

**STATEMENT OF
BRIGADIER GENERAL JOHN L. BARRY**

**COMMANDER, 56TH FIGHTER WING
UNITED STATES AIR FORCE**

on

**MILITARY LAND WITHDRAWAL ACT of 1986
(PUBLIC LAW 99-606)
BARRY M. GOLDWATER AND NELLIS AIR FORCE RANGE
LAND WITHDRAWAL RENEWALS**

BEFORE THE

**SENATE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON READINESS AND MANAGEMENT SUPPORT
UNITED STATES SENATE**

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Testimony

**Statement Prepared for
Senate Armed Services Committee
(Subcommittee on Readiness and Management Support)
Brigadier General John L. Barry
Commander, 56th Fighter Wing**

Mr. Chairman and members of the committee, thank you for this opportunity to speak to you regarding the military operational use and significance of the Air Force ranges subject to renewal of withdrawal under Public Law (PL) 99-606, the Military Lands Withdrawal Act of 1986. I am here today to talk with you about the importance of two national training assets that are critical to our continued status as the most capable military force in the world: the Barry M. Goldwater Range (BMGR) and the Nellis Air Force Range (NAFR).

Host to the BMGR is the 56th Fighter Wing at Luke AFB while the Air Warfare Center (AWFC) located at Nellis AFB hosts the Nellis Air Force Range. The mission of the 56th Fighter Wing at Luke AFB is to train the world's finest F-16 pilots for U.S. and allied forces while maintaining a high state of expeditionary responsiveness. It is the largest fighter training wing in the world, with over 200 aircraft on the flight line. All F-16 operational fighter pilot training is performed at Luke, where we fly over 45,000 sorties annually.

The mission of the Air Warfare Center is to provide graduate level combat readiness training and instruction for experienced United States Air Force, Navy, Army, Marine Corps, and coalition aircrews. It hosts the United States Fighter Weapons School and the 422nd Test and Evaluation Squadron. The Air Warfare Center is unique in that it possesses F-15Cs and Es, F-16s, and A-10s as well as the B-52 and B-1. These aircraft support "PhD-level" instructor

training, development of combat employment tactics, and evaluation of aircraft weapon systems and munitions of the Air Force. There is also an F-16 unit that serves as “aggressor” aircraft that simulate enemy employment tactics during Air Combat command’s Red Flag and Green Flag large force exercises. Between 1995 and 1997 the NAFR averaged about 65,000 aircraft sorties annually. These sorties were conducted by over 20 different types of aircraft from all four services and 22 allied countries. The NAFR is the largest, most sophisticated test and training range in the world. It is highly instrumented and provides a dense, high fidelity, simulated surface-to-air missile environment thereby providing a realistic combat training environment.

The fundamental purpose for renewing the Barry M. Goldwater Range and the Nellis Air Force Range is to preserve an indispensable component of the national defense training base needed for the continued and future readiness of American forces who defend the security of the nation and its interests. The need for a realistic combat training environment that allows aircrews to train the way they plan to fight in actual combat is an unquestionable lesson demonstrated throughout the history of aerial warfare. This was most recently validated in the Persian Gulf War and is presently being reaffirmed in Kosovo. During the short but intense air campaign in Iraq, the United States lost no aircraft to air-to-air engagements and very few to enemy surface fire.

Let me compare our pilot training to our educational system. All pilots attend undergraduate pilot training to learn the basic airmanship skills common to all aircraft. Next they move on to graduate training at a training unit like Luke where they specialize in a weapon system like the F-16. While at Luke, many of our pilots spend up to seven months in training learning the basic combat skills of air-to-ground and air-to-air combat in the F-16. We look at the Nellis

ranges as our post-graduate level training ground where we take experienced aircrew members flying several different aircraft and integrate them with combat forces from the other services and our coalition partners to form a highly effective combat fighting force.

I will first discuss Luke AFB and the BMGR and then cover some specifics on Nellis AFB and the NAFR.

Barry M. Goldwater Range (BMGR)

About 95% of all fighter pilots in the Persian Gulf war trained on the BMGR. Notably, 50 percent of the F-16, most of the F-15, 100 percent of the F-15E, and 100 percent of the A/OA-10 aircrews that fought in the Gulf War were trained on the BMGR as students. Most of the F/A-18 and AV-8B aircrews from the Navy and Marine Corps were also trained on the BMGR.

Four to six months after a student pilot graduates from training at Luke AFB, they are likely to find themselves in a combat situation, such as patrolling the no-fly zones in Iraq or supporting NATO air strikes in Serbia and Kosovo. Renewal of the range is not just about aircraft, weapons, and defense capabilities, but it is about people as well. The BMGR is about the safety and security of service men and women who are asked to go in harm's way on behalf of their country. These men and women need the skills to both do their jobs well and survive.

The BMGR is one of the nation's most productive military reservations for training tactical aircrews since World War II. As the nation's second largest military reservation, the range

has the training capabilities, capacities, and military air base support needed to sustain a major share of the country's aircrew training needs into the foreseeable future. The range is the center point of a semicircular array of military air bases, airspace, and ranges that form a highly flexible training complex. It lies within the unrefueled flight radius of 12 Air Force, Marine Corps, Navy, Army, Air National Guard, and Army National Guard air bases in Arizona and southern California, as well as Navy aircraft carriers in the Pacific Ocean. This joint relationship delineates the increasingly unique significance of the BMGR as a national training asset.

The BMGR is an ideal location for a training range. Arizona's year-round good weather results in less than 3% of planned and scheduled sorties being canceled due to weather. It consists of 2.7 million acres of relatively undisturbed Sonoran Desert. Overhead are 57,000 cubic miles of airspace where fighter pilots practice air-to-air maneuvers and engage simulated battlefield targets on the ground. Its immense size allows for simultaneous training activities on the nine air-to-ground ranges and two air-to-air ranges. More than 50 aircrews and aircraft may be operating simultaneously on the range while performing many independent training operations. We take full advantage of this opportunity—56th Fighter Wing pilots flew approximately 31,000 sorties on the range in FY 1996, and about 34,000 sorties in FY 1997 and 1998. Several other installations also use the BMGR, flying a total of 68,000 sorties in FY 1998 and utilizing the range about 95% of its available time.

The Gila Bend Air Force Auxiliary Field provides all range operations and maintenance support for airspace blocks R-2301E, R-2304, and R-2305. It has an 8,500-foot runway that provides an alternative landing field for aircraft on the BMGR that experience in-flight

emergencies or have hung ordnance that precludes their flying over populated areas. The proximity of the Auxiliary Field to BMGR sub-ranges has accounted for numerous aircraft “saves” over the years. In the last 14 months alone, four F-16s have landed there with less than one minute of engine operating time remaining. This facility has paid for itself many times over.

The Air Force manages training on the eastern side of the BMGR, while the Marines, operating from MCAS Yuma (which is within 10 NM of R-2301W), manage the western side. Working in cooperation with the Bureau of Land Management (BLM), the Air Force helps maintain and manage the natural and cultural resources of the entire BMGR.

The BMGR provides quality airspace and ranges for the following installations: 56 Fighter Wing at Luke AFB; 355 Wing at Davis-Monthan AFB; 162 Fighter Wing at Tucson Air National Guard; 944 Fighter Wing (Reserve) at Luke AFB; Air National Guard Snowbird Operations at Davis-Monthan AFB; Western Army Aviation Training Site (WAATS) at Silverbell Army Air Field; Marine Corps Air Station (MCAS) Yuma, and numerous other military users. The close proximity of the BMGR to each of these installations allows for low level navigational and threat reaction training en route to the range, realistic range ingress and egress training, and the capability to accomplish instrument procedures and visual pattern training before landing. Twenty military training routes (MTR) terminate on the BMGR allowing for realistic combat training scenarios.

Simply put, these characteristics provide maximum quality training on each sortie flown.

The primary mission of the 56 Fighter Wing, the 162 Fighter Wing, and the 355 Wing is to train pilots in the F-16 and A-10 fighter aircraft. Approximately 63% of all F-16 student training sorties utilize the BMGR, and about 72% of A-10 student training sorties utilize the BMGR. The remaining sorties are flown in nearby blocks of airspace.

F-16 student pilots fly to the range in MTRs, which are corridors where high-speed low altitude flight is authorized. Pilots accomplish low level navigation and threat reaction training while enroute to the range in the MTR. The A-10 aircraft utilize a large low altitude tactical navigation area to the east of the range to ingress and egress the target ranges.

The seven air-to-ground ranges on the eastern side allow student pilots to use their weapon systems on targets of increasing complexity. The four manned ranges each have four targets for dropping of practice bombs, and two targets for strafing. Personnel in observation towers score the pilots' bombing accuracy, and an automated system scores the strafe accuracy. The three tactical ranges (North, South, and East TAC) are not manned. Accuracy is measured by the aircrews' observations. There are 18 target arrays on North TAC, 17 on South TAC, and 34 on East TAC. Target arrays include vehicle convoys, simulated airfields and missile batteries, mock battlefields with friendly and enemy forces.

Student pilots start with the basics: shooting the 20mm cannon and dropping practice bombs on ground controlled and scored targets at the manned ranges. As their skills improve, they graduate to targets on the three tactical ranges. The combination of broad valleys and

rugged mountains provides the varied terrain to allow target engagements from various angles and directions, thus providing a broad variety of practice scenarios.

The air-to-air range is a block of airspace from ground level to 80,000 feet, and is authorized for supersonic flight above 5,000 feet above ground level. It is equipped with an air combat maneuvering instrumentation system (ACMI), with transceivers on the ground to electronically track the movements and tactics of aircraft engaged in air-to-air combat. No live weapons are used—the winners and losers are determined by electronic scoring. We are upgrading this system to track up to 36 aircraft simultaneously. The air-to-air range in airspace block 2301West, operated by the Marine Corps, already has this capability. Several adjoining airspace blocks can be combined for large-scale exercises, providing a training area of approximately 40 by 150 nautical miles.

In addition to serving as a training ground for student pilots, the eastern portion of the BMGR is also used by mission-ready A-10s from the 355 Wing, 944 Fighter Wing F-16s, and National Guard and Reserve F-16 squadrons deployed to Snowbird Operations at Davis-Monthan AFB. These units accomplish their annual air-to-air and air-to-ground weapons delivery training requirements on the BMGR. This training is crucial for pilots to maintain their mission-ready combat skills.

The Army Reserve National Guard (ARNG) trains approximately 110 aircrews annually in the Cobra and Apache attack helicopters. During the weapons training phase, the aircrews deploy to Gila Bend AFAF, which is located within the BMGR. The aircrews use the East Tactical

Range as their primary training area, which is just 15 nautical miles southeast of Gila Bend AFAF. This provides ARNG with an excellent tactical-training-to-flying-hour ratio.

MCAS Yuma has operational control of airspace known as block R-2301West, which constitutes the western portion of the BMGR. It is primarily used for air to air combat training for Marine and Navy aircrews. R-2301W is within un-refueled range of numerous Marine and Navy units in southern California and aircraft carrier based units off the California coast.

The total number of sorties flown on the BMGR by all users varies from year to year, ranging from a high of 98,785 in 1989 to a low of 58,056 in 1992. Amongst all the operational users, approximately 68,000 sorties were flown on the BMGR in FY 98.

Almost all of the munitions dropped on the range are inert (non-exploding) practice bombs. But there are five pinpoint locations on the range where we do drop live, high explosive weapons. Three of these are in the eastern portion of the range, giving our student pilots the experience of employing live heavy weight munitions in a training environment prior to combat. We typically drop about 142,000 practice bombs on the range, compared to about 1,900 live bombs.

Most of the land area on the BMGR serves as a safety buffer. Only about three to seven percent of the 2.7 million-acre BMGR is intensively used for roads, target areas, and support facilities. The remaining acreage is relatively undisturbed Sonoran Desert. Federal Aviation Administration regulations generally require positive control of the land under restricted airspace,

either by ownership, lease, or withdrawal. 2.7 million acres is huge when viewed from the ground, but zips by quickly from the perspective of a pilot flying at 500 knots.

The Department of Defense considers the high quality, quantity, and diversity of training that can be achieved from the BMGR to be a national asset. Environmental interest groups and others also see the vast, wide-open valleys, highly adapted plant and animal life, and 10,000 years of human history of this portion of the Sonoran Desert ecosystem as a national ecological and cultural asset. Almost sixty years of military training has minimized other human intrusions, such as mining, ranching, agriculture, intensive recreation, and urban encroachment. Owing to the relatively pristine conditions on most of the BMGR, some conservation organizations and individuals are now petitioning the federal government to establish even greater protective measures for the BMGR.

Our staff biologists and archaeologists are specifically trained in the culture and ecology of southwestern Arizona, and have developed comprehensive programs to inventory and monitor the resources entrusted to our care. These comprehensive programs were recognized within the Air Force and the Department of Defense on numerous occasions, winning individual and group awards for management of natural and cultural resources and overall environmental management.

We conduct workshops and field trips, produce brochures and videos, provide public speakers, and are always looking for new, innovative ways to manage these precious resources openly, responsibly, and collaboratively.

Threatened and endangered species are studied closely to develop strategies for recovery, and to ensure there are no negative impacts from military training. For example, we completed surveys for the cactus ferruginous pygmy-owl and acuna cactus prior to these species being listed as endangered. This resulted in US Fish and Wildlife Service rendering a “no jeopardy” biological opinion for our military operations. We still continue to survey for these species-- last month our biologists walked over thirty miles to conduct survey transects.

The primary natural range of the endangered Sonoran pronghorn antelope in the U.S. occurs on the BMGR. Their numbers have not changed appreciably over the decades—seasonal fluctuations, likely due to drought cycles, vary from about 120-200 animals. The most important limiting factor for these animals appears to be extremely sparse vegetation they rely on for forage.

Over all the years of military training on the range, there is no record of the death of a Sonoran pronghorn antelope due to military operations. Multi-year studies of the effects of military training on pronghorn are in progress, to include effects of aircraft noise, night missions, and why pronghorn seem to prefer foraging in target areas. To date, the data indicate there is little or no effect on pronghorn from military training.

Before dropping live high explosive bombs on designated impact areas, we send biologists into the field to ensure there are no pronghorn within 5 kilometers of the target. If there are, the missions are either redirected or canceled.

Our biologists are members of the Sonoran pronghorn recovery team. They serve along with members of the US Fish and Wildlife Service, Cabeza Prieta National Wildlife Refuge, Marine Corps, Organ Pipe Cactus National Monument, Arizona Game and Fish Department, Bureau of Land Management, Tohono O'odham Nation, and biologists from the sister parks across the border in Sonora, Mexico. Since pronghorn migrations cross jurisdictional boundaries, it makes sense to work together to formulate a recovery strategy that encompasses all areas where the pronghorn are found.

A Native American Liaison position was established as a result of the 1989 record of decision resulting from an environmental impact statement on supersonic flights in the Sells Military Operations Area (MOA). This was in response to concerns of the Tohono O'odham Nation that turnover of military personnel hindered their ability to resolve issues. The liaison serves as a single point of contact to respond to operational issues and concerns of the Nation.

Our archaeologists developed a multi-year strategy for inventorying and protecting cultural resources sites. To date we surveyed about 3.5% of the 2.7 million acres, cataloguing over 1,000 archaeological sites. As more areas are surveyed we are finding an increased need for site protection. Most of those sites are imperiled due to natural erosion or vandalism, not from military training.

We teamed with the National Park Service to develop a site condition database to track the condition of archaeological sites over time. This database is compatible with that used at

Organ Pipe Cactus National Monument, resulting in a regional database adding to the body of knowledge on cultural history of the southwest.

We also teamed with the Arizona State Historic Preservation Office to develop a site stewards program for the range, which we call Partners in Preservation. It is a volunteer program, similar to Adopt-a-Highway, where volunteers are trained to monitor archaeological sites to report damage or vandalism. A training session was held just last month for 30 volunteers in Ajo, and word of mouth is resulting in many more volunteers.

The Air Force provided funds to various tribes to identify old villages, cemeteries, and other traditional cultural places and sacred sites that are important to the desert people. By identifying these sites we can ensure they receive the protection and provide access to the tribes for religious and spiritual ceremonies. Another project is the collection of oral histories from elders and having the tribes write the cultural history from their perspective to better understand traditional uses of the area.

All these projects and other information are being used to develop an Integrated Cultural Resources Management Plan for the BMGR. It is a monumental undertaking-- we consulted with 26 Native American tribes in Arizona, California, and New Mexico to seek their cooperation. We are formalizing these extensive contacts by establishing cooperative agreements in the spirit of government-to-government relations.

This Integrated Cultural Resources Management Plan was praised by the Arizona State Historic Preservation Office and the federal Advisory Council on Historic Preservation as setting a new standard. The plan will include programmatic agreements with tribes to establish procedures for site management, protection, and handling of artifacts.

Our staff of professional biologists and archaeologists work to integrate the military training mission with the fragile ecosystem of the Sonoran desert. The DOD Commander's Guide to Biodiversity quotes General Joseph W. Ralston, Vice Chairman of the Joint Chiefs of Staff: "By working as a team we can preserve both the natural diversity of military training areas and our opportunity to train the way we plan to fight now and in the future." We fully support this vision.

Last year we partnered up with the Cabeza Prieta National Wildlife Refuge, MCAS Yuma, Arizona Game and Fish Department, Bureau of Land Management to form the BMGR Executive Council (BEC) for collaborative management of resources and issues which cross jurisdictional boundaries in order to enhance our respective missions. We have since added the neighboring Organ Pipe Cactus National Monument and the US Border Patrol, which conducts major operations along the border areas of the BMGR, Organ Pipe Cactus National Monument and the Cabeza Prieta National Wildlife Refuge.

We are committed to working with these agencies, the tribes, and the public to continue ecosystem management of the range. We render assistance to each other as needed. For example, Air Force biologists augmented Organ Pipe Cactus National Monument on a recent

survey of cactus ferruginous pygmy owls. The BEC improved dialogue among the agencies, resulting in a better cross-flow of technical data on endangered species and other issues.

The BEC also provides the means and a forum for public involvement in management of the range. About every four months the BEC agencies hold their Partners Meetings, which are open to the public. Each agency reports their issues and accomplishments, followed by joint subcommittee reports. The entire meeting is an open forum for questions or discussions from the public. Consequently, the meetings provide an informative, civil discussion of issues.

The importance of this region has been recognized by the Wildlands Project, an environmental interest group. They have recognized the BMGR as an essential element of the health of the Sonoran Desert. In their report, “State of the Desert Biome”, they stated that:

The combined area of the Pinacate Biosphere reserve [along the U.S. border in Mexico], Organ Pipe Cactus National Monument, and the Barry M. Goldwater Air Force Range is the largest contiguous, essentially unfragmented area under protective management in the lower 48 states or Mexico.

We’re committed to maintaining our protective management and proud of our stewardship of the range. We are also committed to working with the Marine Corps and our other partner agencies on the BEC. Additionally, we work with our counterparts on a larger basis – the Southwest Strategy, a team consisting of federal land managers in Arizona and New Mexico; the

International Sonoran Desert Alliance, a grassroots U.S.-Mexico-Tohono O'odham Nation environmental interest group; and the regional cooperation resulting from the October 1997 Letter of Intent between the US Secretary of the Interior and his Mexican counterpart.

Nellis Air Force Range (NAFR)

Whereas Luke AFB is used for initial F-16 pilot training, Nellis AFB is used for advanced “graduate” and “Ph.D.-level” aircrew training. President Roosevelt established the NAFR in October 1940. Its mission in its infancy was to train B-17 aircrews. Since its inception, the NAFR has been continuously used as a training range except for a two year period from 1947 to 1949 when it was deactivated due to post WWII drawdowns. However with the emergence of the Cold War in the late 1940's, the Air Force reopened the range and it has remained in high demand ever since. Virtually all USAF combat and combat-support aircraft, and most of our sister service and allies' combat aircraft, come to train on the NAFR. In fact, almost 100% of all current mission ready Air Combat Command fighter and bomber aircrews have flown training exercises on NAFR. These statistics have been fairly consistent through the use history of the NAFR and can be traced as far back as the 1950s. Many aircrews over the years have affectionately referred to the NAFR as the “home of the fighter pilot.” Presently, the Air Combat Command's goal is for each of its aircrew members to participate in a Flag exercise every 18 months.

The NAFR also supports many other missions to include the Air Force's first unmanned aerial vehicle, the Predator. Over the last two years, the Predator has been heavily tasked to support the Bosnian theater and is actively involved in the Kosovo conflict, providing crucial reconnaissance data to our aircrews. The Predator is based at the Indian Springs Air Force Auxiliary Field which lies adjacent to NAFR airspace. All initial and mission ready training for the predator is accomplished on the NAFR. The NAFR also hosts Silver Flag Alpha. Silver Flag serves as the desert warfare training center for all USAF security forces personnel.

The NAFR is a 3.1M acre, secure range used for large-scale military testing and training. The NAFR is a unique test and training range absolutely critical to Air Force combat readiness—it provides the most realistic and challenging aerial combat testing and training anywhere in the world. It possesses the most concentrated electronic threat capabilities and extensive target arrays in the world and can be made to simulate the potential battle area aircrews would expect to encounter in actual combat. The NAFR allows for realistic, secure simulation of a battle area, complete with surface and air defense systems, command and control systems, realistic targets, and defensive threats. Additional training systems and instructional aids provide almost instantaneous test and training feedback.

Prior to hostilities in the Persian Gulf War, the Nellis Range was reconfigured to closely simulate the Iraqi electronic battlefield. Both Air Force and Navy aircrews flew rehearsal sorties on the range prior to their deployment to Southwest Asia. Many aircrews stated during the Gulf War that the training scenarios experienced on the Nellis Range were harder than actual combat

conditions encountered in Iraq. One comment made by an F-15E weapon systems operator during the war summarizes the importance of the preparatory training accomplished on both the Goldwater and the Nellis ranges. He was hosting a group of visitors in theater when they asked him what it felt like to fly in combat. He told that before his first combat sortie of the war he was very apprehensive. However, as he sat in the cockpit that first night, he said he was overcome with a supreme sense of confidence. When asked where this confidence came from he said “suddenly, I realized that our technology was the best, our tactics were superior, and that I had received the best training in the world. That’s all it took ... I think the results of the war so far prove I am right!”

Specific activities on the NAFR include developmental and operational test of new aircraft and modifications to existing aircraft, tactics development both for individual weapons platforms and large numbers of aircraft employed in a coordinated attack, and training of US and allied crews. The current Red Flag Measurement and Debriefing System, capable of tracking 36 aircraft, is now being upgraded to the new Nellis Air Combat Training System capable of tracking 100 aircraft. This will significantly improve and enhance our ability to monitor, record, analyze, and provide detailed feedback to aircrews participating in training exercises on the NAFR.

In 1969 during the height of the Vietnam War, the government directed several studies to determine why our air-to-air kill ratio was so low and to develop strategies that would reduce our combat losses. One of the key facts that came out of the studies was that an aircrew’s first 10 missions were the most dangerous. The studies concluded that if our aircrews could be artificially placed in an environment that simulated the first 10 combat sorties, their chances of surviving real

combat missions would significantly increase. Red and Green Flag exercises were thus designed to provide our combat airmen with those critical first 10 “combat” missions in relative safety on the Nellis Air Force Range. Combat by its very nature is not a safe environment, but by giving our combat airmen the most challenging and realistic training possible, we can increase their chances of performing their dangerous missions and returning safely from actual combat.

The NAFR includes approximately 3 million acres of withdrawn land and is comprised of 12,000 square miles of airspace and infrastructure designated for military use. The airspace is comprised of FAA-designated Restricted Areas and Military Operating Areas. The infrastructure includes airfields at Indian Springs and the Tonopah Test Range (TTR) which was once home to the F-117 fighter when it was a secret program. There are 1400 simulated targets, 61 simulated threats, 847 buildings, 1145 miles of roads, 180 miles of power lines, 36 miles of water lines, 1.6M gallons of fuel storage, a microwave backbone and an extensive fiber optic network.

The NAFR currently includes three electronic combat ranges and 163 tactical target arrays containing 1400 simulated targets. It is divided into two functional areas: the North Range and the South Range, both of which accommodate live and practice bombing. The ranges are split to facilitate overall management of Air Force operations and test and training opportunities on the range.

The North Range is comprised of 1.8 million acres of withdrawn land. It contains the TTR air base and four unmanned weapons delivery sub-ranges. The four sub-ranges contain approximately 1120 targets within 129 tactical training complexes. Activities on the TTR include

projectile firings, ground- and air-launched rockets, explosive effects tests, earth penetration tests, cruise missile flights, and any other activities which require a remote location for research and development projects, or for other safety or security reasons. TTR operations are conducted primarily by the Department of Energy's Sandia National Laboratories in Albuquerque, New Mexico, through an agreement with the Air Force. The North Range includes Pahute Mesa and other areas, which are used by DOE through mutual agreement.

The South Range is comprised of approximately 1.2 million acres of withdrawn land. It contains Indian Springs Air Force Auxiliary Field and five weapons delivery areas, which are subdivided into 34 target complexes containing approximately 280 targets. Land adjacent to the South Range is withdrawn for DOE's Nevada Test Site and Yucca Mountain project. Portions of the South Range overlap the Desert National Wildlife Range (DNWR), which was established game range in 1936 for the protection and preservation of desert bighorn sheep. At the beginning of WWII, the Army Air Corps began using the area. Through a 1997 agreement, Air Force and the US Fish and Wildlife Service (USFWS) operations in the overlapping jurisdictional areas on the South Range are mutually governed through pre-coordinated joint management responsibilities and procedures. The Air Force also provides up to 20 hours of helicopter flight time to facilitate the USFWS annual bighorn sheep count on the Desert National Wildlife Range.

The NAFR is located within the southern part of the Great Basin Desert and the eastern portion of the Mojave Desert. Earth resources on the NAFR include mineral deposits, soils, significant landforms, tectonic features, and fossil remains. Mining occurred on the NAFR from the 1860s until 1942 when it was closed to mining. This has resulted in almost all of the mining

sites and towns situated within the NAFR to be preserved in a virtually untouched state. Archeologists continue to be amazed by the cultural richness of these sites. Over 1800 cultural resources have been identified in the NAFR, including early American Indian village sites, historic mining towns, smaller sites and isolated artifacts. Exclusive military use of the NAFR has protected these and other natural resources from impact. Of the 1800 sites, 910 are considered to be significant archeological sites. One of them, Pintwater Cave, contains artifacts dating back 9000 years.

NAFR water resources include surface water and groundwater. Due to the temporary nature of surface water within this arid region, the only perennial surface water comes from springs where the groundwater table intersects the surface. Surface water on the NAFR is currently appropriated for livestock, wildlife, domestic, and irrigation purposes.

The topography of the Great Basin and Mojave Desert transition area of the NAFR includes low-to-mid elevation mountain ranges and valleys that allow plant and animal dispersal between the two deserts. Large tracts of virgin land across the NAFR contribute to a high degree of continuity between habitats. The NAFR is also isolated from domestic livestock grazing and land development. The North Range encompasses the Bureau of Land Management's National Wild Horse and Burro Refuge.

Approximately 3 percent of the NAFR land is actually disturbed and used as target areas, weapons impact areas, roads, threat sites, and infrastructure. The remaining 97 percent, required for safety and security buffers, is protected from operational impacts. As reported in the

Keystone Dialogue on NAFR Stewardship (a group consisting of 65 diverse and interested parties with a variety of competing interests), Final Report, 1998, much of the NAFR is in pristine condition and provides connectivity, or a linkage of habitats, species, communities, and ecological processes, on a landscape scale. The Keystone Dialogue, sponsored by the Air Force's Deputy Assistant Secretary for the Environment, Safety, and Occupational Health was conducted over a one-year period with the participants making 25 recommendations for improving integrated natural resource management on the NAFR.

Nellis AFB and range management personnel use an Integrated Natural Resource Management Plan for short and long-term resource management and protection. In addition, Nellis applies an Integrated Cultural Resource Management Plan approach to for identify, categorize, and protect irreplaceable cultural resources on range lands.

In addition to the Keystone Dialogue, Nellis range personnel manage biodiversity with public interaction through their 5-Party Agreement. The five parties that make up this committee are the Air Force, the Department of Energy, the US Fish and Wildlife Service, the Bureau of Land Management, and the State of Nevada; each have resource management responsibilities on the NAFR. This committee meets semi-annually; every other meeting is open to the public for public interaction.

In compliance with the Special Nevada Report which was mandated by PL 99-606, Nellis AFB also participates in the Joint Military Affairs Committee, and reports regularly to the State of Nevada on present and future range management plans and programs.

Nellis AFB personnel also facilitate and fund an active and very successful Native American Interaction Program. A committee composed of 18 tribes and organizations with historical ties to the land in the NAFR vicinity meets at least semi-annually or more often if needed.

Operating military training ranges requires funding from two separate categories—operations and maintenance (O&M), and environmental conservation. We programmed about \$10 million of O&M funds for maintenance of the Goldwater Range in FY 2000, while Nellis programmed about \$58 million. This includes operating manned ranges and scoring systems, plus maintenance of existing roads and targets. We programmed about \$4 million in FY 2000 conservation funds to manage natural and cultural resources on the Goldwater Range, while Nellis programmed about \$2.1M. The majority of these dollars is compliance driven and enhances our commitment to stewardship. Natural and cultural resource management program funds are used for surveys and management actions for threatened and endangered species, and archaeological surveys to identify and protect sites and traditional cultural places.

Both the Barry M. Goldwater Range and the Nellis Air Force Range have been used almost continuously since the early 1940s, and we expect these missions to continue into the future. The large size of the ranges provided flexibility to accommodate changing weapons systems over the decades. We expect this flexibility to accommodate future weapons systems as well.

Additionally, as the USAF transitions to an Expeditionary Air Force (EAF), the military significance of the NAFR increases even more as this is where our Air Expeditionary Wings will complete final training before they deploy into contingency operations.

As General Newton said when he testified before the Armed Services Committee Readiness Hearing on 4 March 1999, “an unquestionable lesson in the history of aerial warfare is the need for training that replicates the way tactical aircrews will fight in combat.” The BMGR and NAFR meet the needs of today’s combat forces to prepare them for combat.

The Goldwater and Nellis Ranges have been so valuable to us for almost 60 years that we do not foresee a time when they will not be needed. Our just-completed legislative environmental impact statements identified our alternatives for renewing the withdrawals for the long term. Long term withdrawal would enhance our ability to accomplish the military mission, exercise sound environmental stewardship, and interact more effectively with public and agency stakeholders. Long term withdrawal would also ensure the long-term stability, predictability, and accountability needed for effective management of the ranges. The Air Force looks forward to continued cooperative dialogue between the Department of Interior, Department of Defense, Congress, and other agencies regarding the specifics of the new withdrawal legislation.

In closing, the Air Force goal is to use our ranges and airspace to produce and maintain the finest trained military aviators in the world. We are equally committed to balancing our operational requirements with our responsibilities to the public, tribal, state and local governments, and the environment.

Thank you.

**STATEMENT OF
BRIGADIER GENERAL JOHN L. BARRY**

**COMMANDER, 56TH FIGHTER WING
UNITED STATES AIR FORCE**

on

**MILITARY LAND WITHDRAWAL ACT of 1986
(PUBLIC LAW 99-606)
BARRY M. GOLDWATER AND NELLIS AIR FORCE RANGE
LAND WITHDRAWAL RENEWALS**

BEFORE THE

**SENATE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON READINESS AND MANAGEMENT SUPPORT
UNITED STATES SENATE**

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