WING AND AIRSPACE USE

Because a peace-time composite wing had no precedent, projections for training and airspace use analyzed in the Air Force in Idaho EIS proved to exceed those actually performed. Figure 1.1-3 compares the total number of local sorties conducted from Mountain Home AFB as projected in the Air Force in Idaho EIS to actual sorties flown by the 366th Wing since 1992. A sortie represents a flight of a single military aircraft from takeoff through landing. Figure 1.1-4

[1] Both the Air Force in Idaho EIS (1992) actions and the B-1B beddown environmental assessment (EA) (1996) are currently subject to litigation in the United States District Court for the District of Idaho.

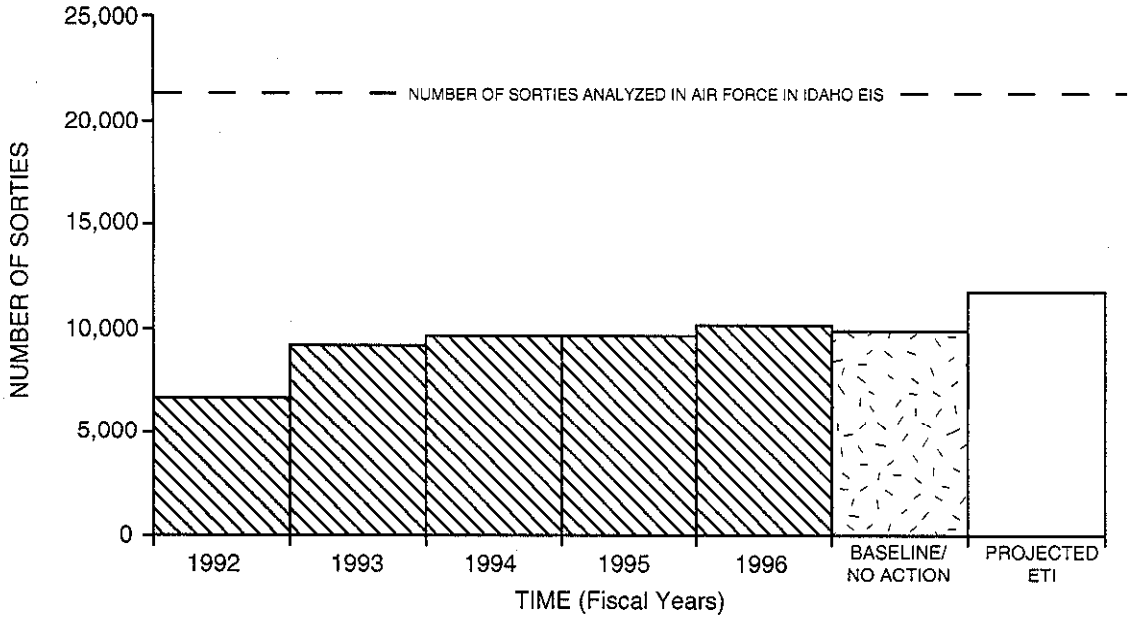

Figure 1.1-3 Sorties Flown from Mountain Home AFB to Local Airspace

MAJOR EVENTS

FY 1992

- Air Force in Idaho EIS ROD
- 389/391 Fighter Squardon Activated
- 34 Bomber Squardon Activated at Castle AFB

FY 1993

- 22 ARS/390 Activated
- F-111 Drawdown Complete

FY 1994

- 34 Bomber Squardon Transferred to Ellsworth AFB

FY 1995

- FONSI for Relocation of 34BS to Mountain Home, AFB
- FONSI for 124 Wing Conversion
- 34 Bomber Squardon Beddown at Mountain Home, AFB
- 124 Wing Conversion Begun

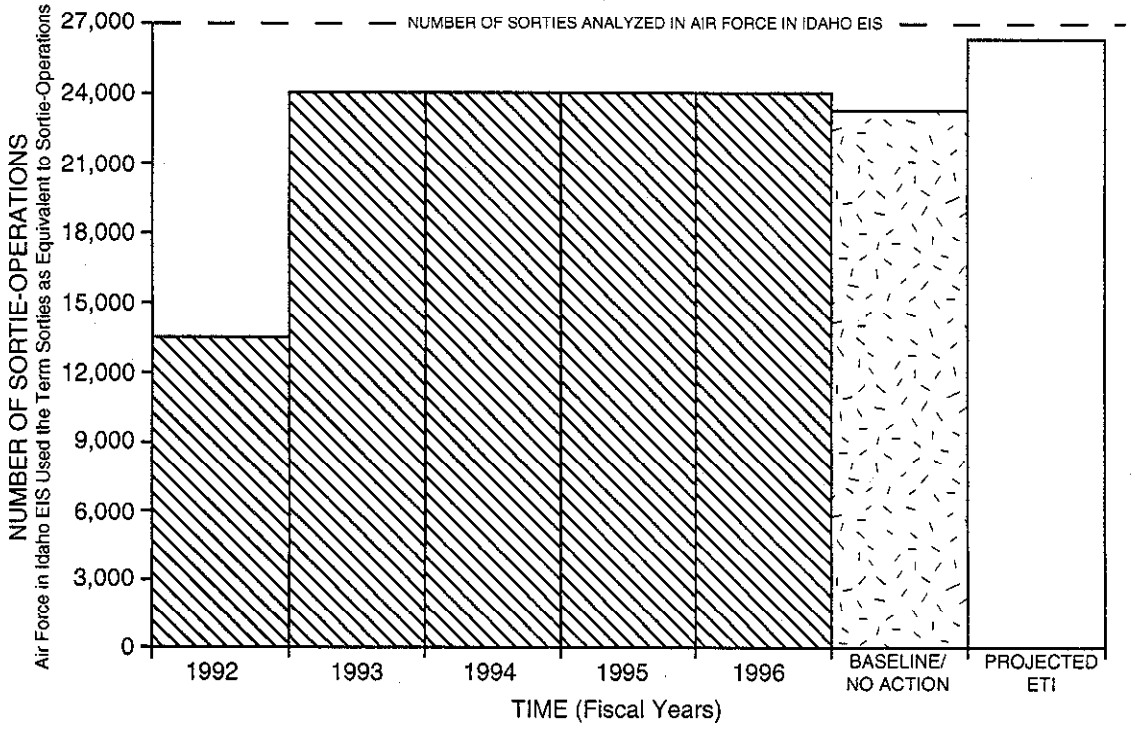

Figure 1.1-4 Sortie-Operations by all Aircraft in Local Airspace

provides a similar comparison of total sortie-operations in the local MOAs and restricted airspace. A sortie-operation is the use of one airspace area (e.g., MOA, MTR, restricted area) by one aircraft. As both of these figures demonstrate, actual sorties and total sortie-operations have remained well below the levels analyzed in the Air Force in Idaho EIS.

1.1.2.2 BEDDOWN AND PRIOR ENVIRONMENTAL DOCUMENTATION

An EIS, Proposals for the Air Force in Idaho (Air Force 1992), analyzed the environmental consequences of establishment of a Composite Wing at Mountain Home AFB. A Record of Decision (ROD) implementing this action and associated airspace modifications was issued in March 1992. The decisions made in the ROD included the following:

1. Basing up to 76 aircraft at Mountain Home AFB to form a Composite Wing;

2. Raising the ceilings (upper limits) of the MOAs in southwest Idaho to a uniform 18,000 feet above mean sea level (MSL), and restructuring the internal boundaries of existing MOA airspace in Idaho;

3. Conducting supersonic operations above 10,000 feet AGL within the MOAs and restricted airspace in Idaho; and

4. Further studying a proposal by the State of Idaho to develop a new training range in southwest Idaho.

A separate and later Draft EIS (DEIS) and Plan Amendment, Idaho Training Range (ITR) (Air Force 1993), covered a proposed action near the Owyhee canyonlands, three alternatives, and a No-Action Alternative to develop a tactical training range for the Air Force in southwest Idaho. The proposal was abandoned by the Air Force prior to publishing a FEIS and Plan Amendment. Therefore, analysis and response to public comments were not completed. The ITR proposal was geographically and conceptually different from the proposal for ETI. Other than for historical purposes, the results of that DEIS have not been considered in this analysis. Although the Air Force did not proceed with the ITR proposal, issues raised by agencies, the public, and the Shoshone-Paiute Tribes during the ITR environmental process were reviewed and incorporated into the planning process for ETI. ETI has benefited from all public, agency, and Shoshone-Paiute Tribal comments that helped shape the proposal and identify mitigations to address concerns.

1.1.3 Current Air Force Mission in Idaho

The realignment of forces and facilities integral to the Air Force's implementation of national policies and strategies resulted in the establishment and evolution of the 366th Wing's mission, as described in this section. Also briefly described are other aircraft, particularly those from IDANG's 124th Wing at Gowen Field in Boise, that operate from and within Idaho and use the airspace and range to train for their missions.

1.1.3.1 366TH WING

The 366th Wing represents the Air Force's only operational composite wing with an air expeditionary mission, training as a single unit, and that lives, deploys, and fights together. In his 1991 report to Congress, the Secretary of the Air Force (SECAF) said, "one innovative initiative is the creation of composite wings that include – at one base, under one commander – all the resources needed to form composite force packages."

Shortly after the SECAF report, Maj. Gen. Robert Alexander, the Air Force Director of Plans, explained that "there is a convergence of factors that make composite wings more appropriate [than in previous years]: the change in the global environment; a corresponding new military strategy; technological advancements in command, control, communications, intelligence, and space; and improvements in maintainability and reliability. . . . The wing could have F-15Cs for air defense, F-16s for interdiction, KC 10s/135s for air refueling [and] could also have B-52s" (Schultz and Pfaltzgrass 1992).

The 366th Wing consists of a total of 66 primary assigned aircraft (PAA) including F-15Cs, F-15Es, F-16Cs, B-1Bs, and KC-135Rs. PAA are the number and type of aircraft that the Air Force assigns to the 366th Wing to perform its mission. The actual number of aircraft located at Mountain Home AFB may vary from the PAA, but any additional aircraft are only used as spares for the primary aircraft. The number of PAA determines the number of flying hours that are flown each year, the number of aircrews assigned, and many of the resources that are allocated to the wing. Throughout the remainder of this document, the description of baseline conditions and environmental consequences reflect the flight activities of the PAA. Table 1.1-1 presents the force structure and principal operational tasks of the 366th Wing aircraft. Aircrew assigned to each aircraft type must train not only to fulfill its specific operational tasks, but must also perform in an integrated and coordinated manner with all other aircraft in the wing. Today, the 366th Wing must be ready to respond to a wide variety of situations when deployed; it must maintain an exceptionally high level of training and coordination.

Table 1.1-1. 366th Wing Primary Assigned Aircraft and Principal Operational Tasks

Aircraft Type	*PAA*	*Principal Operational Tasks*
F-15C	18	Air superiority fighter. Air-to-air combat and air intercept operations. No surface attack missions.
F-15E	18	Air-to-ground fighter and air-to-air. All-weather airstrike missions on ground targets.
F-16C	18	Multi-role fighter. Air-to-air combat, close air support, interdiction strikes, and suppression of enemy air defenses (SEAD).
B-1B	6	Long-range heavy bomber. High- and low-altitude bombing.
KC-135R	6	Air refueling, personnel, and equipment transport.

Effective, high-quality training that provides the variation and realism expected in combat represents the foundation for maintaining readiness. The 366th Wing began training in the military airspace designated over southwest Idaho and at SCR in 1992. The wing also conducts required training at remote ranges such as Nellis Air Force Range (NAFR) and the Utah Test and Training Range (UTTR). Since establishment of a composite wing at a single base in a non-combat setting represented a new concept, both the training requirements and training activities have evolved from 1992 to the present. This evolution involved both increasing complexity and increasing sophistication in daily training activities, particularly with regard to composite wing training (CWT).

1.1.3.2 IDAHO AIR NATIONAL GUARD AND TRANSIENT AIRCRAFT

The 124th Wing of the IDANG, located at Gowen Field in Boise, fulfills a mission to provide close air support, forward air control, and airlift/airdrop. The wing in 1996 converted from the operation of 24 F-4G aircraft to 15 A-10 Thunderbolt II close air support aircraft and four C-130E Hercules transport aircraft. The A-10 aircraft are specifically designed for close air support missions with their ability to loiter over and protect ground troops and vehicles. These aircraft combine the long-loiter capability, a large and varied weapons load, and a wide combat radius to accomplish close air support. A large part of this mission focuses on anti-armor operations, although A-10s also have an air-to-air anti-helicopter capability as proven in the Gulf War. With their ability to stay over an area for a long period and with the protection of fuselage armor and redundant systems, the A-10 also performs a vital forward air control mission to assist other aircraft in attacking a target.

A-10 training involves air-to-ground weapons delivery (currently conducted at SCR and remote ranges), air-to-air combat training, joint mission training at SCR and remote ranges, and tactical navigation training. Remote ranges used by the A-10s include UTTR, NAFR, Yakima Firing Center, and Fort Lewis, Washington. Joint mission training often involves coordination with U.S. Army ground troops and helicopters.

For combat missions, the C-130 aircraft provide cargo and personnel airlift support, assault operations on unimproved airfields, equipment and personnel airdrops, and aero-medical support. As part of their State of Idaho mission, C-130 aircrews perform many of these functions in support of natural disaster relief. To train for these missions, the aircrews must conduct low-to-medium altitude (500-10,000 feet AGL) navigation, airdrop training, and assault strip landings. Currently, the IDANG C-130 aircraft perform this training both in the local airspace and in remote locations within and outside of the state.

Aircraft from other Air Force units, as well as from the U.S. Navy and Marine Corps, currently use the SCR, MOAs, and MTRs within southwest Idaho and the surrounding region. Known as transient users, these aircraft have a wide range of missions that roughly mirror those performed by the 366th Wing and the IDANG and account for approximately 5 percent of the training activity in southwest Idaho and its vicinity.

1.1.4 Airspace Use Since Establishment of the Composite Wing at Mountain Home AFB

Establishment of the Composite Wing (designated the 366th Wing) at Mountain Home AFB occurred in 1992. From that time to the present, many factors contributed to changes in airspace use relative to that projected by the Air Force in the Air Force in Idaho EIS (Air Force 1992). Appendix N presents a detailed chronology of those changes, the actions or factors resulting in the changes, and the coverage of action-specific or other applicable environmental analyses performed in compliance with the National Environmental Policy Act (NEPA). In summary, the chronology demonstrates that the changes in airspace use resulted from four primary categories of factors:

(1) Nonimplementation of proposed Air Force in Idaho airspace modifications designed to support training of the 366th Wing and the IDANG.

(2) Elimination of and modification to existing military airspace.

(3) Changes and additions to aircraft inventories.

(4) Evolution of training activities.

Nonimplementation of airspace modifications. In 1992, along with establishment of the 366th Wing, the Air Force decided to improve the utility of the MOAs over southwest Idaho through internal modifications of boundaries and upper altitude limits. These modifications were designed to maintain the existing total land area covered by the MOAs, and yet to provide more effective training airspace. The projected airspace use for the 366th Wing defined and analyzed in the Air Force in Idaho EIS (Air Force 1992) was predicated on this modified airspace structure. However, the Federal Aviation Administration (FAA) has failed to implement those modifications. Therefore, the 366th Wing, as well as other users of the airspace, have adapted airspace use and training activities to the existing, unmodified airspace. As an accommodation, the 366th Wing routinely submits temporary altitude reservation requests to the FAA to allow training above established restricted and MOA airspace associated with SCR.

This imposed constraint in flexibility and limitation to CWT has resulted in a portion (approximately 3 percent) of the 11 to 19 percent reduction in overall airspace use relative to the projections analyzed in the Air Force in Idaho EIS (Air Force 1992). The nonimplementation of airspace modifications also imposed a redistribution of airspace use among the MOAs and restricted airspace as compared to the Air Force in Idaho EIS projections. For all but one local MOA and restricted areas, adjusted airspace use levels have remained below those projected in the Air Force in Idaho EIS. In the Owyhee MOA, airspace use increased by about 1,600 sortie-operations as compared to the projections analyzed in the Air Force in Idaho EIS. This level of airspace use is comparable to that characteristic of the period from 1972 through 1986 when F-111 and EF-111 aircraft operated out of Mountain Home AFB.

Elimination of and modifications to existing military airspace. The first change of this type affecting airspace use occurred in 1993, with the elimination of segments of two low-altitude (100 feet AGL) MTRs (VR-1301, VR-1302) that crossed the Owyhee MOA. In the preceding years, these segments accounted for up to 3,900 flights within the airspace encompassed by the Owyhee MOA. This change reduced the number of overflights and noise over the Owyhee River canyonlands and provided for more effective, contiguous maneuvering airspace. Elimination of these MTR segments dispersed overflights throughout the MOA. On average, about 12 to 15 daily low-altitude overflights no longer occurred over the Owyhee River canyonlands.

The second change, effected in 1997, consisted of realignment of an MTR segment that crossed over the Duck Valley Reservation. Realignment of the MTR not only moved the route and overflights south of the Reservation, it also decreased the total amount of airspace affected by the MTR under the Paradise MOA (National Guard Bureau [NGB] 1996b).

The third change entailed use of restrictions on overflights of the Duck Valley Reservation. In 1994, the 366th Wing voluntarily imposed restrictions on overflight and use of chaff and flares over the reservation. Subsequently, the Air Force agreed in 1996 with the Shoshone-Paiute Tribes formally to implement these restrictions. Consequently, airspace use shifted northward. Section 1.4.4 provides additional detail on these restrictions.

Changes and additions to aircraft inventories. From its inception in 1992, the 366th Wing has included heavy bombers as part of the Composite Wing. Initially, B-52 aircraft of the 34th Bomb Squadron based at Castle AFB provided a remote element and trained as an integral part of the wing. In 1994, when the 34th Bomb Squadron moved to Ellsworth AFB and converted from B-52 to B-1B aircraft, it remained part of the 366th and continued to train with the wing. In order to permit the B-1B aircraft to become fully integrated into the 366th Wing, in 1996, the Air Force moved the 34th Bomb Squadron, consisting of six B-1B aircraft and approximately 500 personnel, to Mountain Home AFB. This change resulted in a 2.6 percent increase in flight activities at SCR and less than 0.4 percent overall increase in the MOAs. An environmental assessment (EA) and finding of no significant impact (FONSI) were completed for this action (Air Force 1996b).

Since 1975, the IDANG operated F-4 aircraft, flying RF-4C reconnaissance aircraft from 1975 through 1991, and F-4G "Wild Weasel" aircraft from 1991 to 1996. Due to force structure changes throughout the Air Force, in 1996 the IDANG converted from F-4Gs to A-10s and C-130s, resulting in a substantial mission change for the unit. This conversion included a slight change in personnel and reduction in total aircraft operations for the local MOAs and SCR. Moreover, replacement of the F-4Gs with the quieter A-10s and C-130s resulted in significant reductions in the noise levels for the lands underlying the existing airspace. An EA and FONSI (NGB 1996a) were completed for this action in mid 1996.

Evolution of training activities. The nature, amount, and duration of airspace use directly relates to the nature of required training activities for particular aircraft and groups of aircraft

such as the 366th Wing. In turn, training activities reflect the existing tactics and missions dictated by the strategies and defenses of potential adversaries. Because these adversary strategies and defenses change through time, the Air Force's training activities and the way military training airspaces are used must evolve too. Since its inception as a Composite Wing in 1992, the 366th Wing's training activities and airspace have evolved to respond to these changes. This evolution has resulted in the following:

- A portion (i.e., 8 to 16 percent) of the 11 to 19 percent reduction from projected overall use of the local MOAs and restricted airspace developed from initial composite wing training concepts.

- Total sorties and sortie-time remained at approximately one-half of the levels projected and analyzed in the Air Force in Idaho EIS.

- A greater (25 to 50 percent) emphasis was placed on use of higher altitudes (above 5,000 feet AGL) and decreased use of lower altitudes as a tactic to avoid ground-based enemy defenses.

- Adjacent airspace units (e.g., Owyhee and Paradise MOAs) are frequently used as combined airspace.

- Use of MTRs decreased substantially (more than 85 percent) below projections in Air Force in Idaho EIS, and a reduced requirement for low-altitude training was met by limited use of the MOA.

Overall, the factors described above have either reduced the number of low-altitude overflights and their associated noise or have not resulted in significant, adverse impacts to the environment when compared to those assessed when the 366th Wing was established (Air Force 1992). Appendix N presents greater detail on these factors and the environmental consequences.

1.2 PURPOSE OF ENHANCED TRAINING IN IDAHO

The purpose of the enhanced training range is to prepare combat-ready aircrews for real battlefield situations. The following section describes how the 366th Wing must train in order to survive in those situations.

The wing must maintain a constant state of combat readiness for its assigned missions. Such readiness to execute very short or even no-notice response results only from consistently receiving high-quality, effective training that incorporates all mission elements and tasks and provides a high degree of realism. This realism requires aircrews to perform integrated training activities using high levels of skill and coordination. It must also result in efficient utilization of the finite number of annual flying hours allocated to the wing.

The ETI proposal would provide augmented, effective training, currently not available in the local area. In fact, because ETI is designed to permit a flexible response to threats facing the 366th Wing in the 21st century, some kinds of the training provided by ETI are not entirely available at remote ranges. This enhancement of training for the 366th Wing incorporates the use of existing SCR and airspace assets with a proposed set of newly integrated assets, including an additional drop target area, no-drop target areas, emitter sites, and reconfigured MOA airspace. Situated under existing special-use airspace (SUA) in southwest Idaho, these training assets would enhance the 366th Wing's ability to gain more effective high-quality training from every available flying hour.

The proposed training assets are designed specifically to support the 366th Wing. Aircraft from other units, including the IDANG and those from other bases, would also conduct training using the ETI assets. While these units would continue to conduct the same type and level of training as today, no increase in flight activities are planned or anticipated. Implementation of enhanced training would substantially reinforce the 366th Wing's level of readiness to perform its assigned mission.

The proposal to enhance training in Idaho would meet four key objectives for the Air Force:

- Provide combat-effective training and maximize use of a fixed number of available training hours.
- Support the unique missions of the Air Force's rapid-response air expeditionary wing, and augment the realism, quality, and flexibility of training available either at SCR or remote ranges.
- Accommodate competing demands on airspace and land while increasing 366th Wing training capability.
- Ensure the Air Force's continued ability to balance protection of environmental and cultural resources with training needs.

1.3 NEED FOR ENHANCED TRAINING IN IDAHO

The reduction of forces worldwide, which increases the burden of readiness on the remaining forces, magnifies the importance of quality training. Combat readiness requires that the 366th Wing train the way it expects to fight, under realistic conditions that mirror the battlefield. Realistic training exposes aircrews to a wide variety of potential adversary targets, tactics, weapons, defense systems, and combat support elements before they are encountered in combat. Because the wing must be ready to respond rapidly to any one of innumerable situations, it seeks to use its available flying hours conducting realistic, quality training, rather than flying to and from a distant range.

The 366th Wing needs enhanced training to maintain a constant state of combat readiness. To provide enhanced training, local training ranges, airspace, and other assets should be capable of providing most of the types of training needed. Enhanced training requires the following elements:

- Although the wing does utilize the current best available assets on existing remote ranges, these facilities were designed and built before initiation of composite wing and air expeditionary force tactics and, therefore, were not designed to fully meet these training needs. While the best remote ranges are adequate to conduct limited CWT, ETI was specifically designed to optimize full-scale CWT training.

- Quality training requires adequate realism. The less realistic the training ranges and airspace, the less value is derived from the a finite number of annual flying hours. Training under unrealistic conditions prevents aircrews from understanding their capabilities under combat conditions and does not sufficiently prepare them for the pace and confusion of an actual battlefield. The objective of quality training is to replicate those conditions and tax the capabilities of military personnel as they would be in battle, so they learn to cope with the challenge before they are placed in a life-threatening situation; this need is addressed by a range specifically designed for CWT.

- Flexible training enhances both realism and quality. The flexibility of the ETI design will provide greater potential to keep pace with the evolution of future combat tactics, driven by technological change, than any of the remote ranges currently used by the 366th Wing. By altering all or part of the training scenario and training environment to give aircrews a range of experiences, they must respond to and overcome changes in potential enemy tactics. The flexibility to alter this training environment daily or even hourly, as in actual combat, also limits aircrews ability to memorize target approaches, defenses, routes, and tactics that reduce the effectiveness of the training.

- Integration of a training range, emitter sites, tactical targets, airspace, and other assets within an area that provides ready access for training offers an enhanced

method to achieve combat training. By configuring airspace, targets, and emitters within such an area, aircrews can conduct realistic training and maximize training value.

- The specific design and location of ETI offers the efficiency to ensure maximum time spent training by minimizing transit time to and from training locations. Closer ranges and airspace provide scheduling efficiency. Several remote ranges currently used by the wing are primarily test facilities that only allow training during non-test periods. The 366th Wing priority to get on these ranges is low, and even wing-wide CWT missions can be canceled on short notice if test missions have priority. The existing remote ranges cannot ensure this desired efficiency of schedule.

- Under the ETI proposal, the 366th Wing would reduce its use of remote ranges from 24 percent to less than 10 percent. Some remote range sorties would still be required since training events such as live ordnance and stand-off weapons deliveries are excluded from ETI. The remaining 90 percent of sorties flown by the wing would be able to take full advantage of the efficiency offered by an ETI specific design. This would allow for training events, such as simultaneous use of multiple targets and 360-degree axis of attack missions, that are now unavailable.

Combat Situations and Training Requirements

The purpose of a training range, training airspace, and other assets is to prepare aircrews for battlefield situations. The following discussion compares the need for particular training assets with real battlefield situations.

Air-to-Air and Air-to-Ground Maneuvers. Were the 366th Wing to be assigned to attack enemy targets, it must temporarily seize complete control of the airspace and accomplish the following:

- destroy the targets (achieved by air-to-ground fighters and bombers – F-15Es, F-16Cs, and B-1Bs);

- protect the attacking forces (achieved by air superiority fighters and aircraft suppressing enemy air defenses – F-15Cs , F-15Es, and F-16Cs); and

- support the attacking forces (achieved by aircraft such as KC-135s, RC-135, and E-3 Airborne Warning and Control System [AWACS]).

Any enemy aircraft that enters combat airspace is targeted for immediate destruction by 366th Wing aircraft. For example, during the first days of hostilities during the Gulf War, numerous enemy aircraft attempted to prevent coalition aircrews from completing their missions. Many of these enemy aircraft were engaged at distances up to 100 miles. Based on this and other combat experience, sufficient training airspace is required to realistically simulate the air

combat environment leading to and from targets, and to accommodate the wide variety of training requirements associated with the 366th Wing.

Airspace used in combat situations starts at the target on the surface, and extends upward to the highest altitudes required to accomplish the mission. During past actual conflicts, ground attack aircraft have flown as low as 100 feet or lower, while the air superiority fighters have flown as high as 50,000 feet. Some combat missions require support aircraft to fly even higher. A realistic training environment allows aircrews to practice combat skills in much the same situations that would be required in future conflicts. However, some training policies preclude complete correspondence to certain activities such as flying below 500 feet AGL or firing missiles at manned aircraft. Many training tactics require rapid changes in altitude for air superiority or to evade enemy air defenses. Other training tactics require the aircrew to position the aircraft at a specific altitude above the ground to accomplish the assigned combat mission. Often during training, the aircrew must use their sophisticated weapon systems at an altitude that is optimum for the ordnance being simulated.

Realistic training requires a large expanse of airspace. The training environment must be physically large and flexible enough to simulate the following:

- the actual distances between enemy targets
- the distances and tactics that the enemy would use to protect the targets
- the tactics that combat aircrews would use to attack the targets
- the tactics used accomplishing the air superiority mission
- the tactics used accomplishing various support missions

Supersonic speeds. During combat, aircrews fly at speeds required to minimize exposure to enemy air defenses and to optimize the tactical use of sophisticated weapon systems. These speeds vary depending upon the type of aircraft, the tactics being used, and the threat conditions that are encountered during the mission. During the Gulf War, aircraft like the A-10 flew very slowly, as dictated by design and mission. Other aircraft like the F-15 and F-16 occasionally flew faster than the speed of sound when required to avoid destruction by enemy air defense systems or to use weapons of their own.

Ordnance Delivery. During combat operations, aircrews are required to deliver ordnance on targets at a very specific location, at a very precise moment in time, and must meet many other difficult delivery conditions. An example would be the requirement to release a particular ordnance at exactly 4 miles from the target, from at least 10,000 feet of altitude, using a climb angle of at least 30 degrees, with a true airspeed of at least 550 nautical miles (NM) per hour. Releasing the ordnance with 480 NM per hour true airspeed would result in mission failure due to the ordnance falling short of the target. A realistic training environment must allow the aircrews to use the same airspeeds that would be used during future conflicts.

Aircrews must meet these precise operational requirements in order to ensure that the target is damaged to the degree desired, and that the mission is successful. In addition to meeting all of the delivery requirements, the aircrew must simultaneously maintain their proper place in the formation, navigate to and from the target area, and must defend themselves from numerous enemy defensive systems that are attempting to destroy their aircraft. For example, during the Gulf War, large numbers of aircraft would attack an enemy airfield in rapid succession. Some aircrews would be tasked to attack airfield runways and taxiways, aircraft parked in protective structures, and related support facilities. Those aircrews would develop a coordinated plan to schedule each aircraft through the target area in a manner such that they attacked the targets in the desired sequence and protected the lives of the aircrew. In such situations, the aircrew must be concerned with avoiding impact with the ground, avoiding a mid-air collision with other aircraft, avoiding enemy defensive systems, and avoiding the effects of ordnance dropped from other aircraft.

During battle, each target is thoroughly analyzed to determine the appropriate method required to achieve the degree of damage desired. Each target is attacked according to a master plan, using different ordnance and different delivery requirements for each objective. Mission planners and the aircrew select the type of ordnance required, the type of fuse mechanism and function time, and the delivery conditions. The aircrew must then deliver the ordnance onto the target at the precise location where the ordnance will function as desired and, therefore, inflict damage to the target. Failure to meet any of the delivery requirements could result in mission failure due to inadequate target damage or, in some cases, no damage at all. An example would be the desired destruction of a hardened command and control bunker constructed of reinforced concrete. Mission planners would use documents that would dictate that a particular weapon must be delivered in such a way that it strikes the target at an entry angle of at least 50 degrees. If the aircrew causes the ordnance to have an entry angle of only 45 degrees, the mission could fail due to the ordnance skipping off the top of the target. The target could be missed entirely if the ordnance was released at an incorrect altitude, airspeed, or dive angle.

The skills that aircrews must possess to deliver ordnance under combat conditions are extremely difficult to learn. These skills must be maintained at a high degree of competency through frequent and realistic training. A training environment designed to develop and maintain combat skills is essential to the readiness of the 366th Wing. A realistic training environment includes the ability to practice a wide variety of training ordnance deliveries, and the capability for immediate feedback during training. This essential feedback is provided when an aircrew drops training ordnance at a tactical training range.

Conventional Targets. Training on simple targets known as conventional targets, such as those at SCR, provides the opportunity to practice basic skills under controlled conditions. These targets are typically attacked by one aircraft at a time. These targets are always easy to identify and are designed to provide a variety of visual indications about how the aircraft is oriented and where the aiming point is. Aircrews can concentrate on the requirements that are essential to all munitions delivery events and can make repeated deliveries with feedback

between each delivery. The feedback forms the basis for refinement of the skills being practiced, with improvements made on each subsequent delivery. Training ordnance must be dropped under these conditions in order to provide the aircrew with feedback that is immediate and precise. Current systems provide feedback that is accurate within one meter, and is reported to the aircrew within seconds of the training ordnance striking the ground.

Tactical Targets. A higher degree of training is available using tactical targets. These targets are much more difficult to locate, identify, and aim at than conventional targets. This higher degree of difficulty requires the aircrew to recognize and compensate for many near simultaneously occurring variables. The degree of difficulty associated with training against these targets also varies as the number of aircraft increase, and as the tactics used are varied. These more advanced training events provide immediate feedback from training ordnance delivery, and this feedback can be used to refine the aircrew skills before the next practice delivery.

The aircraft assigned to the 366th Wing are equipped with sophisticated equipment designed to increase the probability that training ordnance will impact the target as intended. This equipment consists of computers and other measuring devices that help the aircrew to determine when and where to release the ordnance. These devices must be checked to ensure that they are functioning properly so that the aircraft are ready to be deployed to a combat theater when required. Individual components of the systems can be checked using diagnostic equipment while the aircraft is on the ground. However, the integrity and functionality of the entire system can only be verified while in flight at the proper delivery conditions, and while actually delivering training ordnance.

Dropping training ordnance at a tactical training range provides aircrews with the expertise that they need to develop combat skills for future conflicts. Providing this training frequently and in a realistic setting maintains these skills at the level required. Aircraft systems' integrity and functionality are verified by dropping training ordnance. All of these factors are critical for the 366th Wing to be ready to deploy worldwide.

No-Drop Targets. The 366th Wing may be required to deploy to a variety of combat theaters throughout the world, where a wide range of targets may be encountered. A variety of targets needs to be included in a training environment to simulate the combat conditions that aircrews will face in future conflicts. Some enemy targets are closely spaced and very difficult to distinguish from other nearby structures. For example, in a row of warehouses at a chemical weapons manufacturing plant, the intended target may be a specific roof vent on a particular warehouse. Failure to target the exact intended point could result in mission failure or unintended consequences. Aircrews can practice many aspects of the training required to accomplish this mission by using sophisticated equipment in conjunction with no-drop targets.

No-drop targets offer a way to build targets that are matched to the sophisticated aircraft systems and demanding training requirements of the 366th Wing. Aircrews would use no-drop targets to practice finding and aiming at a target without actually dropping training

ordnance. To do this, aircrews would use a variety of means including visual acquisition, radar search methods, or other means such as detection of infrared emissions. No-drop targets provide an outstanding target even though they are built from ordinary materials using common building techniques. For example, a metal grain silo can be used to simulate fuel storage tanks. Training opportunities can be optimized by using several grain silos side by side and assigning an aircrew to target a specific silo. A higher level of training difficulty can be achieved by building a row of identical agricultural buildings with unique features on each building. Hundreds of individual targets could be simulated by varying the placement and number of doors, windows, and roof vents on ten agricultural buildings. No-drop targets can be designed and constructed with greater fidelity and lower maintenance cost than an equivalent drop target.

No-drop targets are a key component of a training environment that is designed to balance realistic training with the environment and traditional land uses. These facilities can be located in a manner that is environmentally suitable and operationally beneficial to aircrews due to the geographical separation from other no-drop targets and drop targets. No-drop targets located in a way that realistically simulate likely target areas are essential. This would allow aircrews to approach multiple targets at the same time, from many directions, using precise timing. The no-drop targets could be used individually, in groups, or in conjunction with drop targets. Targets that are geographically separated in a realistic manner are ideal candidates for practicing these essential combat skills. These no-drop targets would provide a necessary degree of realism to build skills and practice tactics that are required for combat missions.

The combination of no-drop targets geographically separated from drop targets on a tactical training range optimizes the amount of training that can take place simultaneously. Combat missions frequently utilize a mixture of aircraft types, each with a particular part of the overall mission. An example would be combining F-16s, F-15Es, and B-1 aircraft in one formation. The F-16s could drop training ordnance on a drop target at the tactical training range, the F-15Es could attack one no-drop target, while the B-1s could attack another no-drop target. The optimal mixture of no-drop targets and drop targets can be achieved by designing a training environment that encompasses the entire spectrum of training requirements for the 366th Wing. The tactics employed during training events would require a high degree of flexibility and the ability to simulate a wide variety of combat scenarios.

Defensive Countermeasures. During conflicts, the enemy can be expected to realize that U.S. forces will attempt to destroy certain key assets. The enemy forces will attempt to protect these assets from destruction by positioning defensive weapons that prevent our forces from completing their assigned missions. For example, before the Gulf War, Iraq deployed thousands of surface-to-air missiles (SAMs) and anti-aircraft artillery (AAA) to protect essential assets from destruction by coalition air forces. A realistic training environment must simulate such devices and tactics that combat aircrews will face in future conflicts. Radar-guided SAMs and AAA are simulated by electronic emitters positioned at emitter sites.

Defensive weapons designed to be used against combat aircrews are normally used in one of three general methods:

- Point defense of a high-value target
- An integral part of an armored ground force
- A component of a regional integrated air-defense system

A realistic training environment must allow the flexibility to replicate the manner that air-defense weapons may be used if future conflicts occur. Sufficient emitter sites meet training requirements by permitting variable simulated combat scenarios. Some scenarios may require the duplication of the point-defense method. Other emitter sites could be used to simulate air-defense systems used with a mobile ground force. All emitter sites could be used individually or as part of a larger integrated air-defense system. Some emitter sites would be positioned close to targets, while others would be optimized to protect selected geographical regions. It is, therefore, extremely important to locate emitters for combat training in a manner that best simulates the numerous defenses that are expected in future conflicts.

In the following section, the specific types of training and the airspace and range assets that would enhance the local capability to maintain mission readiness is described. It also examines the existing airspace and range assets in proximity to Mountain Home AFB according to their ability to provide enhanced training.

1.3.1 Elements of Training

Maintaining operational readiness and meeting Air Force requirements requires substantial, high-quality training. To achieve these goals, the 366th Wing conducts two major categories of training: continuation training (CT) and CWT. CT includes all the flying requirements levied on aircrew members by Air Force Training Instructions to meet their mission-ready status in their assigned aircraft. A CWT event is defined as a scenario employing multiple flights of the same or different types of aircraft, each under the direction of its own flight leader, performing the same or different roles. Much less frequently, the 366th Wing conducts Operational Readiness Exercises or Inspections (ORE / ORI), in response to higher headquarters direction.

The following is a list of training requirements documentation for 366th Wing aircrews derived from an Air Force Pamphlet (AFP), Air Combat Command Instruction (ACCI), Multi-Command Instructions (MCI), and 366 Operation Group Operating Instruction (OGOI) (Air Force 1994):

AFP 36-2211	Guide for Management of AF Training Systems, 1 Mar 97
MCI 11-235	C / KC-135 Operations, 1 Jan 96
ACCI 11-B-1B	Aircrew Training--B-1, 10 May 96

MCI 11-F16	Pilot Training--F-16, 1 Oct 94
MCI 11-F15	Pilot Training--F-15, 1 Nov 94
MCI 11-F15E	Aircrew Training--F15E, 5 Mar 95
366 OGOI 11-4	Composite Wing Training Policy Planning Execution, 6 May 97

1.3.1.1 CONTINUATION TRAINING

CT maintains and hones the proficiency of individual aircrew members in combat skills. Routinely performed by aircrews, CT is conducted throughout each aircrew member's assignment to a base. These requirements fall into three major categories of training: air-to-ground, air-to-air, and other training requirements. As summarized in Table 1.3-1, each of these categories includes many subcategories reflecting a broad variety of operational tasks. Appendix A provides additional definition of terms describing training activities. Typically conducted by a flight of one to four aircraft, CT utilizes the full range of available airspace, ranges and targets, and electronic threat systems.

AIR-TO-GROUND TRAINING

Air-to-ground training employs all the techniques and maneuvers associated with weapons use and includes low-, medium-, and high-altitude tactics, navigation, formation flying, surface attack tactics, targeting, weapons delivery, and defensive reaction. More than 60 percent (42 of 66) of the 366th Wing aircraft must perform all of these training requirements.

Surface attack tactics require training in which aircrews locate and destroy targets while avoiding or defeating defensive threats such as those simulated by electronic emitters. This training involves considerable vertical and horizontal maneuvering, requires sufficient airspace, and is enhanced by using realistic, changeable targets.

Weapons delivery involves the location, identification, and destruction of a variety of targets under different combat conditions. Weapons delivery training can involve a single pass or multiple passes on a target; aircrews must perform numerous different weapons delivery events (e.g., low-altitude level or dive or medium-to-high altitude release). For the 366th Wing, F-15E, F-16C, and B-1B aircrews currently conduct weapons delivery at SCR and remote ranges. At SCR, weapons delivery training involves the use of only training (nonexplosive) ordnance. More than 95 percent of this training ordnance consists of small (up to 25 pounds) steel training ordnance containing a spotting charge or marking device for determining how close the training ordnance comes to the target. Other ordnance on SCR consists of full-size, steel-encased concrete training ordnance weighing from 500 to 2,000 pounds. For the small amount (less than 5 percent) of live ordnance training conducted by the 366th Wing, aircrews use and will continue to use remote ranges approved for this activity.

Table 1.3-1. Summary of Continuation Training Requirements for 366th Wing Fighter and Bomber Aircraft

Training Requirement	*F-15E*	*F-15C*	*F-16C*	*B-1B*
Air-to-Ground Training	X		X	X
Surface Attack Tactics	X		X	X
Conventional Weapons Delivery	X		X	X
Level Deliveries	X		X	X
Diving Deliveries	X		X	
Climbing Deliveries	X		X	
Full-Size Ordnance Deliveries	X		X	X
Strafing	X		X	
Tactical Weapons Delivery	X		X	X
Level Deliveries	X		X	X
Diving Deliveries	X		X	
Climbing Deliveries	X		X	
Full-Size Ordnance Deliveries	X		X	X
Strafing	X		X	
Air-to-Air Training	X	X	X	
Advanced Handling	X	X	X	
Air Combat	X	X	X	
Low-Altitude Air-to-Air	X	X	X	
Air Intercept	X	X	X	
Air-to-Air Defensive Maneuvering	X	X	X	X
Other Training	X	X	X	X
Low-Level Navigation	X	X	X	X
Electronic Combat	X	X	X	X
Aerial Refueling	X	X	X	X

Conventional weapons delivery training involves training ordnance deliveries in a highly structured, repetitive learning environment. At ranges with conventional targets such as SCR, aircrews fly predetermined flight tracks against highly visible targets and receive immediate feedback from a range control officer. In contrast, tactical weapons delivery more closely matches the events that occur in actual combat. Aircrews must use a variety of maneuvers, avoid and react to defensive threats, minimize flight path predictability, and deliver the training ordnance on target. Tactical ranges provide an array of targets, configured and spaced to simulate conditions expected in combat and without obvious visual cues. By providing changing appearances or attack angles, tactical targets require aircrews to employ tactics and maneuvers that add variation and realism to the training.

AIR-TO-AIR TRAINING

In fulfilling its mission, the 366th Wing must also contend with and defeat enemy aircraft to establish air superiority over a battlefield and permit other elements of the wing to carry out their mission assignments. In air-to-air training, participating aircraft employ a wide range of tactics and maneuvers requiring airspace with extensive lateral and vertical limits. Such training commonly occurs within the MOAs used by the 366th Wing. Air-to-air training involves advanced aircraft handling characteristics, air combat, low-altitude air-to-air training, and air intercepts. In this era of sophisticated targeting and tracking systems, as well as air-to-air missiles with long ranges, the "dogfights" no longer exclusively involve tightly clustered groups of aircraft chasing one another. Rather, air combat engagements may involve opposing aircraft separated by 70 miles or more. It is during high-altitude, air-to-air training maneuvers that supersonic events generally occur. Often, air-to-air training includes some aircraft playing the role of adversaries, or enemy aircraft. This training also requires the use of defensive countermeasures, such as chaff or flares. One-on-one engagements, or multiple aircraft training, can involve aircraft of different types performing complex, sophisticated activities in which positioning and strategy are as important as individual flying skills.

Although the F-15C is the primary air-to-air fighter, all fighter aircraft assigned to the 366th Wing conduct air-to-air training. These include F-16Cs and F-15Es, which along with the F-15Cs, account for 54 of the 66 aircraft assigned to the 366th Wing. The degree to which each aircraft type performs particular training events depends on the aircraft's mission.

NAVIGATION, THREAT AVOIDANCE, AND REFUELING TRAINING

Low-altitude navigation training maintains aircrews' proficiency in using the terrain as a visual reference and point-to-point navigation. These skills are needed in combat situations to approach targets, avoid detection by certain defense systems, and reach other objectives. Conducted generally within MOAs and on MTRs, this training commonly occurs between 500 and 2,000 feet AGL.

In combat, weapons using electronic guidance systems pose substantial threats to aircraft. Aircrews, therefore, must train to interpret threats from these systems, implement

countermeasures such as chaff and flares, and perform effective evasive maneuvering, sometimes at low altitude. To offer realism of threats and hone aircrew responses, ground-based electronic emitters are employed to simulate defensive systems. The 366th Wing conducts this training in MOAs and in the restricted airspace over SCR, where the existing sites for electronic emitters are located.

Aerial refueling sustains air operations during combat and serves two primary functions: it permits aircraft assigned to air-to-air and air-to-ground operations to remain "on-station" (i.e., assigned position in the operations arena) without returning to the airfield; and it provides aircraft the capability to conduct, when necessary, long-range flights to operations areas or targets. The 366th Wing requires both of these capabilities and all aircraft and aircrews in the 366th Wing must participate in aerial refueling training. Fighters and bombers need to efficiently and safely receive fuel, whereas the KC-135R tankers must train to dispense fuel to the variety of aircraft assigned to the 366th Wing. These operations are performed in assigned refueling tracks. 366th Wing tankers also support other Air Force-wide and Department of Defense (DoD) missions, including refueling routine, long-range transport missions, and fighters from other wings and Air National Guard (ANG). Approximately 80 percent of wing refueling operations are for training only, with only a few hundred pounds of fuel being transferred, and are not planned to extend the length of fighter training missions. Due to flying hour restrictions and limited availability of air refueling aircraft, air refueling training missions are normally flown locally to maximize air refueling opportunities. To routinely conduct more CWTs at remote ranges would make training less efficient, make less productive use of the limited number of annual flying hours, and be significantly expensive in terms of the wing's annual fuel budget.

1.3.1.2 COMPOSITE WING TRAINING

CWT provides realistic, simulated battlefield conditions for training aircrews under circumstances similar to those occurring in actual combat. Before the establishment of a composite wing, joint exercises furnished the primary opportunity to conduct this type of training. Joint exercises such as Red Flag or Green Flag, which occur only two to four times a year at NAFR, temporarily integrate units that would fight together in the event of a conflict. Attendance at flag exercises is shared across each unit in the Air Force. A typical aircrew would only attend a flag exercise once every 18 months. Therefore, the frequency and variety offered by "flag" exercises alone are insufficient to ensure a high level of mission readiness for the 366th Wing. Rather, frequent and realistic CWT is also needed.

CWT is specifically designed to practice the unique mission of the 366th Wing – large force, integrated air power. To be effective, CWT must combine numerous aircraft and personnel to integrate different mission roles in one coordinated simulated combat exercise. Each CWT exercise is unique, but they typically involve employment of many or all of the specific operational tasks performed by the participating aircraft. Effective CWT also involves aircraft that adopt roles and tactics of an adversary to provide realism in the exercise. These coordinated, integrated CWT exercises use extensive airspace and range assets including large

MOAs and ranges. For the 366th Wing, aircrews are required to plan and fly an average of two CWT exercises per month for 11 months of the year. In a typical CWT exercise conducted at a remote range, 34 aircraft from the 366th Wing participate, and a variety of aircraft from other units often are involved. However, smaller numbers of aircraft can and do conduct CWT.

The 366th Wing conducts limited CWT in the local airspace defined by SCR and the 10 MOAs, but performs most (over 70 percent) exercises at remote ranges. In the local airspace, a CWT exercise involves a coordinated formation flying from the western side of the airspace (i.e., southeastern Oregon and western Owyhee County) and attacking targets at SCR. The formation may be spread over many miles or may be concentrated, depending on the tactics being employed. Adversary aircraft, simulated missile sites, and electronic emitters defend the targets. However, the variety, complexity, and realism of local CWT remains limited due to the lack of tactical targets, dispersed and changeable emitter sites, and restrictions on the airspace. Currently, of the 72 CWTs performed by the 366th Wing each year, an average of 51 occur at remote ranges. Many of these CWTs are conducted during ORE/ORIs.

1.3.1.3 OPERATIONAL READINESS EXERCISES AND OPERATIONAL READINESS INSPECTIONS

OREs and ORIs represent major exercises simulating all conditions associated with deployment and performance of a major combat mission. The wing must plan all aspects of the mission, from ensuring that maintenance personnel rapidly check, refuel, and re-arm aircraft to ensuring aircrews conduct multiple, coordinated attack missions, including CWT. OREs and ORIs involve most of the Wing, including maintenance and support personnel, and provide realistic simulated wartime taskings that must be performed effectively and successfully. An entire ORE/ORI could take up to 2 weeks with actual aircraft flight operations occurring over a 2- to 3-day period.

During this 2- to 3-day period, aircraft operations for OREs and ORIs involve three CWT missions each day, and each mission involves about 34 aircraft. Although the 366th Wing has conducted limited forms of these exercises using SCR and the local airspace, almost all are performed at remote ranges or deployed locations.

1.3.2 Required Training Capabilities

The 366th Wing currently conducts training in the military training airspace near Mountain Home AFB that overlies southwest Idaho, southeast Oregon, and northern Nevada, and at remote ranges. The special use airspace includes the airspace and range in the region surrounding Mountain Home AFB that the 366th Wing (and all previous units at Mountain Home AFB) has traditionally used. Figure 1.3-1 depicts the local range area and airspace used for training.

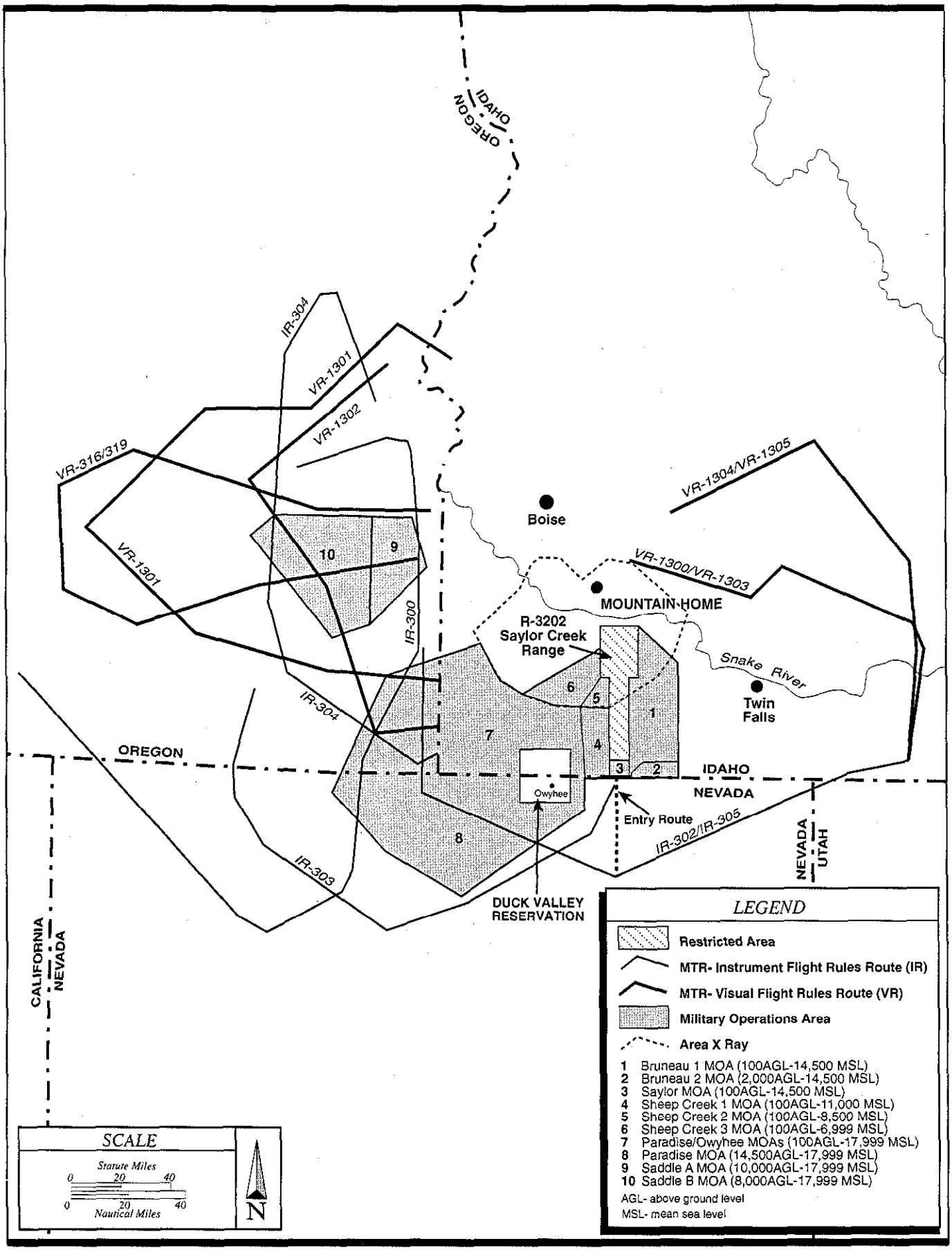

Figure 1.3-1 Local MOAs, MTRs, and Restricted Airspace Used by the 366th Wing

Remote ranges, as well as their associated airspace, consist of those located more than 150 NM from Mountain Home AFB and managed and scheduled by other units or services (Figure 1.3-2). The following describes the ranges and the airspace used by the 366th Wing.

1.3.2.1 RANGES, TARGETS, AND EMITTERS

The 366th Wing requires training capabilities that include three types of ground assets: conventional range and targets, tactical range and targets, and electronic emitters and sites. Table 1.3-2 presents the types of ranges, targets, emitters, and airspace required to meet training needs. A *conventional range and targets* provide training in weapons delivery in a highly structured learning environment that provides immediate feedback on performance and repetitive drilling. While needed to maintain accuracy and proficiency, the type and arrangement of targets on conventional ranges do not necessarily reflect realistic attributes that might be expected in a combat environment, nor do they provide for changeable configurations to increase training quality.

Table 1.3-2. Requirements for Range, Target, Emitter, and Airspace According to Major Training Categories

Required Training	*Conventional Range and Targets*	*Tactical Range and Targets*	*Electronic Emitters and Sites*	*Restricted Areas*	*MOAs*
CT					
Air-to-Ground	Yes	Yes	Yes	Yes	Yes
Air-to-Air	No	No	Yes	No	Yes
Other Training (Low-Level Navigation, Electronic Combat, Aerial Refueling)	No	Yes	Yes	No	Yes
CWT					
Air Interdiction	No	Yes	Yes	Yes	Yes
Air Intercept	No	No	Yes	No	Yes
Suppression of Enemy Air Defenses	No	Yes	Yes	No	Yes
ORE/ORI	No	Yes	Yes	Yes	Yes

Notes: Yes = Required
No = Not Required

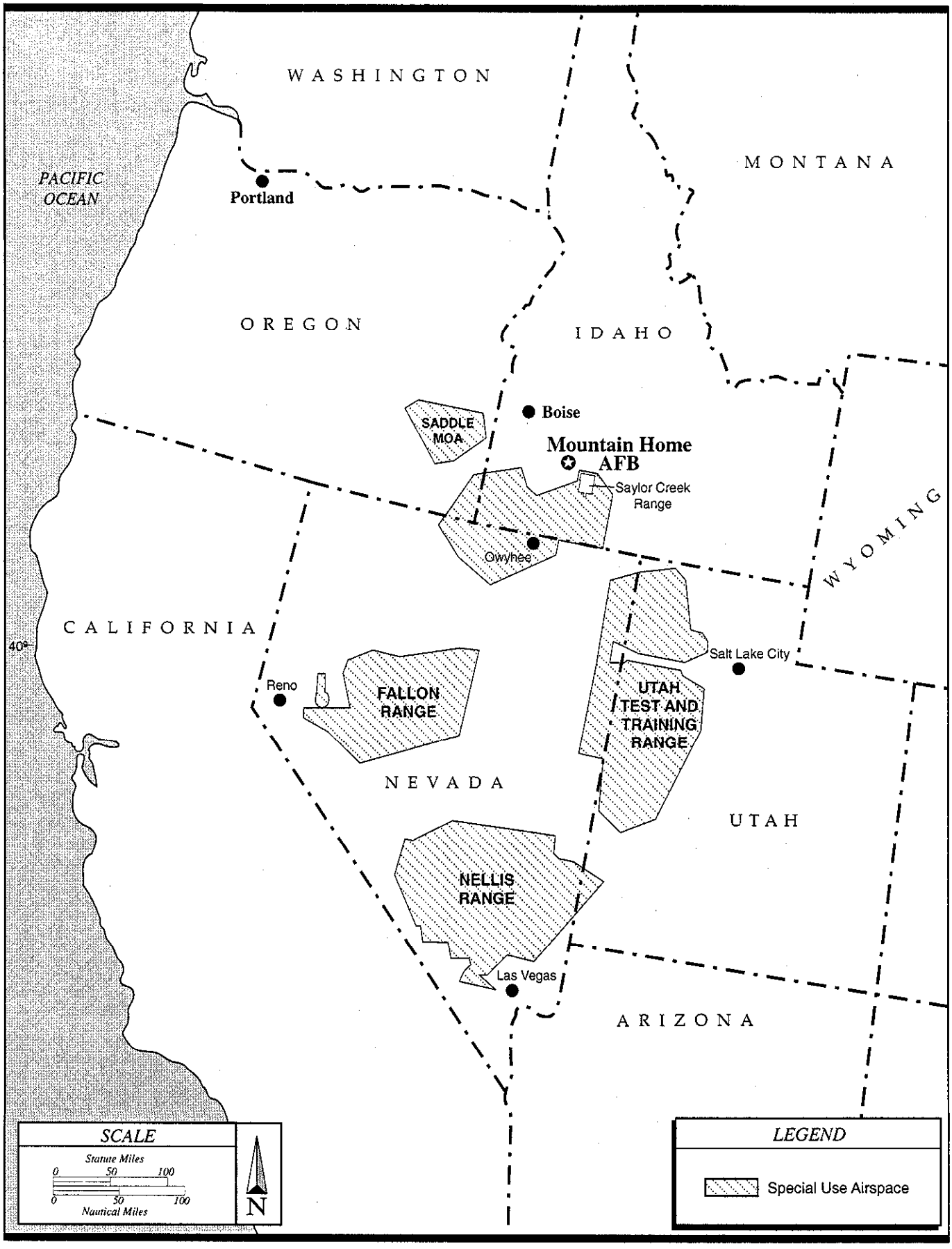

Figure 1.3-2 Saylor Creek Range, Remote Training Ranges, and Special Use Airspace Used by the 366th Wing

A *tactical range and targets* provide for an array of training activities required by the 366th Wing, especially tactical weapons delivery and CWT and ORE/ORI exercises. Of the aircraft included in the 366th Wing, more than half need to perform numerous types of primary training operations involving tactical targets. Tactical ranges provide a greater array of targets, configured and spaced to simulate realistic conditions and defenses like those expected in combat. For the 366th Wing, the general types of targets that the units would expect to encounter on their missions and, therefore, need to train on, include those listed below. Two of these target types are currently available at SCR; the other three types are not currently available in the local training area.

Target types currently available at SCR include the following:

- *Airfield*: Located on relatively flat terrain without terrain obstructions, an airfield target includes simulated runways, taxiways, alert pads, shelters, parking ramps, fuel depots, hangars, command bunkers, and radar, SAM, and AAA sites with roads interconnecting these elements.
- *Command Post*: Associated with an airfield or similar major defense facility, a command post target consists of a command bunker with communications arrays and associated air defenses.

Target types not available in the local training area include the following:

- *Industrial Complex*: An industrial complex target presents the elements and layout of a manufacturing or processing facility, and includes roads and air defenses (e.g., SAMs, AAA).
- *Railyard*: Composed of tracks, switching stations, communications facilities, marshaling yards, and rail cars, a railyard target represents a major transportation node providing transport of materials and personnel to and from the battlefield.
- *Forward Edge of Battle Area (FEBA)*: Commonly situated along or near a road, a FEBA target consists of a tank formation, artillery pieces, support or servicing convoys, and mobile AAA and SAM systems.

SCR, the existing training range for the 366th Wing, consists of approximately 110,000 acres of land withdrawn by the DoD for the purpose of weapons delivery training. The range, situated about 6 miles south of the Snake River in Owyhee County, extends 15 miles north-south and 11 miles east-west. The exclusive use area (EUA) consists of approximately 12,200 acres located in a fenced area near the center of the range and includes all of the range's training targets (Figure 1.3-3). A zone of about 97,800 acres surrounds the EUA; livestock grazing and hunting represent the primary land uses in this zone. The EUA contains five groups of scorable targets and two strafe pits used for conventional air-to-ground training. The targets include a conventional target circle, a small cluster of armored personnel vehicles, an airfield complex, a command post, and small air defense sites with a SAM and AAA battery. These highly visible

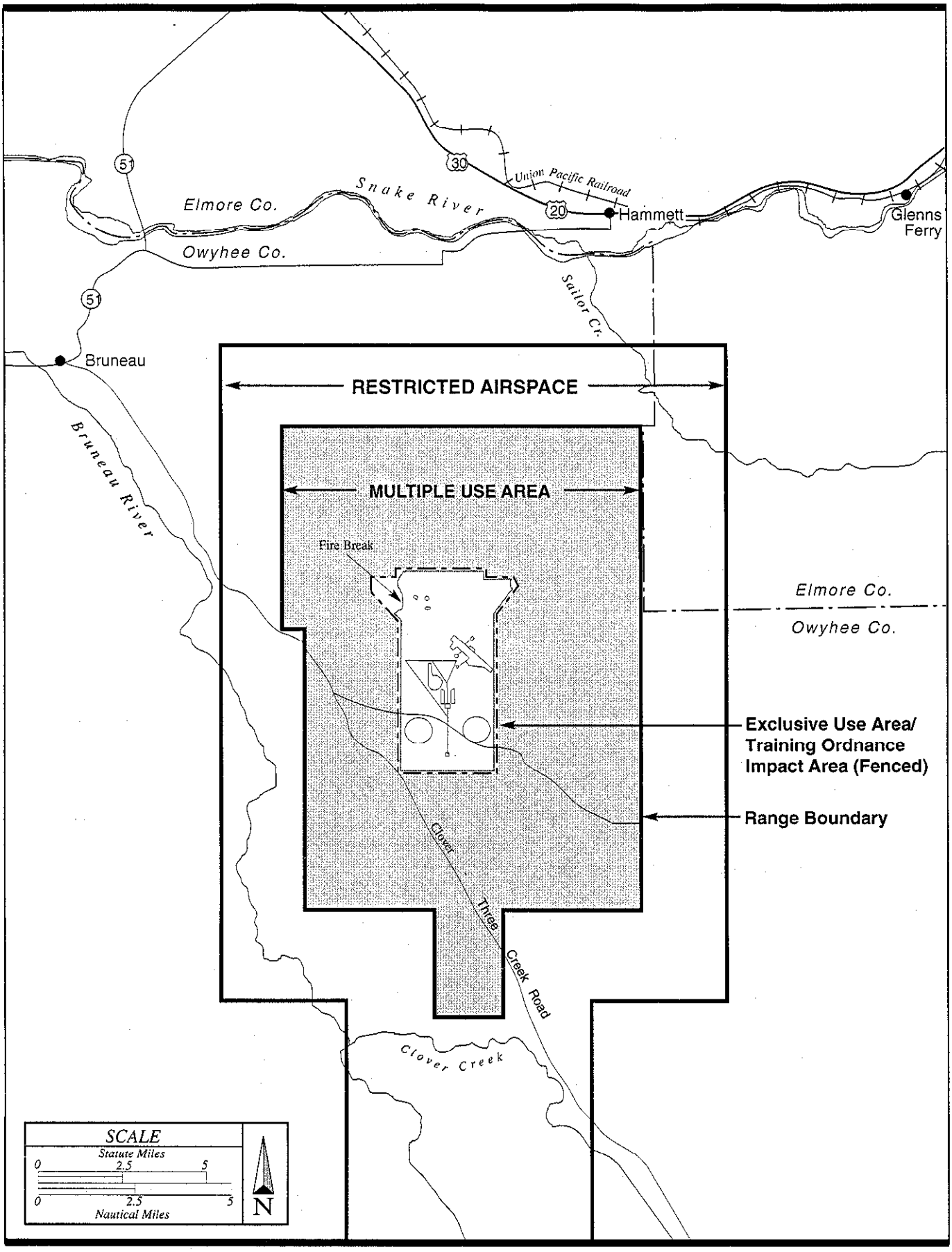

Figure 1.3-3 Saylor Creek Range

targets, which offer obvious visual clues such as devegetated run-in lines to guide aircraft approaches, provide none of the concealment expected under actual combat conditions. Furthermore, the targets lack realism in terms of the configuration, spacing, and separation required for tactical ordnance delivery training. Due to constraints on the airspace at SCR (see section 1.3.2.2), and the proximity of the targets to one another, this conventional range permits only limited attack angles and precludes simultaneous weapons delivery on multiple targets by different aircraft. Such limitations substantially reduce the range's usefulness for tactical weapons delivery and CWT.

Electronic emitters and sites for locating electronic emitters form an important and integral part of the ground assets required by the 366th Wing. Most required training operations, and especially CWT and ORE / ORI exercises, involve the use of electronic emitters to provide a realistic arena in which aircrews must detect and respond to simulated threats while completing mission objectives. To ensure realism, the number and location of electronic emitters need to vary to create different defense systems and to prevent aircrews from memorizing threat locations.

The 366th Wing currently has a total of four emitter sites. Of the four existing emitter sites, three lie within SCR and one is situated near Highway 51 south of the town of Grasmere. Because of their small number and clustered distribution, these emitter sites provide limited flexibility and capability to create a realistic and varied threat scenario for CT, CWT, or ORE / ORI.

1.3.2.2 AIRSPACE ASSETS

Training for the 366th Wing requires an integrated system of airspace, including restricted airspace and MOAs (refer to Table 1.3-2). MTRs, aerial refueling tracks, and Air Traffic Control Assigned Airspace (ATCAA) also form part of this system. This airspace must not only be of adequate size, it must also be configured appropriately to provide a realistic training scenario for both air-to-air and air-to-ground operations.

Restricted airspace, in accordance with FAA Handbook 7400.2, Procedures for Handling Airspace Matters, shall be designated when determined necessary to confine or segregate activities considered to be hazardous to nonparticipating (e.g., all civilian and any military aircraft not involved in the training activities) aircraft. Activities considered hazardous are unusual, often invisible, hazards to aircraft such as artillery firing, aerial gunnery, guided missiles, or training ordnance delivery. Flying into a restricted area without authorization from the using or controlling agency may be extremely hazardous to the aircraft and its occupants. In the case of SCR and the proposed tactical training range, the delivery of training ordnance requires adequate restricted airspace.

For either a conventional or tactical range, the restricted airspace must be of sufficient size to contain all flying activities associated with air-to-ground training. The restricted airspace needs to encompass the areas where weapons are released. For tactical ranges and targets, the

capability to deliver weapons from all potential directions forms another criterion defining the size and shape of the restricted airspace. The dimensions of restricted airspace, therefore, depend on the type of range (conventional or tactical) and target layout. Restricted airspace directly over target areas and their vicinities must extend down to the surface, whereas adjacent restricted airspace need not reach the surface.

Local airspace includes restricted area R-3202A, which overlies SCR, and R-3202B and C, which extend south of R-3202A. Under past training concepts, these narrow, linear restricted areas provided protected airspace for approaches to SCR. Under training concepts proposed for ETI, this airspace (R-3202B and C) no longer needs to be restricted. In addition, the size and procedural limits of the restricted airspace encompassing the range limits the ability to safely conduct simultaneous or closely sequential attacks by groups of aircraft. Expansion of the existing airspace to the north would alter this situation; however, existing federal airways and populated areas prevent such an expansion. These factors limit the utility of the SCR for realistic tactical training, and especially for CWT.

MOAs are special-use airspace designed to segregate certain military activities such as air combat maneuvers and air intercepts from nonparticipating air traffic operating under FAA control using instrument flight rules. Civilian aircraft flying under visual flight rules can operate within MOAs; all aircraft, military and civil, must employ see and avoid procedures. Every type of training and training operation conducted by the 366th Wing, with the exception of actual ordnance delivery, involves use of MOAs.

Air-to-air training requires sufficient MOA airspace to permit aircraft to maneuver and employ the full range of air-to-air combat tactics, including intermittent supersonic flight. In most air-to-air training activities, aircrews maneuver rapidly through turns, climbs, and dives, utilizing considerable airspace due to the speed of the aircraft. The vertical and horizontal dimension of the MOAs must also accommodate low-altitude, air-to-air training; air-to-ground training; electronic combat training; and the use of defensive countermeasures. MOAs commonly provide the airspace necessary to maneuver on approach to restricted airspace and targets, and accommodate the aircraft's departure maneuvers from the restricted airspace. On both the approach to and departure from the restricted airspace, aircrews must identify and respond to electronic combat threats, using evasive tactics and defensive countermeasures. If an air-to-ground range or target areas and their associated restricted airspace are geographically separated, MOA airspace of appropriate dimensions is needed to connect them to allow their use in a multi-target tactical or CWT operation.

By providing for all these individual training needs, MOA airspace is essential to CWT where numerous aircraft conduct their specific operational tasks simultaneously. As such, the 366th Wing requires adequately sized and properly configured MOA airspace to concurrently accommodate aircraft performing air-to-ground, air-to-air, low-altitude, and SEAD training.

Ten MOAs exist within the local airspace traditionally used by units from Mountain Home AFB. Six MOAs are directly associated with SCR; these MOAs are scheduled and used along with the range. The MOAs include Bruneau 1 and 2; Sheep Creek 1, 2, and 3; and Saylor. The 366th Wing also conducts training in the Owyhee, Paradise, and Saddle (A and B) MOAs. Refer to Figure 1.3-1 for the locations and operating altitudes of these MOAs.

This airspace has been in use by military aircraft since World War II, with official designation of the MOAs by the FAA occurring in 1972 (Paradise MOA) and 1975 (all other MOAs except Sheep Creek 3-1989). The six MOAs associated with SCR provide maneuvering airspace and airspace for air-to-ground activities at the range. Other air-to-ground training that involves no ordnance delivery also occurs in these MOAs. Air-to-air training activities are conducted in these six MOAs, although to a far lesser degree than air-to-ground training. This situation is due, in part, to the inconsistent ceiling altitudes for these MOAs (Figure 1.3-4). Of the six MOAs, four different ceiling altitudes are represented: 6,999 feet MSL, 8,500 feet MSL, 11,000 feet MSL, and 14,500 feet MSL. All of these differ from R-3202 with subarea ceiling altitudes of 18,000 feet MSL (R-3202A), 14,000 feet MSL (R-3202B) and 11,000 feet MSL (R-3202C). These differences limit both air-to-ground and air-to-air training, creating a "maze" through which aircrews must navigate. However, this maze provides no particular training value since it offers artificial, unchanging boundaries for flying. As an impermanent means to address these non-uniform ceilings, the 366th Wing regularly requests the FAA for temporary altitude reservations above these MOAs and extending up to 50,000 feet MSL when included with ATCAA.

The Owyhee MOA provides opportunities for both low- and medium-altitude training, including air-to-air activities and some air-to-ground operations that do not involve ordnance delivery. The portion of the Paradise MOA in Idaho completely overlies the Owyhee MOA, extending from the Owyhee's upper limits of 14,500 feet MSL to 17,999 feet MSL. Since the ground underlying the Owyhee MOA generally ranges from 4,000 to 5,500 feet MSL in elevation, the upper limits of the Owyhee MOA lie at or below 10,000 feet AGL. Therefore, supersonic flight activity, which occurs only above 10,000 feet AGL, is extremely rare in this MOA. Rather, these activities occur in the portion of the Paradise MOA that overlies the Owyhee MOA.

Limitations of this airspace stem from its north and south horizontal extent. In the north, the Owyhee and overlying Paradise MOAs taper to form a V-shaped boundary that lies about 20 NM south of the MOA's northernmost limits. In the south, restrictions on the overflight of the Duck Valley Reservation effectively create a southern boundary to the MOAs that extends about 9 NM north of their southernmost boundary. These restrictions are based on the Air Force's Good Neighbor Policy and a formal agreement with the Shoshone-Paiute Tribes (see section 1.4.4.2 for a list of the restrictions). These constraints, in combination with the limitations on the northern edge of the MOAs, result in a relatively narrow (15 NM) block of airspace over the Owyhee canyonlands in which aircrews must operate. It also serves to

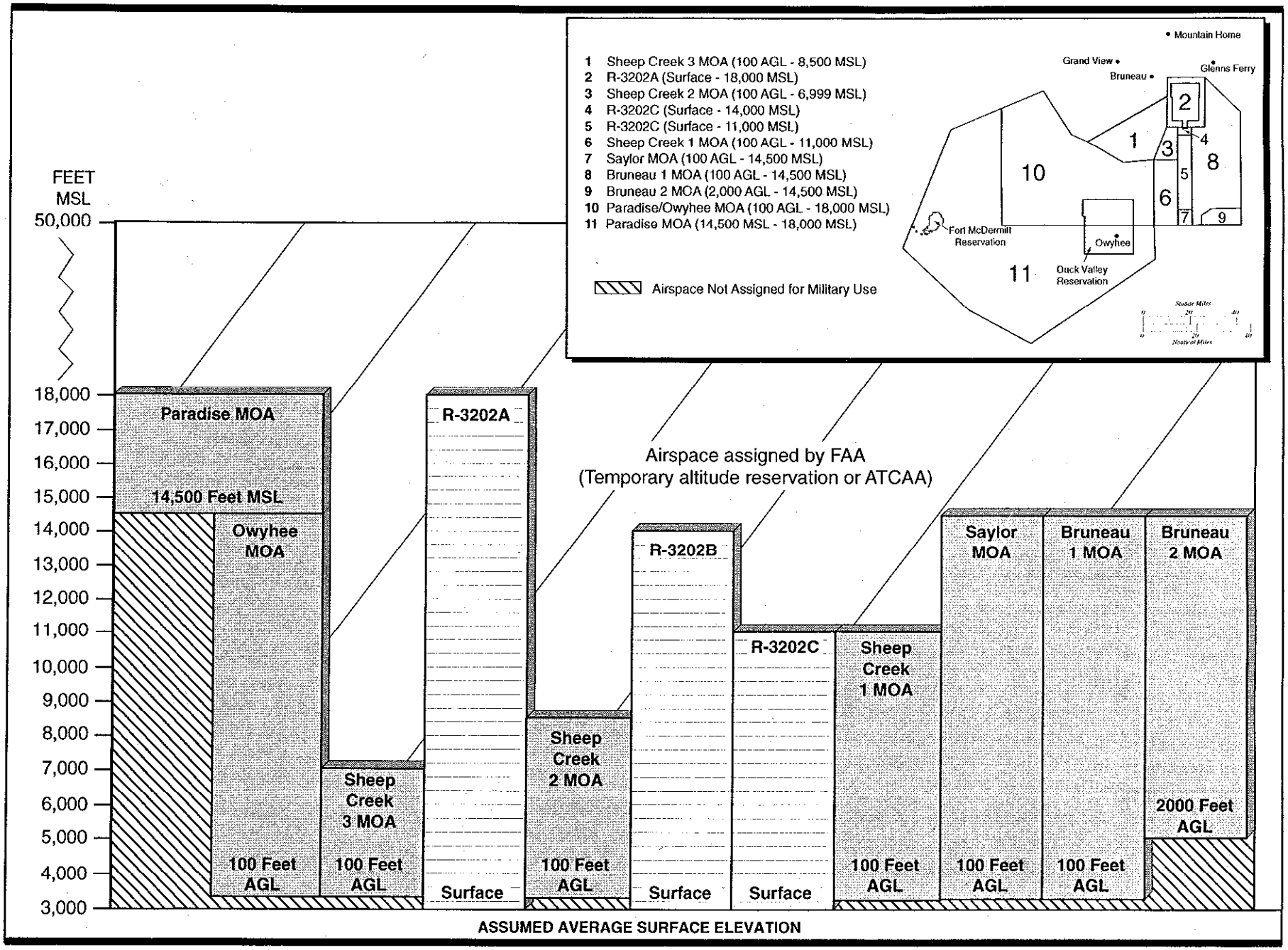

Figure 1.3-4 Current Altitude Structure for R-3202 and Six Associated MOAs, and Owyhee and Paradise MOAs

funnel aircraft through this area, restricting the size and configuration of aircraft formations and CWTs.

Both the Saddle and Paradise MOAs receive use for air-to-air training due to their higher floor altitudes. However, the restrictions on overflight of the Duck Valley Reservation (described above) also apply to the eastern portion of the Paradise MOA in Nevada. Implementation of these avoidance procedures creates a narrow, less useful block of MOA airspace between the eastern edge of the MOA and Reservation. The Saddle MOAs provide a collecting area for groups of aircraft prior to CWT or other exercises at SCR.

MTRs, ATCAA, AND AERIAL REFUELING FLIGHT TRACKS

The 366th Wing also trains in a set of 13 MTRs, ATCAA, and aerial refueling flight tracks.

MTRs, which consist of airspace corridors with narrow vertical and horizontal limits, provide navigation routes and access to MOAs and restricted airspace. MTRs are needed primarily for access and low-level navigation training. To support these training needs, a sufficient number of MTRs providing numerous points of access are required. Aircraft commonly operate at altitudes from 500 to 1,000 feet AGL on MTRs. Most MTRs are established with segments between 100 and 500 feet AGL, but ACC policy restricts low-level flight below 500 feet AGL.

Refueling tracks are also necessary. Because the aircrews in the 366th Wing need to be proficient in aerial refueling, the airspace assets available to these units must include adequate permanent air refueling anchors / tracks. The local refueling tracks should be available on a daily basis to permit simultaneous refueling of different aircraft.

ATCAA is airspace above 18,000 feet MSL designed to accommodate non-hazardous, military flight training activities. This airspace remains in the control of the FAA and, when not in use by military aircraft, may be used to support other aviation activities. Extending up from 18,000 feet MSL above the MOAs, the ATCAA permits military aircraft to conduct high-altitude, air-to-air combat training; practice evasion maneuvers; perform air refueling; and initiate some attacks on targets.

1.3.2.3 ACCESSIBILITY OF TRAINING ASSETS

Accessibility of training ranges and airspace consists of two major components: (1) proximity of range and airspace assets; and (2) availability of ranges and airspace. Range and airspace assets located near a base provide aircrews with the opportunity to maximize the training value of their finite flying hours. Through the annual budgetary process, the President, Congress, and Pentagon officials determine the funds available to use for fuel and flying hours. These allocations are then divided among the major commands within the Air Force, and the headquarters for each command allocates finite flying hours to each base, with specific allocations for each type of aircraft. Then, the base correlates the training and operational requirements necessary to its defined mission(s) with these finite flying hour allocations, and

determines the number, duration, and nature of the sorties for the aircrews and aircraft. Just like any budget, flying hour allocations must be used carefully to ensure the base meets its requirements with finite resources.

Maximizing the value of training for each flying hour expended represents a fundamental challenge for the 366th Wing. Existing local range and airspace assets, as described above, fail to provide all the realism, quality, and flexibility needed to enhance the 366th Wing's training. However, the proximity of these assets to Mountain Home AFB means that the aircraft sortie-operations involve minimal transit time and maximized training time. In contrast, the remote ranges and airspace at NAFR, Fallon Training Range Complex (FTRC), and UTTR offer more training opportunities than currently exist in local airspace. While these remote ranges offer CWT opportunities that vary from adequate to excellent, they do not operate to support the daily training needs of the 366th Wing. Transit to and from these remote locations yields almost no training value relative to the large expenditure of flying hours. Table 1.3-3 illustrates the ratio of combat training time to total flying time for representative fighter training sorties in Owyhee MOA and South UTTR. South UTTR offers training airspace with appropriate altitude limits similar to those in the Owyhee MOA. In contrast, the North UTTR does not offer appropriate airspace even though it is closer to Mountain Home AFB. The computer program "F-Plan" optimized fuel flow for transit. Each aircraft type had similar training configurations and used representative airspeeds and altitude profiles.

Ranges and airspace located farther than UTTR, such as NAFR and FTRC, would yield less combat training time relative to total flying time. Since fighter aircraft represent 54 of the 66 aircraft in the 366th Wing, diminishment of combat training time would reduce the overall effectiveness of training of the wing.

NAFR and UTTR, although managed and operated by the Air Force, directly support the missions and training of the units based at Nellis AFB and Hill AFB, respectively. In addition, NAFR also supports numerous flag (e.g., Red Flag) exercises throughout the year, as well as testing of next generation aircraft and weapons systems. With all of these demands, the NAFR receives considerable use, about 64,000 sorties per year. At UTTR, nearly 16,000 sorties are conducted each year, and it also serves as a weapons and aircraft testing venue. FTRC, which is managed, operated, and predominantly used by U.S. Navy aircrews for daily training, as well as the Top Gun school, supports over 30,000 sorties annually within its relatively small airspace.

Since the managing and operating units schedule use of these ranges and airspace areas, their associated aircrews receive first priority for training. Other users, such as the 366th Wing, receive only the remainder of the available training time. Such availability may not coincide with the date or time needed by the 366th Wing for specific training activities, or the portion of the range or airspace available at the time may not meet the particular requirements for that training mission. Occasionally, changes in availability can occur while aircraft are en route, causing either an aborted training mission or a modification to the training activity which results in less, or sometimes none of the training than originally scheduled. Users of these

Table 1.3-3. Comparison of Average Transit Time Expended by 366th Wing Aircraft in Accessing Local and Remote Ranges and Airspace

Airborne Refueling	*Location*	*Time*	AIRCRAFT		
			F-15C	*F-16C*	*F-15E*
Without	Owyhee MOA	Total Time	55 min	1 hr 4 min	1 hr
		Combat Training Time	21 min	26 min	24 min
		% Combat Training Time	38%	40%	40%
	South UTTR	Total Time	1 hr 39 min	1 hr 40 min	1 hr 32 min
		Combat Training Time	14 min	15 min	15 min
		% Combat Training Time	15%	15%	16%
With	Owyhee MOA	Total Time	1 hr 41 min	1 hr 53 min	1 hr 47 min
		Combat Training Time	30 min	38 min	35 min
		% Combat Training Time	30%	34%	33%
	South UTTR	Total Time	2 hr 14 min	2 hr 28 min	2 hr 20 min
		Combat Training Time	24 min	27 min	26 min
		% Combat Training Time	18%	18%	19%

ranges not affiliated with the managing units have, therefore, only limited opportunities for quality realistic training, and must expend substantial portions of their allocated flying hours to accomplish it. While the 366th Wing has conducted and can continue to conduct its training using a combination of local and remote range and airspace assets, that training would be enhanced through establishing more realistic, flexible airspace and range assets in proximity to and under the control of Mountain Home AFB.

1.3.2.4 LIMITATIONS OF AVAILABLE ASSETS

The 366th Wing seeks to enhance the flexibility, efficiency, and realism of local training to support and maintain operational readiness. The current local range, target, emitter, and airspace assets have deficiencies in four key areas that detract from their ability to meet these needs.

Configuration and Location of SCR and Its Restricted Airspace. SCR offers limited tactical target arrays, and does not provide a realistic battlefield complex that allows for variation in training attacks. While the ground area would allow for establishment of tactical targets to meet these needs, such targets would not be useful due to the limitations of the restricted airspace (R-3202A). To accommodate the appropriate number, dispersal, and configuration of targets necessary to enhanced training, the restricted airspace would need to be expanded to the north, northwest, and northeast. However, the presence of established federal airways, jet routes, and population centers within the additional required area prevent expansion of the restricted airspace. Therefore, without changes to the current restricted airspace, any new target arrays at SCR would not offer enhanced training. The existing restricted airspace for SCR limits the approach to targets to only south to north; precludes multidirectional (360 degrees) approaches needed for realistic, quality training; prevents simultaneous attack of different targets by different aircraft; and offers insufficient maneuvering room for Composite Wing tactics. All of these limitations diminish the quality of training available to the 366th Wing.

MOA Airspace Size and Structure. The current vertical and horizontal size and configuration of the MOA airspace in southwest Idaho and its vicinity restrict air-to-air training, force size, CWT, and more effective use of the airspace. For the six MOAs used and scheduled with SCR , numerous different ceiling altitudes create an unrealistic maze that artificially limits both attack and evasion maneuvers and tactics. Such limitations force aircrews into patterns of flying that do not enhance mission accomplishment or survival in actual combat. Differences in ceiling altitudes among these six MOAs also degrade the effective use of the airspace, since all of the airspace must currently be used for one set of training activities at a time. With higher, equal ceiling altitudes, the airspace could be divided vertically, allowing for more than one training activity to occur while ensuring safe separation between aircraft.

As described previously, the current configuration of the Owyhee MOA, in combination with the flight restrictions over the Duck Valley Reservation, creates limited operating and maneuvering room in the eastern portion of the MOA. This narrowing not only increases air

traffic density in the area, it severely restricts the size and configuration of CWT force formations, limits the variation available for approaches to and escapes from target areas on SCR, and confines air-to-air engagements. All of these factors result in less realistic training, causing aircrews to conduct operations that offer limited flexibility.

The flight restrictions associated with the Duck Valley Reservation also affect the utility of the eastern portion of the Paradise MOA. With only a narrow gap between the Reservation and the edge of the MOA, the airspace can be effectively used only for transit from one MOA to another. To ensure adherence to the flight restrictions, aircrews limit maneuvering and air-to-air combat training in this narrow area. As such, the capacity of this portion of the Paradise MOA to support training for the 366th Wing is restricted.

These limitations on the airspace also reduce the Air Force's ability to implement seasonal and locational avoidance of specific locales in response to public and agency concerns without further degrading training.

Emitter Sites. Realistic, quality training requires aircrews to react to and successfully defeat an array of enemy threats, either aircraft or ground based. To provide effective training, the locations of such threats must be unexpected to the aircrews for each training mission. Existing ground-based electronic emitters cannot provide this needed variation. At present, only four sites exist, and three of the four lie within SCR at consistent locations. Although outside of the range, the fourth also is situated at the same site consistently. Consistent siting of electronic emitters provides none of the realism needed to challenge aircrews and ready them for combat. In contrast, numerous dispersed sites for electronic emitters would permit considerable variation, challenging aircrews on a daily basis and enhancing training.

CWT Support Capacity. Although the 366th Wing conducts some CWT using the local MOAs, restricted airspace, and SCR, the factors outlined above limit both the nature and effectiveness of that training. The 366th Wing predominantly must use remote ranges to accomplish this training, expending finite flying hours in transit and scheduling CWT at the convenience of the managing and operating units. Enhancement of training would allow the 366th Wing to conduct a greater proportion of its CWTs within the local airspace, achieving higher quality, and more realistic training for the expenditure of each flying hour.

1.3.3 Additional Assets to Enhance Training

The Air Force and Bureau of Land Management (BLM) have worked with other interested parties to identify alternatives that enhance training while addressing both operational and environmental considerations consistent with the philosophy of balancing mission readiness with the environment. Refer to section 2.1.1 for a description of these considerations and how they apply to the alternative identification process.

Based on the Air Force's and BLM's efforts, as well as input from public scoping, three range development alternatives were identified (refer to section 2.3) to meet the needs for flexible,

high-quality training. These alternatives contain provisions for the establishment of integrated capabilities consisting of a tactical range that permits non-explosive training ordnance delivery, no-drop targets, and emitter sites, and reconfigured airspace.

1.3.3.1 ESTABLISHMENT OF A TACTICAL RANGE

To meet enhanced training objectives, the training range needs to have an array of four targets that, in total, encompasses approximately 70 acres. These targets would lie within a 300-acre primary training ordnance impact area. The 300 acres would be in a relatively square tract of land covering about 12,000 acres. The configuration and size of the proposed range would permit aircrews to safely perform a number of ordnance delivery events using only small (up to 25 pounds), non-explosive training ordnance. However, some ordnance delivery events could not be performed at this range, nor could larger inert ordnance be used. While limiting some ordnance delivery events, the range size and shape would accommodate a broad variety of events sufficient to enhance training. This size and configuration for the range would also achieve quality training while affecting the smallest amount of land practicable.

1.3.3.2 ESTABLISHMENT OF NO-DROP TARGETS

To enhance realism and the variability needed to challenge aircrews, five no-drop (no ordnance used) targets would be included as part of the improved training assets. The targets would consist of one 640-acre no-drop target and four, five-acre no-drop targets. The fenced, no-drop targets would include real or life-sized plastic replicas of battle tanks and trucks, a simulated surface-to-air missile complex, early warning radar sites, and buildings that represent two, small industrial complexes. The variety and dispersal of targets would allow the planning and practicing of complex missions similar to actual combat, while minimizing ground disturbance and effects on the environment. All no-drop targets would be located under existing MOA airspace.

1.3.3.3 ESTABLISHMENT OF ELECTRONIC COMBAT EMITTER SITES

An electronic emitter site is a gravel pad for parking a truck. Establishment of 10, one-acre electronic emitter sites and 20, one-quarter-acre electronic emitter sites on BLM land in southwest Idaho would provide the opportunity to vary simulated threats and their locations. These emitter sites would serve as operating locations for mobile electronic emitters that simulate anti-aircraft defensive systems. Five to eight sites would be used during a normal workday, and up to 15 sites could be used for a 2- to 3-day period during exercises. The number of sites would allow emitters to be moved frequently providing a realistic, constantly changing threat and target combination.

1.3.3.4 MODIFICATIONS TO AIRSPACE

To accommodate a tactical range, training activities, multiple dispersed emitter sites, and to disperse present aircraft activity, the existing airspace would need to be modified. The airspace modifications would accommodate the alterations and further enhance the utility and value of

the airspace as a training asset. Modifications and additions of airspace give aircrews additional room to maneuver toward the targets from many directions and angles, disperse air traffic throughout the MOAs, and provide for greater realism in air-to-air training without artificial limits. Proposed modifications and additions include (1) modifying airspace to establish restricted airspace over and in the vicinity of a proposed tactical range; (2) modifying the internal boundaries of existing MOAs; (3) additions of MOA airspace; and (4) modifications to existing restricted airspace.

1.4 ENVIRONMENTAL IMPACT ANALYSIS PROCESS

This EIS provides fundamental information for separate decisions to be made by the Air Force, State of Idaho, BLM, FAA, and Congress.

The ***Air Force*** intends to make the following decision:

- Select one of the four alternatives evaluated in the EIS. The four alternatives are the No-Action Alternative, in which the 366th Wing would continue to use existing local and remote ranges and airspace assets, and three operationally equal range development alternatives that enhance the effectiveness and quality of training for the 366th Wing. Each of the three range development alternatives consists of four major integrated components:
    - A 12,000-acre tactical training range site where non-explosive training ordnance would be dropped on targets within a 300-acre primary ordnance impact area.
    - One 640-acre and four five-acre no-drop target areas, where training ordnance would not be used.
    - Thirty emitter sites (20 one-quarter-acre and 10 one-acre) that would be used intermittently to simulate anti-aircraft and surface-to-air missile radar emplacements.
    - A modified airspace structure to improve the flow of training aircraft.

If the Air Force selects one of the range development alternatives, this EIS will be used by the following agencies or government bodies:

The ***Department of Interior (DOI), BLM*** to make decisions regarding

- Withdrawal of public lands for the purposes of implementing the selected alternative; and
- Granting of rights-of-way for use, improvement, or construction of roads, emitter sites, and a power transmission line.

The ***State of Idaho*** to make decisions concerning the

- Lease of those State of Idaho lands within the selected alternative.

The ***FAA*** to make decisions concerning the

- Approval of airspace modifications associated with the selected alternative, including modifications to MOAs and rulemaking actions to establish restricted airspace over the 12,000-acre training range.

Congress to make decisions concerning

- The content and enactment of legislation withdrawing those specific public lands associated with the selected alternative.

The environmental impact analysis process (EIAP) for the proposal to enhance training in Idaho described in section 1.3.3 addresses three separate but related requirements. The requirements are outlined below, and the section discussing each in detail is denoted in parentheses:

- NEPA requires federal agencies to consider environmental consequences of their proposals in deciding whether to proceed with those proposals (section 1.4.1).

- Federal Land Policy Management Act (FLPMA) governs administration of public lands by the BLM, including land withdrawals (section 1.4.2) as specified under the Engle Act (refer to Appendix I).

- The FAA's process and procedures that govern establishment of special use airspace (section 1.4.3).

This EIS has been prepared to meet the requirements of NEPA and meets the requirements of FLPMA with respect to documenting the environmental consequences associated with the proposed land withdrawal. It also fulfills FAA requirements with respect to documenting environmental consequences of airspace modifications.

1.4.1 Environmental Impact Analysis Process

1.4.1.1 REQUIREMENTS OF NEPA

NEPA (Public Law [PL] 91-190, 42 United States Code [USC] 4321-4347, as amended) was enacted to establish a national policy for the protection of the environment. It also established the Council on Environmental Quality (CEQ) to implement the provisions of NEPA and review and appraise federal programs and activities in light of NEPA policy. CEQ promulgated regulations for implementing the procedural provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508). These regulations outline the responsibilities of federal agencies under NEPA and provide specific procedures for preparing EISs to comply with NEPA. Air Force Instruction (AFI) 32-7061, which implements the CEQ regulations with regard to Air Force actions, defines the steps and milestones in the EIAP. Part 2300 of 43 CFR

1600 (Department of Interior's NEPA implementing regulations) specifies requirements for land withdrawal, as well as the requirement for environmental analysis.

The major milestones in this EIAP include the following:

- publication of a Notice of Intent (NOI) to prepare an EIS;
- publication of a NOI for Proposed Withdrawal and Opportunity for Public Meeting;
- scoping by inviting public and agency input to determine and define the significant issues to be addressed in the EIS;
- collecting information on the existing environment, including field studies, to provide a baseline for analyzing the effects of the alternatives;
- assessing the potential impacts of the proposed action and alternatives on the environment;
- preparation and distribution of a DEIS for public review and comment;
- a public review period (90 days for FLPMA), including public hearings to solicit comments on the analysis presented in the DEIS;
- preparation and distribution of an FEIS incorporating all comments received on the DEIS and responding to the substantive issues raised during the public review period; and
- publication of a ROD, no sooner than 30 days after the availability of the FEIS, outlining the Air Force's decision.

1.4.1.2 COOPERATING AGENCIES

The Air Force is the proponent for the proposal to enhance training in Idaho and is the lead agency for the preparation of the EIS, as well as for the FLPMA documentation.

As defined in 40 CFR §1508.5, a cooperating agency

> means any Federal agency other than a lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major Federal action significantly affecting the quality of the human environment . . . . A State or local agency of similar qualification . . . may by agreement with the lead agency become a cooperating agency.

The following agencies are identified as cooperating agencies in this project:

Bureau of Land Management. The BLM administers all of the public lands comprising most of the proposed range alternatives and associated sites for no-drop targets and emitters. The BLM is responsible for processing the land withdrawal application and prepares a case file for the DOI to submit to Congress under the Engle Act of 1958 and the FLPMA of 1976.

Federal Aviation Administration. Congress has charged the FAA with administering all navigable airspace in the public interest as necessary to ensure the safety of aircraft and the efficient use of such airspace. The portion of the proposal to change the configuration of the airspace leads to the FAA's participation as a cooperating agency.

State of Idaho. State school endowment lands governed by the Idaho Land Board and administered through the Department of Lands occur within the proposed training range alternatives, as well as within some of the proposed no-drop targets and emitter sites. All state coordination regarding the proposal for ETI will be coordinated through the Governor's office.

1.4.1.3 PUBLIC INVOLVEMENT PROCESS

AFI 32-7061 and CEQ regulations require an early and open process for identifying significant issues related to a proposed action and obtaining input from the affected public prior to making a decision that could significantly affect the environment. These regulations specify public involvement at various junctures in the development of an EIS, including public scoping prior to the preparation of a DEIS, and public review of the DEIS prior to finalizing the document and making a decision.

Extensive public scoping was held throughout southwest Idaho and in Oregon and Nevada from June 4 through July 2, 1996. Scoping comments and perspectives were incorporated into the DEIS, including preparing an additional alternative proposed by scoping comments.

Public review of the DEIS included public hearings at various locations throughout southern Idaho and the Duck Valley Reservation. The purpose of the public hearings was to solicit comments relevant to the adequacy of the DEIS from government agencies, private organizations, and the public. The objective was to receive the comments and address them in the EIS. The public hearings were part of a 123-days public review process that began with the publication of the Notice of Availability in the Federal Register and public distribution on May 9, 1997. However, filing of the DEIS with the Environmental Protection Agency and Congressional distribution occurred on April 28, 1997. The comment period was originally scheduled to close on August 6, 1997, but was extended for 33 days to end the comment period on September 8, 1997. News releases were prepared to announce the extension of the comment period. Postcards were also distributed announcing the extension.

Public notification for the hearings was accomplished through newspapers, radio, and television stations. A news release for the public hearings appeared in the Federal Register on

May 2, 1997, and the DEIS Notice of Availability appeared in the Federal Register on May 9, 1997. A display ad advertising the public hearings was published in several local newspapers.

Seven public hearings were held at the six locations shown in Table 1.4-1. Four hundred and sixty-two people attended the seven hearings. One hundred and forty-two people provided verbal comments, 59 turned in written comments at the hearings, and 83 input their comments on computers that were available at the hearings. By the close of the comment period on September 8, 1997, a total of 1,372 written comments were received.

Table 1.4-1. Public Hearing Schedule and Locations

City	*Date*	*Facility*
Mountain Home, ID	Tuesday, June 3	Mountain Home Auxiliary Gym and Foyer
Grand View, ID	Wednesday, June 4	Grand View Elementary School Gym and Foyer
Twin Falls, ID	Thursday, June 5	College of Southern Idaho, Shields Bldg, Rooms 117/118 and Room 106 for displays
Three Creek, ID	Friday, June 6	Three Creek School House
Owyhee, NV	Monday, June 9	Human Development Center
Boise, ID	Thursday, June 12	Boise State University, Jordan Ballrooms B and C
Boise, ID	Friday, June 13	Same as June 12

1.4.1.4 SUMMARY OF ISSUES IDENTIFIED DURING THE PUBLIC INVOLVEMENT PROCESS

Many commentors expressed interest in the proposal during the public hearing process. Individuals indicated their support of Air Force activities and the proposed enhanced training activities. Others indicated concerns about the proposal to enhance training in Idaho. Specific issues and concerns focused on the following:

Airspace Expansion. Concerns were expressed regarding expanding the airspace north of the current Owyhee and Sheep Creek Three MOA boundaries. Concerns were expressed that Little Jacks Creek WSA and bighorn sheep populations under the expanded airspace would be adversely impacted.

Biological Resources. Concerns centered upon the effects of noise and overflights on wildlife. Comments addressed the need to understand the effects on bighorn sheep, sage grouse, pronghorn antelope, smaller mammals, raptors, and other wildlife. Impacts upon native, threatened, and endangered plant communities as a result of fire, increased human presence, and improved roads were also of concern.

Noise Effects. Concerns regarding aircraft noise measurement and annoyance from noise were expressed in relation to humans and wildlife. Articles were cited dealing with helicopter

overflight impacts. Commentors expressed concern that noise could cause annoyance to humans and abandonment of habitat or direct mortality through stress to wildlife. Commentors raised concerns that increased noise would adversely affect recreation by degrading solitude or the wilderness experience.

Quality of Training. Commentors, especially those with family members in the military, expressed concerns with the rapid pace of technological change and the wing's ability to keep training in step with that change. They recognized that the quality, realism, and flexibility of training is critical to success during combat or contingency operations and that good quality training, based on sound military technical principles saves lives and valuable assets purchased with taxpayer dollars.

Need for the Proposed Range. Commentors indicated that they did not believe there was a need for enhanced training. The comments also proposed use of remote ranges, such as the UTTR, as alternatives to enhanced training capabilities in Idaho. Some commentors expressed the opinion that existing overflights and the No-Action Alternative were unacceptable.

National Defense. Commentors acknowledged the importance of the 366thWing and voiced support for a strong National Defense. The unique mission of the Composite Wing was noted to be a critical element to the National Defense objectives.

Recreation/Aesthetics. Commentors expressed concern that the proposed training range would interfere with recreational boating, hiking, and hunting, or that military presence impacted the solitude and beauty of the canyons and desert. Concern was expressed that road improvements would increase access and lead to recreational overuse of the area.

Native American Traditional Resources. Commentors expressed concern that current airspace use, additional activities, or new training facilities could contribute to degradation of traditional environmental and cultural resources highly valued by the Shoshone-Paiute Tribes.

Importance of Mountain Home AFB. Commentors noted the continued presence of Mountain Home AFB is important to people and economy of the State of Idaho. As one of the state's largest employers, Mountain Home AFB contributes over $250 million annually to the region's economy.

Economics and Overflights. Concerns were expressed regarding the effect of the proposed range upon permittee ranch operations. Concerns were expressed that the proposal could impact the recreational economics of game species such as pronghorn antelope, mule deer, sage grouse, special bighorn sheep hunts, and rafting outfitters.

1.4.1.5 ISSUES RAISED THAT ARE BEYOND THE SCOPE OF THIS ENVIRONMENTAL IMPACT STATEMENT

The public scoping process resulted in comments on policy and comments on previous decisions that are outside the scope of this EIS. These concerns include the following:

National Needs Assessment. A national needs assessment for training ranges and associated airspace was requested. A national needs assessment itself is beyond the scope of this EIS.

Basing of the Composite Wing at Mountain Home AFB. The decision to base the Composite Wing at Mountain Home AFB was required by law as a result of the recommendations of the 1991 Defense Base Closure and Realignment Commission and the Defense Base Closure and Realignment Act of 1990. The President approved and Congress accepted the recommendations. The effects of this realignment action were analyzed in the EIS on *Proposals for the Air Force in Idaho* (Air Force 1992), and the ROD was signed in March of 1992.

Helicopter Activities. Concerns were expressed regarding private, agency, commercial, and military helicopter operations in southwest Idaho. The proposal for ETI does not include helicopter training. Helicopter activities in southwest Idaho are conducted by the Idaho Department of Fish and Game, BLM, Idaho Army National Guard (IDARNG), and emergency or life flight operations. The IDARNG performs low-altitude (100-200 feet AGL) helicopter operations in the Triangle Training Area, located over the southwest portion of the Owyhee Mountains, and at SCR. Military helicopter activity over southwest Idaho is not expected to change. Ongoing IDARNG helicopter activities in the region are incorporated into cumulative analysis as part of the baseline conditions and, thereby, carried into all alternatives including the No-Action Alternative. Since there are no proposed changes to current incidental helicopter activity as a result of ETI, there is no separate analysis of the environmental consequences of existing helicopter activities.

Authorization for Supersonic Flight. Air-to-air flight activity can result in sonic booms. Training that involves supersonic flight has been authorized above 10,000 feet AGL in the military airspace over Idaho since 1992. The environmental consequences of authorizing supersonic flight were analyzed in the EIS on *Proposals for the Air Force in Idaho.* This EIS analyzes the effects of changes to training resulting from ETI that would alter supersonic flight activities above 10,000 feet AGL and its potential impacts.

1.4.2 Land Withdrawal Process

The Air Force proposes to assume management responsibilities of approximately 12,000 acres of public land currently managed by the BLM. Under the Engle Act of 1958, the approval of Congress is required for withdrawal of lands over 5,000 acres for a DoD project or facility. In order to withdraw lands, DoD submits an application to the appropriate BLM state office. The procedures for processing withdrawal applications are set forth in the land withdrawal regulations (43 CFR 2300). Withdrawal procedures include the following:

- application (March 29, 1996)
- notice of the proposed withdrawal in the *Federal Register* (April 8, 1996)

- public comment period (90 days) (concurrent with the ETI DEIS public comment period)
- conducting DoD/BLM public meetings (concurrent with the ETI DEIS public meeting)
- conducting environmental analysis necessary for the application (included in the ETI EIS and appendices)
- management plan for the use of the withdrawn public land
- land report summarizing issues transmitted to BLM headquarters with findings of recommendation transmitted to the BLM Washington office
- Congressional consideration and approval of withdrawal legislation prepared by the BLM Washington office

This environmental impact analysis process fulfills the central requirement of the land withdrawal process – conducting the studies necessary for the application and providing documentation for the case file. Under FLPMA, several studies and associated documentation, including a NEPA analysis and document, are required. For the ETI proposal, Table 1.4-2 lists the studies and documentation performed and provided in compliance with FLPMA regulations. The Air Force and BLM consulted on the organization and format of the FLPMA documents, and determined that many of the required studies would best be included as appendices to this EIS. Furthermore, this consultive effort determined that (1) a report on water requirements within the withdrawal is unnecessary since the Air Force proposes no use of water from those lands; and (2) the Contamination Report, which is required under the Engle Act, would follow the protocols and format of the Air Force's more rigorous Environmental Baseline Survey.

The body of this EIS presents the information on and analysis of all the resource categories required under FLPMA documentation. Baseline information and impact analyses within the EIS cover all areas and resources within the potentially affected environment. In contrast and as required by FLPMA, the other FLPMA documents included as appendices or elsewhere focus only on those lands and resources within the lands proposed for withdrawal under the range development alternatives. As outlined above, this EIS and the associated FLPMA documentation will comprise a substantial portion of the withdrawal package submitted by the DOI to Congress, should a decision to proceed with a withdrawal result from this process.

Table 1.4-2. FLPMA Requirements and Documentation

FLPMA Requirement	*Documentation Prepared for ETI*	*Location of Documentation*
Preparation of an EIS or EA on the proposed withdrawal	ETI EIS	ETI EIS
A statement as to the extent and manner in which the public participated in the environmental review process	Statement of Public Participation	Appendix B
Study of the existing known and potential sources of contamination within the proposed withdrawn lands	Contamination Report [1]	Appendix C
Analysis of the known and estimated mineral potential and market demands for lands within the proposed withdrawal	Mineral Inventory	Appendix D
Determination if the proposed withdrawal includes floodplains or wetlands	Wetlands and Floodplains Report	Appendix E
A statement concerning the requirements for water use and the presence of water rights within the withdrawal	Water Rights Listing (no water use is proposed by the Air Force)	Appendix F
A Biological Assessment of threatened or endangered species and their critical habitat within the withdrawal or in its vicinity	Biological Assessment	Separate report
Identification of cultural resources within the withdrawal	Cultural Resources Report	Separate Report (due to sensitive and confidential nature of resource)
Identification of roadless areas or roadless islands within the withdrawal	Land Use Report	Appendix G
A report on present land uses and the effects of withdrawal on those uses	Land Use Report	Appendix G
Analysis of the economic impact of the proposed uses of the withdrawal	Economic Impact Report	Appendix H
Evidence of consultation with federal, state, and local agencies and nongovernmental groups and individuals	Persons and Agencies Contacted Statement of Public Participation	Chapter 7.0, EIS Appendix B and Chapter 8
Prior to final action on the withdrawal, preparation of, with the coordination of the BLM, a plan and implementation program regarding the use and management of withdrawn lands and their related resources	Proposed outline of Resource Management Plan and implementation program	Appendix M

Note: 1. Required under Engle Act of 1958.

1.4.3 Federal Aviation Administration Actions

Navigable airspace is a limited national resource. Congress has charged the FAA with administering navigable airspace in the public interest, as necessary, to ensure the safety of aircraft and the efficient utilization of such airspace.

FAA actions related to proposed changes in SUA discussed in this EIS fall into two categories. The first consists of rulemaking actions to review, assign, or modify restricted areas proposed in conjunction with establishment of a training range. The second category consists of nonrulemaking actions and includes modifications to MOAs where the FAA has the authority to make the final decision without issuing a rule, regulation, or order. FAA Handbook 7400.2, Procedures for Handling Airspace Matters, outlines specific procedures for each type of airspace action.

The main steps in the FAA airspace modification process are as follows:

- *Identify Airspace/Aviation Impacts.* In this initial step, the FAA considers the baseline conditions and characteristics of the airspace environment in the location of modifications proposed by the Air Force. This assessment would identify potential conflicts and issues relating to the proposed modifications.

- *Analyze Alternative Airspace Actions.* The FAA analyzes the potential consequences of the proposed modifications and alternatives on the environment and airspace. To reduce duplication of effort and documentation, the FAA will use the analysis in this EIS as the basis for this step.

- *Define Preferred Airspace Plan*. Based on the analysis, the FAA identifies a preferred plan for the airspace modifications. Again, this EIS forms the documentation for that plan.

- *Review Public Comment*. The FAA reviews the public comments regarding the DEIS in accordance with NEPA.

- *Publish Notice of Proposed Rulemaking.* Based on the public comments and any changes to the airspace plan it may engender, the FAA publishes a Notice of Proposed Rulemaking for the restricted airspace proposals in the *Federal Register*.

- *Issue Rulemaking Decision*. Subsequent to the ROD for this EIS, the FAA issues a rulemaking decision or a determination for approval of the airspace proposals. If the proposed modifications to the airspace are approved, charting revisions would be made in appropriate aeronautical publications.

1.4.4 Government-to-Government Relations

To fulfill its responsibilities under various laws, regulations, and agreements, the Air Force has paid special attention in this EIS to Native American interests and concerns. The United States government has a unique legal relationship with Native American tribal governments. The Shoshone-Paiute Tribes at Duck Valley and the Shoshone and Paiute Tribes at Fort McDermitt each act as a sovereign entity in its relationship with the federal government, and the federal government has various trust responsibilities concerning tribal interests. In recognition of this relationship, the Air Force has conducted discussions with the Shoshone-Paiute Tribes of the Duck Valley Reservation and corresponded with the Shoshone and Paiute Tribes at Fort McDermitt regarding various aspects of the ETI proposal.

1.4.4.1 LEGAL MANDATES PERTAINING TO NATIVE AMERICAN ISSUES

Several laws and regulations address the requirement of federal agencies to notify or consult with Native American groups or otherwise consider their interests when planning and implementing federal undertakings.

In particular, on April 29, 1994, the President issued the *Memorandum on Government-to-Government Relations with Native American Tribal Governments,* which specifies a commitment to developing more effective day-to-day working relationships with sovereign tribal governments. Among the provisions of this memorandum are the following requirements:

- The head of each executive department and agency shall be responsible for ensuring that the department or agency operates within a government-to-government relationship with federally recognized tribal governments.

- Each executive department and agency shall consult, to the greatest extent practicable and to the extent permitted by law, with tribal governments prior to taking actions that affect federally recognized tribal governments. All such consultations are to be open and candid, so that all interested parties may evaluate for themselves the potential impact of relevant proposals.

- Each executive department and agency shall assess the impact of federal government plans, projects, programs, and activities on tribal trust resources and assure that tribal government rights and concerns are considered during their development of such plans, projects, and activities.

- Each executive department and agency shall take appropriate steps to remove any procedural impediments to working directly and effectively with tribal governments on activities that affect the trust property and/or governmental rights of the tribes.

Other legal mandates requiring consideration of Native American interests include:

- *National Historic Preservation Act (NHPA) of 1966.* The NHPA requires agencies to consult with Native American tribes if a proposed federal action may affect historic properties to which they attach religious and cultural significance.

- *American Indian Religious Freedom Act (AIRFA) of 1978.* AIRFA sets the policy of the United States to "protect and preserve for Native Americans their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian . . . including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship though ceremonies and traditional rites."

- *Archaeological Resources Protection Act (ARPA) of 1979.* ARPA addresses archaeological resources, which may or may not be on the National Register of Historic Places. ARPA requires issuance of a permit to conduct archaeological excavation or collection on federal land. ARPA states, "If a permit issued under this section may result in harm to, or destruction of, any religious or cultural site, as determined by the Federal land manager, before issuing such permit, the Federal land manager shall notify any Indian tribe which may consider the site as having religious or cultural importance."

- *Native American Graves Protection and Repatriation Act (NAGPRA) of 1990.* Among other things, NAGPRA requires federal agencies to consult with tribes concerning the discovery and disposition of Native American human remains and cultural items, which may or may not be archaeological resources or historic properties, on federal land.

- *Executive Order (E.O.) 13007, Indian Sacred Sites.* E.O. 13007, issued on May 24, 1996, requires that in managing federal lands, agencies must accommodate access and ceremonial use of sacred sites, which may or may not be protected by other laws or regulations, and must avoid adversely affecting the physical integrity of these sites.

- *Federal Land Policy and Management Act:* FLPMA (discussed in more detail in section 1.4.2) requires BLM to manage public land in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resources, and archaeological values. These resources may or may not be sacred sites, cultural items, archaeological resources, or historic properties.

1.4.4.2 GOOD NEIGHBOR POLICY

The location of the Duck Valley Reservation under the local MOA airspace for Mountain Home AFB has been a point of concern throughout the base's history. The 366th Wing's Good Neighbor Policy evolved from the early 1980s and attempted to lessen the impact on the Duck Valley Reservation by restricting overflights of the Reservation to 750 feet AGL. In 1993, the

wing raised the restriction to 1,500 feet AGL. In 1994, the 366th Wing Commander expanded the policy to avoid overflights of the Reservation, except for emergencies, below 15,000 feet AGL, and to avoid the use of chaff and flares and supersonic activity at any altitude over the Reservation. To formalize this policy, on August 7, 1996, the Air Force agreed, absent compelling national security circumstances, military contingencies, or hostilities, to the following:

- The Air Force will not use supersonic airspeeds for training operations over the present boundaries of the Duck Valley Reservation.
- The Air Force will not use flares at night at any altitude, or use flares during the day below 20,000 feet AGL, for training operations over the present boundaries of the Duck Valley Reservation.
- The Air Force will not use chaff for training operations over the present boundaries of the Duck Valley Reservation.
- The Air Force will not fly at any altitude within 5 NM of the town of Owyhee (defined as a point located at the coordinates N41°58'.0", W116°10'.0") except during emergencies, such as aircraft mechanical problems or the avoidance of adverse weather.
- The Air Force will not fly below 10,000 feet AGL, and the Air Force will voluntarily not fly below 15,000 feet AGL, for training operations over the present boundaries of the Duck Valley Reservation except during emergencies, such as aircraft mechanical problems or the avoidance of adverse weather.
- To the greatest extent practicable, the Air Force will temporarily reschedule or relocate aircraft operations outside the present boundaries of the Duck Valley Reservation so as to avoid disturbance to ceremonies or other special traditional activities, upon reasonable notification by the Shoshone-Paiute Tribes.

1.4.4.3 TREATIES

Three treaties, one ratified and two unratified by the U.S. Government, form the basis for claims by the Shoshone-Paiute Tribes for lands in southwest Idaho:

Treaty of Ruby Valley. This treaty was negotiated on October 1, 1863 with the Western Shoshone by a special commission appointed by President Lincoln, ratified by the U.S. Senate on June 26, 1866, and proclaimed on October 21, 1869.

Boise River Treaty. This treaty was negotiated on October 10, 1864 between the governor and superintendent of Indian Affairs for Idaho and the Boise Shoshone. It was never ratified by the U.S. Senate.

Bruneau Treaty. On April 12, 1866, the Bruneau Treaty was negotiated between the Bruneau Shoshone Nation and the governor and superintendent of Indian Affairs for Idaho. This treaty was also never ratified by the United States.

Each of these treaties is discussed in more detail in section 3.9.1.

1.4.4.4 OUTREACH PROCESS

Since 1991, the Air Force has solicited information from the Tribal Council of the Shoshone-Paiute Tribes about the Air Force's various on-going activities and proposed actions. These initial efforts have evolved into an outreach program in which there are now frequent meetings and communication between the Shoshone-Paiute Tribes and the Air Force. As a result of the outreach program, the Air Force now has a better understanding of the concerns of the Shoshone-Paiute, the reasons for these concerns, and possible ways to address them.

The Air Force first met with the Shoshone-Paiute Tribes in 1995 while developing the initial proposal and alternatives for ETI. Since that time and throughout the ETI EIAP, additional consultation has been conducted to further refine the alternatives in response to information gathered during field studies and literature reviews. The proposal was modified whenever possible. Briefings, site visits, and meetings between the Air Force and the Shoshone-Paiute Tribes or Tribal representatives since May 1995 are listed in Table 1.4-3**.**

During these meetings and briefings, the Shoshone-Paiute raised concerns about a variety of environmental issues. These are discussed in appropriate parts of Chapters 3 and 4, and particularly in sections 3.9 and 4.9. Also, in February 1994, E.O. 12898, entitled *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directed federal agencies to identify disproportionately high and adverse environmental effects of their programs, policies, and activities on minority and low-income populations. Impacts related to Native American concerns are addressed throughout Chapter 4; section 4.12.6 specifically discusses environmental justice.

1.4.5 Other Regulatory and Permit Requirements

Other federal laws, regulations, policies, and permits that may apply to the alternatives are listed in Appendix I.

Table 1.4-3. Meetings Between the Air Force or Its Representatives and the Shoshone-Paiute Tribes (page 1 of 3)

Date	*Format*	*Location*	*Summary/Participants*
20 May 1995	Visit	Duck Valley Reservation, Owyhee, NV	Air Force (366WG/CC, 366WG/DS) and Tribal Chairman discuss ETI proposal and relations between 366th Wing and DVR.
20 September 1995	Briefing	Duck Valley Reservation, Owyhee, NV	Air Force gives briefing to DVR on the ETI proposal.
6 December 1995	Conference	Duck Valley Reservation, Owyhee, NV	Air Force (366WG/DS, SAF/GC, 366WG/MDG) attends DVR's First Health, Economic, Education and Tribal Government Summit.
21 February 1996	Visit	Mountain Home AFB, ID	Tribal Council tours Mountain Home AFB and attends briefings. Includes overview of ETI proposal.
21 May 1996	Site Visit	Clover Butte area, ID	Air Force (366WG/DS), BLM, Air Force contractor, and DVR representatives visit Clover Butte 12,000-acre training range (Alternative B).
22 May 1996	Site Visit	Grasmere area, ID	Air Force, BLM, Air Force contractor, and DVR representatives visit Grasmere 12,000-acre training range (Alternative C).
23 May 1996	Briefing	Grasmere EC site, ID	Air Force meets with ranchers and DVR representatives to give update on ETI.
28 May 1996	Meeting	Boise, ID	Air Force, DVR, BLM, ISHS, and Air Force contractor discuss cultural resources surveys for ETI.
20 June 1996	Meeting	Duck Valley Reservation, NV	Meeting with Tribal members summarizing the scope of the ETI proposal and soliciting comments from Tribal members. Attended by BLM and Air Force (366WG/DS, 366RANS/CC, AF/XOOR)
11 July 1996	Briefing	Duck Valley Reservation, Owyhee, NV	Air Force gives briefing to DVR representatives on the ETI proposal.
7 August 1996	Site visit	Grasmere area, ID	DVR representatives and Air Force contractor visit Grasmere 12,000-acre training range (Alternative C).
22 August 1996	Site visit	Grasmere area, ID	DVR representatives and Air Force contractor visit Grasmere 12,000-acre training range (Alternative C).
19 September 1996	Meeting	Boise, ID	Air Force, BLM, ISHS, IDFG, Air Force contractors, and DVR representatives attend ETI Environmental Review Meeting.

Table 1.4-3. Meetings Between the Air Force or Its Representatives and the Shoshone-Paiute Tribes (page 2 of 3)

Date	*Format*	*Location*	*Summary/Participants*
20 September 1996	Meeting	Duck Valley Reservation, Owyhee, NV	Air Force (366WG/DS, 366RANS/CC, 366 OSS) and Air Force contractor give presentation to Tribal Chairman and Tribal Council on ETI, including Juniper Butte alternative (Alternative D).
24 September 1996	Site Visit	Juniper Butte area, ID	Air Force (366WG/DS, 366RANS/CC), Air Force contractor, ISHS, IDFG, BLM, and DVR representatives visit Juniper Butte area (Alternative D).
8 November 1996	Site visit	Grasmere area, ID	Air Force (366RANS/CC), Air Force contractor, and DVR representatives visit proposed emitter sites and no-drop target areas west of Highway 51.
9 December 1996	Meeting	Duck Valley Reservation, Owyhee, NV	Air Force (AF/XOO, AF/XOOR, and 366WG/DS) meets with Tribal Chairman and Tribal Council to review ETI and associated studies.
9 January 1997	Meeting	Grasmere EC site, ID	Air Force (366RANS/CC) and Air Force contractor meet with DVR representatives to discuss proposed emitter sites and no-drop target areas.
22 January 1997	Meeting	Duck Valley Reservation, Owyhee, NV	Air Force (AF/XOOR, ACC/DOR, 366WG/DS) and Air Force contractor review ETI proposal and cultural resource studies with Tribal Chairman, Tribal Council, and other DVR representatives.
14 March 1997	Meeting	Mountain Home AFB, ID	Tribal Chairman from DVR meets with 366 WG/CC and 366 WG/DS.
9 June 1997	Public Hearing	Duck Valley Reservation, Owyhee, NV	ETI Public Hearing held on DVR.
29 July 1997	Meeting	Mountain Home AFB, ID	Tribal Chairman and Council Member from DVR meet with 366 WG/DS and 366th ETI Team to discuss ETI DEIS.
5 December 1997	Meeting	Duck Valley Reservation, Owyhee, NV	Air Force (366 WG/DS, AF/XOOR) and BLM representatives meet with Tribal Chairman and Council Members at DVR to discuss ETI and other issues.
10 December 1997	Meeting	Duck Valley Reservation, Owyhee, NV	Air Force (366 WG/CC, 366 WG/DS, 366 OSS) and IDANG (266 RANS/CC) meet with Tribal representatives to discuss government-to-government relationship with the Tribes.

Table 1.4-3. Meetings Between the Air Force or Its Representatives and the Shoshone-Paiute Tribes (page 3 of 3)

Date	*Format*	*Location*	*Summary/Participants*
9 January 1998	Meeting	Duck Valley Reservation, Owyhee, NV	Air Force (366 WG / DS, AF / XOOR, SAF / MIQ) and BLM meet with Tribal representatives to discuss ETI EIS.
13 January 1998	Meeting	Duck Valley Reservation, Owyhee, NV	Air Force (366 WG / DS) delivers Confidential Review Copy of ETI EIS to Tribal representatives.

Notes: 366WG / CC = 366th Wing Commander
366WG / DS = 366th Wing Director of Staff
366RANS / CC = 366th Wing Range Squadron Commander
AF / XOO = Headquarters Air Force, Director of Operations and Training
AF / XOOR = Headquarters Air Force, Range and Airspace Division
ACC / DOR = Air Combat Command Airspace and Range Office
366WG / MDG = 366th Wing Medical Group
366 OSS = 366th Wing, Operational Support Squadron
DVR = Duck Valley Reservation
SAF / GC = Secretary of the Air Force / General Counsel
BLM = Bureau of Land Management
ISHS = Idaho State Historical Society
IDANG = Idaho Air National Guard
266 RANS / CC = 266th Range Squadron Commander
SAF / MIQ = Secretary of the Air Force, Environment, Safety, and Occupational Health