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ARIZONA'S REPORT TO THE BASE REALIGNMENT AND CLOSURE COMMISSION

Presented By:

GOVERNOR JANET NAPOLITANO

JUNE 24, 2005

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Regional Hearing – June 24, 2005 – Clovis, NM
BRAC COMMISSION – FY 2005
COFF:_____ DISPOSITION: Permanent

Governor Napolitano

STATE OF ARIZONA

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Dear Mr. Chairman and Members of the Commission:

I appreciate the opportunity to meet with you today. I speak today with one voice, but I speak on behalf of every Arizonan -- from the 237 employees at the Air Force Research Laboratory in Mesa to the researchers and students at Arizona State University, from the civilians and military officers in the greater-Phoenix community to every citizen who values Arizona's role in defending our nation.

Your commission was charged with a difficult task, and many of the military installations you identified for closure and relocation play important roles in their communities. Your choices couldn't have been easy ones to make. That said, I respectfully request that you reconsider your decision to move the Air Force Research Laboratory at Williams Gateway Airport in Mesa.

This award-winning Laboratory makes valued contributions to the Air Force and the Department of Defense – contributions that I believe would suffer if the Lab were relocated. The Research Laboratory has made its home in Arizona and depends on its synergy with ASU East and the eight support contractors located at Williams Gateway Airport. Furthermore, the employees of the Laboratory are happily living in Arizona. Eighty percent of the current staff indicates that they will not move to Ohio if the Lab relocates. Thus, if you follow through with your decision, the military will lose eighty percent of the educated, hard-working AFRL researchers.

Additionally, I am pleased to inform you that Arizona and Arizona State University are willing to make a long-term commitment to keeping this Laboratory in Arizona. I ask you to consider transferring ownership of the Lab facility and personnel to ASU, allowing the Lab's important work to continue uninterrupted and retaining the Lab's value for the Department of Defense. A transfer of ownership not only would preserve the Lab, but avoid relocation costs and relieve the Department of Defense of the operating cost of the Lab.

Included in this book you will find a copy of my official testimony before your commission, the Arizona Military Installation Report, Resolutions from the City of Mesa and the Williams Gateway Airport Authority, Letters of Support from members of Arizona's Congressional Delegation and supporting materials about military operations in Arizona. All of these materials help demonstrate the importance of the research Lab in Arizona and show how vital it is to members of the statewide community.

Thank you for your time and your careful consideration of such a critical issue.

Yours very truly,

Janet Napolitano
Governor

Testimony

TESTIMONY OF
GOVERNOR JANET NAPOLITANO

BEFORE THE
BASE REALIGNMENT AND CLOSURE COMMISSION
REGIONAL HEARING

JUNE 24, 2005
MARSHALL JUNIOR HIGH SCHOOL
CLOVIS, NEW MEXICO

Mr. Chairman and Members of the Commission,

Thank you for the opportunity to meet with you today. We recognize the very difficult work of the Department of Defense (DoD) to develop the recommendations that they have made to the Commission, and we understand the gravity of the task that you and your colleagues have undertaken. So we particularly appreciate the opportunity to provide you with a brief overview of the proactive steps taken at every level of government in the State of Arizona over the last 30 years to ensure the long-term operational viability of all military facilities in Arizona. We also respectfully request your favorable reconsideration of the recommendation to close and relocate the Air Force Research Laboratory on the East Campus of Arizona State University in Mesa, Arizona.

Let me be very clear: the State of Arizona has been, is, and will continue to be extremely supportive of the military facilities in our state and the men and women who work there. A strong, continued military presence is a part of our long-term economic future and is critical to our commitment to the security of the United States.

The constellation of military installations in Arizona provides the Department of Defense with unparalleled access to high-quality, weather friendly, cost-effective training for the U.S. Army, Navy, Air Force and Marine Corps. The constellation is comprised of an integrated network of bases, testing and training facilities, ranges, and airspace, anchored by the Barry M. Goldwater Range and its affiliated airspace, that operate within a physical environment that is uniquely suited to their individual and combined missions and to accommodate the nation's evolving defense posture.

Arizonans are confident that as DoD continues to configure its infrastructure in a way that enhances joint war-fighting, facilitates joint training and improves efficiency, that the actions by our State, county and local governments over the last three decades do indeed enhance and improve the military value of those installations. These enhancements have effectively secured the ability of installations in Arizona to successfully carry out their missions today and well into the future.

Since we first enacted legislation in 1978 to preserve the mission viability of military airports by incrementally eliminating the threat of residential and other incompatible land uses, we have taken a comprehensive, coordinated and continuous approach to compatible land use around military installations that is unique to Arizona. While state statutes, such as "the vicinity box,"[1] were initially designed to address concerns in Arizona, they now serve as models for resolving compatibility issues at military installations nationwide and have been acknowledged as such by the National Governors Association and DoD itself. In addition, Arizona has enacted several statutory measures that have combined to do the following:

[1] "Vicinity box" defines the underlying area of the majority of traffic patterns associated with a particular facility. For example, the vicinity box for Luke Air Force Base is a 4x10-mile box. Davis-Monthan Air Force Base's vicinity box is a 5x10-mile box.

- Establish the use of the Air Installation Compatible Use Zone (AICUZ) methodology for the development of land use plans consistent with preserving mission viability of military airports, and require political subdivisions that have territory in the vicinity of a military airport to adopt land use plans and zoning regulations compatible with military airport operations;
- Establish "territory in the vicinity of a military airport," known as "the box," requiring disclosure to property owners; for example, in the case of Luke Air Force Base, the box encompasses 40 square miles;
- Establish enhanced notification of proposed developments to military airports in the State and provide heightened disclosure requirements for the potential purchase of land within the vicinity of a military airport;
- Extend statutory military airport high-noise and accident potential zone protections to auxiliary fields; for example, the Gila Bend Auxiliary Field and Luke's Auxiliary Airfield-1 in Surprise, Arizona; and
- Require notification to potential buyers of real estate underlying military training routes that there is military activity over their land, thereby preserving and protecting access to the Barry M. Goldwater Range and associated airspace, which serves as the centerpiece to and satisfies the needs of all services in Arizona.

Luke Air Force Base is one of the best examples of how Arizona's statutory protections work. At Luke and its two auxiliary fields, Aux. 1 and Gila Bend, Arizona has removed 32,788 acres from the threat of incompatible development – more than double what is currently required through the strict definition of AICUZ.

To continue Arizona's efforts to meet the long-term needs of the Department of Defense and ensure that the military presence remains a strong force in Arizona's economy, I appointed a statewide Military Facilities Task Force when I became Governor in 2003. The Task Force made 27 recommendations – some which required executive action, and others that required legislative consideration at the state and federal levels. I accepted all 27 of the Task Force's recommendations, and we have adopted 18 of them. The remaining nine are pending final implementation.

One of the recommendations I adopted was to create a permanent Military Affairs Commission to effectively pursue long-term preservation and enhancement of the federal military installations in Arizona. We also created a military installation fund, and the Legislature and I have allocated $4.8 million in general funds each year for the next 20 years to address private property rights in our military preservation and enhancement efforts, and to purchase conservation easements near military bases or finance infrastructure improvements as needed.

The cities, town and counties that neighbor the constellation of facilities in Arizona also take an active role in preserving and enhancing the mission of installations across the State. For example,

- The State of Arizona, University of Arizona, Cochise County and the City of Sierra Vista formed the Upper San Pedro (River) Partnership in 1999 to meet the water needs of area residents while supporting the water preservation initiatives of Fort Huachuca and protecting unique river water issues in the region. In addition, the City of Sierra Vista and Cochise County work closely with the DoD Frequency Manager to ensure that the pristine electromagnetic environment is maintained for critical C4ISR testing;
- At Davis-Monthan Air Force Base, the City of Tucson has adopted noise contour lines exceeding the compatibility requirements for the current aircraft based at Davis-Monthan; the Tucson Unified School District has closed Keen Elementary School located off the end of the runway; and last year, Pima County voters approved a $10 million bond to purchase private property to ensure that local development is compatible with the Base;
- At the Marine Corps Air Station in Yuma and the Yuma Proving Grounds, the City of Yuma and Yuma County were among the first local jurisdictions in the late 1970s to develop joint land use plans, and the City has successfully implemented an affordable housing program critical to personnel at both installations; and,
- At Luke Air Force Base, the City of Goodyear purchased Duncan Farms for $3.5 million to remove an incompatible land use from the southern departure corridor, which is a critical flight path from the Base to the Goldwater Range. They also removed 145 homes from a previously grandfathered development within the Luke contours. The City of Phoenix has purchased land and adopted a resolution to keep 920 acres bordering the north side of Luke as an agricultural preserve, and all 12 local governments surrounding Luke have voluntarily employed a graduated density concept that further restricts residential development three miles beyond the noise contours.

Arizona has also taken action over the last 10 years to significantly enhance the military value of the Air Force Research Lab in Mesa, and its role within Arizona's integrated network of military facilities. I respectfully request that you reconsider the DoD recommendation to relocate the Lab to Wright-Patterson Air Force Base. Given the DoD criteria for sustaining the military value of the Lab, we believe that the work of the Lab is far too important to the DoD and our allies to be significantly interrupted, and that it is in the best interests of the Department of Defense and the Air Force to keep the Lab at its present location as a stand-alone facility.

The 1995 BRAC Commission reversed a 1991 recommendation to relocate the Lab based on several important findings. Its findings are as accurate today as they were then:

- The Lab was largely a civilian operation well-suited to a stand-alone configuration;
- The Lab's proximity to Luke Air Force Base provided a ready source of pilots who support research activities as consultants and subjects;
- The Lab's facilities were consolidated, secure and well-suited to research activities;
- The Lab's activities were consistent with the community's plans for redevelopment, which included a university and research park in place of Williams Air Force Base, which was closed in the 1991 BRAC round; and,
- The relocation and new facilities costs seriously exceeded original estimates.

That rationale is even more compelling today than it was in 1995. Over the last 10 years, the Lab synergies have grown to include military pilots from all services – more than 550 U.S. pilots and weapons controllers over the last year alone plus corporative training with the United Kingdom, Canada and Australia. They have also grown to include the significant research and development activities on the Arizona State University Polytechnic Campus (ASU East), studies in conjunction with Maricopa County community colleges, and the industrial, aviation-oriented work of eight private research institutions on site at the Williams Gateway Airport.

The 1995 plans to redevelop Williams Air Force Base in a manner that enhances the work of the Lab are now a reality and hold the potential for expanding the Lab's facilities. There are multiple factors for the BRAC Commission to consider as it evaluates the Department's recommendation to close this valuable resource:

- The 1995 BRAC Commission recommended the Air Force Research Laboratory (AFRL) remain open and at Williams Gateway Airport as a stand-alone facility.
- The Lab's award winning performance is the result of the existing significant interaction and synergy with ASU East and the eight support contractors located at Williams. These strong and effective relationships will be lost if the Lab is moved.
    - In addition to lost training, research and development momentum in conjunction with allies including the United Kingdom, Canada, France, Germany and Italy would be significantly disrupted.
- The Lab's function and its ability to provide service to DoD will be severely damaged by the move.
- There is significant potential for expansion of the Lab's physical facilities at their current location to accommodate an expanded military research mission. A private sector group is currently working with the Lab to construct an adjacent Mission Training Engineering Center. This facility is in its final design stage.
- The cost to relocate the Lab would be significant, in terms of financial resources, manpower and intellectual capital.
    - The cost of contracting suitable facilities at another location would exceed $30 million.

  - The cost in terms of lost intellectual capital, technical and engineering expertise would cripple the Lab's current function.
    - Eighty percent of the Lab's employees would **not** relocate.
- Williams Air Force Base closed in 1993 and since then our local reuse effort for both Williams Gateway Airport and ASU East have relied significantly on the investment and activity resulting from the continuing presence of the Lab at the former base.
- The Lab's closure would have a significant adverse effect on the local economy.

We strongly believe that it is in the best interest of the Department of Defense, State of Arizona and the local community to retain the Air Force Research Lab at its current location so that its functions can continue unabated, its manpower and intellectual capital can be preserved, and significant relocation costs can be avoided.

We do, however, recognize that an objective of the BRAC process is to consolidate functions and reduce property holdings. As Governor, I believe that the capabilities of the Lab within its current relationships and synergies should be preserved to the greatest extent possible because of its military value, so I am pleased to advise you today that Arizona and Arizona State University are prepared to make a long-term commitment and investment to retain the training and research that is currently taking place at the Lab. I respectfully ask that you consider retaining the lab as a stand-alone facility that takes greater advantage of the tremendous potential synergies with Arizona State University, a major class-one research university. A more formalized partnership with the university could operate to reduce DoD's holding costs and enhance the military value of the facility.

Arizona State University is a national leader in interdisciplinary research and was recently awarded an Army contract to develop the Army Flexible Display Center. The ASU East campus surrounds the Lab and includes significant adjacent space for expansion and security enhancement. ASU is building a new $12 million engineering facility immediately west of the Lab for cooperative work with the Lab. An enhanced partnership between the Lab and the university would result in substantial cost savings to the military, retain and enhance existing infrastructure and intellectual assets, and substantially increase the military value of the laboratory to the Air Force.

After a careful review of the situation, I believe we can craft a business plan between the Air Force and the university that satisfies DoD needs and precludes the degradation of the critical training and research work conduced at the Lab with their partners. I welcome the opportunity to personally facilitate such a conversation.

Today, Arizona plays an irreplaceable role in the transformation of U.S. military capabilities because of an emphasis on joint training, development of new and enhanced communications and intelligence capabilities, and an unparalleled training and range infrastructure. These assets are unique in their combined ability to meet future training

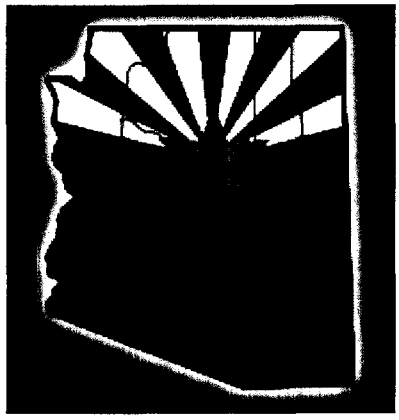
needs of the Department of Defense, and present significant opportunities to enhance the long-term viability of military facilities in Arizona.

Arizona has a long and demonstrable history of providing DoD with unparalleled resources and an unwavering commitment to its mission and operations. We will continue to apply our resources and make our state, county and local decisions in a manner that preserves and enhances DoD military missions and balances those missions with compatible development. We will support leading edge research and development of new equipment, weapons, and operating systems, and I can confidently assure you that Arizona will continue to be at the forefront of DoD efforts to protect and expand the very best test and training facilities, ranges, and airspace.

Mr. Chairman, the military presence in Arizona is important to our state, and to our future. I think it is also safe to say that Arizona is equally as important to military families. I'm not surprised to learn that 80 percent of the employees at the Air Force Research Lab would choose to stay in Arizona instead of follow the Lab if it is relocated. The quality of life in our State is so high that people want to come to Arizona, not leave it. Arizona offers good jobs for military and civilian spouses, quality schools for our children, and affordable housing for families. Arizona is moving forward, leading the way into the 21st century, and I hope that every military family in Arizona can continue to play a critical role in our State's future.

Mr. Chairman and members of the Commission, we thank you for allowing us the opportunity to meet with you today and look forward to responding to any of your questions.

Arizona's Military Installations:



Ready for the Transformation of the Department of Defense

State of Arizona Governor
Janet Napolitano

December 2004
(revised May 2005)

Upon being told that when the Persians loosed their arrows the sky went black, Dieneces the Spartan rejoined, "Good, then we shall fight in the shade."

Herodotus, Greek historian

I. INTRODUCTION

Arizona's diverse network of military facilities provides the U.S. Department of Defense (DoD) with an unparalleled access to high-quality, weather friendly, cost-effective training for American armed forces. More significantly, this network comprises an integrated array of bases, testing and training facilities, ranges, and airspace that operate within a physical environment that is uniquely suited to their individual and combined mission objectives and to the nation's evolving defense posture. In short, Arizona provides DoD with unparalleled resources with which to undertake the current, historic transformation of the U.S. military.

The future of American defense strategy was set forth by the DoD *Quadrennial Defense Review Report* released in September 2001. The report details a shift in military planning from a threat-based model (who and where) to a capabilities-based model that focuses on how the enemy might fight. In addition to this paradigm shift, it also reveals a greater emphasis on joint and combined operations, an exploitation of intelligence, and an expansion of research and development programs with a highlight on unmanned aerial vehicle programs. Overall, this transformation of the DoD will provide our American military with a "FASTER, LIGHTER, SMARTER" force to conduct its operations around the world.

The assigned forces, training centers, and ranges of Arizona's integrated network of military installations are uniquely positioned to contribute greatly to strengthening joint operations and enabling joint transformation exercises and experiments. And while others may claim to someday be able to do the same, Arizona has already been actively involved with this process.

In early 2004, an Army Forces Command (FORSCOM) joint exercise was conducted with the Western Army National Guard Aviation Training Site (WAATS) at Silverbell Heliport as the center to support future Army and joint air-ground attack training. This training exercise connected units at Davis-Monthan Air Force Base, Luke Air Force Base, Marine Corps Air Station Yuma, U.S. Army Yuma Proving Ground, Fort Huachuca, Fort Hood, 29 Palms, and the National Training Center. These units used ranges and air space at Chocolate Mountains, California, the Barry M. Goldwater Range (BMGR), and several of the military operating areas (MOAs) in Arizona. The exercise was live, virtual, and constructive training via a combination of FM communications and T-1 lines. FORSCOM as the exercise sponsor spent approximately $15 million for the Proof of Principle (POP) and as a result of the success of this exercise plan to conduct more such exercises in the future. The long-term retention of Arizona's highly integrated network of military facilities and the sustainability of their missions are thus vital to the security of the nation.

Since the late 1970s, the State of Arizona has been fully committed and has taken significant steps to ensure DoD's long-term partnership in Arizona. Most recently, with the passage of state legislation, creation of the Governor's Military Facilities Task Force and the Governor's Military Affairs Commission, and other statewide efforts, Arizona continues its dedicated statewide efforts to prevent the deterioration of the missions of our military bases. Many of these programs and legislation have become models for other states. So while our Arizona armed forces continue to conduct their important defense missions, our state government, in cooperation with our military installations, pledges to stand by our partners at DoD and do whatever it takes to ensure that the missions of Arizona's military installations are protected and can meet any future need that this country faces.

II. SUPPORTING THE TRANSFORMATION OF THE DEPARTMENT OF DEFENSE

The importance of Arizona's military facilities and operations to the transformation of the U.S. military cannot be understated. Their emphasis on joint and combined operations and cutting-edge intelligence gathering and exploitation position Arizona to satisfy the needs of the Department of Defense for many years to come.

Arizona's military facilities are located on over a dozen separate sites that range in size from less than 100 acres to over two million acres. These sites, as shown on Figure 1 in Attachment 1, include:

- Marine Corps Air Station (MCAS) Yuma
- U. S. Army Yuma Proving Ground
- Fort Huachuca (including Libby Army Airfield)
- Davis-Monthan Air Force Base
- Luke Air Force Base (including Luke Auxiliary Field #1)
- Barry M. Goldwater Range (including Gila Bend Air Force Auxiliary Field)
- Arizona Air National Guard, Phoenix Sky Harbor International Airport
- Arizona Air National Guard, Tucson International Airport
- Silverbell Army Heliport
- Florence Military Reservation (Arizona Army National Guard)
- Camp Navajo (Arizona Army National Guard)
- Papago Park Military Reservation (Arizona Army National Guard)
- Air Force Research Laboratory, Mesa Research Site (Williams Gateway)
- United States Naval Observatory, Flagstaff Station

In addition to these sites, there are extensive areas of airspace in the State that are used in conjunction with the State's military facilities (see Figure 2 in attachment 1). This airspace includes Military Operating Areas (MOAs) that are dedicated to military use, and over 5,000 miles of designated Military Training Routes (MTRs) that crisscross the State and are used for high-speed, low-level training. These sites and areas of airspace constitute a network of interrelated facilities that are essential to the nation's defense.

Each of the installations that make up the network of military facilities in Arizona has certain elements and linkages that are critical to carrying out its mission. How these elements contribute to joint training operations and the current transformation of DoD, are summarized in the following paragraphs.

Marine Corps Air Station Yuma (MCAS)
The future viability of MCAS Yuma is directly related to the proximity, availability, and viability of the superior range facilities of the Yuma Training Range Complex, including the western half of BMGR, and the Chocolate Mountain Aerial Gunnery Range in California, which is only 35 miles from the base. Access to these ranges, along with unencumbered airspace and the favorable climatic conditions are critical elements to the MCAS Yuma mission.

MCAS Yuma controls and manages the most extensive aerial target complex in the Marine Corps, consisting of more than 2.8 million acres and containing supersonic flight corridors, live ordnance targets, and several electronically instrumented ranges. These ranges have the ability to support additional usage, as their current usage rates, on average, are less than 50 percent.

In addition, MCAS Yuma Air Traffic Control has the authority to schedule and control more than 8,500 square miles of national and special-use airspace. This unencumbered airspace is essential to support the base's training mission.

The present relevance of Arizona-based military capabilities is underscored by recent action in preparation for operations in Afghanistan and Iraq. In support of Operation Iraqi Freedom, all four AV-8B Harrier Squadrons from Marine Corps Air Station Yuma self-deployed to provide close air support to the Marine Component Commander. The entire staff of the Marine Aviation Weapons and Tactics Squadron (MAWTS-1) deployed to provide warfighting expertise to component and subordinate unit staffs.

U.S. Army Yuma Proving Ground (YPG)
The key elements for sustaining the U.S. Army Yuma Proving Ground's mission are its extensive land area (with few environmental restrictions) and its control of over 2,500 miles of restricted airspace. No other testing facility in the U.S. is capable of testing long-range and large-caliber weapons and munitions. YPG's extensive land area and complex of ranges (the Kofa Range, the Red Bluff Direct Fire Range, and the Cibola Aircraft Range) allow for concurrent aircraft, artillery, ground vehicle, combat systems, and ammunition testing. These features provide a combined arms development and operational testing capability available only at YPG. These capabilities are available to support joint-service testing and training.

With elevations ranging from sea level to 2,700 feet above sea level, the desert environment and terrain of YPG provide test conditions very similar to those in the Middle East. The terrain features at YPG provide a natural barrier for laser and munitions firing and for testing of terrain-sensitive systems; there are several undeveloped range areas that could be utilized for an expansion of YPG's mission.

During the period leading up to the operations in Afghanistan and Iraq, the test and training facilities at YPG were used extensively by deploying units. With a climate and terrain similar to Middle Eastern countries, Special Forces teams from all services conducted land navigation, tactical training, and parachute training. The Marine AV-8B Harriers used the austere terrain to train in forward refueling and rearming in preparation for operations in Iraq.

In anticipation of river crossings on the Tigris and Euphrates rivers, the Marines of the 1st Marine Division at Camp Pendleton and 29 Palms conducted Operation Desert Scimitar with 2000 marines moving across the southwestern deserts and crossing the Colorado River using 450 foot bridges with as many as 23 sections. Bridging the fast flowing Colorado River guaranteed highly successful operations in crossing the Tigris and Euphrates during Operation Iraqi Freedom. The desert terrain and environment of YPG is unforgiving, testing men, material, and equipment to the fullest. In the evolving transformation of the U.S. Military, YPG's Range Digital Transmission System with fiber-optic loops on the major range areas, a working and expanding wireless communication system providing real-time instrumentation and communication will provide unparalleled opportunities for the RDT&E and joint operations communities.

Fort Huachuca

Improved and seamless command, control, communications, computers, and information management from foxhole to combatant commander will be crucial to exploiting existing military capabilities and developing new capabilities that will bring new advantages to our warfighters. Exploiting intelligence and expanding the capabilities of our UAV platforms will similarly be key elements of DoD's transformation. Fort Huachuca and its tenant commands will surely be major players in the transformation process.

Key elements for Fort Huachuca to sustain its missions focused on electronic intelligence and warfare are its uncluttered frequency spectrum, its favorable terrain, its access to restricted airspace, and the synergism that exists among the organizations at the Fort who are involved in Command & Control, Communications, Computers, and Intelligence (C4I) and electronic warfare systems.

Surrounding Fort Huachuca is over 9,000 square miles of land that provides the U.S. Army Electronic Proving Ground (EPG) with a unique interference-free electromagnetic environment for testing terrestrial and space communications and electronic and signal warfare systems without disrupting commercial broadcast systems. This area of operations is the only location in the U.S. where the Joint Interoperability Test Command and the Intelligence and Electronic Warfare Directorate of the Operational Test Command test joint-service C4I and electronic warfare systems.

The Network Enterprise Technology Command (NETCOM)/9th Army Signal Command at Fort Huachuca, which commands the 5th Signal Command in Europe and six individual Strategic and Tactical Signal Brigades has been a major player in support of operations in Kosovo, Afghanistan, Iraq, and many of the Gulf states. The 11th Signal Brigade, also stationed at Fort Huachuca, provides an example of global commitment with 75 percent of its soldiers deployed over the last 12 months. NETCOM supports EUCOM, NORTHCOM, JFCOM, PACOM, SOUTHCOM, and CENTCOM. The joint service, coalition, and inter-agency training of the 305th Military Intelligence Battalion will play an important role in the transformation as we consider an increasingly wide spectrum of military operations.

Fort Huachuca is also in the forefront of Unmanned Aerial Vehicles (UAV) development and is the U.S. Army's test and training center for sophisticated UAV systems that are on the cutting edge of aerial surveillance technology. With 4,000 cubic kilometers of restricted airspace from surface to 30,000 feet, an interference-free electromagnetic environment and a supporting airfield and air strips, there is no better proving ground for new and enhanced UAV capabilities, especially when connected to Yuma Proving Ground for testing of UAV delivered weapons systems.

Davis-Monthan Air Force Base

At Davis-Monthan Air Force Base, the combination of a climate that is favorable for training and testing operations; proximity to live-firing ranges; and access to low-level training routes, high-performance-maneuvering airspace, and drop zones provides an ideal environment for integrated-force training. The 2.7-million-acre BMGR, along with the 5,000-square mile Sells MOA adjacent to BMGR are 35 miles from Davis-Monthan Air Force Base. Pilots from Davis-Monthan Air Force Base also have access to 10,000 square miles in five contiguous MOAs located less than 50 miles north of the base, and to nearly 5,000 square miles of restricted and MOA airspace less than 30 miles southeast of the base. Libby Army Airfield, which is used for training operations from Davis-Monthan Air Force Base, is located approximately 50 miles from the base on Fort Huachuca. More than 5,000 miles of designated MTRs in the southern half of the State allow high-speed, low-level training in visual or instrument flight over terrain that varies from 300 to 9,000 feet above sea level.

Climatic conditions allow the base to operate 365 days per year, with little or no weather interference or stand-down days. The climate is ideal for Aerospace Maintenance and Regeneration Center (AMARC) operations at Davis-Monthan Air Force Base. The high, dry atmosphere inhibits rust and corrosion and allows for pollution-free maintenance throughout the year. In addition, the AMARC facilities have adequate land area for the storage of 5,000 aircraft along with rail and air access.

The recent deployment of elements of 12th Air Force from Davis-Monthan Air Force Base underscores the current relevance of its mission to establish an Air Operations Center (AOC) in support of combatant commanders. The deployment of forces in support of operations in Afghanistan and the subsequent deployment of an AOC to lead the air war efforts in Iraq made possible the success of U.S. ground forces from Al-Faw to Baghdad, Tikrit, and Mosul. Companion EC-130-H aircraft from the 355th Wing were key to that success by supporting combat information warfare and prisoner of war rescue operations. Combat Search & Rescue (CSAR) units from the 355th Wing played an important role in providing for the protection of U.S. and coalition pilots. Of course, the A-10 pilots who performed so well in Afghanistan and Iraq were all trained at Davis-Monthan Air Force Base. They are pilots who have trained with the Israelis, the British, the Germans, and with U.S. Marines and soldiers.

Luke Air Force Base

As one of the premier training bases in the Air Force, Luke Air Force Base has ideal climatic conditions and access to the airspace and training areas that provide for highly realistic combat training. The 2.7-million-acre Barry M. Goldwater Range and the adjacent Sells MOA, both of

which are critical to Luke's training operations are 50 miles south of the base. Pilots from Luke need access to both Gila Bend Auxiliary Field for practice approaches and landings and to Auxiliary Field #1 for instrument approach training; also, the Low Altitude Navigation and Targeting, Infra-Red, Night (LANTIRN) pattern is critical for the confidence check of the Terrain Following Radar (TFR) that F-16s carry prior to carrying out low-level training sorties.

In addition to the Sells MOA, the base has scheduling and operational control of extensive special use airspace, including the Gladden/Bagdad MOA located 39 miles northwest of Luke Air Force Base and the Sunny MOA, located northeast of Flagstaff. Luke Air Force Base also uses the Outlaw/Jackal MOA, located approximately 30 miles east of Phoenix, for air-to-air and night training missions. All of these MOAs are needed for Luke to be able to carry out its air-to-air tactics and night training missions as well as basic courses for F-16 pilots. The base has Special Use Airspace scheduling and operational control for eight low-level Military Training Routes that start to the east, south, and north of Luke Air Force Base and terminate at the Goldwater Range. These routes are vital, not only to provide access to the range, but for low-level training sorties.

Every F-16 combat mission flown in Afghanistan and Iraq was flown by a pilot trained at Luke Air Force Base in Arizona's airspace and ranges. With F-16s representing 50 percent of the U.S. Air Force fixed-wing aircraft through 2020, how and where the U.S. trains its F-16 pilots will be key to their success in attack, close air support, and peace enforcement missions in the next decade and beyond. If new tactics and procedures and new weapons systems are to improve how we fight, Luke Air Force Base and Arizona should be the test bed. When combined with the extensive coalition member training conducted by the 162nd Fighter Wing at Tucson International Airport, the impact of the F-16 community on joint and coalition military operations is and will be considerable.

Barry M. Goldwater Range (BMGR)

Barry M. Goldwater Range is a critical facility for all of the State's installations with a flying mission. The key value of the BMGR is that it is authorized for live-fire training. This training is essential for developing and strengthening the ability of pilots and aircrews to survive and win in combat. Live-fire training at the Goldwater Range is made possible through military control of the surface and airspace. This controlling authority is critical to the safety of both the public and military personnel and for the prevention of interruptions of training operations by non-participating surface users or aircraft.

The extensive land and airspace areas of the Goldwater Range are important for four reasons:

- The range is large enough to safely accommodate many independent but simultaneous operations, permitting cost- and time-effective flight training.
- The range and many of its individual subranges are large enough to support training at or near the full capability of existing and planned aircraft and weapons systems.

- When multiple subranges are used in blocks or the range is used as a whole, it has the capacity to accommodate realistic training exercises involving complex battle scenarios with large forces of friendly and adversary aircraft.
- It is large enough to absorb the changes in tactics, targets, and increased aircraft performance that will occur in the future.

The Goldwater Range has the capacity to keep pace with the evolution of aircraft technology and changing tactics of aerial warfare. The range will continue to be a critical asset for ensuring national defense air power readiness.

Arizona Air National Guard, Phoenix Sky Harbor International Airport
The key mission elements at Sky Harbor Airport that support the 161st Air Refueling Wing's mission of worldwide air refueling support are the proximity of nearly 500 receiving aircraft based within 15 to 25 minutes of the facility and the availability within a 15-minute flight time of eight air refueling areas designated under the National Airspace System. The 161st ARW has more aircraft and refueling areas within a short distance from its base than any other refueling unit in the Department of Defense.

The Arizona National Guard presence in Arizona contributes enormously to ongoing combat operations in Afghanistan and Iraq. There is no more actively engaged unit that the 161st Air Refueling Wing at Sky Harbor International Airport. Their 10 KC-135 aircraft make it possible for fighter, attack, and transportation aircraft to do their job both locally and globally, and given the global reach of present air operations, without "tanker gas" our reach will fall short.

Arizona Air National Guard, Tucson International Airport
Like Luke Air Force Base and Davis-Monthan Air Force Base, key mission elements for the 162nd Fighter Wing's mission are the combination of favorable climate, proximity to live firing ranges, and access to low-level training routes, high performance maneuvering airspace and drop zones, providing the ability to support integrated force training. The 2.7-million-acre BMGR, along with the 5,000-square-mile Sells MOA adjacent to BMGR are 35 miles from the 162nd Fighter Wing's base at Tucson International Airport. Also important for the Wing's operations is access to Libby Army Airfield, which is less than 30 miles from its base at Tucson International Airport.

The 162nd Fighter Wing's contribution to joint and coalition training and operations is unmatched among Air National Guard units. The Wing has trained pilots and flight and maintenance personnel from 19 countries. It trains jointly with all services from Davis-Monthan Air Force Base, MCAS Yuma, Fort Huachuca, and Luke Air Force Base. The 162nd Fighter Wing pilots have deployed in support of Operation Southern Watch in Iraq and Operation Enduring Freedom in Afghanistan. Since 9 -11, the Wing has assumed Homeland Defense missions. If a coalition partner has F-16s, it has trained with or has been trained by this Fighter Wing. It is one of a kind.

Western Army National Guard Aviation Training Site (WAATS) at Silverbell Army Heliport (Arizona Army National Guard)
Key mission elements for WAATS are the combination of extensive and unrestricted local training airspace surrounding the Heliport, the proximity to range facilities, and the weather that allows for 360 days a year of Visual Flight Rules (VFR) training. Also important for its mission is the relative lack of encroachment around the Heliport and maintaining the ability to access and use the outlying training areas (particularly Picacho and Rittenhouse Stagefields).

Of great importance to joint and combined training is the WAATS. The WAATS is currently involved in foreign military sales of Combat Mission Simulators to Saudi Arabia and Jordan and participates in tactics training in Egypt, Saudi Arabia, United Arab Emirates, Bahrain, and Jordan. WAATS is a training site for AH-64D "Apache Longbow" helicopters and is likely to be part of the Joint Air-Ground Center for Excellence with as many as six Army AH-64D Helicopter Battalions rotating annually for training at Arizona's unmatched ranges and MOAs.

Florence Military Reservation (Arizona Army National Guard)
The combination of extensive acreage available for training on various ranges and proximity to the Phoenix metropolitan area are key elements that allow the Reservation to effectively train and deploy the National Guard members. No other comparable tract of land is available so close to the Phoenix metropolitan area. Also important for the sustainability of its training mission is the relative lack of encroachment by urban development around the Reservation.

Camp Navajo (Arizona Army National Guard)
Key mission elements for Camp Navajo are the extensive training areas with modern facilities available for use by the National Guard units, and the storage infrastructure that exists because of the base's former mission as an Army Ordnance Depot. The use of this infrastructure is particularly important, as the ability to serve a variety of public and private customers provides income for the upkeep of the base.

Papago Park Military Reservation (Arizona Army and Air National Guard)
The central location of the Papago Park Military Reservation is an important element for its function as the headquarters for the Arizona Army and Air National Guard, as is the ability to provide for aircraft operation with the Reservation's runway and heliport.

The Arizona Army and Air National Guard has been all over the world, from Kosovo to Kazakhstan, to State and local offices as first responders to Weapons of Mass Destruction, and to Homeland Security and the Joint Counter Narcotics Task Force (JCNTF).

Air Force Research Laboratory, Mesa Research Site
As the USAF's premier organization for research and development in warfighter training techniques and technologies, the Air Force Research Laboratory at Mesa operates a collaborative environment in which personnel from government, academia, and industry backgrounds team with users and customers. A location, such as Williams Gateway Airport in Mesa, where the Laboratory has access to diverse, multidisciplinary specialists in government and at educational institutions such as Arizona State University, and where high-quality communications can be

maintained with remote sites are critical to the Laboratory's long-term sustainability. In addition, the proximity of the Mesa site to users, such as Luke Air Force Base, is an important factor, as is the ability to use the runway at Williams Gateway Airport as part of its research and development program.

United States Naval Observatory, Flagstaff Station

The Naval Observatory Station near Flagstaff was established because the climatic conditions and lack of development in the Flagstaff area would allow for relatively unobstructed viewing of the night sky, and these elements continue to be critical for the Observatory's mission. The proximity to Lowell Observatory, as well as Arizona Northern University, both of which are also located in Flagstaff, is also a significant factor for the Flagstaff Station to be able to undertake joint research programs.

III. PARTNERING WITH THE DEPARTMENT OF DEFENSE

Arizona continues its dedicated statewide efforts to protect the missions of our military bases. Many of these programs and legislation have become models for other states. This considerable effort by an extraordinary collection of elected leaders, retired generals, and the private citizens of Arizona dramatically illustrates Arizona's dedication to our partnership with the Department of Defense. A more in-depth description and explanation of examples of this commitment is incorporated in Attachment 2 to include:

A. Governor's Military Facilities Task Force
B. Governor's Military Affairs Commission
C. Significant state legislation addressing issues of land use and encroachment
D. Arizona Military Regional Compatibility Project
E. $10 Million Bond Referendum By City Of Tucson
F. Luke AFB $27 Million Land Acquisition Project
G. Creation of the Barry M. Goldwater Range Task Force
H. Bureau Of Land Management Land Exchange Efforts
I. Fort Huachuca & Upper San Pedro Partnership
J. Yuma Training Range Complex Renamed After Congressman Bob Stump
K. Arizona Commander's Summit

III. CONCLUSION

The U.S. military forces of the future will be faster, lighter, and smarter, having been trained to operate as joint and combined forces, with new capabilities tested under realistic conditions, and coordinating their operations through interoperable communication systems that can rapidly transmit timely, relevant information obtained through an integrated ISR capability keyed to joint and combined operations. The integrated network of military installations in Arizona can play in irreplaceable role in the transformation of U.S. military capabilities, with an emphasis on joint training, development of new and enhanced communications and intelligence capabilities, and an unparalleled training and range infrastructure. These assets are unique in their combined ability to meet future training needs of the Department of Defense, and this presents significant opportunities to enhance the long-term viability of Arizona's military facilities.

The transformation of U.S. military capabilities has already begun with the joint and combined operations in Afghanistan and Iraq. The operations confirmed the enduring value of many of our present capabilities and signaled the need to refine joint and combined interoperability, tactics, and procedures. Our experience in both operating areas will serve to shape our exploitation of technology to make us faster, lighter, and smarter. Future operations conducted in our national security interests may be quite different from Afghanistan and Iraq, and our ability to adapt and select the right combination of joint and combined capabilities will guarantee successful outcomes. Joint and combined training will be central to our military transformation, and Arizona will be at the forefront of the Department of Defense effort to protect and expand the very best training facilities, ranges, and airspace. Arizona will support leading edge research and development of new equipment, weapons, and operating systems. The unique test facilities at the Yuma Proving Ground and Fort Huachuca will play a significant role in that effort.

Arizona's diverse network of military facilities provides DoD with an unparalleled access to high-quality, weather friendly, cost-effective training for American armed forces. More significantly, this network comprises an integrated array of bases, testing and training facilities, ranges, and airspace that operate within a physical environment that is uniquely suited to their individual and combined mission objectives and to the nation's evolving defense posture. Further, the State of Arizona has increased its cooperation with and protection of the missions of our military installations. In short, Arizona is dedicated to providing DoD with unparalleled resources and an unwavering commitment with which to undertake the current historic transformation of the U.S. military.

We thank you for your consideration.

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Attachment 1: Excerpts from the Report of the Governor's Military Facilities Task Force, dated December 2003 on Arizona's Military Facilities

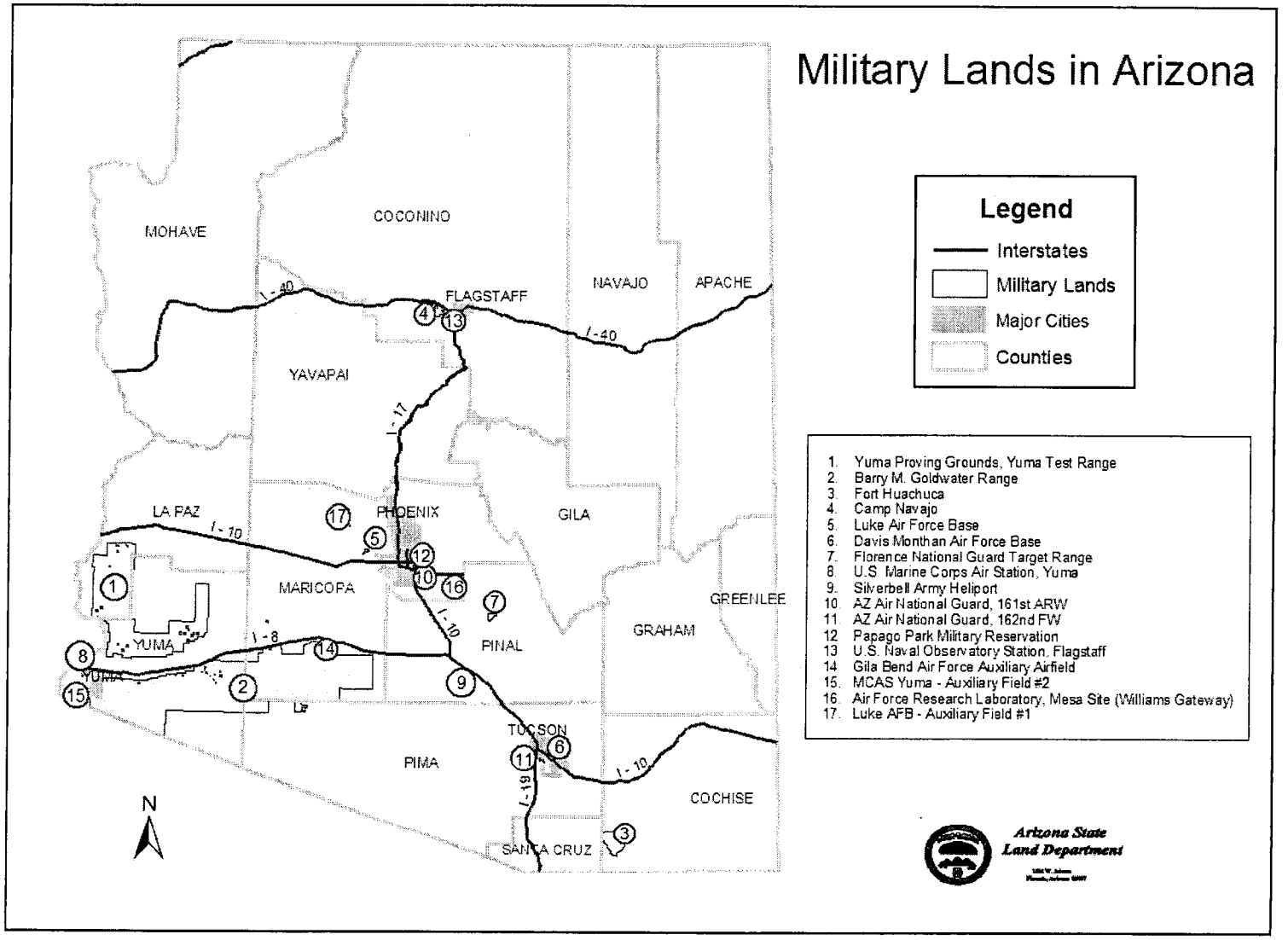

FIGURE -1

Arizona's military facilities are located on over a dozen separate sites that range in size from less than 100 acres to over two million acres. These sites, as shown on Figure 1 above, include:

- Marine Corps Air Station (MCAS) Yuma
- U. S. Army Yuma Proving Ground
- Fort Huachuca (including Libby Army Airfield)
- Davis-Monthan Air Force Base
- Luke Air Force Base (including Luke Auxiliary Field #1)
- Barry M. Goldwater Range (including Gila Bend Air Force Auxiliary Field)
- Arizona Air National Guard, Phoenix Sky Harbor International Airport
- Arizona Air National Guard, Tucson International Airport
- Silverbell Army Heliport
- Florence Military Reservation (Arizona Army National Guard)
- Camp Navajo (Arizona Army National Guard)
- Papago Park Military Reservation (Arizona Army National Guard)
- Air Force Research Laboratory, Mesa Research Site (Williams Gateway)
- United States Naval Observatory, Flagstaff Station

In addition to these sites, there are extensive areas of airspace in the State that are used in conjunction with the State's military facilities. This airspace includes Military Operating Areas (MOAs) that are dedicated to military use, and over 5,000 miles of designated Military Training Routes (MTRs) that crisscross the State and are used for high-speed, low-level training. These sites and areas of airspace constitute a network of interrelated facilities that are essential to the nation's defense.

2.1 ARIZONA'S MILITARY FACILITIES (revised May 2005)

2.1.1 Marine Corps Air Station Yuma

Marine Corps Air Station (MCAS) Yuma is one of the United States Marine Corps' (USMC) premier aviation training bases. With access to 2.8 million acres of bombing and aviation training ranges and superb flying weather, MCAS Yuma supports 80 percent of the Corps' air-to-ground aviation training. Each year, the air station hosts numerous units and aircraft from U.S. and North Atlantic Treaty Organization (NATO) forces.

Located adjacent to the City of Yuma, MCAS Yuma covers 4,600 acres and has 4,663 active-duty military personnel and 1,067 civilian personnel. The mission of MCAS Yuma is to support aerial weapons training for the Atlantic and Pacific Fleet Marine Forces and Navy. The base is only three miles from the western border of the Barry M. Goldwater Range (BMGR), and units training at the base also have access to the Yuma Training Range Complex, including the Chocolate Mountain Aerial Gunnery Range in California, and five Military Operating Areas.

The base's clear weather conditions are ideal for year-round training, with Visual Flight Rules (VFR) applying over 99 percent of the time. MCAS Yuma is the busiest air station in the Marine Corps and the third busiest in the Naval service. In addition to Marine Corps aviation training, the base conducts joint training with other services, as well as training for allied units (including Dutch, Belgian, German, and British units). MCAS Yuma also serves as the scheduling authority for the Yuma Training Range Complex, which includes over 10,000 square miles of restricted special-use airspace designated for military training.

Units based at MCAS Yuma include Marine Aircraft Group 13 (MAG 13), which consists of four squadrons of AV-8B "Harrier" aircraft; Marine Aviation Weapons and Tactics Squadron 1 (MAWTS-1), which coordinates and supervises academic and flight courses for all Marine Corps Tactical units; and VMFT-401, which is a Marine Corps Reserve unit, is the only aggressor-training squadron in the Corps, employing current threat tactics against operational pilots to improve their air-to-air combat readiness. Marine Aviation Logistics Squadron 13 provides MAG 13 with intermediate-level maintenance and supply support. Semiannually, MATWS-1 conducts the Weapons and Tactics Instructor (WTI), a post-graduate course for highly experienced officers from the Marine Corps, Navy, Air Force, and Army.

Other units assigned to MCAS Yuma are the Marine Air Control Squadron (ACS) 1, which provides control for anti-aircraft warfare; Marine Wing Support Squadron-371, which provides aviation ground support; and Combat Service Support Detachment-16, which provides combat support to aircraft and ground units. The Corona Division, Naval Surface Warfare Center supports the Western Tactical Air Combat Training System/Electronic Warfare System (TACTS/EWS) located in the western portion of the BMGR.

MCAS Yuma is a joint military/civilian-use airfield. The Yuma County Airport Authority (YCAA) is responsible for a commercial operation at MCAS Yuma that serves general aviation and scheduled commercial airlines. Under the operating agreement between MCAS Yuma and YCAA, civilian aircraft use the base's runways and taxiways but have their own terminal and maintenance facilities.

2.1.2 U. S. Army Yuma Proving Ground

Occupying over 800,000 acres north of the City of Yuma, U.S. Army Yuma Proving Ground is a unique facility with over 50 years experience testing weapon systems of all types and sizes in a joint environment. The proving ground conducts tests on medium and long range artillery; aircraft target acquisition equipment and armament; armored and wheeled vehicles; a variety of munitions; and personnel and supply parachute systems. Testing programs are conducted for all United States military services, as well as allied countries and private industry. Yuma Proving Ground operates as joint testing environment for the Army and Marine Corps, and the Yuma Proving Ground has a command structure in which the Commander is from the Army, while the Deputy Commander is from the Marine Corps.

Yuma Proving Ground has 26 active-duty military personnel, 643 civilian Department of Defense employees, and 820 contractor personnel. It is a designated Department of Defense Major Range and Test Facility Base (MRTFB), and it provides unique testing capabilities in multiple mission areas:

- Prototype combat vehicle and field artillery testing
- Testing of all types of military hardware, from tents to tanks

- Testing of new and improved types of conventional munitions
- Testing of developmental Army aircraft and aircraft weapon systems
- Joint testing with the Air Force and Navy of position location systems
- Joint Army and Air Force testing of personnel and cargo airdrop systems
- Vibration-free, interference-free tests of smart weapon systems at the Smart Weapons Test Complex

Yuma Proving Ground is the Army's center for desert natural environment testing and is responsible for managing testing at three locations: Yuma Test Center at Yuma Proving Ground; the Cold Regions Test Center, Alaska; and the Tropic Regions Test Center, which is headquartered at Yuma Proving Ground and operates in Hawaii and other tropic areas. The Yuma Test Center is a multi-purpose test facility able to test nearly every weapon system in the ground combat arsenal. More than 1,300 miles in size, the test center is one of the few places where military munitions and hardware can be tested in an area almost completely removed from urban encroachment and noise concerns, and without electromagnetic interference. As a test and evaluation facility it can bring together a wide range of ground combat systems at a location with the size and isolation to allow realistic, unconstrained use and interoperability of systems.

Yuma Proving Ground provides the entire infrastructure for fully and realistically testing all weapon systems in the ground combat arena, and has facilities for a wide variety of testing requirements – artillery, aviation, armor, tactical vehicle, and air delivery – providing a combined arms synergy for military testers that is efficient and cost effective.

- The KOFA Artillery Complex is an integrated facility for open air testing for tanks, artillery, mortars, mines, and small missiles. The size and diversity of the range complex provide the capability to conduct many tests simultaneously without compromising safety. The KOFA overland artillery range extends 55 miles, making it the longest such range in the nation. Tests are conducted from three separate drop zones and a water-impact zone for dynamic testing from aircraft.
- For aviation, including testing of the Army's combat helicopters and their mission equipment packages, the Cibola Range incorporates 840 square miles of controlled unrestricted airspace over highly challenging terrain and allows helicopters a 360 degree field of fire.
- A state-of-the-art cargo preparation complex offers the most infrastructure within the Department of Defense, specifically geared toward the support of air delivery missions, and the Proving Ground's facilities can serve all airdrop testing requirements from personal parachutes to heavy-drop equipment.
- More than 200 miles of improved road courses provide grueling testing of tracked and wheeled military vehicles, focused on testing in desert terrain and environment, as well as evaluating primary weapon systems performance, including the sighting and target acquisition programs, primarily at Yuma Proving Ground's Red Bluff Direct Fire Range.
- The proving ground's Mine, Countermine, and Demolitions complex is the only facility of its kind in the U. S. and is the western world's most advanced mine test facility. Operating under

carefully controlled conditions by mine experts, the complex offers fully instrumented, remote controlled cells in which mines may be detonated to test fusing and self-destruct mechanisms. The adjacent minefield adjacent to the site allows mines and countermine equipment to be monitored by remote video cameras during testing.

- The Aircraft Armament Range is a fully instrumented air-to-ground aircraft armament test range with electronic and optical instrumentation, including six precision aircraft tracking systems, tracking radar's, and video scoring.
- Yuma Test Center's instrumentation is state-of-the-art, with a fiber-optic backbone, and able to acquire, reduce, and transmit a nearly unlimited amount of test data. High-speed telemetry systems placed on such diverse combat systems as projectiles and helicopters, when coupled with the Center's real time system, allow for complete control and monitoring of ongoing testing.

Yuma Proving Ground conducts testing for other services, as well as for international customers (including the U.K., Germany, and Japan), and performs joint testing — most recently with the Marine Corps for the XM777 lightweight 155-mm howitzer. Yuma Proving Ground is the lead test facility for the howitzer, which will be the only towed howitzer for the USMC. The Light Armored Vehicle Test Directorate is a Marine Corps detachment that is attached to Yuma Proving Ground to conduct tests on light armored vehicles.

In addition to its testing capabilities, Yuma Proving Ground provides unique capabilities for joint training exercises in a realistic desert environment, and joint training activities have expanded from four units trained in 1989 to over 50 units in 2003. The Military Free Fall School at Yuma Proving Ground has 70 instructors who annually train over 1000 students from all of the services.

Laguna Army Airfield, which is used for both testing and training operations, has two runways, a 6,000 foot east-west runway, and a 6,050-foot-long north-south runway, and can accommodate all currently operating military cargo aircraft, including the C-5, C-117, and C-130. The airfield will support airfield seizure scenarios and a variety of Pick-up/Landing Zone (PZ/LZ) operations including equipment sling-loading. In addition, Yuma Proving Ground has control over 170,000 additional acres of adjacent restricted airspace for military operations.

The Forward Operations Base, (FOB) Yuma is a cantonment facility that is used extensively by Special Forces Groups as a base of operations and is ideal for large unit train-ups in preparation for National Training Center (NTC) rotations. The installation has several locations where water-based operations may be conducted. These locations can support nearly any size or type of operation.

2.1.3 Fort Huachuca (including Libby Army Airfield)

Occupying 73,272 acres in Cochise County and within the City of Sierra Vista, Fort Huachuca is the largest and primary Army Installation in Arizona, supporting Army Reserve and Arizona Army National Guard, as well as a number of other military activities throughout the State and is home to 6,724 active-duty military personnel, an average of 1,000 students at any given time, and 5,581 civilian employees.

Fort Huachuca is the home of the U.S. Army Intelligence Center which is the originator of the Army's military intelligence structure, the source of all its trained manpower, and the developer and tester of its systems and equipment. The Center is the focal point of the Army's effort to meet its present and future intelligence collection and processing requirements. The U.S. Army Intelligence Center's mission is to

lead, train, equip, and support the Army's Military Intelligence professionals. Within the Center, the 111th Military Intelligence Brigade conducts technical/tactical training and operates the Leader Training Center. Also part of the Center is the Noncommissioned Officer (NCO) Academy, which operates the Noncommissioned Officer Education Course and the Futures Development Integration Center, whose mission is to develop the Army's Military Intelligence vision and be the Army's integrator for intelligence.

In addition to the U.S. Army Intelligence Center, there is a synergy between unique high-tech Department of Defense organizations that reside on Fort Huachuca, including:

- The United States Army Network Enterprise Technology Command/9th Army Signal Command (NETCOM/9th ASC);
- The U.S. Army Information Systems Engineering Command (ISEC);
- The Joint Interoperability Test Command (JITC);
- The Electronic Proving Ground (EPG) The Intelligence and Electronic Warfare Testing Directorate (IEWTD) of the Operational Test Command (OTC);
- The Department of Defense Unmanned Aerial Vehicle (UAV) Test Center;
- The U.S. Army Communications-Electronics Command Communications Security Logistics Activity (USACCSLA); and
- The Defense Coordination Office-Huachuca.

These units are located at Fort Huachuca to take advantage of its remote location, vast area, and electromagnetic interference-free environment for testing ground and airborne electronics. The units also use Libby Army Airfield at the Fort as part of training and testing missions related to airborne electronics.

- The United States Army Network Enterprise Technology Command/9th Army Signal Command (NETCOM/9th ASC) is the Army's single authority for information management. It provides information services vital to the defense of the United States worldwide, and from its headquarters at Fort Huachuca directs the activities of some 12,000 soldiers and civilians at 104 locations in more than a dozen nations around the world. NETCOM/9th ASC is the major Army command responsible for worldwide information services and Command & Control, Communications, Computers, and Intelligence (C4I), delivering seamless enterprise-level Command, Control, Communications, Computers and Information Technology common-user services and warfighting forces in support of the Army, its service component commanders and combatant commanders. NETCOM/9th ASC:
    - Operates, manages and defends the Army's portion of the Global Information Grid
    - Shapes, sustains and maintains the Army's communications systems
    - Exercises technical control to centralize, standardize and consolidate Army network management
    - Monitors, detects, defends against and responds to network attacks

Powerful NETCOM/9th ASC information networks pipe an ever-increasing amount of voice and data messages throughout the world keeping information flowing and allowing soldiers and their leaders to make the split second decisions required on the modern battlefield. Because it is an integrated network operated by one organization and managed from one place by the same organization, it is virtually seamless and very responsive to the needs of the users. NETCOM/9th ASC soldiers and organizations deploy when and where needed to aid warfighters in the successful completion of their missions by providing the required communications seamlessly in the least time possible.

Within NETCOM/9th ASC, the 11th Signal Brigade, headquartered at Fort Huachuca, is the Army's force projection signal brigade. Its mission is providing contingency command, control, and communications and it has the capability to install, operate, and maintain a tactical communications network supporting either joint or Army organizations, establish command center communications nodes, area signal centers, and small extension nodes. It provides installation, construction, and test teams on a worldwide basis during peacetime, war, and operations other than war, and in response to emergency requirements to restore or expand information systems facilities. In addition, the brigade provides on-site training in the operation and maintenance of new or modified non-tactical information systems and limited commercial off-the-shelf communications equipment and systems at worldwide locations.

- The U.S. Army Information Systems Engineering Command (ISEC), also headquartered at Fort Huachuca has the primary mission of system engineering and integration of information systems for the U.S. Army including design, engineering, installing, quality assurance testing, and developing software for the diverse communications and automation systems throughout the Army. The ISEC, as headquarters of a worldwide command, has field commands, engineering offices, and software development centers located around the continental United States. ISEC engineers and directs the installation of specialized electronic systems throughout the world. These range from the exotic, such as satellite earth terminal installations (for all military services), to the commonplace, such as television and radio broadcasting stations. ISEC plans and executes the test programs associated with all hardware and software systems scheduled for deployment in the Information Mission Area (IMA), including supercomputers, facsimile, satellite voice and data transmissions and Standard Army Management Information Systems. They perform periodic technical evaluations of systems that are operated and maintained by elements of the Command.

- In addition to ISEC Headquarters, Fort Huachuca is the home to Software Development Center-Huachuca and the U.S. Army 504th Signal Battalion. The Software Development Center-Huachuca (SDC-H), one of several software development centers within the ISEC, is the principal Army developer of automated telecommunications software and special communications support systems, and supports approximately 800 Army, Air Force, and Navy telecommunications sites around the world. The 504th Signal Battalion installs communications-electronics and automation systems worldwide. This global mission encompasses a variety of communications media, which include line-of-sight microwave, satellite earth stations, fiber-optic cable systems, and telephone exchange equipment. The battalion also installs a variety of data and automation systems and equipment.

- The Joint Interoperability Test Command (JITC) is a field command of the Defensive Information Systems Agency (DISA). JITC functions as the Department of Defense /DISA operational and technical tester for interoperability, which is the ability for the equipment used by the various services to communicate with each other, as well as other assigned testing tasks. JITC was designated a member of the Department of Defense's Major range and Test Facility Base to provide information systems test and evaluation services to all Department of Defense, other federal agencies, State and local governments, and private industry. The primary mission of JITC is to support the warfighters in their efforts to push/pull information to and from the battlefield in the goal of C4I interoperability. JITC works in-theater to provide operation support for C4I interoperability deficiencies as well as 24-hour, on-demand support to the warfighters for urgent field problems, and is responsible for end-to-end interoperability certification of joint C4I systems. This certification program provides assurance to the war fighters that JITC-certified systems will operate as intended. In addition, JITC provides independent operational evaluation/assessment of C4I systems managed and acquired by DISA. The JITC facilities at Fort Huachuca are located along Brainard Road near Libby Army Airfield. The two main buildings are interconnected with several smaller test nodes via underground cable and form an integrated C4I test complex. In addition to being able to provide on-site testing, JITC can provide testing through a distributed network – an extensive network of military, commercial, and allied test facilities. JITC is made up of military personnel from all four services as well as civilians, and the unique mix of government personnel, supported by contractors, allows JITC the flexibility to meet growing interoperability demands.
- The Electronic Proving Ground (EPG) is the Army's C4I Developmental Tester, and is a test center of the U.S. Army Developmental Test Command, which in turn is part of the U.S. Army Test and Evaluation Command. The mission of EPG is to plan, conduct, and analyze the results of Technical Tests for C4I systems, Signal Intelligence, and Electronic Combat (EC)/Electronic Warfare (EW) equipment. In addition to conducting developmental tests, EPG supports the Army operational test community in the conduct of operational tests, user tests, and experiments, and also supports customers in the joint and training communities. EPG provides quality services to developers through the acquisition development cycle. Early in the acquisition development cycle, EPG, through the use of modeling and simulation can address questions concerning frequency assignment, potential electromagnetic compatibility, and the effects of electronic warfare while the equipment is in the early design stage. Later in the development cycle, extensive measurement capabilities are available to satisfy the developer's data collection needs. EPG conducts bench tests, lab tests, field tests, and tests of large-scale, geographically distributed systems employing a mix of live and simulated instrumentation and assets.
    - The Electromagnetic Environmental Test Facility makes extensive use of modeling and simulation for determining electromagnetic effects on test items. It includes the Virtual Battlefield Environment facility, a hardware-in-the-loop simulator that provides scenario-driven communications and radar environments.
    - The Instrumented Test Range provides time-space-position information and target signals for open-air testing. An extensive network of precision tracking instrumentation and surveillance radars measure data on airborne and ground-based vehicles. The

Instrumented Test Range can collect both airborne and ground telemetry from systems as far west as the Yuma Proving Grounds.

- The Antenna Test Facility provides large scale testing of antennas mounted on platforms, and can determine radiation patterns in the high frequency to microwave frequencies.
- The Environmental Test Facility can perform a full range of static and dynamic environmental testing on components and systems, particularly electromagnetic compatibility and interference testing, the need for which is becoming more prevalent with the increased number of electronic systems on the battlefield.
- The Electromagnetic Interference/Electromagnetic Compatibility/TEMPEST Test Facility offers testing both at its Fort Huachuca chambers and in the field with portable test equipment.
- The Aviation Detachment has fixed and rotary wing aircraft and pilots to test avionics and airborne electronic warfare equipment, operating from Libby Army Airfield. The detachment's aircraft can also be used as Unmanned Aerial Vehicle surrogates for payload testing and can perform airborne jamming missions.

EPG's area of operation includes more than 9,000 square miles of public and private lands in and around the Fort Huachuca military reservation. Operations are routinely possible on 70,000 acres at Ft. Huachuca, 23,000 acres on Wilcox Dry Lake, more than 100,000 acres at Gila Bend, and with prior coordination, on approximately 62 million acres of federal and State owned land.

- The Intelligence and Electronic Warfare Testing Directorate (IEWTD) of the Operational Test Command (OTC) is responsible for operational testing of new and unique intelligence and electronic warfare equipment and systems being developed and procured for the Army, offering services from user test concept through execution and the test report on tactical intelligence, reconnaissance and electronic attack systems. The testing at Fort Huachuca takes advantage of the excellent environment for field-testing radio frequency-based systems, including manned and unmanned aerial reconnaissance vehicles. The electromagnetic environment, with minimal public restrictions on the frequency spectrum, permits almost unrestricted frequency utilization and jamming. As the operational tester of new and unique intelligence and electronic warfare equipment and systems being developed or procured for use by the Army, IEWTD plays an important part in the material acquisition and fielding process for the Army and Joint Services. In addition, the IEWTD is involved in operationally testing new organizational and doctrinal concepts developed at the Army Intelligence Center at Fort Huachuca. Although most testing conducted by the IEWTD is performed at Fort Huachuca to take advantage of existing range facilities, ideal climatic conditions and the available electromagnetic environment, IEWTD is also frequently called upon to conduct or participate in tests throughout the United States and overseas.
- The Department of Defense Unmanned Aerial Vehicle (UAV) Test Center is the U.S. Army's test and training center for sophisticated UAV systems that are on the cutting edge of aerial surveillance technology. The 304th Military Intelligence (MI) Battalion operates the UAV Test Center and trains soldiers and marines in UAV operations and maintenance. Equipped with the Pioneer and Hunter UAVs, the battalion provides significant support to UAV doctrine

development and system testing. The 304th MI Battalion also operates Libby Army Air Field where its instructors train all special electronic mission aircraft (SEMA) crews in intelligence and electronic warfare (IEW) operations. Instructor pilots train student pilots in the unique flight and survivability characteristics of SEMA aircraft. The UAVs are flown from Libby as well as from two UAV runways located approximately four miles west of Libby. These vehicles share the traffic pattern and airspace with military and civilian aircraft.

- Libby Army Airfield is unique to the Army because it is used jointly by military and civilian activities. In addition to UAV operations, Libby Army Airfield is used by the Arizona Air National Guard for F-16 training and for training of A-10 pilots from Davis-Monthan Air Force Base. It is also a joint-use airfield, with the runways, taxiways, navigational aids, and air-traffic control shared by military and civilian operations. Civilian operations are concentrated on the northern side of the airfield, accessible from the City of Sierra Vista, while military operations are concentrated on the southern side. The 12,000-foot runway will accommodate any military or civilian aircraft, and Fort Huachuca also has control of over 700 square miles of restricted airspace from the surface to 30,000 feet.
- The U.S. Army Communications-Electronics Command Communications Security Logistics Activity (USACCSLA) is the Army Wholesale Inventory Manager of Communications Security (COMSEC) Material and is responsible for the acquisition, distribution, and logistics support to all field users of COMSEC equipment, cryptographic key and other software. USACCSLA is unique in its dual methods of operation. The Army's Standard Logistics System is only used for unclassified COMSEC material, while classified communications security equipment managed as part of the National COMSEC Material Control System. USACCSLA operates a National Inventory Control Point and National Maintenance Point and is the central Automated Data Processing software system design activity for the Army COMSEC Commodity Logistical, Accounting and Information Management system. Virtually all active Army units, as well as the Arizona Army National Guard and U.S. Army Reserve are USACCSLA customers.
- The Defense Coordination Office-Huachuca, a subordinate element of the Defense Information Systems Agency, is the principal organization responsible for provisioning Army long-haul telecommunications requirements worldwide. The office has responsibility for approximately 16,000 long-haul leased telecommunications circuits, including dedicated point-to-point, special purpose, Defense Systems Network, and Defense Information Systems Network. Maintaining and servicing these accounts requires extensive knowledge of the latest state-of-the-art telecommunications services and equipment, e.g., modems, multiplelxors, transmission systems, transport systems, computer systems, etc.

2.1.4 Davis-Monthan Air Force Base

Davis-Monthan Air Force Base is a key Air Combat Command (ACC) installation occupying 10,600 acres in the City of Tucson, approximately 10 miles southeast of downtown. Davis-Monthan Air Force Base is home to 6,900 active-duty military personnel, an average of 100 students at any given time, and 1,600 civilian employees. The Air Force 355th Wing is the Davis-Monthan Air Force Base host unit and provides medical, logistical, and operational support to all Davis-Monthan Air Force Base units. The mission of the 355th Wing is to train A-10 and OA-10 pilots and provide A-10 and OA-10 close support

and forward air control to ground forces worldwide. All A-10 and OA-10 pilots as well as all EC-130H pilots are trained at Davis-Monthan Air Force Base.

Other units located at Davis-Monthan Air Force Base include:

- The 12th Air Force, headquartered at Davis-Monthan Air Force Base, is charged with commanding, administering, and supervising tactical air forces west of the Mississippi River and in the Southern Command. As one of the ACC numbered air forces, the 12th Air Force operates combat-ready forces and equipment for air superiority, interdiction, and close air support. The 12th Air Force directs seven combat wings, three direct-reporting units in the Midwestern and Western U.S., and numerous Air Force Reserve and Air National Guard units. The fighter and bomber wings possess 695 aircraft and more than 51,000 active-duty military and civilian people. The 12th Air Force is the air component of the U.S. Southern Command, which is a joint-service command with Army, Navy, Air Force, and Marine Corps components. The 12th Air Force also has Task Force Battle Management responsibility for the U.S. Strategic Command, which is a unified command under the Department of Defense and is the overall command and control center for U.S. strategic forces.

  Another responsibility of 12th Air Force is to maintain a worldwide deployable Air Operations Center (AOC), which provides a conflict's Joint Forces Air Component commander the ability to design and execute an air campaign. Members of the AOC (500-1,500 people, depending on the size of the conflict) build and execute daily Air Tasking Orders and Airspace Control Orders, coordinate all logistics and service support to deployed air forces, establish and maintain essential communications links with air forces, and provide continuous intelligence and threat assessment to commanders.

- Utilizing EC-130H aircraft, 55th Electronic Combat Group (ECG) provides communications countermeasures in support of tactical forces. The unit's combat mission is to support tactical air and ground and naval operations by confusing the enemy's defenses and disrupting its command and control capabilities. Members of the 55th ECG conduct EC-130H aircrew initial qualification and difference training for 20 crew specialties and support operational and force development testing and evaluation for new aircraft systems. The 55th ECG operates EC-130H aircraft, a specially configured version of the Air Force's proven C-130 transport. To execute its unique operations, the aircraft were modified with electronic countermeasures systems, specialized jamming equipment, and aerial refueling capability, as well as upgraded engines and avionics. As the ACC executive agent for the Intermediate Range Nuclear Forces and Strategic Arms Reduction Treaty compliance, the 355th Wing has a national and international role in the arms reduction arena. With six flying squadrons, and one geographically separated unit, the 355th Wing is one of the largest wings in the Air Force.

- The Aerospace Maintenance and Regeneration Center (AMARC) is a unique facility for the storage of excess Department of Defense and Coast Guard aircraft and has more than 5,000 aircraft stored on 2,600 acres at Davis-Monthan Air Force Base. An Air Force Materiel Command (AFMC) unit, AMARC annually in-processes about 400 aircraft for storage and out-processes about the same number for return to active service, either as remotely controlled drones or for sale to friendly foreign governments. Almost 70 different types of aircraft are currently stored at AMARC (including 4,500 viable aircraft), ranging from U.S. Army and Navy

helicopters to the Air Force's Vietnam War-era F-4s with a total acquisition value of almost $27 billion. With approximately 600 employees, AMARC maintains the specialized skills and knowledge necessary to work on 70 different types of aircraft. The Center stores more than 267,000 line items of production tooling for aircraft manufacturing, which saves taxpayers millions of dollars in commercial facility storage costs. AMARC is the elimination site for heavy bombers under the terms of the Strategic Arms Reduction Treaty.

- The 943rd Rescue Group (RQG), an Air Force Reserve unit, flies HH-60G "Pavehawk" helicopters that can transport up to 14 passengers or 8,000 pounds of cargo. The mission of the 943 RQG is to provide a day and night combat rescue capability of downed aircrew in hostile territory. Enemy threats are countered through the use of advanced tactics including terrain masking, night vision devices, in-flight refueling, and pinpoint navigation. The 943 RQG trains personnel to perform day and night combat rescue missions; search for, locate and recover United States Air Force and other Department of Defense personnel involved with United States defense activities; provide search and rescue support of civilians as directed by the Air Force Rescue Coordination Center; and provide humanitarian and disaster relief operations at the request of foreign governments and the International Civil Aviation Organization.
- "Operation Snowbird" is a National Guard Bureau program established in 1975 as a winter deployment site for northern tier ANG flying bases. The program is located at Davis-Monthan Air Force Base and supported through the 162nd Fighter Wing, Arizona Air National Guard, which is located nearby at Tucson International Airport. Sixteen squadrons deploy for two weeks of training between October and May each year. Each deployment package consists of 10 to 12 aircraft, 20 to 24 pilots, and 110 to 116 support personnel. Twenty-five people from the 162nd Fighter Wing are assigned as permanent party to assist the units with aircraft support, aerospace ground equipment, vehicles, facilities, billeting, administration, range scheduling and operations requirements. The operation provides overflow aircraft support to Davis-Monthan as well as to the Navy, Marine Corps, and Arizona Army National Guard, at other times of the year as well and therefore is effectively a year-round activity. The 162nd FW is a critical component of ongoing operation NOBLE EAGLE.
- The most recent addition to Davis-Monthan Air Force Base is the 563rd Rescue group which operates under the Air Force Special Operation Command (AFSOC). 563rd RGQ rapidly deploys combat rescue forces to theater combatant commands. The unit employs HH-60G aircraft and pararescue forces in hostile threat environments during day, night, and marginal weather. When not performing operations in war, 563rd RGQ conducts disaster relief and noncombatant or medical evacuation. The squadron provides close air support to assigned pararescue/ground forces.
- Other federal agencies using the base include the Federal Aviation Administration, the Department of Homeland Security's Customs, Immigration and Border Patrol, the U.S. Corps of Engineers, the Federal Law Enforcement Training Center, and a detachment of the Naval Air Systems Command.

The 13,000-foot runway at Davis-Monthan Air Force Base has adequate length and width to accommodate any current or planned aircraft in the Department of Defense inventory. There is more

than sufficient ramp space to accommodate the current levels of permanent and temporary aircraft as well as provide growth potential for additional assigned aircraft.

2.1.5 Luke Air Force Base (including Luke Auxiliary Field #1)

Located in the western portion of the metropolitan Phoenix area, within the City of Glendale, Luke Air Force Base occupies approximately 4,200 acres and has 5,500 active-duty military personnel, 1,000 reserve personnel, and 2,200 civilian employees. Luke Air Force Base is the largest fighter pilot training base in the world and is the main provider of fighter pilots to the ACC. The most diversified training center in the Air Education and Training Command (AETC), Luke Air Force Base provides technical, field, medical, and flight training. All F-16 training for the USAF is consolidated at Luke Air Force Base and all active F-16 pilots were trained at the base. In addition, the base trains pilots from Singapore and Taiwan. Luke Air Force Base conducts more than 10,000 flight operations monthly and trains more than 1,000 pilots annually.

More than 800 mission-ready crew chiefs are trained annually at Luke AFB to launch and maintain F-16s at bases around the world. Approximately 38,000 sorties are flown per year in the F-16, with pilots logging about 50,000 hours.

The 56th Fighter Wing is the Luke Air Force Base host unit and provides medical, logistical, and operational support to all Luke Air Force Base units. With 190 assigned aircraft, the 56th Fighter Wing is the largest fighter wing in the world, and has eight fighter squadrons training all U.S. Air Force F-16 pilots in a variety of courses. The 56th Fighter Wing is responsible for scheduling, managing, and ensuring environmental compliance at the 2.7-million-acre BMGR located 50 miles south of Luke Air Force Base.

Other units located at Luke include:

- The 607th ACS trains surveillance technicians and weapons directors to meet Combat Air Force requirements, supports training and contingency deployments, and provides radar control operations for the 56th Fighter Wing and for the 355th Fighter Wing at Davis-Monthan Air Force Base.
- Detachment 12 of the 372nd Training Squadron provides aircraft maintenance training for the 56th Fighter Wing, the Air National Guard, the USAF Reserve, and Allied Forces.
- Luke Air Force Base is also home to the 944th Fighter Wing, whose dual mission is to train F-16 pilots and provide combat-ready pilots for the Expeditionary Air Force. The 944th Fighter Wing has been a Reserve associate unit to Luke Air Force Base's 56th Fighter Wing since 2000, and has 18 aircraft assigned, and a total of 184 officers and 1,051 enlisted personnel. Reserve instructor pilots train active-duty student pilots for their multi-role mission. The Reserve instructor pilot associate program is a joint Air Force Reserve Command and AETC initiative and is designed to reduce the Air Force's active-duty pilot retention problem, and allows the Air Force to retain experienced fighter pilots who leave active duty but who still want to be a part of the Air Force Reserve. The pilots maintain their combat proficiency primarily during the Unit Training Assemblies on the weekend. They also have an opportunity to deploy with the squadron once or twice a year and train with other combat air force units, and combat training sorties are also occasionally available during the week. The student flying syllabus provides a

number of sorties that can be directly related to combat training, and are used to ensure each of our pilots has received the appropriate training to qualify for a "combat mission ready" status.

Other facilities critical to the training mission at Luke Air Force Base are:

- Auxiliary Field #1, which is located about 15 miles northwest of Luke Air Force Base and occupies 400 acres of Department of Defense-owned land and approximately 705 acres of land leased from the State of Arizona. About 12,000 operations per year are conducted at Auxiliary Field #1 for instrument approach training in which pilots use the instrument landing systems at Auxiliary Field #1 to simulate approaches under poor weather conditions. One non-active runway at Auxiliary Field #1 is used for instrument approach runway alignment for Tactical Air Navigation (TACAN) approaches that are non-precision with course guidance, but not glide path guidance; Instrument Landing System (ILS) approaches that are precision approaches with both course and glide path guidance; and Precision Approach Radar (PAR), which also is a precision instrument approach system. Auxiliary Field #1 is one of only a few locations in the U.S. for training with Precision Approach Radar, which is commonly used in overseas locations.

- Luke Air Force Base pilots also use the Low Altitude Navigation and Targeting, Infra-Red, Night (LANTIRN) pattern, currently located two miles south of Auxiliary Field #1, for a confidence check of the Terrain Following Radar (TFR) that F-16s carry prior to carrying out training sorties. The LANTIRN pattern, which must be located close to Luke Air Force Base, is scheduled to be relocated no later than December 2004 due to residential encroachment. The 56th Fighter Wing also conducts practice approaches and landings at the Gila Bend Auxiliary Field.

- The 56th Fighter Wing has scheduling and operational control of Special Use Airspace for the Gladden/Bagdad MOA/Air Traffic Control Assigned Airspace (ATCAA), located 39 miles northwest of Luke Air Force Base; Sells MOA, located west of Tucson and contiguous to BMGR; and Sunny MOA, located northeast of Flagstaff. Special Use Airspace scheduling and operation control also exists for eight low-level Military Training Routes, which start to the east, south, and north of Luke Air Force Base and all terminate at the Barry M. Goldwater Range.

- Luke Air Force Base also uses the Outlaw/Jackal MOA/ATCAA, located approximately 30 miles east of Phoenix, for air-to-air and night training missions. The Outlaw/Jackal MOA/ATCAA is used jointly by Luke Air Force Base and the Arizona Air National Guard and is scheduled by the Air National Guard from Tucson International Airport.

The primary runway at Luke Air Force Base is 10,000 feet long and the parallel runway is 9,900 feet long. The runways, taxiways, and ramp areas are adequate for the base's current mission.

2.1.6 Barry M. Goldwater Range (including Gila Bend Air Force Auxiliary Field)

Barry M. Goldwater Range (BMGR) occupies approximately 2.7-million-acres in Yuma, Pima, and Maricopa Counties and is adjacent to the Sells MOA to the east. BMGR and the Sells MOA are located approximately three miles east of MCAS Yuma, 50 miles southwest of Luke Air Force Base, and 30 miles west of Davis-Monthan Air Force Base. BMGR is operated jointly by the Air Force and Marine

Corps, with MCAS Yuma responsible for the western part of BMGR (Range area R2301W) and Luke Air Force Base responsible for the eastern part (Range areas R2301E, R2304, and R2305). BMGR supports the military in Arizona with air-to-air, air-to-ground, and live drop areas, and it is the only low-altitude night-vision training area in Arizona.

Roughly the size of Connecticut, the range's vast acreage allows for simultaneous training activities on nine air-to-ground and two air-to-air ranges. The eastern part of BMGR includes four manned ranges, three tactical ranges, and two air-to-air ranges. Types of training include:

- Basic F-16 and A-10 flight and employment (instrument, air-to-air, air-to-ground, night-vision goggles)
- Large force employment exercises that prepares students for realistic operational missions
- Basic and advanced night systems courses (night-vision goggles, command and control, precision guided bombing)
- Instructor pilot proficiency and advanced upgrade training

The western part of BMGR includes two air-to-ground target complexes, the West Coast Tactical Air Combat Training System (TACTS) Range, an auxiliary airfield, a parachute drop, a cargo recovery zone, and an Air Defense Complex.

Above BMGR are 57,000 cubic miles of airspace where pilots practice air-to-air maneuvers and engage simulated battlefield targets on the ground. More than 50 aircraft can simultaneously operate on the range while performing independent training missions. The range is within the un-refueled flight radius of twelve military installations and the U.S. Pacific Fleet aircraft carriers. Pilots fly over 68,000 sorties in the range annually. However, only about six percent of the range is used for roads, targets, and support areas; the remaining 94 percent is relatively undisturbed, and most of the land is a safety buffer for low-flying fighter aircraft.

In addition to units from MCAS Yuma, Davis-Monthan Air Force Base, and Luke Air Force Base, the 162nd Fighter Wing of the Arizona Air National Guard and units of the Arizona Army National Guard and "Snowbirds" (a National Guard Bureau program located at Davis-Monthan Air Force Base and supported through the 162nd Fighter Wing) use the facilities at BMGR. Joint training exercises are also conducted at BMGR, and units from the Marine Corps, Navy, and Army outside Arizona use the range facilities as well.

The key value of the Goldwater Range is that it is authorized for live-fire training, which is essential to the abilities of aircrews to survive and win in combat. The lethal effectiveness of the modern battlefield is so great that there is no longer a margin for second thoughts or a second chance. Aircrews must have mastered their own weapons systems and tactics prior to the fight to have any chance of winning. Accordingly, an aircrew's first experience with realistic live fire must be in training rather than combat.

Live-fire training can be conducted on the Goldwater Range only because the military has the authority to control entry by both surface and airspace users. This authority is critical to protect the safety of both the public and military personnel and to prevent scheduled training operations from being interrupted by non-participating surface users or aircraft.

Approximately 822,000 acres of BMGR were set aside as part of the Cabeza Prieta National Wildlife Refuge. Military activities in the Cabeza Prieta portion of BMGR are limited to four remotely located radio transmitters and flight-training operations in the overlying airspace.

Gila Bend Air Force Auxiliary Field (AFAF) is an integral part of operations at BMGR and is jointly managed with BMGR. Adjacent to the northern boundary of BMGR, Gila Bend AFAF occupies 1,886 acres adjacent to the northern boundary of BMGR and is three miles south of the Town of Gila Bend. Its primary mission is to support BMGR, used by all branches of the military for air-to-air and air-to-ground training.

Military aircraft, including F-16s from Luke Air Force Base and the 162nd Fighter Wing from Tucson, A-10s from Davis-Monthan Air Force Base, and rotary-wing aircraft from the Arizona Army National Guard at Silverbell Army Heliport routinely use Gila Bend AFAF for practicing traffic pattern and emergency simulated engine flameout procedures. The airfield is equipped with a simulated laser target (SLT) transmitter used by A-10 aircrews to practice identifying a laser-illuminated target. Other training conducted at Gila Bend Auxiliary Airfield includes night-vision device-assisted landings and Marine weapons tactics instructor exercises, including non-combatant evacuation operations.

Helicopter aircrews from the Western Army National Guard Aviation Training Site (WAATS) at Silverbell Army Heliport use Gila Bend Auxiliary Airfield as a forward operating area to support live-fire training within the north, south, and east tactical ranges at BMGR. WAATS activities at the Airfield include aircrew changes and helicopter refueling and rearming.

The airfield is also used for emergency recoveries of military aircraft that experience malfunctions on BMGR and diversion of aircraft due to factors such as bad weather at their home base, unsafe ordnance, or low fuel. Aircraft with malfunctions or damage are repaired at the airfield by maintenance crews that travel from their home base. Between 1997 and 2002, the airfield had an annual average of 80 emergency recoveries and 220 diversions.

The airfield has an 8,500-foot runway and a six-pad heliport. Existing operation levels for all aircraft using the facilities at Gila Bend Auxiliary Airfield total 22,920 annual operations. The Airfield is operated under contract by civilian personnel; 145 full-time equivalent contractor personnel and eight Air Force civilian personnel are based at the Airfield. In addition, 10 to 12 military personnel from other locations, along with other Air Force civilian personnel, are typically at the Airfield and Range at any given time.

Gila Bend Auxiliary Airfield is also a hub for services for BMGR, including vehicle maintenance, target construction, and communications. Gila Bend Auxiliary Airfield hosts the BMGR Security Police office and provides billeting for visiting personnel working temporarily at BMGR.

2.1.7 Arizona Air National Guard, Phoenix Sky Harbor International Airport

The 161st Air Refueling Wing (AFW) of the Arizona Air National Guard is based at Phoenix Sky Harbor International Airport. The Arizona Air National Guard occupies 62 acres leased form the Airport. About 40 years remain on the lease. Phoenix Sky Harbor International Airport is the newest Air National Guard base in the U.S. The facilities were constructed in 2002 as an integral part of Sky Harbor's expansion program for construction of a third runway. Construction of the new facilities was paid for by airport user fees.

The 161st Air Refueling Wing's mission is worldwide air refueling. Approximately 2,000 hours were flown in 2002 (65 percent of these hours were logged outside of the U.S.). The Wing has 900 personnel (600 part-time and 300 full-time) and flies 10 KC-135E aircraft, the oldest model in the current U. S. Air Force inventory. The 161st Air Refueling Wing has more aircraft and refueling areas within a short distance from its base than any other refueling unit. The Wing has access to eight air refueling areas within a 15-minute flight time of Sky Harbor. The air refueling areas are designated under the National Airspace System, and from these areas the Wing can serve over 400 receiver aircraft (200 from Luke Air Force Base, 90 from the 162nd Fighter Wing based at Tucson International Airport, 75 from Davis-Monthan Air Force Base, and 15 from Snowbird operations out of Davis-Monthan Air Force Base). Within 25 minutes of Sky Harbor are another four designated refueling areas and another 77 receiver aircraft based at MCAS Yuma. On the northern refueling track, the 161st AFW also serves aircraft from Nellis Air Force Base.

2.1.8 Arizona Air National Guard, Tucson International Airport

The 162nd Fighter Wing of the Arizona Air National Guard is based at Tucson International Airport on a 92-acre site. The runway, security, and fire-control operations are shared by the 162nd Fighter Wing and Tucson International.

The 162nd Fighter Wing has 72 F-16 aircraft and 923 full-time personnel, 708 part-time assigned personnel, 57 civilian contractor personnel, and 60 State employees. Its primary mission is International Military Training (IMT) for F-16 pilots from countries that purchase F-16s from the U.S. The training is a component of the Department of Defense foreign military sales program. The IMT program includes air-to-air and air-to-ground tactical operations, as well as air-to-ground bombing.

In addition to its operations at Tucson International Airport, the 162nd Fighter Wing conducts training at individual client nations. Mobile Training Teams have conducted classes in numerous countries, including Turkey, the Netherlands, and Thailand. The Wing also trains International maintenance technicians on F-16 systems.

Although the 162nd Fighter Wing's primary mission is the IMT program, it is also tasked with maintaining peace and security in the State of Arizona and supports units from northern states throughout the winter months during "Operation Snowbird," which is handled primarily from facilities at Davis-Monthan Air Force Base.

2.1.9 Silverbell Army Heliport

The Silverbell Army Heliport (SBAHP) facility is located adjacent to the north end of the Pinal County Air Park, with air operations occurring primarily north of this facility. Current firing range activities are conducted on the East Tactical Range at the U.S. Air Force, Berry M. Goldwater Range Complex. It is home to the Western Army National Guard Aviation Training Site (WAATS), 1/285th Aviation Battalion, Army Aviation Support Facility 2, and the Singapore Royal Air Force.

WAATS has been historically used to describe training activities, operational numbers, procedures, and policies as they apply to all units stationed at the Silver Bell Army Heliport, including the Army Aviation Support Facility Number 2 (AASF 2); the 1st Battalion, 285th Aviation Regiment (1/285 AVN); the Singapore Royal Air Force and any other organizations authorized by The Adjutant General of Arizona Army National Guard to use the training areas. This historical reference has been modernized

so that all reference to this installation is by it's proper installation name: Silverbell Army Helipad (SBAHP).

The WAATS is one tenant of SBAHP. WAATS provides a centralized training site capable of year-round operations specifically designed to accommodate selected aviation training activities. The mission of the WAATS is to train all Active Duty, Reserve and Guard Apache "A" Model (AH-64) pilots in all phases of normal and emergency operations and combat skills (flight training and aerial gunnery). This training includes, but is not limited to map of the earth, (low altitude flight training), night vision flight training, and air-to-air training. This training facility is the only place west of the Mississippi that supports this level of training. It has also has three simulators on site. The WAATS is currently involved in foreign military sales of Combat Mission Simulators to Saudi Arabia and Jordan and participates in tactics training in Egypt, Saudi Arabia, United Arab Emirates, Bahrain, and Jordan.

The WAATS includes a 1.5 million acre Tactical Flight Training Area (TFTA). The new TTFA was designed to meet the training needs of the WAATS while at the same time avoiding use of the East Corridor in order to protect sensitive biological resources. The TTFA is an important element of attack helicopter training with the ability to provide lo level flight training through various terrain of large expanses of open areas. Within this area training varies from general flight training to practicing emergency procedures to advanced tactical training in simulated combat situations. Three-fourths (75 percent) of tactical training is conducted below 500 feet, with the remaining flights typically occurring between 500 and 1200 feet. This flight elevation is important because above 1200 feet is designated as Class G uncontrolled airspace by FAA.

Key mission elements for WAATS are the combination of extensive and unrestricted local training airspace surrounding the Heliport, the proximity to range facilities, and the weather that allows for 360 days a year of Visual Flight Rules (VFR) training. Also important for its mission is the relative lack of encroachment around the Heliport and maintaining the ability to access and use the outlying training areas (particularly Picacho and Rittenhouse Stage fields).

The 1/285th Aviation Battalion is the only "D" Model, Longbow Attack Helicopter Battalion in the National Guard inventory. The unit is a "go to war" battalion comprised of full-time and part-time National Guard soldiers. The unit also utilizes the installation to conduct individual training, as the WAATS does, but more importantly, this installation allows the unit to conduct collective "battle focused" training in terrain that models the current conditions needed for success in Operation Iraqi Freedom. It's authorized unit strength is over 400 personnel. The Army Aviation Support Facility #2 (AASF 2) supports all maintenance for the 1/285th.

The Singapore Royal Air Force is another customer of the SBAHP and is referred to as "Peace Vanguard". The primary objective of the Detachment is to further the operational training of the RSAF personnel on the AH-64D Apache helicopters in the US at the SBAHP. The intention is to conduct training on a long term basis of at least 20 years. A Detachment of US Aviators is used to train, conduct joint operations and promote closer bilateral ties between the RSAF and the US Army.

2.1.10 Florence Military Reservation (Arizona Army National Guard)

The Florence Military Reservation (FMR) is located in the southern portion of Arizona in Pinal County. Approximate boundaries include U.S. Highway 60 to the north, Arizona State Highway 79 to the west, the Gila River to the south, and the Mineral Mountains to the east. Lying within the lower Sonoran Desert, the FMR encompasses 25,752 acres.

The FMR is used as a training facility for the Arizona Army National Guard (AZ-ARNG). The training Facilities are used primarily for live-fire artillery exercises, unit maneuvers (e.g. transportation, military police, and aviation), simulated engagements, and small arms training. During training exercises, 155 howitzers (Artillery), vehicles, helicopters, and soldiers assume firing and support positions within eight designated training areas referred to as firing boxes. Live artillery fire is directed into a designated impact area. FMR provides the only designated place in the State of Arizona that more than 1000 soldiers train in preparation for real war conditions. Exercises generally take place 6 times per year, with artillery firing taking place until midnight. The AZ-ARNG Artillery is authorized to fire 2000 rounds per year. Eight hundred (800) of those rounds are used for annual training which takes place out of state, and 1200 of those rounds are fired at FMR annually.

FMR includes land under the administration of the AZ-ARNG, the Arizona State Land Department, and the Bureau of Land Management. Because of public lands status, access to and through State lands on FMR is restricted only during posted scheduled live-fire exercises. Otherwise, public access for outdoor recreation is allowed on state lands. Cottonwood Canyon Road provides east-west access from State Route 89 to Box Canyon, a popular recreation area. This road is used frequently by recreational enthusiasts including recreational vehicles, camping and off road vehicles, particularly on the weekends. In an effort to keep the training lands intact and sustainable for future training missions, the AZ-ARNG has provided oversight and funding for restoration projects. Environmental property damage is the result of not only the AZ-ARNG training activities, but considerable public access to the area, recreational vehicle use and cattle grazing. In the past three years, the AZ-ARNG has spent over $300,000 on land restoration. Reparations are made not only for AZ-ARNG use, but most often for recreational and cattle grazing damages to the environment. FMR is a fragile desert training area that is very important to the Arizona Army National Guard and the training of its soldiers, in preparation to defend our country.

The combination of extensive acreage available for training on various ranges and proximity to the Phoenix metropolitan area are key elements that allow the Reservation to effectively train and deploy the National Guard members. No other comparable tract of land is available so close to the Phoenix metropolitan area. Also important for the sustainability of its training mission is the relative lack of encroachment by urban development around the Reservation.

2.1.11 Camp Navajo (Arizona Army National Guard)

Camp Navajo is located on over 28,000 acres near Flagstaff. It was constructed in 1942 as Navajo Ordnance Depot. Camp Navajo was transferred to the Arizona Army National Guard following the

closing of the Active Army ordnance storage mission. The Arizona Army National Guard has operated it since 1993, under an indefinite license through the Army Corps of Engineers.

The main mission of Camp Navajo is to serve as a training site for the Arizona Army National Guard, but the base also maintains and industrial storage with a customer base that includes the U.S. Army, Air Force, Navy, and Coast Guard, as well as private corporations and public agencies such as the U.S. General Services Administration and Northern Arizona University. Approximately 11,000 acres are in the storage area, and 17,000 acres are in training and buffer areas. The Camp also has a railroad with 38 miles of track and two locomotives that serve the storage area. Revenue from the industrial storage supports the National Guard training operations. Training site facilities, constructed in the mid-1990s, include barracks, classrooms, and a dining facility.

2.1.12 Papago Park Military Reservation (Arizona Army National Guard)

Papago Park Military Reservation (PPMR) consists of 419 acres of land located at 52nd Street and McDowell Road between Phoenix and Scottsdale. The site was reserved for use by the Arizona National Guard by the U.S. Congress in 1930. PPMR is the headquarters and operational focal point of the Arizona Army National Guard and the Arizona Air National Guard. The Reservation is home to the Arizona Military Institute, which features classrooms supplied with state-of–the-art video- and computer-projected instruction equipment, a distance-learning center with video conferencing capabilities, and dormitories to house personnel attending classes. Over 15,000 soldiers used the PPMR training facilities in 2002

Also located at PPMR are an Army Aviation heliport, a 3,000-foot-long runway, an Air Force Battle Management training center, a rifle range, a land navigation course, a rappel site, four large armories, and several maintenance facilities.

PPMR is home to the 107th ACS, a command and control training squadron for the Combat Air Forces. The 107th ACS conducts formal AETC courses and a battle management course. In October 2000, the 107th ACS was officially designated as the USAF Weapons Director School for the training all active duty and Air National Guard ground-based weapons directors. The 107th ACS has 140 assigned personnel, of which 81 are full-time personnel (28 active-duty and 53 Air National Guard).

2.1.13 Air Force Research Laboratory, Mesa Research Site

Warfighter Readiness Research Division (AFRL/HEA), Human Effectiveness Directorate in Mesa, Arizona, is part of the U.S. Air Force Research Laboratory under Air Force Materiel Command, headquartered at Wright-Patterson Air Force Base, Ohio. AFRL/HEA is the USAF's premier organization for basic, applied, and advanced research and development (R&D) in warfighter training techniques and technologies. The Division's mission is to "develop, demonstrate, evaluate, and transition training technologies and methods to train warfighters to win." The mission is accomplished through an open, collaborative environment in which government, academia, and industry team with users and customers to develop and exploit new technologies, applications, and environments that will support warfighter readiness for combat operations. The collaboration is designed to improve development, validation, and transition of needed training products to users, customers, and solution providers supporting the premise of "training the way we intend to fight." AFRL/HEA supports worldwide cooperative R&D efforts with the US Navy, Army and Marine Corps, and international ministries of defense, services, industry, and academia.

The integrated nature of war, high-tech threats, military operations other than war, and the Global War on Terrorism, creates burgeoning training challenges for the USAF, sister-Services, and coalition allies. Coupled with the need to process extraordinary amounts of data and information, from sensor to Joint Forces Air Component Commander to shooter and back again, warfighters require seamless integrated operational systems supplemented by realistic mission readiness training systems. The need for realistic training is complicated by concerns of aging aircraft, training environment (range) encroachment, expanding operations tempo, and cost. Classic individual procedural-based training must be supplemented by full-mission training to adequately prepare warfighters for the challenges of 21st century combat. Consequently, the USAF is embarked on revolutionizing training through initiatives that advocate affordable, realistic environments to reduce the dependence on the aircraft as the primary training media. Modeling and simulation are expected to provide on-demand, realistic training opportunities through an integrated operations environment composed of live, virtual, and constructive (computer-generated) Distributed Mission Operations (DMO) systems.

As new systems are fielded, warfighters will have expanded training capabilities, which will allow them to effectively and confidently reallocate training to the most effective DMO venue. Since these systems will better replicate combat and operations other than war, they can be used to support future planning processes and mission rehearsal to permit leadership to make better decisions regarding doctrine, strategy, and modernization.

As powerful as these new modeling and simulation tools will be, they can only be effectively used if all aspects of quality training technologies and methods are integrated during system development. AFRL/HEA's robust training R&D program is aimed at producing a research foundation upon which sound training system development principles can be based. Modeling and simulation are a major part of AFRL/HEA's "tool kit," but it is AFRL/HEA's skilled scientists, engineers, computer scientists, and subject-matter experts who merge the demands of operational training with R&D efforts.

Approximately 200 government, academia, and industry personnel support AFRL/HEA's mission and form a diverse, multidisciplinary team of specialists teamed with warfighter users and customers. This unique combination of R&D expertise enables the Division to efficiently convert training needs into improved training methodologies and products. The Division works closely with other Air Force, Navy, and Army laboratories, as well as with academia and industry, including international and coalition partners. AFRL/HEA has three Focus Technology Areas:

- Warfighter Training Effectiveness Behavioral Research in air, space, and information dominance
- Distributed Mission Training Technology Engineering Development
- Night Vision Device Aircrew Training Research and Development

DMO is the Air Force's emerging program for simulation-based readiness training. Networks of simulators representing Major Design System (MDS) platforms are planned for installation at operational bases throughout the Air Force, and AFRL/HEA is leading R&D for technologies and training applications in a DMO Test bed. Currently composed of four F-16 Block 30 simulators and Airborne Warning and Control System (AWACS) consoles, the DMO Testbed is expanding to include aspects of other MDS assets, such as warfighter actions in the Air and Space Operations Center and Joint Terminal Attack Control environment.

Aircrew training research has been the Division's ongoing focus for more than 15 years of the Laboratory's 35 years at Mesa Research Site. Engineers and scientists at AFRL/HEA created local area simulation networks and linked to expanding wide area DMO networks. These systems support real-time warfighter training for a variety of MDS simulators melding live, virtual, and constructive entities in a synthetic battle space. Other resources, such as computer generated forces, communications nets, and mission replay systems enhance training effectiveness and enable real-world mission planning and rehearsal capabilities for warfighters. To derive maximum benefit from DMO systems, AFRL/HEA specialists developed DMO training research syllabi to build upon and enhance mission readiness skills of front-line F-16 pilots and weapons controllers, regardless of experience levels. The DMO Testbed creates a realistic environment to study the effectiveness of synthetic systems to augment live-ops training, and the endorsement of worldwide Combat Air Force warfighters and USAF Weapons School instructors attests to the Division's leadership in helping create the next generation in readiness training systems.

2.1.13 United States Naval Observatory, Flagstaff Station

Established in 1955 a few miles west of Flagstaff, Arizona, the Flagstaff Station is the U.S. Naval Observatory's dark-sky site for optical and near-infrared astronomy. The observatory's mission is to:

Determine the positions and motions of celestial bodies, motions of earth, and precise time.

Provide astronomical and timing data required by the U.S. Navy and the Department of Defense for navigation, precise positioning, targeting, orientation of space assets, and command, control, and communications.

Make data available to other government agencies and to the general public.

Conduct relevant research to ensure technological superiority in these mission areas, and perform such other functions as may be directed by higher authority.

Data collected by the Observatory directly supports U.S. Strategic Systems.

The Station has five telescopes, including the 1.55-m Kaj Strand Astrometric Reflector, which is the largest optical telescope operated by the U.S. Navy. It was designed to produce extremely accurate astrometric (position) measurements in small fields, and has been used to measure parallaxes and therefore distances for faint stars. Over 1,000 of the world's most accurate stellar distances have been measured with this telescope since 1964, and in recent years this telescope has also served as a test-bed for the development of state-of-the-art optical and near-infrared detectors. Other telescopes at the Station complement the capabilities of the 1.5-m reflector and are also used to determine highly accurate positions and motions of celestial bodies, including stars, planets and their moons, asteroids, and man-made satellites.

The Station operates the Navy Prototype Optical Interferometer (NPOI), which is a cooperative project with the Naval Research Laboratory and Lowell Observatory, in addition to the U.S. Naval Observatory. Located on Anderson Mesa southeast of Flagstaff, the interferometer makes use of separate telescopes that are widely spaced rather than a single large mirror used in conventional telescopes. Measuring accurate star positions is one of the historical mandates of the Navy and was a strong motivation to

finance the development of the NPOI. Accurate star positions are useful in traditional forms of navigation (those used before Global Positioning Systems). When the interferometer is fully functioning as a precision astrometric instrument it will be able to measure star positions from the ground with an extremely high level of accuracy not possible with even the largest telescopes. These measurements will provide an important demonstration for space-based interferometers that may increase that accuracy many fold.

In addition, the NPOI will improve the capability for direct observation of surface features on stars other than our Sun. For example, to see details on the surface of the bright nearby star *alpha Centauri* in visible light would require a telescope with a mirror diameter of 14 meters, and to resolve spots on the surface would require a telescope at least 100 times larger than that. Such a large telescope is well beyond our present day technology if constructed using a single conventional mirror. With the multiple mirrors of the NPOI (as many as six mirrors arrayed on each of three arms) the increased resolution provides the capability to point the interferometer very accurately to the position of a star.

The Station is a key participant in the Sloan Digital Sky Survey, which is the most ambitious ground-based astronomical survey project ever undertaken. The survey is mapping in detail one-quarter of the entire sky, determining the positions and absolute brightnesses of more than 100 million celestial objects. It will also measure the distances to more than a million galaxies and quasars. With the survey, astronomers will be able to see the large-scale patterns of galactic sheets and voids in the universe. Scientists have varying ideas about the evolution of the universe, and different patterns of large-scale structure point to different theories of how the universe evolved. The Sloan Digital Sky Survey will tell us which theories are right – or whether we have to come up with entirely new ideas.

Another unique program at the Station is the Precision Measuring Machine, or PMM, which is a large, fast, highly precise photographic plate-measuring engine. In the PMM twin CCD (charge coupled device) cameras are set up to "fly" a constant distance above the photographic plates, stopping every few seconds to take digital "snapshots" of a small area of the photographs. The images taken by the CCD cameras are measured and analyzed while the plates are still being digitized, so positions and brightnesses of all the stars have been computed by the time a plate has been scanned, usually in less than an hour for each plate. The PMM program has produced very high-quality all-sky catalogs of stars, based on digitization of the major photographic surveys. These catalogs, the largest ever compiled, are used by DoD, other government agencies, and professional as well as amateur astronomers around the world.

The Flagstaff Station of the U.S. Naval Observatory is the world's leading research center for the accurate determination of the positions and motions of celestial objects and it continues to make significant contributions to our nation's defense.

2.1.14 Military Operating Areas (MOAs) and Restricted Airspace

In addition to facilities on the ground, airspace is a vital resource for the missions of Arizona's military facilities (see Figure 2 below).

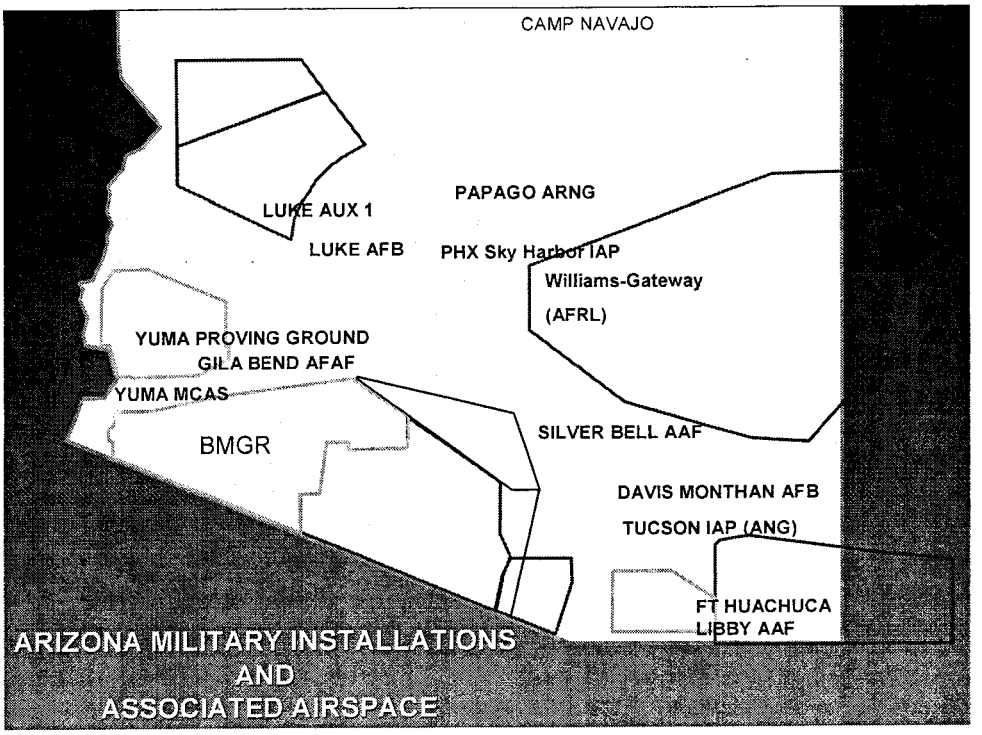

Figure 2

The airspace available to these facilities has the capacity to support all missions and aviation needs of all of the services. This airspace environment is not duplicated elsewhere in the U.S. and optimizes the training operations at BMGR as well as the other ranges that are part of the Yuma Training Range Complex.

The Special Use Airspace (SUA) Program designates airspace for military use in the interest of national defense and security. In 1958, Congress mandated that the U.S. Department of Transportation designate airspace for military use, and during the 1960s and into the 1970s military flight operations were allowed to be widely conducted in the Arizona airspace. In the 1970s, efforts were made to segregate military air traffic from civilian air traffic. These efforts resulted in the designation of various types of SUA, including:

- Restricted Airspace, within which the flight of civil aircraft is subject to restrictions due to military operations considered hazardous to other aircraft, including weapons firings and airdrop operations;
- MOA, in which airspace below a certain altitude is established to segregate civilian flight activities from military activities, which may involve multi-aircraft formations, high-speeds just short of supersonic, and steep climb and descent rates. Air Refueling Routes, providing for in-flight refueling of aircraft may overlay an MOA;
- Air Traffic Controlled Assigned Airspace, which is airspace attached to the MOA airspace, within which operations above the MOA altitude are controlled by the Federal Aviation Administration (FAA) to support the military mission; and

- Military Training Routes, which are airspace corridors used by military aircraft for low-level navigation and tactical training.

The vertical limits of SUA are measured by designated altitude floors and ceilings within which limitations are imposed upon aircraft operations that are not a part of the military operations.

Restricted airspace in Arizona is associated with BMGR, the Yuma Range Training Complex, Yuma Proving Ground, and Ft. Huachuca. In this restricted airspace non-military aircraft operation is not forbidden but is subject to various restrictions, and during periods of active military operations, civilian aircraft are not permitted to enter the airspace.

Civilian air traffic using Instrument Flight Rules (IFR) is routed around active MOAs or is vertically separated from military air traffic. Civilian air traffic using VFR may enter the MOA at any time without a specific clearance but at a risk.

Above the flight ceiling of an MOA, ATCAA provides additional airspace for military operations. Unlike the MOA, the ATCAA is not controlled by the military but by FAA and is subject to FAA requirements for civilian aircraft.

The principal MOA/ATCAAs in Arizona are:

- Gladden/Bagdad MOA/ATCAA, located approximately 50 miles northwest of Phoenix. This area supports air-to-air, basic flight maneuvers, air combat tactics, and formation training for the 56th and 944th Fighter Wings at Luke Air Force Base. One of the three Air Refueling Routes (AR-603 overlies this MOA/ATCAA).
- Outlaw/Jackal MOA/ATCAA, located approximately 60 miles northeast of Tucson and 30 miles east of Phoenix. This area supports air-to air and night training missions for Luke Air Force Base and the 162nd Fighter Wing based at Tucson International Airport.
- Sunny MOA/ATCAA, located approximately 70 miles northeast of Phoenix. This area is used as a holding area for exercises with large forces and supports Luke Air Force Base and Nellis Air Force Base (in Nevada). The primary Air Refueling Route (AR-658) also overlies the Sunny MOA/ATCAA.
- Sells MOA/ATCAA, located approximately 40 miles south of Phoenix and 20 miles west of Tucson, adjacent to the eastern boundary of BMGR. This area supports intensive training for Luke Air Force Base, Davis-Monthan Air Force Base, the 162nd Fighter Wing, and MCAS Yuma. One of the Air Refueling Routes (AR-647/647A overlies this MOA/ATCAA).

Other MOAs are the Dome MOA, located just south of MCAS Yuma; the Ruby and Fuzzy MOAs, located adjacent to the Sells MOA east of BMGR; the Tombstone MOA, located just east of Fort Huachuca; and the Turtle and Quail MOAs, located on the California-Arizona border west of the Gladden/Bagdad MOA/ATCAA.

There are over 20 Military Training Routes crisscrossing Arizona, totaling approximately 5,000 miles in length. These routes are used by the military to practice high-speed, low-altitude maneuvers (generally below the 10,000-foot altitude and at airspeeds greater than 400 miles per hour). Eight of the routes

provide essential access to BMGR. Civilian air traffic is not prohibited from flying along or across the routes, but the route designation alerts aircraft to the presence of military operations.

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Attachment 2: PARTNERING WITH THE DEPARTMENT OF DEFENSE

A. GOVERNOR'S MILITARY FACILITIES TASK FORCE

Based on the knowledge that the Secretary of Defense plans to reduce the infrastructure of DoD by 25% in 2005 through the BRAC process and in recognition of the national and statewide importance of Arizona's military facilities, Governor Janet Napolitano re-invigorated state efforts to protect the missions of Arizona's military installations by creating the Military Facilities Task Force by Executive Order 2003-18. The taskforce was comprised of nine voting members and one advisory member.

Members of the Governor's Military Facilities Task Force

R. Thomas Browning, Brigadier General, USAF (Ret.) Co-chair & Military Advisor to the Governor	Robert Johnston, Lieutenant General, USMC (Ret.) Co-chair
Lisa Atkins, Executive Director of the County Supervisors Association representing the West Valley community	Lori Faeth, Policy Advisor for Natural Resources and Environment representing the Arizona Governor's Office
Tom Finnegan, Colonel, USA (Ret.) & President of Fort Huachuca 50 representing the Sierra Vista community	Gilbert Jimenez, Director of the Arizona Department of Commerce
Monsignor Richard O'Keeffe, Immaculate Conception Church representing the Yuma community	Gene Santarelli, Lieutenant General, USAF (Ret.) representing the Tucson community
Steve Thu, Major General, AZNG (Ret.) representing the Arizona National Guard & Reserves	**Advisory Member to the Task Force** Patricia Boland, Chief Counsel for Natural Resources Section of Arizona Attorney General's Office
Executive Director to the Task Force Dion Roland Flynn Arizona Governor's Office	

The Task Force was charged with developing strategies to ensure the long-term retention of the State's premier military facilities so that they could continue to perform their vital national defense functions. The Task Force's central objectives were to advise the Governor on matters affecting the operational viability of military facilities in Arizona and provide the Governor with information and recommendations that will help ensure the long-term viability of military installations and resources. In support of these objectives, the Task Force conducted public meetings; collected and reviewed of information on the military facilities, their missions, and the constraints to carrying out those missions; identified and examined tools to protect and strengthen the military facilities' long-term viability and sustainability; and formed advisory groups consisting of facility commanders and public officials.

After seven months of in-depth study and extensive research in December 2003, the Governor's Military Facilities Task Force forwarded twenty-seven recommendations to Governor Janet Napolitano on how to protect these military missions for the long-term as part their taskforce report (See Attachment 3 for a copy of the task force recommendations). Go to **http://www.governor.state.az.us/mft/index.html** for a full copy of the taskforce report.

The resulting specific recommendations reflect the following four themes:

- Preserve and grow Arizona's network of military facilities to satisfy the long-term needs of the Department of Defense and maximize their benefit to the State economy
- Maximize actions at the local level to support the retention and long-term sustainability of Arizona's military facilities
- Establish solid State and federal support for the retention and long-term sustainability of Arizona's military facilities
- Recognize and leverage existing statutes, initiatives, and effective efforts to support the retention and long-term sustainability of Arizona's military facilities

These recommendations were intended to create a framework for a partnership among agencies, organizations, and stakeholders at the local, State, and federal levels, with the common goal of preserving the unique and irreplaceable assets of Arizona's network of military facilities and ensuring their long-term sustainability as keystones in the nation's defense and a cornerstone of the State's economy.

Based on the Task Force recommendations, the Governor implemented the following strategies:

- Directed State-Level Departments to act in a manner to protect the missions of Arizona's military facilities.

- On December 1, 2003, added a Fulltime Policy Advisor on Military Affairs on her staff to oversee the implementation of the Task Force recommendations.

- In January 2004, opened a State of Arizona office in Washington D.C. to represent the importance and capabilities of each of Arizona's military installations as a unique network of multi-service bases and monitor and report back to the Governor and the Military Affairs Commission on issues impacting these installations.

- Proposed a Legislative Package in the 2004 Legislative Session to the Arizona State Legislature to create a funding stream to assist military installation preservation and expansion projects where appropriate at the local level and installation level and Modify state statutes to address the needs of AZ's military installations

- Created an on-going Military Affairs Commission to implement the recommendations from the Task Force report.

B. GOVERNOR'S MILITARY AFFAIRS COMMISSION

With the appreciation for the military value of Arizona's military installations, on March 2, 2004, Governor Janet Napolitano created the Military Affairs Commission by executive order 2004-04. This commission was developed to provide a permanent body to oversee military affairs in the state and provide a forum for local communities impacted by a military installation to address their issues. The composition includes fifteen (15) voting members where the thirteen (13) are appointed by the Governor and two by the leadership of the State Legislature.

MEMBERS OF THE GOVERNOR'S MILITARY AFFAIRS COMMISSION

Lisa Atkins, Vice-President for Policy, Greater Phoenix Leadership Co-Chair representing the West Valley community	Tom Finnegan, Colonel, USA (Ret.) & President of the Fort Huachuca 50 Co-Chair representing Sierra Vista community
Mayor James Cavanaugh City of Goodyear near Luke Air Force Base	Mayor Tom Hessler City of Sierra Vista near Fort Huachuca
County Supervisor Sandie Smith Pinal County near the Arizona National Guard Western	County Supervisor Lenore Stuart Yuma County near US Army Yuma Proving Ground and Yuma Marine Corp Air Station
Mayor Robert Walkup City of Tucson near Davis Monthan Air Force Base	R. Thomas Browning, Brigadier General, USAF (Ret.) Member-At- Large
Bill Carrell, former President of the DM50 representing the Tucson community near Davis Monthan Air Force Base	Michael Francis, President of the West Valley Action Coalition representing landowners near Luke AFB
Robert Johnston, Lieutenant General, USMC (Ret.) representing the Tucson community	Monsignor Richard O'Keeffe, Immaculate Conception Church representing the Yuma community
Priscilla Storm of Diamond Ventures representing the development near Davis Monthan Air Force Base	Nancy Stump appointed by the Speaker of the House of Representatives of the Arizona State Legislature

The mission of the commission is to monitor and make recommendations on executive, legislative and federal actions necessary to sustain and grow Arizona's network of military installations, training and testing ranges and associated airspace. Through this commission, Arizona is able to keep issues impacting its military installations in the forefront.

Since its first meeting in May, the commission has been overseeing the implementation of the Task Force's recommendations especially the funding stream created by the Military Installation Fund (MIF). They have been working with the Arizona Department of Commerce to develop procedures for proper distribution of the funds from the MIF.

C. STATE LEGISLATION

Recognizing that incompatible land use and encroachment in the vicinity of Arizona's military facilities constrains their ability to perform current and future missions, a primary focus of the State's efforts to assure a sustainable future for its military installations has been to address these compatibility issues. The State of Arizona began regulating planning and zoning around military airports in 1978, with legislation that permitted cities and counties to plan and zone to ensure development compatible with the high-noise and accident potential of military airports. State legislation amending state statutes addressed the control of impacts generated by military airport operations on public health and safety, particularly in high-noise or accident potential zones.

The focus of that legislation was to mandate that areas within those zones be addressed in municipal general plans and county comprehensive plans, and to ensure that land development in the vicinity of a military airport be compatible with the high-noise and accident potential generated by military airport operations. The National Governors Association Center for Best Practices has recognized Arizona as a national leader for its development of legislation to require compatible land use around its military installations ("State Strategies to Address Encroachment at Military Installations" dated September 2004. Go to http://www.nga.org/cda/files/032403MILITARY.pdf for a copy of the report).

The State of Arizona, through amendments to existing law also enacted Growing Smarter and Growing Smarter Plus measures that address growth and land development issues through changes in the community planning and rezoning processes. These measures require political jurisdictions with property within territory in the vicinity of a military airport, as defined in ARS §28-8461, to include consideration of military airport operations in their General Plans and to allow an opportunity for official comment by the military airport officials on the General Plans. The Growing Smarter and Growing Smarter Plus legislation requires that plans provide for a rational pattern of land development and an extensive public participation program. (For a comprehensive review of the Arizona state legislation related prior to 2004 legislative session, see Attachment 4)

Prior to the 2004 legislative session, the State legislation applied only to military airports, which are defined as airports operated by an armed force and primarily used for military fixed wing aircraft. A military airport is also defined to exclude runways or airstrips not immediately adjacent to operational control, maintenance, and permanent parking facilities. The military facilities covered by that legislation were only Luke Air Force Base, Davis-Monthan Air Force Base, Marine Corps Air Station Yuma, Libby Army Airfield at Fort Huachuca, and Laguna Army Airfield at Yuma Proving Ground. The legislation defined an area around each of these facilities, designated as "Territory in the Vicinity of a Military Airport," within which planning and notification provisions of the legislation apply. The legislation also defined noise and APZs for each facility, as well as "approach-departure corridors" for

Luke Air Force Base and Davis-Monthan Air Force Base; the table in the legislation specifically defining compatible uses applies within these zones.

Airfields used primarily by rotary-wing aircraft such as Silverbell Army Heliport, and auxiliary fields such as Luke Auxiliary Airfield #1 and Gila Bend Auxiliary Airfield were not covered. In addition, the legislation did not apply to aircraft operations at the Barry M. Goldwater Range or to the MTRs that are used for low-level training operations. Finally, non-aviation military facilities are not covered by current legislation.

Thus, during the 2004 Legislative Session, the State of Arizona renewed its commitment to protect the national defense missions of all Arizona's military installations, not just military airports by passing the following pieces of legislation:

- House Bill 2134: NATURAL GAS STORAGE FACILITIES - prohibits the location of large natural gas storage facilities near military installations

- House Bill 2141: MILITARY AIRPORT; RESTRICTED ZONES – adds Luke AFB Auxiliary Airfield #1 with its designations and maps of high noise and accident potential zones to list of military facilities recognized in statute

- House Bill 2140: MILITARY AIRPORT PLANNING; APPROPRIATION
  - Needed Changes to State Statutes to Protect Missions of All of Arizona's Military Facilities
  - Created Military Installation Fund: $4.8M in FY05 and FY06 and every year thereafter; funds support from Arizona Attorney General and Department of Commerce

- House Bill 2662: MILITARY AIRPORTS; TRAINING ROUTES - defines "military training routes" (MTRs) and requires notification to landowners

(For a complete copy of the bills, please go to the Arizona State Legislature website at http://www.azleg.state.az.us/.)

The extent of urban encroachment having an impact on the operational activity of an installation is a consideration in determining its future viability, and such mission constraints can lead to activity reductions or installation closure. Arizona is dedicated to working with the local communities to deal with urban encroachment of military installations through continued improvement of local land-use planning and zoning as needed. This will require Arizona's military communities to collaborate to anticipate future urban growth patterns and create a strategic land-use plan with accompanying implementation and enforcement mechanisms that prevent encroachment near our nation's military installations. The aim is not to stop growth, but to ensure that land uses in specified areas are compatible with the scope of military activities at all of Arizona's military installations.

D. ARIZONA MILITARY REGIONAL COMPATIBILITY PROJECT

The Arizona Military Regional Compatibility Project was conceived as a proactive endeavor to convene the stakeholders around each Arizona base – the relevant jurisdictions, base personnel, landowners, and other interested parties – to address land use compatibility issues. The Compatibility Project is the result of legislation passed in 2001 (Senate Bill 1120) that appropriated funds to develop comprehensive land use plans in the noise and accident potential zones surrounding active military airports. In response to this legislation, a state agency project team was established in the Arizona Department of Commerce, and a consultant selected through a competitive process.

The statewide approach has been phased into different project areas defined by base location. The first phase of this project involved Western Maricopa County and Luke Air Force Base. The project has now grown to include support and funding from the United States Department of Defense, Office of Economic Adjustment. Then, the second phase of the Arizona Regional Military Compatibility Project dealt with Davis-Monthan Air Force Base) in Tucson and concluded in February 2004. Future projects include Luke Auxiliary Field #1, Gila Bend Auxiliary Airfield /Barry M. Goldwater Range and Marine Corps Air Station-Yuma Consistency Review of 1996 Joint Land Use Study, Florence Training Range, Silverbell/ Marana/ Western Army National Guard Aviation Training Site operations, and development of State JLUS guide.

(For additional about the Arizona Military Regional Compatibility Project, go to: http://www.azcommerce.com/communityplanning/compatibility.asp)

E. $10 MILLION BOND REFERENDUM BY CITY OF TUCSON

In 2004, the City of Tucson passed a $10 million bond referendum assist with land acquisition around Davis Monthan Air Force Base to address land use compatibility issues. This is the largest single financial investment made by a municipality in the state.

F. LUKE AFB $27M LAND ACQUISITION PROJECT

Members of the Arizona Congressional delegation, Senators John McCain and Jon Kyl helped to secure $27.3 million to acquire more than 2,100 acres and permanent easements around Luke Air Force Base. As of part of this Land acquisition plan, the Air Force plans to purchase land or restrictive easements around Luke AFB to prevent further encroachment upon the base, ensure the long-term viability of Luke and the military training that occurs on the BMGR, and enhance the security posture of the base.

The Air Force land acquisition strategy would preserve access to the BMGR by acquiring easement rights for nearly 1,800 acres of land in the Luke AFB departure corridors for $21.3 million. With the remaining $6 million, the plan also includes purchasing 273 acres of land and installing security fences around the Munitions Storage Area just south of Luke AFB to improve antiterrorism and force protection for $6 million. By connecting the storage area to the base, the service can better ensure the safe transportation of live ordnance to the base's flight line.

The southern departure corridor is important because it is the only route left to F-16 pilots for live-armed

flights to the Barry M. Goldwater Range in southern Arizona. Most of Luke's 170 sorties a day take off to the south.

Permanent easements would compensate landowners while allowing them to continue to use their property in ways compatible with the base.

G. BARRY M. GOLDWATER RANGE TASK FORCE

In Section 322 of the National Defense Authorization for FY04, the Secretary of Defense established a task force to determine and assess various means of resolving the conflict between the dual objectives at Barry M. Goldwater Range, Arizona, of the full utilization of live ordnance delivery areas for military training and the protection of endangered species that are present at Barry M. Goldwater Range.

The taskforce is composed of representatives from Luke Air Force Base, the Marine Corps Air Station Yuma, the U.S. Fish and Wildlife Service, Arizona Department of Game and Fish, a wildlife interest group in Arizona and environmental interest group (other than a wildlife interest group) in Arizona. Their purpose of the task force is to develop a report assessing the effects of the presence of endangered species on military training activities in the live ordnance delivery areas at the Barry M. Goldwater Range and in any other areas of the range that are adversely effected by the presence of endangered species and making recommendations on to address these adverse effects on military training activities on the range.

H. BUREAU OF LAND MANAGEMENT LAND EXCHANGE EFFORTS

The concept proposes to facilitate the preservation and possible expansion of the mission capabilities of Arizona's military installations through a public/private partnership utilizing federal land exchanges. At the present time, private companies in Arizona are actively acquiring the lands within the areas impacted by Arizona's military installations. Then, the private companies would like exchange the lands with the Federal Government utilizing Bureau of Land Management (BLM) lands within Arizona. This transfer or exchange would be on an equal value basis utilizing standard Federal appraisal guidelines. Congress is required to authorize BLM to conduct such exchanges. The lands acquired by the Secretary of Interior would then be transferred to the Secretary of the Air Force for utilization by the respective military installation. The largest effort under this concept is currently being worked around Luke AFB.

I. FORT HUACHUCA & UPPER SAN PEDRO PARTNERSHIP

As part of the in Section 321 of the National Defense Authorization Act For FY04, Congress recognized the Upper San Pedro Partnership, Arizona, a partnership of Fort Huachuca, Arizona, other Federal, State, and local governmental and nongovernmental entities, and its efforts to establish a collaborative water use management program in the Sierra Vista Subwatershed, Arizona, to achieve the sustainable yield of the regional aquifer, so as to protect the Upper San Pedro River, Arizona, and the San Pedro Riparian National Conservation Area, Arizona.

The Secretary of Interior shall prepare, in consultation with the Secretary of Agriculture and the Secretary of Defense and in cooperation with the other members of the Partnership, a report on the water use management and conservation measures that have been implemented and are needed to restore and maintain the sustainable yield of the regional aquifer by and after September 30, 2011. The Secretary of the Interior shall submit the report to Congress not later than December 31, 2004.

J. YUMA TRAINING RANGE COMPLEX RENAMED AFTER CONGRESSMAN BOB STUMP

In section 2872 of the National Defense Authorization Act for FY04, there was a conferees note that renamed the Yuma Training Range Complex in Congressman Stump's name. The honor is particularly fitting, as the congressman, a former member of the Arizona Congressional delegation, was a cosponsor of legislation in 1985 that created the Barry M. Goldwater Range, used in part by the Yuma Training Range Complex and supported by Luke Air Force Base and the Yuma community.

K. ARIZONA COMMANDER'S SUMMIT

The Arizona Commander Summit is a bi-annual meeting with all the commanders of Arizona's military installations. It provides a forum for Arizona's installation commanders to discuss issues that impact their operations and meet with federal, state and local officials to resolve them.

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Attachment 3: Excerpts from the Report of the Governor's Military Facilities Task Force, dated December 2003 on the Task Force Recommendations

Chapter 5: Recommended Actions for Long-Term Sustainability of Arizona's Military Facilities

In recommending actions needed to ensure the long-term sustainability of Arizona's military facilities, the Governor's Military Facilities Task Force considered many different factors that affect the sustainability of the facilities and their ability to carry out their missions. These factors included the diversity of the facilities and the need to provide protection for all of the facilities; the need for compatible land use around the facilities; the need for funding dedicated to the preservation of the facilities and their missions; the need for continuing environmental stewardship and monitoring at the facilities; the need to treat Arizona's military facilities as one of the State's primary industries; and the need to implement a partnership for action at the State, federal, and local levels.

From these considerations came the understanding that Arizona is uniquely positioned to satisfy most of the needs of the Department of Defense for many years to come and that Arizona's military installations provide substantial and stable contributions to the Arizona economy. The recommendations of the Task Force are guided by the following common themes:

- Preserve and grow Arizona's network of military facilities to satisfy the long-term needs of the Department of Defense and maximize their benefit to the State economy.
- Maximize actions at the local level to support the retention and long-term sustainability of Arizona's military facilities.
- Establish solid State and federal support for the retention and long-term sustainability of Arizona's military facilities.
- Recognize and leverage existing statutes, initiatives, and effective efforts to support the retention and long-term sustainability of Arizona's military facilities.

The Task Force's recommendations include:

- Actions Requiring Executive Direction;
- Actions Requiring Legislative Change; and
- Actions Requiring Congressional Support.

The recommendations of the Task Force are presented in the following sections.

5.1 ACTIONS REQUIRING EXECUTIVE DIRECTION

1) **Through the Arizona Department of Commerce, recognize Arizona's military installations, training resources, and research, development, test, and evaluation activities as a separate economic cluster to recognize their value as a foundation of the Arizona economy and fully incorporate them into State, regional, and local economic development planning and marketing.**

   Rationale: Arizona's military industry is an essential component of Arizona's economic fabric. In the 2002 Maguire study on the *Economic Impact of Arizona's Principal Military Operations*, total employment impact, total output, and total annual taxes revenues for Arizona's military industry equaled 83,506 jobs, $5.66 billion, and $233.6 million respectively. The stable nature and high pay-scale value of military jobs make them a fundamental part of Arizona's economy. These are the kinds of jobs that are present in good and bad economic times. Thus, recognizing the military industry as a separate economic cluster in Arizona is critical to the efforts to educate the public about its importance to the fiscal health of Arizona. In conjunction with this effort, a public education program implemented by government, businesses, and other interested parties would provide an important means to inform legislative leaders and the public regarding the importance of military facilities in Arizona.

2) **Develop an on-going State revenue source to assist military installation preservation and expansion projects where appropriate at the local level and installation level.**

   Rationale: Funding is needed to create a mechanism to compensate willing landowners within the vicinity of the territory of Arizona's military airports, military facilities, and operating areas to ensure compatible land use around Arizona's military installations. We recognize that all private property around these installations has value. We also acknowledge that this alone is not an adequate fund to address private property rights, but it is only one of five possible tools in our recommendations to address this issue.

   To ensure that this fund is used in the most prudent way possible for acquisition of land or development rights, there are generally accepted appraisal practices (i.e., the Army Corp of Engineers) that will be used. We want to ensure a fair and open system is used for dispersal of the money. Our suggestion is through a grant process. Under this grant process, the money is dispersed through local governments, not to private or non-governmental organizations, upon approval of their grant application. This is similar to the process used by other states (i.e., Florida and Texas). The reason for this is that only local governments are accountable to the citizens of their communities respectively.

   The following is recommended as an on-going State revenue source to assist military installation preservation and expansion projects at the local and installation level.

   - In Fiscal Year 2005 (effective July 1, 2004), divert $1 million to establish Military Installation Fund.
   - For the tax year beginning on or after December 31, 2004 through Fiscal Year 2024, divert 5 percent of Arizona income tax attributable to active-duty, National Guard, reserve, and retired compensation originating from the Federal government with a minimum of $3.5 million per year.

- This revenue stream should be protected and the Military Installation Fund designated for the sole purpose it was intended according to established criteria.

Implementation Actions required are:

- December 1, 2003 – June 30, 2004
- Budget $1 million in Fiscal Year 2005 budget
- Establish Military Installation Fund (Arizona Department of Revenue)
- Have the Arizona Department of Revenue track the Arizona income tax attributable to active-duty, National Guard, reserve, and retired compensation originating from the Federal government through the Defense Finance and Accounting Service (DFAS) by the applicable the W-2s and 1099Rs
- Determine criteria for award of grants (Military Affairs Commission)
- Tax year beginning on or after December 31, 2004
- Fund Military Installation Fund

3) **Establish a permanent body (i.e., a Military Affairs Commission) to monitor and make recommendations on executive, legislative, and federal actions necessary to sustain and grow Arizona's network of military installations, testing and training ranges, and airspace.**

Rationale: An ongoing body is needed to oversee the implementation of the recommendations developed by this Task Force. The approval of appointees for the composition of this commission rests with the Governor. However, we would like to request that the Governor select appointees that have a statewide perspective and that representation specifically for private property owners and environmental interests be considered.

It is envisioned that the Military Affairs Commission be established by Executive Order. Our suggestions for the Commission's mission, duration, membership, and staff are:

Mission: Monitor and make recommendations on executive, legislative, and federal actions necessary to sustain and grow Arizona's network of Military installations, training ranges, and airspace.

- Actively support the implementation of recommendations of Governor's Military Facilities Task Force.
- Regularly meet with Governor to advise the Governor on military issues and report progress on implementation.
- Serve as resource for communications with the legislature, the federal delegation, the media, and the community.
- Develop criteria, including accountability, for awarding community grants from the Military Installation Fund.
- Annually recommend a priority listing of grants with available resources.
- Establish Statewide network at local level.

- Monitor implementation of Task Force recommendations.

Duration: Twenty years to coincide with revenue stream for Military Installation Fund.

Membership: By appointment of the Governor:

- Four year terms – no term limits except that locally elected officials limited to term of office
- Individual members must be knowledgeable and committed to mission
- Composition: 15 members:
  - 5 – Local elected officials from cities, towns and counties; 5 – Individuals qualified and committed; 2 – Representatives from the State Legislature (1- appointed by the Speaker of the House and 1 – appointed by the President of the Senate); 1 – Member at large; 2 – Co-chairs selected by Governor
  - Ex Officio – Governor's Chief of Staff, State Legislative Military Base Advisory Group, Installation Commanders, Arizona Adjutant General and a representative from a federal agency involved in land use issues

Staff: Governor's Policy Advisor for military affairs and Representatives from Attorney General, State Land Department, Real Estate Commission, Arizona Department of Commerce and others depending on issue

4) **Establish a full-time presence in Washington D.C. to represent the importance and capabilities of each of Arizona's military installations as a unique network of multi-service bases and monitor and report back to the Governor and a State-level Military Affairs Commission on issues impacting these installations.**

   Rationale: The message about the importance and capabilities of Arizona's military installations as a unique network of multi-service bases that provide training and testing operations critical to our readiness and national defense needs to be carried to Washington, D.C. At the same time, information about issues impacting these installations needs to be monitored and carried back to the State so that we have time to respond. In addition, there is a considerable opportunity to leverage public and private efforts and expenditures that currently exist in Washington to promote military activities in Arizona. These linkages and integrated efforts, where possible, should be established between and among all the public and private lobbying/marketing efforts that currently have a presence in Washington.

5) **Direct the Arizona State Land Commissioner to consider land use compatibility with Arizona's military installations in planning, management, and disposition of State Trust lands through existing and future tools, including an exchange authority, if granted, and in the best interests of the trust beneficiaries.**

   Rationale: Arizona's land base includes 13 percent State Trust Lands (lands held in trust for the beneficiaries). These lands are situated near military facilities and are a significant factor in regard to compatible land use. In addition, State Trust Land exchange authority could help ensure that lands adjacent to military facilities are compatible and provide a mechanism for the

State to deal with land areas impacted by military airports, military facilities, and operating areas.

The mechanism developed for exchanges could help the State deal with land areas impacted by military airports, military facilities, and operating areas.

6) **Recognize the current Attorney General's position on ARS §28-8481(k) and that no further action is needed at this time.**

Rationale: There has been confusion about whether or not new residential subdivisions are allowed within the noise contours. This confusion arises from the existence of the secondary entry to the use chart contained in ARS §28-8481(k). Some have interpreted this entry to allow subdivisions within the noise contours up to 75 Ldn. The Attorney General's Office has made it clear that that is an improper interpretation of the law. This recent position taken by the Attorney General clarifies the intent of this statute, so no further action is needed.

7) **Encourage local jurisdictions (i.e., cities, counties, and towns) affected by military installations to consider innovative approaches used in other locations to deal with land use issues.**

Rationale: There are many different approaches being developed by local jurisdictions around the State. Through the identification of best practices, communities and counties Statewide can develop approaches that address their unique circumstances in balancing the needs of the community with the maximum mission capability of their military neighbors. Specific strategies may also be appropriate for integration into the organizational or operational structure of various military installations and facilities to enhance local relationships.

The appropriate role of the State is to reinforce actions (i.e., land use planning and development decisions to preserve the missions of Arizona's military installations, military facilities, and operating areas) at the local level. The State should not inhibit local communities from setting stricter standards if they so choose. These actions should be encouraged to ensure the long-term retention of Arizona's military installations, military facilities, and operating areas but the State should not mandate their use.

Elements of this Strategic Toolbox could include:

Maximum Mission Contours. Jurisdictions can work with active military airports to establish noise contours reflecting a maximum mission scenario to ensure compatible land use and development with base operations and maintain essential quality of life for local residents.

Graduated Development Concept. Dense development up to and surrounding the high-noise contours (65 Ldn and above) and accident potential zones at active military airports threaten future operations at these airfields. The concept of graduated development (low-density/intensity uses graduating to higher-density/intensity uses) moving away from the high-noise contours and accident potential zones is more consistent with military airport operations than is intense or dense development near the high-noise contours. The Graduated Development Concept is a graduating of densities away from the high-noise contours and accident potential zones as in the following example suggested by Luke Air Force Base:

- 0-2 dwelling units per acre (du/ac) from the 65 Ldn to one-half mile out
- 2-4 du/ac from the one-half-mile point to one mile out
- 4-6 du/ac from the one-mile point to three miles out

Interspersing areas of land use with very low or no population density within the graduated-density area and the Vicinity Box is another component of this concept. Low concentrations of people include uses such as agriculture, industrial, warehousing, and other similar uses. Communities using approaches similar to the Graduated Development Concept include the City of Goodyear, and the City of Surprise (currently proposed in General Plan Amendment).

Purchase of Development Rights. Local jurisdictions can create incentives for developers to reduce the intensity and density of use in areas identified as significant to preserving the base's mission while increasing density in other areas by encouraging the purchase of development rights in appropriate situations and areas. When development rights are purchased, a landowner is paid a fair market value for the rights that are purchased. The value of the purchased rights is roughly equal to the value of the land without any special restriction less the value of the land with the land use restrictions.

Purchase/Lease Back Program. Purchase agricultural lands around bases that are most directly impacted by safety, or noise considerations and lease properties back to farmers who will use them for agricultural purposes.

Transfer of Development Rights. Reduce the intensity and density of use in areas identified as significant to preserving the base's mission while increasing density in other areas by encouraging local jurisdictions to create incentives for developers to use the density transfer technique in appropriate situations and areas in proximity to the base. The transfer of development rights is similar to the purchase of development rights, except rather than paying cash for development rights, the landowner is compensated by having the permitted uses of other land, owned by the landowner, expanded. For example, the uses of an acre of land currently zoned for agricultural purposes outside the APZs would be modified to include higher-density residential development at the same time the use of the acre of land in the APZs currently zoned to permit single-family residential development would be restricted to agricultural uses. As a consequence, there would be no out of pocket cost for the imposition of limitations on the land in the APZ.

Partnerships with Non-Governmental Organizations to Facilitate Transfers of Development Rights. Governmental or non-governmental entities such as the Trust for Public Land (TPL), may acquire development rights for land adjacent to a military installation or facility, especially for parcels in the high-noise or accident potential zones, and dedicating it to uses compatible with military missions or to transferring those lands to public ownership for conservation or open space uses. TPL also has a program to assist communities in pursuing a preservation ballot initiative, providing services that include political analysis and campaign strategy.

Military Base Outreach. Military installations, facilities and ranges are encouraged to establish a consistent mechanism for outreach and input by surrounding communities on

environmental and growth issues. The Community Initiatives Team at Luke Air Force Base is a good example of military commitment to ensuring ongoing communication throughout the region.

Enhanced Local Notification and Disclosure. Increasingly, communities have identified the value to their citizens in going beyond the minimum public notification and disclosure standards outlined in law for areas within the Vicinity of an Active Military Airport. Greater understanding of local military operations builds support. Specific mechanisms to enhance public notification and disclosure include:

- Require notices and maps to be posted in real estate sales and leasing offices, including identification of noise contours
- Require notices placed in model home complexes and sales offices advising potential buyers that the area is subject to military aircraft overflights
- Require avigation easements and indemnification/release of liability language on all recorded subdivision plats
- Install overflight signage at roadway intersections within the noise contour lines

The cities of Goodyear and Surprise are currently implementing some or all of the aforementioned strategies.

Expanded Approach/Departure Corridors. Local jurisdictions and military airports can work in partnership to create an approach/departure corridor that establishes greater flexibility to accommodate current and future military operations. As a minimum standard, State statute calls for a 30,000-foot corridor at active military airports. The City of Tucson and Pima County have chosen to go beyond this minimum to establish a 50,200-foot approach/departure corridor within which land uses are regulated to ensure compatibility. In this way, the local communities demonstrate commitment to longevity of the military presence in their region.

Land Acquisition through Municipal Bonds. Cities and towns surrounding active military airports installations continue to identify purchasing land as a key to preserving the maximum operational levels of their military neighbors. Communities that pursue land purchase can save money by using the Greater Arizona Development Authority (GADA). GADA's purpose in State statute is to sell municipal bonds at a lower interest rate and by subsidizing the costs of issuance. All of the municipalities surrounding the military installations facilities are eligible for the program. Participation in the GADA program requires that there be an estimate of the total cost of the land to be purchased and a determination that GADA has enough capacity to loan.

Fee Simple Land Acquisition. Local jurisdictions can pursue various mechanisms to purchase lands in areas critical to military operations to assure compatible uses.

Desert/Open Space/Agricultural Uses. Jurisdictions can designate land for desert, open space, or agricultural uses compatible with the operation of the military installation. This strategy would be used in conjunction with one or more strategies listed in this Toolbox with regard to fee simple land purchase, purchase of development rights, or transfer of

development rights. One or more national conservation groups, such as the Trust for Public Lands, may participate as well in this endeavor.

Military Facilities District. Provide authorizing legislation for Counties and/or Cities at their choosing to use all funding mechanisms for the purchase of lands (i.e., taxes, development fees) and provide the option to establish a Military Facilities District.

8) **Request the Arizona Department of Real Estate modify their public report application to include disclosures about "military facilities and operating areas" as defined in ARS §28-8461 (see recommendation 14) and update the disclosure statements on the public report to reflect this change.**

Rationale: Through research into this recommendation, the Task Force decided that Department of Real Estate licensees were taking sufficient actions to advise land purchasers that their respective properties were in the vicinity of a military airport, but military facilities and operating areas are still not addressed. In addition, there is a consensus that a disclosure statement is needed on the deed to run with the land for all properties impacted by military over flights. This is needed to cover all types of buyers (new home or resale) and would ensure that they receive the disclosure.

9) **Recommend State support and encourage the activities of local partnerships within local jurisdictions, impacted communities, State agencies, military installations and various other stakeholders to address military preservation issues at the local level.**

Rationale: We do not want to create a new body to take the place of partnerships that are already successfully dealing with these issues. We want to offer our support to their efforts. Other local jurisdictions should use the approach of the Upper San Pedro Partnership as a model for addressing growth-related and other issues that may impact Arizona's military facilities. The Fighter Country Partnership, DM50, Fort Huachuca 50, BMGR Executive Council, and Yuma County Chamber of Commerce Military Affairs Committee are other good examples of local partnerships.

10) **Direct Arizona natural resource agencies to monitor and manage issues of environmental concern as they relate to Arizona's military installations and submit written reports to the Governor's Military Affairs Commission on an annual basis as follows:**

Rationale: We do not want to create a new body and there are State-level departments with the expertise to do this type of monitoring and can report their findings to a State-level military affairs commission. These departments and their responsibilities include:

- Arizona Department of Environmental Quality monitor and report status under their jurisdiction including but not limited to air quality, water quality, and hazardous waste issues as they relate to Arizona's military facilities and provide annual report including recommendations, if appropriate;
- Arizona Department of Water Resources to monitor water usage and implement water policy in a manner to maintain sustainable yield in aquifers located in the vicinity of Arizona's military facilities and to submit written report on water use management and conservation measures; and

- Arizona Game and Fish Department in fulfilling their mission to protect Arizona's wildlife to submit written report on the status of listed and/or threatened species and relationship of those species to Arizona's military facilities.

11) Reestablish the Governor's Advisory Council on Aviation with appropriate military representation and direct the Arizona Department of Transportation to secure federal funding to finance detailed analysis and planning for future needs and demands of both military and civil aviation in Arizona.

Rationale: The majority of Arizona's military installations are aviation oriented (i.e., Davis-Monthan Air Force Base, Luke Air Force Base, Marine Corps Air Station Yuma). Availability of airspace is a crucial component of military aviation training. However, the Task Force also recognizes that the needs of civil aviation are growing. An efficient and reliable aviation is a critical element of Arizona's transportation system and the vitality of our State's economy. Aviation's economic impact to Arizona was $15.1 billion in 1998 and supported over 167,000 jobs with a payroll of $4.3 billion. Over the next 20 years, the total number of passengers boarding commercial aircraft at Sky Harbor International and Tucson International is expected to increase by 79 percent. Thus, it is imperative that the State takes an accurate and comprehensive assessment of its airspace capacity and utilization. Then develops plans to address the needs of both the civilian and military aviation community from a strategic standpoint on both a short- and long-term time horizon (i.e., next 20 years) to meet the demands of a growing Arizona. A cooperative relationship between the Governor's Advisory Council on Aviation and the newly formed Governor's Military Affairs Commission (MAC) (see recommendation 3) is needed because the airspace needs of the military community should be brought to the table by the Governor's MAC. However, the technical expertise needed to deal with the comprehensive issues surrounding airspace utilization does not exist under the MAC's mission. Thus, this separate advisory council is needed.

5.2 ACTIONS REQUIRING LEGISLATIVE CHANGE

12) Develop an ongoing State revenue source to assist military installation preservation and expansion projects where appropriate at the local level and installation level where appropriate.

Rationale: This recommendation is the legislative counterpart to recommendation 2, which addresses executive direction for a new funding source to assist in the preservation and expansion of Arizona's military facilities.

Funding is needed to create a mechanism to compensate willing landowners within the vicinity of the territory of Arizona's military airports, military facilities, and operating areas to ensure compatible land use around Arizona's military installations. We recognize that all private property around these installations has value. We also acknowledge that this alone is not an adequate fund to address private property rights. But it is only one of five possible tools in our recommendations to address this issue.

To ensure that this fund is used in the most prudent way possible for acquisition of land or development rights there are generally accepted appraisal practices (i.e., the Army Corp of Engineers) that will be used. We want to ensure a fair and open system is used for dispersal of

the money. Our suggestion is through a grant process. Under this grant process, the money is dispersed through local governments, not to private or non-governmental organizations upon approval of their grant application. This is similar to the process used by other states (i.e., Florida and Texas). The reason for this is that only local governments are accountable to the citizens of their communities respectively.

The following is recommended as an on-going State revenue source to assist military installation preservation and expansion projects at the local level and installation level.

- In Fiscal Year 2005 (effective July 1, 2004), divert $1 million to establish Military Installation Fund.
- For the tax year beginning on or after December 31, 2004 through Fiscal Year 2024, divert 5 percent of Arizona income tax attributable to active-duty, National Guard, reserve and retired compensation originating from the Federal government with a minimum of $3.5 million per year.
- This revenue stream should be protected and the Military Installation Fund designated for the sole purpose it was intended according to established criteria.

Implementation Actions required are:

- December 1, 2003 – June 30, 2004
- Budget $1 million in Fiscal Year 2005 budget
- Establish Military Installation Fund (Arizona Department of Revenue)
- Have the Arizona Department of Revenue track the Arizona income tax attributable to active-duty, National Guard, reserve and retired compensation originating from the Federal government through the Defense Finance and Accounting Service (DFAS) by the applicable the W-2s and 1099Rs
- Determine criteria for award of grants (Military Affairs Commission)
- Tax year beginning on or after December 31, 2004
- Fund Military Installation Fund

13) Revise the "Military Airport" definition listed in ARS §28-8461 to recognize Gila Bend Air Force Auxiliary Airfield, Luke Air Force Base Aux-1 and the two helipads (Picacho Stage Field and Rittenhouse Stage Field) used for helicopter training at Silverbell airfield as critical operating components of Arizona's the military airport operations and provide similar protections to these critical operating components, but excluding Yuma Aux-2.

Rationale: Under the current definition, "Military Airport" is an airport that is operated by an armed force of the United States and that is primarily used for military fixed wing aircraft operations, excluding a runway or airstrip that is not immediately adjacent to facilities primarily used for operational control, maintenance, and permanent parking of aircraft."

The original purpose of the statute was to protect military bases from encroachment; however, critical facilities that do not meet all of the criteria in the definition, such as at Luke Air Force

Base Auxiliary Field # 1, Gila Bend Auxiliary Field and the Picacho and Rittenhouse Stage Fields are not covered. This recommendation would allow these operations to fall under the definition of a "military airport."

Because the recommendation would have adversely impacted the Yuma community and how they are dealing with Auxiliary Field-2, we have excluded this facility from this recommendation.

14) Revise the definitions listed in ARS §28-8461 to read as follows:

Proposed Addition: # 21. "Military facilities and operating areas" means heliports, auxiliary fields, ranges, training and testing facilities and military training routes essential to the military mission in Arizona and used as critical operating components for military operations conducted by an armed force of the United States.

Rationale: This addition will allow the facilities used for the military operations that do not involve fixed winged aircraft operations to be addressed (i.e., rotorcraft such as the F-22 Osprey in operation at MCAS Yuma; Rotary wing aircraft such as the Apache operating at Silverbell and Papago AANG training fields and the U.S. Army Yuma Proving Grounds; and UAVs operating extensively at Fort Huachuca.). Our intention is to recognize that only those facilities that are "essential to Arizona's military mission and critical operating components of military operations should be considered. We feel that Arizona's base commanders and their respective local communities should work together to determine how to address these areas.

Concerning ranges, we recognize that there are a number of different types ranges to support military operations. Our intent is to be inclusive of these different types including, but not limited to artillery ranges and electronic ranges.

15) Revise ARS §9-461.05C.1. (f) to read as follows:

Revision (in Bold): C. The general plan shall consist of a statement of community goals and development policies. It shall include maps, any necessary diagrams and text set forth objectives, principles, standards and plan proposals. The plan should include the following: (f) For cities and towns with territory in the vicinity of a military airport as defined in Section 28-8461, includes consideration of military airport operations, **military facilities and operating areas.**

Rationale: This statute deals with the requirements for local jurisdictions under Growing Smarter. The current Language is:

> C. The general plan shall consist of a statement of community goals and development policies. It shall include maps, any necessary diagrams and text set forth objectives, principles, standards and plan proposals. The plan should include the following: ...(f) For cities and towns with territory in the vicinity of a military airport as defined in Section 28-8461, includes consideration of military airport operations.

This recommendation is to ensure that the Task Force is providing consistent guidance to applicable legislation with its recommendations.

The appropriate role of the State is to reinforce actions (i.e., land use planning and development decisions to preserve the missions of Arizona's military installations, military facilities, and operating areas) at the local level. The State should not inhibit local communities from setting stricter standards if they so choose. These actions should be encouraged to ensure the long-term retention of Arizona's military installations, military facilities, and operating areas but the State should not mandate their use.

16) Revise ARS §11-806B to read as follows:

Revision (in Bold): B. The commission shall prepare and recommend to the board a comprehensive plan of the area of jurisdiction of the county in the manner prescribed by article 2 of this chapter. The purpose of the plan is to bring about coordinated physical development in accordance with the present and future needs of the county. The comprehensive plan shall be developed so as to conserve the natural resources of the county, to insure efficient expenditure of public funds, and to promote the health, safety, convenience, and general welfare of the public. Such comprehensive plan may include but not be limited to, among other things, studies and recommendations relative to the location, character and extent of highways, railroads, bus and other transportation routes, bicycle facilities, bridges, public buildings, public services, schools, parks, open space, housing quality, variety and affordability, parkways, hiking and riding trails, airports, forests, wildlife areas, dams, projects affecting conservation of natural resources, air quality, water quality and floodplain zoning. For counties with territory in the vicinity of a military airport as defined in section 28-8461, the commission shall also consider military airport operations **military facilities and operating areas**. Such comprehensive plan shall be a public record, but its purpose and effect shall be primarily as an aid to the county planning and zoning commission in the performance of its duties.

Rationale: This statute also deals with the requirements for local jurisdictions under Growing Smarter. The current language is:

> B. The commission shall prepare and recommend to the board a comprehensive plan of the area of jurisdiction of the county in the manner prescribed by article 2 of this chapter. The purpose of the plan is to bring about coordinated physical development in accordance with the present and future needs of the county. The comprehensive plan shall be developed so as to conserve the natural resources of the county, to insure efficient expenditure of public funds, and to promote the health, safety, convenience, and general welfare of the public. Such comprehensive plan may include but not be limited to, among other things, studies and recommendations relative to the location, character and extent of highways, railroads, bus and other transportation routes, bicycle facilities, bridges, public buildings, public services, schools, parks, open space, housing quality, variety and affordability, parkways, hiking and riding trails, airports, forests, wildlife areas, dams, projects affecting conservation of natural resources, air quality, water quality and floodplain zoning. For counties with territory in the vicinity of a military airport as defined in section 28-8461, the commission shall also consider military airport operations. Such comprehensive plan shall be a public record, but its purpose and effect shall be primarily as an aid to the county planning and zoning commission in the performance of its duties.

This recommendation is to ensure that the Task Force is providing consistent guidance to applicable legislation with its recommendations.

The appropriate role of the State is to reinforce actions (i.e., land use planning and development decisions to preserve the missions of Arizona's military installations, military facilities, and operating areas) at the local level. The State should not inhibit local communities from setting stricter standards if they so choose. These actions should be encouraged to ensure the long-term retention of Arizona's military installations, military facilities, and operating areas but the State should not mandate their use.

17) Revise the definitions listed in ARS §28-8461(8) (b) and (c) to read as follows:

Revisions (in Bold): (b) In political subdivisions located in a county with a population of more than eight hundred thousand persons but less than two million persons, the area southeast of the runway within the noise contours established by the most recent air installation compatible use zone report **or the report of a cooperative land use planning effort among affected political subdivisions and the military airport** recognized by the military airport and political subdivisions in that county, including the approach and departure corridor that is the accident potential zone one and accident potential zone two plus the land area described as follows: starting two hundred feet from the end points of the main runways and at a width of three thousand feet and symmetrical about a centerline between the runways extending outward to a point thirty thousand feet from the point of beginning. The outer width is seventeen thousand five hundred feet.

(c) In political subdivisions located in a county with a population of eight hundred thousand persons or less, within the noise contours established by the most recent air installation compatible use zone report **or the report of a cooperative land use planning effort among affected political subdivisions and the military airport** recognized by the military airport and political subdivisions in that county, including the approach and departure corridor that is the accident potential zone one and accident potential zone two plus the land area described as follows: starting two hundred feet from the end points of the main runways and at a width of three thousand feet and symmetrical about a centerline between the runways extending outward to a point thirty thousand feet from the point of beginning. The outer width is seventeen thousand five hundred feet.

Rationale: The current language for these sections is:

> (b) In political subdivisions located in a county with a population of more than eight hundred thousand persons but less than two million persons, the area southeast of the runway within the noise contours established by the most recent air installation compatible use zone report recognized by the military airport and political subdivisions in that county, including the approach and departure corridor that is the accident potential zone one and accident potential zone two plus the land area described as follows: starting two hundred feet from the southeast runway end at a width of two thousand feet and extending outward thirty thousand feet to a width of ten thousand four hundred feet.
>
> (c) In political subdivisions located in a county with a population of eight hundred thousand persons or less, within the noise contours established by the most recent air installation compatible use zone report recognized by the

military airport and political subdivisions in that county, including the approach and departure corridor that is the accident potential zone one and accident potential zone two plus the land area described as follows: starting two hundred feet from the end points of the main runways and at a width of three thousand feet and symmetrical about a centerline between the runways extending outward to a point thirty thousand feet from the point of beginning. The outer width is seventeen thousand five hundred feet.

In order to reinforce State code for noise contours and accident potential zones as the minimum standard for compatible land uses around military airports, to provide certainty to affected landowners and allow for potential mission growth, to provide political subdivisions and the military airport, and to encourage local jurisdictions to adopt more restrictive measures as appropriate (see recommendation 7 for current "best practices" identified by recent joint land use studies).

Local jurisdictions have public processes (i.e., public hearings) for making these types of planning and development decisions to involve all stakeholders.

18) Identify acreages affected by departure corridors, APZs and high-noise areas as defined in ARS §28-8461-8 in sufficient detail for land use determination; Formally incorporate these acreages into State statutes and local ordinances for planning and zoning purposes.

Rationale: This is necessary to determine land use and the potential cost of compensating affected landowners. The areas affected are defined in ARS §28-8461-8 as follows:

8. "High-noise or accident potential zone" means any property located in the following zones:

(a) In political subdivisions located in a county with a population of two million or more persons, within the 1988 noise contours developed and recognized by the regional planning agency in that county that includes the approach and departure corridor that is the accident potential zone one and accident potential zone two plus the land area described as follows: starting two hundred feet from the south end of the westernmost runway at a width of one thousand five hundred feet west and two thousand five hundred feet east, measured perpendicular to the centerline of the runway, and extending southwesterly parallel to the runway for a distance of thirty thousand feet.

(b) In political subdivisions located in a county with a population of more than eight hundred thousand persons but less than two million persons, the area southeast of the runway within the noise contours established by the most recent air installation compatible use zone report recognized by the military airport and political subdivisions in that county, including the approach and departure corridor that is the accident potential zone one and accident potential zone two plus the land area described as follows: starting two hundred feet from the southeast runway end at a width of two thousand feet and extending outward thirty thousand feet to a width of ten thousand four hundred feet.

(c) In political subdivisions located in a county with a population of eight hundred thousand persons or less, within the noise contours established by the most recent air installation compatible use zone report recognized by the military airport and political subdivisions in that county, including the approach and departure corridor that is the accident potential zone one and accident potential zone two plus the land area described as follows: starting two hundred feet from the end points of the main runways and at a width of three thousand feet and symmetrical about a centerline between the runways extending outward to a point thirty thousand feet from the point of beginning. The outer width is seventeen thousand five hundred feet.

19) Revise ARS §9-461.06 by adding a new section D (with subsequent sections being re-lettered) to read as follows:

Proposed Addition: D. If the general plan or portion, element or major amendment of the general plan is applicable to properties within the high-noise or accident potential zones of a military airport, a military facility and operating area as defined in Section 28-8461, the Department of Commerce or any other State agency designated as the planning agency for the State must determine compliance with Section 28-8481 and Section 28-8482 before the general plan or a portion, element or major amendment may be adopted.

Rationale: The current procedure for determination of compliance with the State's statutes on compatibility requires post-action reporting. The obvious disadvantage to that procedure is that the Attorney general's Office is not aware of any violation until after it has taken place. This could result in the creation of vested rights when pre-action could have prevented that creation. Any planning or zoning decisions within the noise contours or the accident potential zones should require a letter of compliance from the State before they may be approved by the local jurisdiction. This function should be placed with the Department of Commerce with the Attorney General's acting as its legal counsel. The Department of Commerce is the logical place for this function because of its involvement with the past land use compatibility studies and the Growing Smarter legislation. The Department of Commerce and the Attorney General's Office should each be given a new full time employee to perform the functions. The legislature would need to fund those positions.

The intent of this recommendation is not to make a change to the compatibility statutes but to ensure that an analysis of compliance check is accomplished. This will provide an objective third party clarification of the public record and should be transparent in the planning process. But, the Department of Commerce will not receive any vesting authority as a result of this revision.

20) Revise ARS §11-806 by adding a new section H to read as follows:

Proposed Addition: H. If the comprehensive plan or portion, element or major amendment of the comprehensive plan is applicable to properties within the high-noise or accident potential zones of a military airport military facility and operating area as defined in Section 28-8461, the Department of Commerce or any other State agency designated as the planning agency for

the State must determine compliance with Section 28-8481 and Section 28-8482 before the comprehensive plan or a portion, element or major amendment may be adopted.

Rationale: The current procedure for determination of compliance with the State's statutes on compatibility requires post-action reporting. The obvious disadvantage to that procedure is that the Attorney general's Office is not aware of any violation until after it has taken place. This could result in the creation of vested rights when pre-action could have prevented that creation. Any planning or zoning decisions within the noise contours or the accident potential zones should require a letter of compliance from the State before they may be approved by the local jurisdiction. This function should be placed with the Department of Commerce with the Attorney General's acting as its legal counsel. The Department of Commerce is the logical place for this function because of its involvement with the past land use compatibility studies and the Growing Smarter legislation. The Department of Commerce and the Attorney General's Office should each be given a new full time employee to perform the functions. The legislature would need to fund those positions.

The intent of this recommendation is not to make a change to the compatibility statutes but to ensure that an analysis of compliance check is accomplished. This will provide an objective third party clarification of the public record and should be transparent in the planning process. But, the Department of Commerce will not receive any vesting authority as a result of this revision.

21) **Revise ARS §28-8461 to repeal the post-action reporting requirement of local jurisdictions in the vicinity of a military airport to the Attorney General's Office.**

Rationale: The current procedure for determination of compliance with the State's statutes on compatibility requires post-action reporting. The obvious disadvantage to that procedure is that the Attorney general's Office is not aware of any violation until after it has taken place. This could result in the creation of vested rights when pre-action could have prevented that creation. Any planning or zoning decisions within the noise contours or the accident potential zones should require a letter of compliance from the State before they may be approved by the local jurisdiction. This function should be placed with the Department of Commerce with the Attorney General's acting as its legal counsel. The Department of Commerce is the logical place for this function because of its involvement with the past land use compatibility studies and the Growing Smarter legislation. The Department of Commerce and the Attorney General's Office should each be given a new full time employee to perform the functions. The legislature would need to fund those positions.

NOTE: If recommendations 19 and 20 are not accepted, then recommendation 21 would be removed, because some level of reporting should still be retained.

22) **Mandate that local jurisdiction(s) adopt via the public hearing process established in Titles 9 and 11 for land use decisions, noise contours if appropriate for military facilities and operating areas and utilize the land use compatibility recommendations set forth in ARS §28-8481.**

Rationale: Since there is nothing currently in statute to allow for protections of military facilities and operating areas, we would like to see local jurisdictions and military installations work together to develop compatible land use planning procedures.

The appropriate role of the State is to reinforce actions (i.e., land use planning and development decisions to preserve the missions of Arizona's military installations, military facilities, and operating areas) at the local level. The State should not inhibit local communities from setting stricter standards if they so choose. These actions should be encouraged to ensure the long-term retention of Arizona's military installations, military facilities, and operating areas but the State should not mandate their use.

23) Mandate that local jurisdictions adopt via the public hearing process established in Titles 9 and 11, the appropriate "vicinity boxes" for notification of purchasers of property in areas affected by military facilities and operating areas. (Applies only to areas that do not already have a vicinity box defined).

Rationale: Since there is nothing currently in statute to require notification in areas affected by military facilities and operating areas. We would like to see local jurisdictions and military installations work together to develop the vicinity boxes that are needed.

The appropriate role of the State is to reinforce actions (i.e., land use planning and development decisions to preserve the missions of Arizona's military installations, military facilities, and operating areas) at the local level. The State should not inhibit local communities from setting stricter standards if they so choose. These actions should be encouraged to ensure the long-term retention of Arizona's military installations, military facilities, and operating areas, but the State should not mandate their use.

24) Expand current county planning and zoning authority to enable better management of growth and development in areas impacted by military airports, military facilities, and operating areas, including the impact of lot splits, and to allow the transfer of development rights.

Rationale: The counties understand the value of Arizona's military installations, military facilities, and operating areas. At the present time, they have exhausted all their authority under Arizona statutes to address decisions in the best interests of the military installations. We support continued county efforts to plan, zone, and enforce densities that are compatible with Arizona military operations. These efforts include the actions already taken by the following counties, but not limited to Yuma County for Marine Corps Air Station and Yuma Proving Ground, Maricopa County for Luke Air Force Base, Cochise County for Fort Huachuca, Pima County for Davis-Monthan, and Pinal County for the National Guard and Reserve Operations. Thus, we support an increase to their authority to address future decisions in the best interests of the military installations as needed.

25) Add a disclosure statement on the title of the property and/or lease agreement to enhance the notification for all buyers, renters, and leasers of property in the vicinity of a military airport (note: this will require a statutory change).

Rationale: This is needed to ensure that these notification requirements run with the land so that all subsequent buyers are aware that homes are in the vicinity of a military airport and to ensure consistency across jurisdictions. This should prevent noise and safety issues before they happen with an early notification process.

5.3 ACTIONS REQUIRING CONGRESSIONAL SUPPORT

26) Recommend to the Arizona Congressional Delegation that enabling and funding legislation be drafted and enacted within the 108th Congress that would direct the Bureau of Land Management (BLM) move forward in a timely and expeditious manner with the acquisition of nonfederal lands through an exchange process, on a willing seller basis, which would protect and enhance operations at military installations within the State of Arizona. The enabling legislation should also include provisions to authorize the BLM to sell at public auction certain public lands and use the proceeds from such sales, within the State of Arizona, to purchase nonfederal lands, on a willing seller basis, which may be identified as necessary to protect the long-term mission viability at military installations in Arizona. The enabling legislation should additionally include such provisions as may be necessary to allow for the transfer of all or part of those nonfederal lands legislatively authorized and acquired by the BLM in the vicinity of the military installations to be conveyed to the State of Arizona via friendly condemnation, for certain State Trust Lands located within areas of special federal designation.

Rationale: The mechanism developed for exchanges could help the State and federal government deal with land areas impacted by military airports, military facilities, and operating areas in all 50 states as well as Arizona. It must be noted that expedition of the process does not eliminate or bypass environmental or other important review processes. In addition, all exchanges must be in the best interest of the trust.

27) Request that the Arizona Congressional Delegation continue to seek federal appropriations for the purchase and/or lease of development rights or acquisition of property from willing landowners of properties within the high-noise or accident potential zones of a military airport, a military facility and operating area as defined in ARS §28-8461.

Rationale: Arizona is uniquely positioned to satisfy most of the needs of the Department of Defense for many years to come with our unique network of capabilities, training resources, research, development, test and evaluation activities. It is in the best interests of the Department of Defense to ensure the long-term retention Arizona's military installations to fulfill its National Defense mission.

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Attachment 4: Excerpt from the Report of the Governor's Military Facilities Task Force, dated December 2003 on State legislation

Chapter 4: Available Tools to Ensure Long-Term Mission Viability

Recognizing that incompatible land use and encroachment in the vicinity of Arizona's military facilities constrains their ability to perform current and future missions, a primary focus of the State's efforts to assure a sustainable future for its military installations has been to address these compatibility issues. State legislation amending Title 28, Article 7, Airport Zoning and Regulation (ARS §28-8480, §28-8481 and §28-8482) addressed the control of impacts generated by military airport operations on public health and safety, particularly in high-noise or accident potential zones. The focus of that legislation was to mandate that areas within those zones be addressed in municipal general plans and county comprehensive plans, and to ensure that land development in the vicinity of a military airport be compatible with the high-noise and accident potential generated by military airport operations. Arizona's approach has been widely viewed as a model for other states to follow in addressing land use compatibility.

The State of Arizona, through amendments to existing law, including ARS §9-461.05, §9-461.06, §9-462.04, also enacted Growing Smarter and Growing Smarter Plus measures that address growth and land development issues through changes in the community planning and rezoning processes. These measures require political jurisdictions with property within territory in the vicinity of a military airport, as defined in ARS §28-8461, to include consideration of military airport operations in their General Plans and to allow an opportunity for official comment by the military airport officials on the General Plans. The Growing Smarter and Growing Smarter Plus legislation requires that plans provide for a rational pattern of land development and an extensive public participation program.

Some three decades ago, the Department of Defense recognized incompatible uses around military airports presented potential for disruption of the military mission and potential conflicts with surrounding residents and property owners, and created the Air Installation Compatible Use Zone (AICUZ) Program to provide guidance for communities around military airports in planning for compatible land use. In 1983, the Army implemented a similar program that included its non-aviation activities; now known as the Installation Environmental Noise Management Plan (IENMP), the Army program addresses all sources of noise at Army installations, including aircraft (fixed and rotary wing), weapons fire, and ordnance. The Department of Defense, through its Office of Economic Adjustment, also sponsors the Joint Land Use Study (JLUS) program, which provides support for compatible land use planning, conducted jointly by the military installation and surrounding communities.

The following sections summarize the State legislation concerning compatible development around military installations as well as the Department of Defense programs that are available to address the threats and opportunities facing the State and its military installations.

4.1 STATE LEGISLATION

The State of Arizona began regulating planning and zoning around military airports in 1978, with legislation that permitted cities and counties to plan and zone to ensure development compatible with the high-noise and accident potential of military airports. The principal tools for addressing the sustainability of military installations are a series of State Statues adopted between 1978 and 2001.

While the 1978 legislation permitted cities and counties to plan and zone to ensure development would be compatible with the high-noise and accident potential of military airports, in 1986, the State adopted legislation requiring that local jurisdictions plan and zone for compatible development around military airports. The 1986 statement of legislative intent stated that Arizona's policy is to minimize the number of people exposed to airport hazards and to assure appropriate development in light of the noise and accident potential generated by military airports. However, neither the 1978 or 1986 legislation provided a standard for determining compatible development.

In 1996, the State legislature passed requirements that cities and counties incorporate sound attenuation standards into their building codes, and in 2000 and 2001 made major additions to laws concerning development around military airports. These included:

- A table specifically defining compatible uses; limits the planning and zoning restrictions to high-noise or accident potential zones;
- Requiring school district compliance when building or expanding schools;
- Requiring political subdivisions to notify property owners in high-noise or accident potential zones of any changes to land use plans or zoning regulations in those zones;
- Requiring owners of property within the high-noise or accident potential zones to notify potential purchasers, lessees, and renters that the property is located within those zones;
- Requiring that any subdivision public report or any public report authorizing the sale or lease of unsubdivided lands issued by the Arizona Department of Real Estate include a statement that the property is within the vicinity of a military airport if it is located within the vicinity as defined in State law
- Requiring that the Department of Real Estate maintain a public registry of information as provided by the military airports, including maps of military flight operations and contact persons at the military airports;
- Requiring political subdivisions to submit proposed amendments to land use plans affecting property in high-noise or accident potential zones to the State Attorney General before initial public hearing;
- Requiring political subdivisions to submit annual reports to the State Attorney General by August 15th of each year, demonstrating compliance with legislation concerning planning and zoning around military airports;
- Allowing the Attorney General to investigate complaints on non-compliance;
- Requiring the Attorney General to submit annual reports to the Arizona Military Preservation Committee indicating which political subdivisions are and are not in compliance, and the actions taken or to be taken to bring about compliance;
- Allows any person with property in high-noise or accident potential zones to challenge the Attorney General's determination of compliance in court;
- Allows the Attorney General to bring enforcement action against a political subdivision to restrain, enjoin, correct, or abate violations; and

- Allows a court to impose fines for non-compliance.

The current State legislation applies only to military airports, which are defined as airports operated by an armed force and primarily used for military fixed wing aircraft. A military airport is also defined to exclude runways or airstrips not immediately adjacent to operational control, maintenance, and permanent parking facilities. The military facilities covered by current legislation are Luke Air Force Base, Davis-Monthan Air Force Base, Marine Corps Air Station Yuma, Libby Army Airfield at Fort Huachuca, and Laguna Army Airfield at Yuma Proving Ground. The legislation defines an area around each of these facilities, designated as "Territory in the Vicinity of a Military Airport," within which planning and notification provisions of the legislation apply. The legislation also defines noise and APZs for each facility, as well as "approach-departure corridors" for Luke Air Force Base and Davis-Monthan Air Force Base; the table in the legislation specifically defining compatible uses applies within these zones.

Airfields used primarily by rotary-wing aircraft such as Silverbell Army Heliport, and auxiliary fields such as Luke Auxiliary Airfield #1 and Gila Bend Auxiliary Airfield are not covered. In addition, the legislation does not apply to aircraft operations at the Barry M. Goldwater Range or to the MTRs that are used for low-level training operations. Finally, non-aviation military facilities are not covered by current legislation.

In addition to Titles 9 and 28, other Titles of the ARS related to military facilities address county planning issues (Title 11); location of schools in relation to military airports (Title 15); real estate transactions in the vicinity of military airports (Title 32); duties of the State Department of Commerce with respect to military reuse zones (Title 41); and agricultural preservation districts in the vicinity of military airports (Title 48).

The relevant titles and statutes of the Arizona Revised Statutes (ARS) containing legislation that address a variety of land use and other factors associated with the operation of military facilities are briefly summarized below.

Title 9 of the ARS contains legislation governing cities and towns; the cited sections are especially concerned with municipal planning issues. **[NOTE: The Governor's Military Facilities Task Force has recommended that Title 9 be revised; see Recommendations 15, 19, 22 and 23 in Chapter 5].**

- **ARS §9-461.05.** This section stipulates that the general plan prepared by municipalities within the territory in the vicinity of a military airport have a land use element that includes consideration of military airport operations.
- **ARS §9-461.06.** This section requires that the governing body shall consult with, advise, and provide an opportunity for official comment by the military airport if the municipality has territory in the vicinity of a military airport as defined in ARS Section 28-8461.
- **ARS §9-462.04.** This section requires that in proceedings involving rezoning of land that is located within the territory in the vicinity of a military airport the municipality shall send copies of the notice of public hearing by first class mail to the military airport.

  In municipalities with territory in the vicinity of a military airport, the governing body shall hold a public hearing if, after notice is transmitted to the military airport and before the public hearing, the military airport provides comments or analysis concerning the compatibility of the proposed

rezoning with the high-noise or accident potential generated by military airport operations that may have an adverse impact on public health and safety, and the governing body shall consider and analyze the comments or analysis before making a final determination.

Title 11 of the ARS contains legislation governing counties; the cited sections are especially concerned with county planning and zoning and provide similar requirements for counties as Title 9 does for municipalities. **[NOTE: The Governor's Military Facilities Task Force has recommended that Title 11 be revised; see Recommendations 16, 20, 22 and 23 in Chapter 5].**

- **ARS §11-806.** The section requires that counties with territory in the vicinity of a military airport must prepare a comprehensive plan that considers the operation of the military airport and allows the military airport the opportunity to consult with, advise, review, and comment on the plan.
- **ARS §11-829.** In proceedings involving rezoning of land that is located within territory in the vicinity of a military airport the planning commission shall send copies of the notice of public hearing to the military airport. In counties with territory in the vicinity of a military airport, the Board of Supervisors is required to hold a public hearing if the military airport provides comments or analysis concerning the compatibility of the proposed rezoning with the high-noise or accident potential generated by military airport operations the Board shall consider and analyze the comments or analysis before making a final determination.

Title 15 of the ARS contains legislation governing education; the cited sections are especially concerned with financing school development.

- **ARS §15-2002.** The executive director of the school facilities board is required to establish procedures in compliance with the official notice and hearing requirements that, with respect to monies to fund the construction of new school facilities proposed to be located in the territory in the vicinity of a military airport, the military airport receive notification of the application for funding at least thirty days before any hearing.
- **ARS §15-2041.** The section requires that, with respect to monies to fund the construction of new school facilities proposed to be located in the territory in the vicinity of a military airport the board shall consider and analyze the comments or analysis from military airport before making a decision.

Title 28 of the ARS contains legislation governing transportation; the cited sections are especially concerned with airport zoning and regulation and joint powers airport authorities. **[NOTE: The Governor's Military Facilities Task Force has recommended that Title 28 be revised; see Recommendations 13, 14, 17, 18 and 21 in Chapter 5].**

- **ARS §28-8461.** This section is concerned with a number of definitions that directly relate to military airport operations. It defines Accident Potential Zone One and Accident Potential Zone Two, Clear Zone, high-noise or accident potential zones, military airport, territory in the vicinity of a military airport, etc.
- **ARS §28-8480.** This section allows political subdivisions to acquire or lease land or interests in land for the continued operation of a military airport.

- **ARS §28-8481.** This section requires a political subdivision that has territory in the vicinity of a military airport to adopt comprehensive and general plans for property in the hazard zone to assure development compatible with the high-noise and accident potential generated by military airport operations.

  Political subdivisions that have property in a high-noise or accident potential zone cannot grant zoning variances without a specific finding that the purpose of military airport compatibility is preserved.

  A political subdivision that has territory in a high-noise or accident potential zone is required to notify the owner or owners of property in that zone of any additions or changes to the general plan, comprehensive plan, zoning regulations applicable to property in those zones. The political subdivision shall provide a notice of such additions or changes including a statement that the property is located in a high-noise or accident potential zone.

  Each political subdivision that has territory that includes property in a high-noise or accident potential zone is required to file with the attorney general a report that demonstrates compliance during the previous reporting period.

- **ARS §28-8482.** This section requires political subdivisions in the vicinity of a military airport to incorporate sound-attenuation standards in their building codes.

- **ARS §28-8483.** The State Real Estate Department and political subdivisions that have territory in the vicinity of a military airport are required to request from the military airport a registry of certain information concerning flight operations and contact persons; this registry shall be available to the public on request.

- **ARS §28-8484.** Any public report applicable to property located within territory in the vicinity of a military airport is required to include the statements that the property is located within territory in the vicinity of a military airport; the maps of military flight operations provided by the military airport are available to the public on request. Each military airport may provide the State Real Estate Department and each political subdivision with territory in the vicinity of the military airport with a map that shows the boundaries of each territory in the vicinity of a military airport and the boundaries of each high-noise or accident potential zone.

- **ARS §28-8485.** This section allows the state or a governing body of a political subdivision that operates an airport to designate an airport influence area of all property that is exposed to aircraft noise and overflights and has a 65 Ldn noise level or higher. If such an airport influence area is established it shall be recorded with the appropriate county recorder so as to be sufficient to notify owners or potential buyers of property that the area is currently subject to aircraft noise and overflights.

- **ARS §28-8486.** This section defines the terms, public airport, and territory in the vicinity of a public airport and directs the State Real Estate Department to make available to the public a map showing the boundaries of each territory in the vicinity of a public airport.

- **ARS §28-8521-§28-8528.** These sections allow two or more political jurisdictions to enter into an agreement establishing a joint powers airport authority in connection with the closing of a military facility.

- **ARS §28-2113.** This section establishes requirements for disclosure applicable to property that is located within territory in the vicinity of a military airport: "This property is located within territory in the vicinity of a military airport and may be subject to increased noise and accident potential."
- **ARS §28-2181.** This section establishes notification requirements of intentions to subdivide lands and requires a statement as to whether all or any portion of the property is located within territory in the vicinity of a military airport or a public airport, or a high-noise or accident potential zone.

Title 32 of the ARS contains legislation governing professions and occupations; the cited sections are especially concerned with real estate transactions and land development.

- **ARS §32-2181.** Permits the commissioner to exempt certain land subdivisions or fractional interests from one or more of the stipulations of the statute.
- **ARS §32-2195.** This section requires the commissioner to be notified of the intent to offer unsubdivided lots or parcels for sale or lease; that notice shall include a statement as to whether the property is located within territory in the vicinity of a military airport or within territory in the vicinity of a public airport, or a high-noise or accident potential zone.
- **ARS §32-2195.03.** Establishes the requirements for the commissioner to issue a report on unsubdivided lands and determines that if the unsubdivided land is located within territory in the vicinity of a military airport such a statement shall be included as shall be a map showing its location within the vicinity of a military airport.

Title 41 of the ARS contains legislation regulating State government; the cited sections are especially concerned with the duties of the State Department of Commerce with respect to military facilities.

- **ARS §41-1531.** This section determines the procedures to establish military reuse zones at closed military facilities.
- **ARS §41-1532.** This section establishes the conditions for tax incentives with respect to activities in a military reuse zone.
- **ARS §41-1533.** This section defines the duties of the State Department of Commerce with respect to military reuse zones.

Title 48 of the ARS contains legislation regulating special taxing districts; the cited sections are especially concerned with agriculture preservation districts and military airports.

- **ARS §48-5702.** This section establishes and defines an agriculture preservation district; requires these districts to take actions that are consistent with the continued use and operation of military airports.
- **ARS §48-5703.** The procedures for the operation of an agriculture preservation district determined in this section and the district location with respect to an existing military airport or decommissioned military airport are defined.

4.2 THE ARIZONA MILITARY AIRPORT PRESERVATION COMMITTEE

The Arizona Military Airport Preservation Committee was established by legislation in 1995 "to encourage the preservation of the long-term viability of military airports and the private property rights of property owners in the vicinity of military airports." The committee is composed of a total of 22 members (18 voting members and 4 nonvoting advisory members and, in conjunction with the State Land Department, is required to make recommendations to the Legislature to preserve the long-term viability of military airports and the private property rights of property owners in the vicinity of military airports (specifically, at Fort Huachuca, Davis-Monthan Air Force Base, Marine Corps Air Station Yuma, and Luke Air Force Base. Specific duties of the Committee are to:

- Make recommendations to the legislature that will preserve the long-term viability of military airports and the private property rights of property owners in the vicinity of military airports
- Consider the purchase or exchange of land or development rights as a method of achieving the above goals
- In consultation with political subdivisions and the State Department Of Commerce, encourage development that is compatible with military airports by recommending nonresidential uses and other economic development strategies for property on which the day-night average sound level is 65 decibels or higher in the vicinity of a military airport
- Study and promote a constitutional mechanism for exchanging State Trust Lands with private or public lands of equal or greater value to assist in preserving military airports in this State
- Create a data base of current ownership and date of purchase of property in the vicinity of a military airport on which the day-night average sound level is sixty-five decibels or higher
- Consider the accuracy of existing noise contours in relation to current flight missions
- Study new noise contours as they are issued and determine if they are built upon technology or assumptions that differ from those used to generate the noise contours specified in Section 28-8482
- Facilitate the development and distribution of metes and bounds legal descriptions of noise contours to be utilized in the implementation of Sections 28-8481 and 28-8482

4.3 DEPARTMENT OF DEFENSE GUIDANCE

The AICUZ Program was implemented in 1973 by the Department of Defense to promote compatible land use development around military airfields. The AICUZ Program creates standard land-use guidelines for areas affected by possible noise exposure and accident potential combinations and provides local government jurisdictions with information that can be used to regulate land use and development. Included in the AICUZ program is a table of accident potential zones, noise zones, and guidance concerning the compatibility of various uses.

The Army began a similar program in the January 1983 called the Installation Compatible Use Zone (ICUZ) program, and the Navy/Marine Corps initiated a Range AICUZ program (RAICUZ). The Army program addresses all sources of noise at Army installations, including aircraft (fixed and rotary wing), weapons fire, and ordnance. The program has since become known as the Army's Installation

Environmental Noise Management Plan (IENMP). As part of the IENMP, noise zones and accident potential zones are mapped for aircraft, and noise zones are mapped for weapons fire and ordinance.

The Department of Defense adopted the NOISEMAP computer program to describe noise impacts created by aircraft operations. NOISEMAP is one of two Environmental Protection Agency (EPA) approved programs. The other is the Integrated Noise Model (INM), which is used by the FAA for civilian airports. The next significant event in the development of the military noise program was the 1974 EPA designation of the noise descriptor, day-night average sound level (Ldn). Ldn refers to the average sound level exposure, measured in decibels, over a 24-hour period. A 10-decibel penalty is added to sound levels for operations occurring during the hours of 10 p.m. to 7 a.m. This penalty is applied due to the increased annoyance created by noise events that occur during this time. Ldn is a quantity that can be calculated directly at a specific location. Accident Potential Zones (APZs) are one aspect of the AICUZ program where military application differs from civilian airfields.

An analysis of aircraft accidents within 10 nautical miles of an airfield for the period of 1968 – 1972 led to defining areas of high accident potential known as the Clear Zone (CZ), Accident Potential Zone One (APZ I), and Accident Potential Zone Two (APZ II). The majority of these accidents (62 percent) occurred either on or adjacent to the airfield or within the CZ, while about 8 percent occurred in APZ I and 5 percent in APZ II. It was concluded that the CZ warranted special attention due to the high incident of accident potential that severely limited acceptable land uses. The Air Force has spent approximately $65 million to acquire real property interests within the clear zones. The Department of Defense's position is that percentages of accidents within the two APZs are such that, while purchase is not necessary, some type of land use control is essential, particularly to limit the number of people exposed through selective land use planning.

The Army uses different software to predict noise based upon the type of activity. In addition to NOISEMAP, used for aircraft operations at airfields, noise contours for the corridors used for entering and exiting Army installations are generated using ROUTEMAP, which is also used for predicting noise exposure from aircraft operations on military training routes. The noise simulation program used to assess heavy weapons noise, which is typically perceived differently than aircraft noise, is BNOISE, while small arms noise contours are generated using the Small Arms Range Noise Assessment Model (SARNAM), which incorporates the latest available information on weapons noise source models. The Army also uses the SHOT model to predict noise from a single event, such as artillery firings or explosive detonations.

Based on output from these models, the Army defines four Noise Zones for non-aircraft operations—Zones I, II and III, and a Land Use Planning Zone (LUPZ). Noise Zones I, II and III describe contours based on reaction to noise exposure. Zone I is defined by the noise exposure which would be expected to result in less than 15 percent of the population describing themselves as "highly annoyed," while in Zone II, between 15 percent and 39 percent would describe themselves as "highly annoyed" and in Zone III, more than 39 percent of the population would describe themselves as "highly annoyed."

The LUPZ contour is being included on noise contour maps because it can offer a better prediction of noise impacts when levels of operations are above average. For example, if operations are approximately three times more numerous than the normal daily firing, average noise levels increase approximately 5 dB, and by increasing the extent of the LUPZ contours the equivalent of 5 dB, the variability in the installation noise environment can be accounted for. The LUPZ also can provide the

installation with an adequate buffer for land use planning, and can reduce conflicts between the installation noise-producing activities and the civilian community. It encompasses areas where, during periods of increased operations, community annoyance levels can reach those levels associated with Zone II.

To protect the installation training and readiness mission, areas within a 1.6-kilometer (1 mile) buffer adjacent to the installation boundary, that are not already contained within a Noise Zone would be included in a Zone of Influence (ZOI), within which local communities should disclose, to existing and potential landowners, the existence of the installation and its activities.

In 1985, Congress authorized the Department of Defense to make community planning assistance grants to state and local government to help better understand and incorporate the AICUZ and IENMP technical data into local planning programs. Known as the Joint Land Use Study Program and managed by The Office of Economic Adjustment (OEA) of the Department of Defense, a JLUS is a cooperative land use planning effort between affected local government and the military installation. The recommendations present a rationale and justification, and provide a policy framework to support adoption and implementation of compatible development measures designed to prevent urban encroachment; safeguard the military mission; and protect the public health, safety, and welfare. The *Western Maricopa County/Luke Air Force Base Regional Compatibility Plan* was completed in 2003 as part of the Arizona Military Regional Compatibility Project, under the sponsorship of the Arizona Department of Commerce. With a community planning assistance grant from OEA, the Project is currently undertaking Joint Land Use Studies for Davis-Monthan Air Force Base and Luke Auxiliary Airfield #1. JLUS studies will also be prepared for the Barry M. Goldwater Range and MCAS Yuma.

(LAST PAGE)

Resolution from the
City of Mesa

Date: June 14, 2005

To: City Council

Through: Mike Hutchinson, City Manager

From: Wayne Balmer, Project Manager, Williams Gateway AREA

Subject: Resolution in support of the Air Force Research Laboratory

Purpose and Recommendation

On June 24 the Base Realignment and Closure Commission will consider a recommendation from the Department of Defense that the Air Force Research Laboratory located at Williams Gateway Airport be closed. It is recommended the City of Mesa approve the attached resolution asking the Commission rescind this action and allow the Laboratory to remain open.

Background

When Williams Air Force Base was approved for closure in 1991, the Air Force Research Laboratory (AFRL), which was located on the Base, was allowed to remain open and continue its research and development mission. Since then the Laboratory has attracted eight private sector high-tech businesses to the airport who work as contractors with the Lab. In addition the Lab has developed a variety of cooperative research relationships with ASU, and also attracted a large number of military aircraft and pilots to the airport as part of their research efforts. As a result, the Laboratory has become a main stay of our reuse efforts for both the airport and the university – and the loss of the Lab would be a major setback for both Mesa and the State of Arizona. The three major reasons have been given for the closure of the Laboratory. They are: 1) to improve research synergy with other military facilities doing similar work, 2) to improve security for the Laboratory, and 3) to save money. In looking at the facilities and working relationships the Laboratory has in place, staff thinks there is a compelling argument to be made for keeping the Laboratory open. Governor Napolitano is scheduled to make a presentation to the Base Realignment and Closure Commission at their meeting on June 24 in Clovis, New Mexico to present Arizona's case, and staff would like to include Mesa's resolution in the presentation material.

Discussion

The Air Force Research Laboratory is on the leading edge of research in (among other things) computer simulation in aviation and remote aircraft control. This is an emerging aviation field that has significant growth potential for both pilot training and operation of Unmanned Aerial Vehicles (UAV's). As a result of this focus, eight other

companies have located at Williams Gateway, and together they are developing a national reputation in this field. Should the Laboratory leave, most of the related companies are likely to leave as well, which would adversely affect both the research mission of the Lab as well as the airport's growth. The attached resolution and fact sheets cite a variety of reasons why staff thinks it is important to Mesa and Arizona – and also the military – for the Laboratory to remain.

Alternatives

The alternative to this proposed resolution is simply to take no action on the issue. This alternative is not recommended, given that the AFRL is located within the City of Mesa and that the Laboratory is a significant resource to both the City of Mesa and the Williams Gateway Airport Authority.

Fiscal Impact

There is no fiscal impact to the City of Mesa resulting from the passage of this resolution.

Concurrence

The Williams Gateway Airport Authority concurs with this recommendation. In fact, the Airport Authority is scheduled to act on their own resolution of support on Monday, June 20, at their Board meeting.

Wayne Balmer
Project Manager,
Williams Gateway AREA

Mike Hutchinson
City Manager

RESOLUTION NUMBER 8521

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MESA, ARIZONA URGING THE BASE REALIGNMENT AND CLOSURE COMMISSION RESCIND THE DEPARTMENT OF DEFENSE RECOMMENDATION TO CLOSE THE AIR FORCE RESEARCH LABORATORY LOCATED AT WILLIAMS GATEWAY AIRPORT IN THE CITY OF MESA

WHEREAS, the City of Mesa is home to the former Williams Air Force Base which was approved for closure in the 1991 and closed in 1993; and

WHEREAS, the City of Mesa has joined together with the adjacent Towns of Queen Creek and Gilbert and the Gila River Indian Community to form the Williams Gateway Airport Authority ("Authority"), a joint powers airport authority, pursuant to Arizona Revised Statutes § 28-8521 *et seq.* for the purpose of, among other things, redeveloping portions of the former Williams Air Force Base as a civilian airport known as the Williams Gateway Airport ("Airport"); and

WHEREAS, the Air Force Research Laboratory (AFRL) located at Williams Gateway Airport in the City of Mesa is now being recommended for closure, with its functions to be reassigned to Wright Patterson Air Force Base in Canton, Ohio; and

WHEREAS, since the closure of Williams Air Force Base in 1993 the local communities and the Williams Gateway Airport Authority have relied on the continuing presence of the AFRL as a technological and aviation mainstay in our ongoing efforts to develop a successful reuse program for the former Base; and

WHEREAS, over the past decade the AFRL has continued to significantly contribute to the national defense from their current location and has won many awards for its scientific achievements; and

WHEREAS, the AFRL has had a significant positive impact on the local economy, supporting over 400 scientific and high technology jobs in the private sector beyond the 88 military employees acknowledged in the closure announcement; and

WHEREAS, the AFRL has developed an extremely close working relationship with the Arizona State University (ASU) Polytechnic Campus and the Williams Gateway Airport over the past decade; and

WHEREAS, the presence of the AFRL at Williams Gateway Airport has served as a magnet to attract EIGHT related hi-tech firms, which, along with ASU and the AFRL are contributing to the development of the Williams Gateway Airport as a center for computer simulation technology of national importance; and

WHEREAS, the synergies which currently exist between and among the AFRL, ASU Polytechnic, Williams Gateway Airport and the EIGHT on-airport private contractors which support the AFRL are irreplaceable in Ohio and elsewhere should the facility be closed; and

WHEREAS, the AFRL has also developed outstanding working relationships with their military test subjects and other research participants who visit the Lab on a regular basis so that the work of the Lab is unimpeded being on a civilian airport; and

WHEREAS, the AFRL's distributive mission training research is, by its very nature, multi-locational and depends on physical separation, linked by electronic communication technologies, in order to accomplish its mission; and

WHEREAS, co-location of the AFRL, with other research facilities at Wright Patterson AFB may actually decrease effectiveness of the distributive mission training research, since the research facilities will no longer be distributed and the synergies that currently exist will be lost; and

WHEREAS, no appropriate vacant research space exists elsewhere, and reconstruction of the AFRL facilities in Ohio or at any other location is projected to cost at least $30 million; and

WHEREAS, a plan is currently being developed locally to allow for the expansion of the AFRL adjacent to its current location at no capital cost to the Air Force, requiring only that the space is leased in the future;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Mesa as follows:

Section I: The City of Mesa hereby urges the Base Realignment and Closure Commission to rescind the Department of Defense recommendation to close the Air Force Research Laboratory at Williams Gateway Airport

Section 2: That the Department of Defense is hereby petitioned to allow the AFRL to continue its award-winning research efforts in a cost-effective and collaborative manner with Arizona State University Polytechnic Campus, Williams Gateway Airport and its associated private contractors in Arizona.

PASSED AND ADOPTED by the City Council of the City of Mesa, Arizona, this 20th day of June 2005.

APPROVED

Keno Hawker

MAYOR

ATTEST:

CITY CLERK

CITY OF MESA CORPORATE SEAL MARICOPA COUNTY, AZ.

G:\WGA\2005 Base Closures\City of Mesa Resolution.doc

REASONS WHY THE AIR FORCE RESEARCH LABORATORY SHOULD REMAIN AT WILLIAMS GATEWAY AIRPORT

- **The 1995 BRAC Commission recommended the Air Force Research Laboratory (AFRL) remain open and at WGA.** What has changed since then to reverse the BRAC 1995 decision? The 1995 Commission noted "the activities are consistent with the community's plans for redevelopment of the Williams AFB property, including a university and research park". In the past ten years, Arizona's reuse efforts at Williams Gateway have resulted in development of ASU East and the attraction of several top flight private research institutions, all of which are actively involved with the Lab on a variety of research projects. There have been no coordination problems with either the provision of service or program systems – and the AFRL has made outstanding progress in their current location. To illustrate this point, below is a partial list of awards received by the AFRL in recent years

    - TSPG – Excellence in Team Performance, 2005
    - DoD Modeling & Simulation Award for Training 2002
    - The AFRL 2000 Scientific/Technical Achievement Team Award
    - The 2000 Annual DoD Antiterrorism/Force Protection Recognition Award
    - 1999 Red River Valley Fighter Pilots Association Award

- **The AFRL's award winning performance is the result of the existing significant interaction and synergy with ASU East and the eight support contractors located at Williams - that will be lost if the Lab is moved**

    - ASU East faculty coordinate with AFRL staff to conduct research at the facility in conjunction with the Lab's mission - resulting in cost savings and greater productivity for the Lab.
    - The presence of the AFRL at WGA for the past twelve years has fostered the co-location of private contractors who assist the Lab with its research programs – all of which will be lost and will take years to re-establish at another location.
    - See page three for a complete list of the contractors and page four for the implications of the move to these contractors and the efficiency of the Laboratory
    - Functional synergy in completion of assigned tasks is more important than organizational synergy. Physical consolidation is an industrial age approach to synergy – and the antithesis of the distributed mission warfighter research program.

- **The function of the AFRL and its operational readiness to provide service to the Department of Defense will be disrupted by the move – which should be avoided - especially during wartime conditions, as we have now. (Criteria One)**

- **There is significant potential for expansion of the AFRL's physical facilities at their current location if needed to accommodate an expanded military or research mission (Criteria Two, Three and Seven)**

    - A private sector group is currently working with the Laboratory to construct the Mission Training Engineering Center adjacent to their existing facility. The Center is designed to expedite Laboratory technology transition to the Warfighter and our friendly forces. This facility is in the final design stages to initiate construction. See page four for more details.

- Williams Gateway Airport could lease the AFRL additional land and build new buildings for use by the Lab on Airport property.
- ASU East could build a building for the Lab on the campus to the west

➢ **The cost to relocate the AFRL will be significant, and manpower seriously affected by relocation of the Laboratory – and tremendous cost savings by the Lab remaining at its present location. (Criteria Four and Five) Who can identify where the cost savings described by the Air Force from the proposed relocation will be achieved?**

- Cost to relocate the AFRL is estimated to be at least $30 million
- It is estimated only 20% of the current staff will relocate with the Lab.
- Retraining, work disruption and down time costs will all be major additional uncalculated costs
- Relocation of the AFRL to Luke AFB will still leave the Lab vulnerable to later closure, if Luke is closed in a later BRAC process. In that event, the relocation costs would be doubled.

➢ **Williams Air Force Base closed in 1993 and since then our local reuse effort for both Williams Gateway Airport and ASU East have relied, to a significant degree, on the investment and activity resulting from the continuing presence of the AFRL at the former base. (Criteria Six)**

- Closure of the Lab now will be a major set back in our local reuse efforts – efforts that have been recently lauded by Secretary Rumsfeld as an example of a successful local base reuse program.
- Mesa, Gilbert, Queen Creek, the Gila River Indian Community and the Williams Gateway Airport Authority have relied on the AFRL to help weather the economic crisis created by the closing of the Base – and loss of the Lab now will be a second blow to our local economies, and a major setback for our base reuse efforts.

➢ **Closure of the Laboratory would have a significant adverse effect on the local economy (Criteria Six)**

- While the BRAC documents put the job loss at a total of 88 (42 military and 46 civilian), the actual job loss will be significantly greater.
  - Support contractors at the Laboratory indicates over 175 jobs will be lost, in addition to the 88 shown in the study
  - Many of these positions are high skill/high wage positions, which support significant secondary employment in the community
- Five of the eight local contractors to the Lab would have to relocate to maintain their relationship with the Lab. These contractors are all located on WGA and lease over 36,000 s.f. of space and pay over $545,000 annually in rent.
- Loss of the aircraft using the airport in conjunction with the Lab will significantly affect Williams Gateway Airport. As an example, the airport has a military fuels contract and three C-17's operating at the airport in May, in support of the AFRL, purchased over 150,000 gallons of fuel valued at over $450,000. Loss of these fuel sales could have a serious effect on the financial stability of the airport.
- While the total job loss may not be significant to the entire Phoenix Metro area – they are very significant to the communities of Gilbert, Mesa and Queen Creek, which surround the former Base.

CONTRACTOR RELATIONSHIPS WITH THE AIR FORCE RESEARCH LABORATORY

There are eight commercial entities at Williams Gateway that directly support or are associated with AFRL in a training or research mode of operation. Listing of these companies plus a short description of their relationship with the Lab follows:

Advanced Training Systems International (ATSI) - Collaborates with the Lab through a joint Cooperative Research and Development Agreement (CRDA) to collect data and gain insight as to how best to train fighter pilots and evaluate aircrew learning retention.

Anteon - Services, Engineering and Technical Administration (SETA) contractor providing direct support to the Laboratory.

Boeing - Member of the Laboratory Support Contractor Team. In addition, has a CRDA with the Lab to transition Lab products to the simulation industry.

International Simulation and Training Systems (ISTS) - Provides Distributed Mission Training/Operations support for the Air National Guard, Air Force Reserve Command and Air Combat Command in association with AFRL through a CRDA. Customers receive benefit of latest Lab technological advancements applicable to DMO/T programs.

Karta Technologies - Services, Engineering and Technical Administration (SETA). Contractor providing direct support to the Laboratory.

Link Simulation and Training - Member of the Laboratory Support Contractor Team. Also, has a contingent on site which develops visual display systems and works with the Lab to transition Lab products to the simulation industry.

Lockheed Martin - Member of the Laboratory Support Contractor Team. Separately has the "A-10 Training System Support" contract with the Lab for simulation technology transition to the A-10 Full Mission Training Program.

US Positioning Group - Working with the Laboratory, ASU East and Williams Gateway through the Cognitive Engineering Research Institute (CERI) on Unmanned Air Vehicle Command and Control projects and training technologies.

EFFECTS ON THESE EIGHT CONTRACTOR IF THE LABORATORY RELOCATES

- The number of employees of the Laboratory Support Contractor Team (Boeing, Lockheed Martin and Link Simulation and Training) and direct support contractors, Anteon and Karta Technologies, totals approximately 175 scientists, engineers and support personnel. Relocation of the Lab will most likely result in a re-compete of the support contract, causing a lengthy disruption of the Lab's mission and capability. In all likelihood, this work force of 175 will become unemployed if the Laboratory relocates to Wright-Patterson. The same contractors may rebid the support contract but most likely will not relocate employees due to moving costs.

- All commercial entities listed are working with AFRL to improve the readiness of the Warfighter and a "synergy" has been established at Williams Gateway that will be hard to duplicate. The complementary and competent team of contractors on location at Williams Gateway supporting the Lab has evolved to meet the needs of the Lab as a "stand-alone" facility over the past 12 years. Relocation of the Lab will result in disruption of this "synergy" which is in place at Williams Gateway. It will take several years to duplicate this type of cooperative effort at another site and, unfortunately, at the expense of the Warfighter. The Lab's numerous aircrew training technological advancements attest to the working relationships with the contractors at Williams Gateway.

- ISTS is working with the Air National Guard, Air Combat Command and the Laboratory to construct a Mission Training Engineering Center at Williams Gateway Airport, on a site adjacent to the Lab. This center will provide high quality government-furnished data (hardware, software and documentation) and engineering services to support United States and Coalition Distributed Mission Training/Operations requirements. This facility is critical to expedite Laboratory technology transition to the Warfighter and our friendly forces, and planning is in final stages to initiate construction. Relocation of the Lab delays this national defense capability for several years. A copy of a brochure describing the proposed Mission Training Engineering Center is attached.

MTEC brochure3.pdf

For further information, contact:

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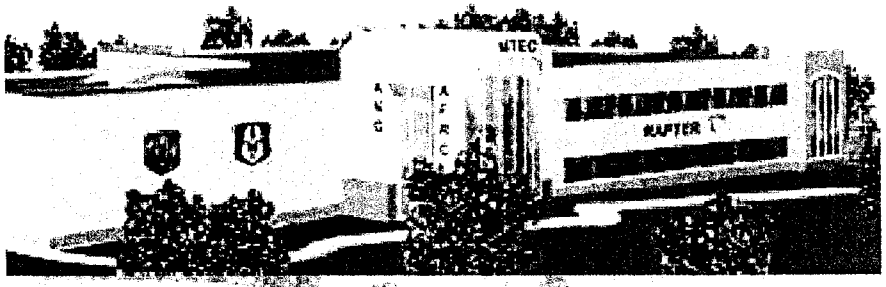
Air National Guard • Air Force Reserve Command

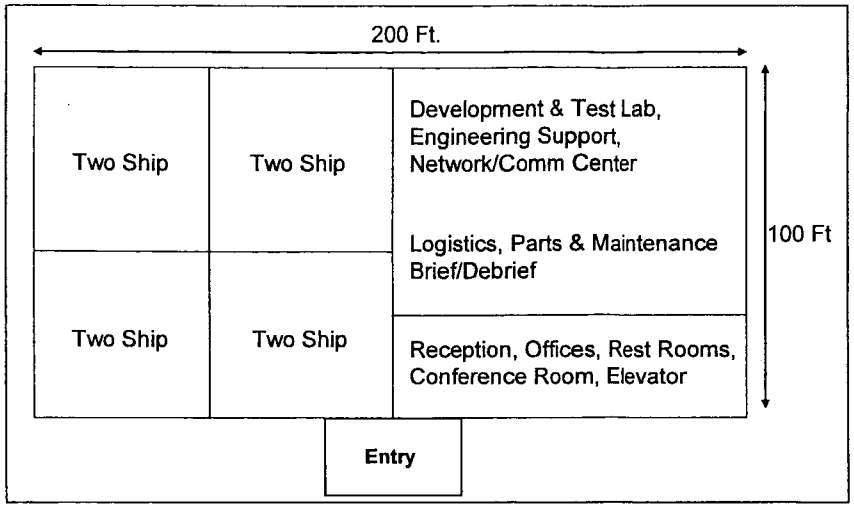


MTEC

MISSION TRAINING ENGINEERING CENTER

ENABLING AFFORDABLE DMT/DMO

"A combined Air National Guard (ANG) and Air Force Reserve (AFRC) organization funded to support the DMT/DMO engineering requirements of the ANG and AFRC."



Mission Training Engineering Center (MTEC)

Functions

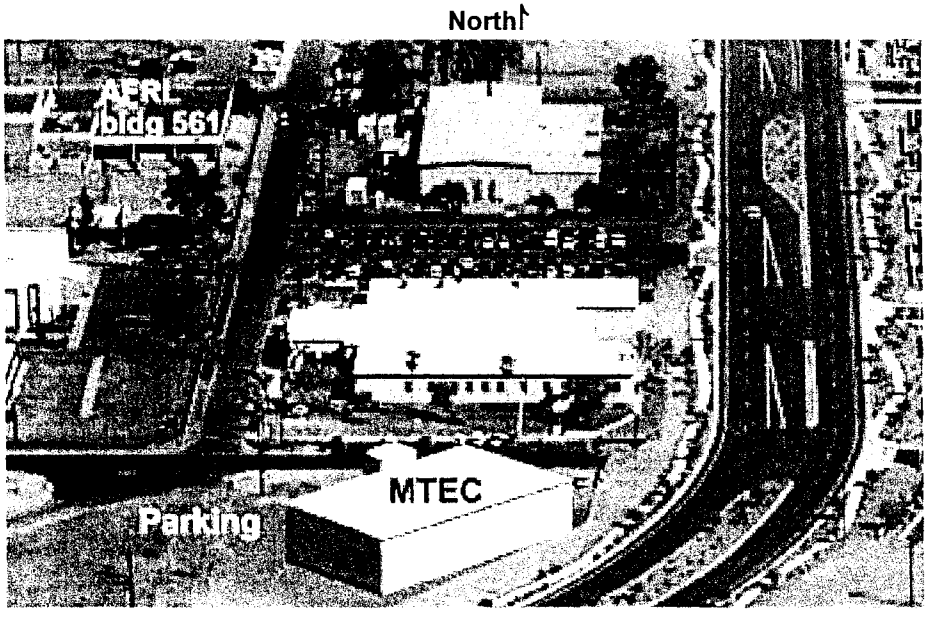
- Provides high quality, government furnished data (hardware, software, and documentation) and engineering services to support United States and Coalition Distributed Mission Training (DMT) and Distributed Mission Operations (DMO) requirements
- Operates and functions in close coordination with Air Force Research Laboratory, the Air National Guard, Air Force Reserve Test Center (AATC) and other USAF engineering and test agencies to efficiently maintain current and high fidelity simulations for ANG and AFRC aircraft and other operational equipment
- Archives, develops, and procures software and hardware design data to support MTEC user requirements. All mission critical software and data shall retain UNLIMITED RIGHTS IAW appropriate Defense Federal Acquisition Regulations (DFARs). Proprietary data and solutions shall be avoided
- Concentrates on high fidelity simulation of operational equipment including aircraft systems, aircraft avionics and weapons systems, network interfaces, visual and sensor image generation, visual display technology, instructor operator systems, computer-generated forces (CGF), command and control elements, forward air controllers, and supporting technologies to provide an integrated DMT/DMO environment for MTEC supported operational command warfighters

Specifications

- Located directly adjacent to AFRL who will be responsible for security. Existing AFRL security fence will be extended to include facility
- Forty thousand square foot, two-level, facility which includes three thousand square feet of office space on each floor
- Capacity to house four "two ship" cells on each floor which can operate at any desired classification level independent of each other
- Constructed with second floor but not built out. Provides for additional twenty thousand square feet of space to house future U.S. and coalition DMT/DMO partners

Prospective Tenants / Programs

- ANG/ACC/AFRC A-10 TSSC
- ANG/AFRC DMT Common Core Software sustainment which includes F-16 MTT concurrency and updates, NGTS, and CASNET (ARCNET)
- HH-60 DMT Program
- Coalition DMT partners
- Regional Advanced Performance, Training and Engineering Research (RAPTER) Center (potential)



Resolution Unanimously Approved by the Williams Gateway Airport Authority
June 20, 2005

RESOLUTION NO. 05-27

WHEREAS, the Williams Gateway Airport Authority ("Authority"), a joint powers airport authority, was formed pursuant to Arizona Revised Statutes § 28-8521 *et seq.* for the purpose of, among other things, redeveloping portions of the former Williams Air Force Base as a civilian airport known as the Williams Gateway Airport ("Airport"); and

WHEREAS, the Air Force Research Laboratory (AFRL) at Williams Gateway Airport has been recommended for closure, with its functions reassigned to Wright Patterson Air Force Base; and

WHEREAS, the AFRL has contributed significantly to the national defense and has won many awards for its scientific achievements; and

WHEREAS, the AFRL has significant positive impact on the local economy, supporting over 400 jobs beyond the 88 military employees acknowledged in the closure announcement; and

WHEREAS, the AFRL has an extremely close working relationship with the Arizona State University (ASU) Polytechnic Campus and the Williams Gateway Airport; and

WHEREAS, the synergies that exist between and among the AFRL, ASU Polytechnic, Williams Gateway Airport and the private contractors which support the AFRL are irreplaceable in Ohio and elsewhere; and

WHEREAS, the AFRL's distributive mission training research is, by its very nature, multi-locational and depends on physical separation, linked by electronic communication technologies, in order to accomplish its mission; and

WHEREAS, co-location of the AFRL, with other research facilities at Wright Patterson AFB may actually decrease effectiveness of the distributive mission training research, since the research facilities will no longer be distributed; and

WHEREAS, no appropriate vacant research space exists elsewhere, and to reconstruct the AFRL facilities in Ohio or at any other location will cost at least $30 million, easily negating any cost savings identified in the closure announcement;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Williams Gateway Airport Authority as follows:

> **The Williams Gateway Airport Authority Board of Directors hereby urges the Base Realignment and Closure Commission to rescind the Department of Defense recommendation to close the Air Force Research Laboratory at Williams Gateway Airport and to encourage the AFRL to continue its award-winning research efforts in a cost-effective and collaborative manner with Arizona State University Polytechnic Campus, Williams Gateway Airport and its private contractors in Arizona.**

Passed and adopted by the Williams Gateway Airport Authority this 20th day of June 2005.

Letters of Support

Statement of Senator John McCain

Before the Base Realignment and Closure Commission Hearing
Clovis, New Mexico
June 24, 2005

I want to thank the Chairman and the members of the Commission for providing representatives of the State of Arizona this opportunity to discuss our state's efforts to ensure the viability of each and every Department of Defense facility and base located within our state borders. For many years, Arizona has been a leader in collaborative efforts at the state and local levels to take the necessary actions, including proactive legislative and funding initiatives, to implement sound public policy to protect the missions of Arizona's national defense capabilities. We have continued to set the standard in providing exceptional air and land training space while ensuring the most judicious protection of the environment.

Luke Air Force Base (AFB) is a prime example of the success we have been able to achieve through these collaborative efforts. As you may know, Luke AFB is the largest fighter pilot training base in the world and is within close proximity to one of the country's most robust and versatile training ranges, the 2.7 million acre Barry M Goldwater Range. Luke also has sufficient infrastructure to accept additional missions due to considerable infrastructure expansion potential and its vast airspace training areas. It has some of the best flying weather in the country and also enjoys the benefits of being in close proximity to one of the fastest growing and most desirable places for our service members, their families, and support contractors to live and work. And yet, through aggressive actions at the state and local levels, incompatible land use is almost non-existent, noise complaints are diminishing, and air quality is improving markedly.

These are just a few of the qualities that make Luke AFB and all of Arizona's bases some of our Nation's highest valued military installations. We are committed to ensuring their viability to the Department of Defense. I want to mention just a few of these factors that have allowed for the successes we have been able to achieve through proactive efforts to ensure all of our bases current and future mission capabilities.

First and foremost, there is a popular misconception that just because bases such as Luke are in close proximity to a growing metropolitan area that they are experiencing encroachment. Yet this is not the case in our state. To the contrary, the Department of Defense has confirmed that there is minimal incompatible land use at Luke. In fact, communities have even taken the difficult actions to roll back proposed developments to ensure zoning compatibility with Luke's mission.

Tough actions by the local communities are indicative of the aggressive posture the State of Arizona and jurisdictions surrounding our bases have taken for many years through legislation and local land use limitations to assure long-term compatible land use.

Luke AFB officials have confirmed that these actions around the base as well as the auxiliary fields allow them to provide the best margin of safety for both military personnel and civilians at Luke AFB while producing the world's best fighter pilots and aircraft mechanics, as well as deploying combat support personnel around the globe.

We have also been able to achieve tremendous environmental successes in the area surrounding Luke AFB. While the DOD Data Calls did not illustrate this, the most current data shows that through aggressive actions, local jurisdictions around Luke AFB have successfully bucked the tide by actually improving air quality while sustaining substantial growth in the Phoenix area. A partnership with the Arizona State Legislature, Maricopa County and the cities and towns surrounding Luke AFB has produced some of the most aggressive initiatives in the country resulting in very significant air quality improvements. Further, despite the substantial growth in the West Valley, Luke AFB has actually enjoyed a reduction in noise complaints.

It is important for the Commission to understand the significance of these accomplishments because the assumption is often too easily made that growth around military installations is negative. Yet, the State of Arizona is proud to showcase the example of bases such as Luke AFB where we have proven that growth, when managed well, can be very positive for military installations.

All of this has been achieved while providing our military and civilian men and woman with great schools for their children, access to higher learning, a strong job market for their spouses, and tremendous recreational opportunities, giving them the quality of life and peace of mind they deserve.

Again, I appreciate the opportunity to address the members of the Commission today. There are important decisions to be made relative to Base Closure and Realignments across the country. Stakeholder groups are actively engaged seeking to reverse or modify the Department of Defense's recommendations. However, that is not why we are here. We believe it is most important for you to have the full perspective on some key facts about Arizona's commitment to the Department of Defense. We will remain steadfast in our efforts to provide a sure footing for the current installations and increasing their value to our National Security in the future.

JON KYL
U.S. SENATOR FOR ARIZONA
NEWS
730 HART SENATE OFFICE BUILDING ■ WASHINGTON, D.C. 20510 ■ (202) 224-4521

STATEMENT OF U.S. SENATOR JON KYL

Before the Base Realignment and Closure Commission
Clovis, New Mexico
June 24, 2005

Mr. Chairman, I would like to thank you for this opportunity to support the military installations in the state of Arizona.

I believe the conclusions reached in the 2005 Base Realignment and Closure Report speak for themselves. It is undeniable that Arizona's military facilities are daily making vital contributions to the war on terror, ongoing operations in Iraq and Afghanistan, and the defense of our nation. I think your commission would be hard-pressed to find a state more hospitable to the military, or local communities more dedicated to partnering with the armed services. It is this successful coupling of the necessities of national security with Arizona's military capacity that will continue to enhance the safety and security of the United States.

As you continue to review the data gathered by the Department of Defense, I think you will see just how successful this relationship has been, especially in regard to Luke Air Force Base (AFB). All the parties involved have worked tirelessly to make sure that the land developed around Luke AFB is compatible with the bases' mission of training the world's best fighter pilots and those who support them. Achieving these goals has not come without sacrifice or compromise; however, it does demonstrate the unparalleled support and resources that Arizona makes available to the Department of Defense.

There will be many tough decisions ahead for the Base Realignment and Closure Commission as it weighs the nationwide impact of the Defense Department's recommendations, and I appreciate the opportunity to address the members here today on the positive relationship between the state of Arizona and the armed services.

###

TRENT FRANKS
2ND DISTRICT, ARIZONA

ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON MILITARY READINESS
SUBCOMMITTEE ON STRATEGIC FORCES

JUDICIARY COMMITTEE
SUBCOMMITTEE ON THE CONSTITUTION
SUBCOMMITTEE ON
COMMERCIAL AND ADMINISTRATIVE LAW

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House of Representatives

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June 23, 2005

Mr. Anthony J. Principi
Chairman
BRAC Commission
2521 South Clark Street, Suite 600
Arlington, VA 22202

Dear Chairman Principi:

While you and your colleagues on the BRAC commission are in the middle of your hard work on behalf of this nation's military, I wanted to take the opportunity to inform you that the State of Arizona was pleased when the Department of Defense indicated that it recognized the military value of Luke Air Force Base last month.

Luke AFB is an essential asset to the U.S. Military and a vital part of Arizona's West Valley economy. Since its inception in 1941, Luke has historically acted as a key factor in American military campaigns. And as you know, Luke continues to act as the primary training ground for F-16 pilots. It is my sincere belief that the sense of pride and level of productivity at Luke AFB is unmatched in the United States. As a champion of the 21st Century transformation of the military, I understand that military value is paramount in selecting which installations will be utilized in the future.

With its access to the Barry M. Goldwater Range and its settlement amidst the year-round Arizona training weather, Luke provides the Air Force with an excellent combination of facilities for the training of combat pilots. Indeed, Luke has at its disposal all the necessary tools to become the principal training ground for the Joint Strike Fighter in the coming generations.

There is no doubt that the long-term viability of Luke is in the best interest of Arizona and most importantly the U.S. Military. Thousands of devoted people have worked for years to ensure that Luke has everything it needs to prepare for its long-term utilization by the U.S. Air Force.

Thank you for your service on the BRAC Commission and to this country. I know that your vital efforts will go a long way in helping our forces meet the military challenges of the 21st Century.

Most sincerely,

Trent Franks

Trent Franks
Member of Congress

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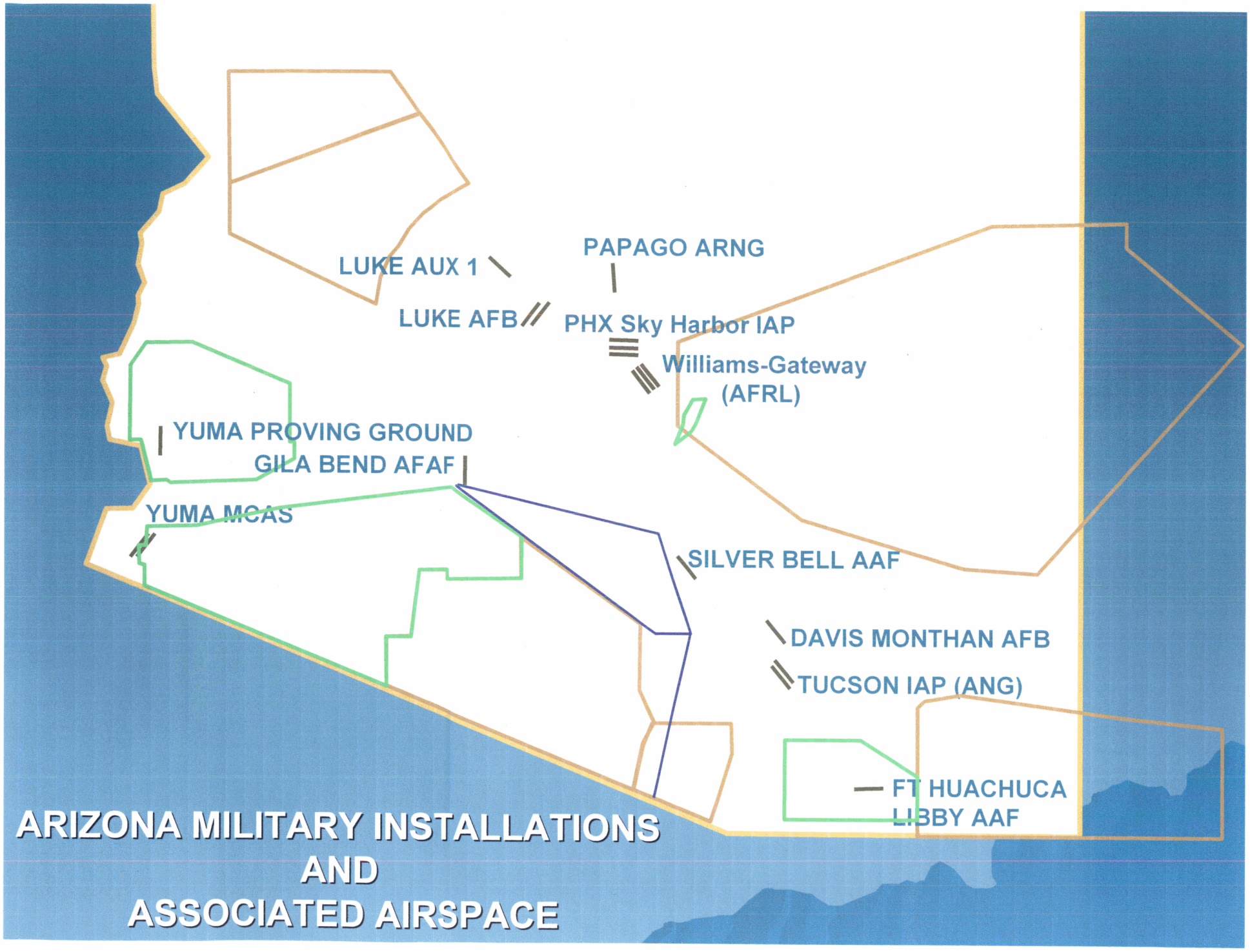
LUKE AUX 1
PAPAGO ARNG
LUKE AFB
PHX Sky Harbor IAP
Williams-Gateway
(AFRL)
YUMA PROVING GROUND
GILA BEND AFAF
YUMA MCAS
SILVER BELL AAF
DAVIS MONTHAN AFB
TUCSON IAP (ANG)
FT HUACHUCA
LIBBY AAF
ARIZONA MILITARY INSTALLATIONS
AND
ASSOCIATED AIRSPACE