



Davis-Monthan and Tucson: A Community Alliance Transforming Together in the 21st Century

A white paper developed by the DM-50 on behalf of the City of Tucson, Pima County, Oro Valley, Marana, Sahuarita and other southern Arizona constituents

Executive Summary

As our nation navigates a rapidly shifting global security environment in which adversaries seek to negate our advantage through unpredictable tactics, so too will our military strategy adapt and evolve. The way we conduct war, equip and train our forces will continue to develop with an increased emphasis on rapid and responsive joint operations. In the same way, our military host communities must continue to adapt to protect and enhance both Department of Defense (DoD) capability and the lives of the families they host.

To meet the challenges of the 21st century, the community of the Davis-Monthan Air Force Base will continue its record of successfully working with the DoD to protect the base's military capability. Of equal importance, however, the Davis-Monthan community will provide an ideal environment for long-term growth of the base's missions, personnel and infrastructure.

Already, Davis-Monthan Air Force Base is well positioned to expand its strategic role. For example, the facility's geographic location and range of current missions could be leveraged to create a Center of Excellence for Close Air Support missions and the critical training functions that underlie them. Likewise, Davis-Monthan is an ideal staging point for the support of vital homeland security and defense missions.

The purpose of this paper is to describe these visions for mission expansion in greater detail and demonstrate both Davis-Monthan's and the Tucson community's clear potential for expansion.

Background

The transformation that is occurring within the Department of Defense, and in other federal agencies presents Tucson an opportunity to be a significant part of these 21st century initiatives. The 2005 Base Realignment and Closure (BRAC) round represents a critical opportunity to help shape the future strategy and readiness of the U.S. military. At its heart, the BRAC process is focused on promoting efficiency through reductions to infrastructure. While the importance of efficient DoD operations is as critical as ever, the 2005 BRAC also represents an opportunity to support broader strategic objectives to transform our military capability and promote joint operational concepts.



To its credit, DoD leadership recognizes the critical opportunity represented by BRAC 2005 and is working vigorously to employ it as an instrument to achieve these vital national security objectives.

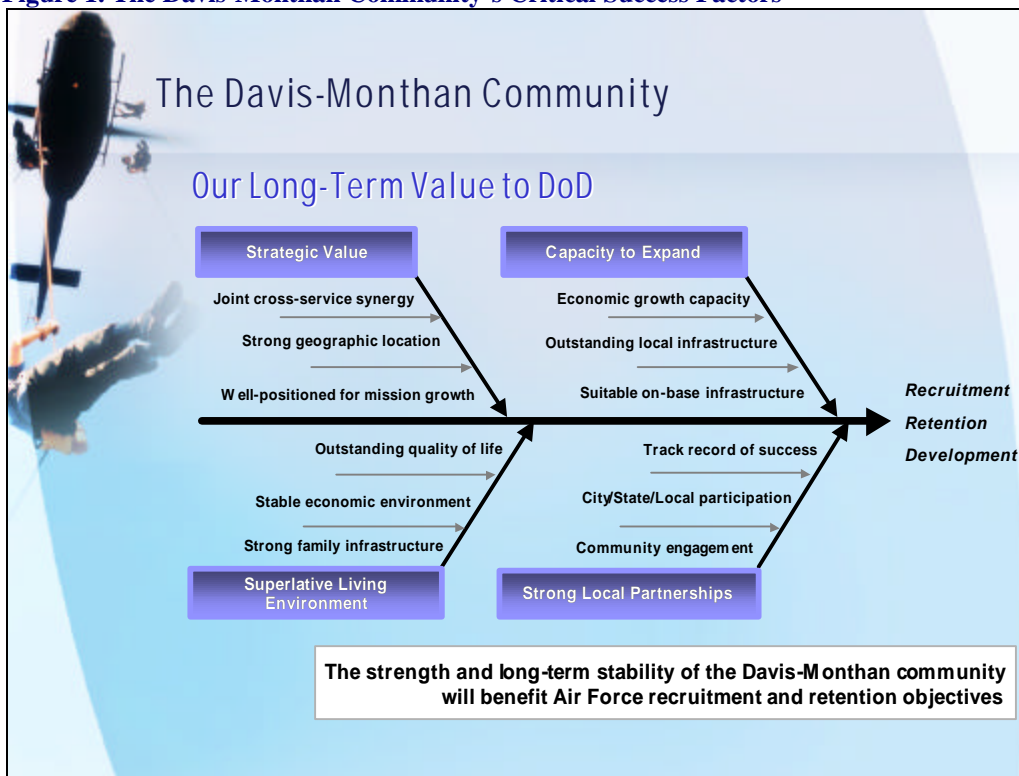
It is a recognition of these and other evolving strategic imperatives that drives the Davis-Monthan community in its efforts to be a model host for its DoD and other U.S. government tenants. In the 10 years that have elapsed since the last BRAC round, the City of Tucson, Pima County and the Arizona state government have worked together in innovative ways to protect DoD capabilities at Davis-Monthan and improve the facility's infrastructure and appearance. Encroachment issues highlighted in previous BRAC rounds have been effectively mitigated, and the community continues to move forward with some of the most aggressive zoning restrictions in the country.

It is in this spirit of cooperation and responsiveness that the Tucson community will continue to meet the needs of its Air Force and DoD partners.

Defining Military Value

The long-term mission effectiveness of “flying” Air Force bases rests on four critical pillars: the facility's military value, the ability of both the base and surrounding community to accommodate expansion, the stability of the living environment and the commitment of local government to meeting DoD needs (see Figure 1, below).

Figure 1. The Davis-Monthan Community's Critical Success Factors





Strategic Value

Geography is an integral component of the military value of an Air Force installation. Training installations benefit from proximity to high value training areas and open spaces with a minimum of encroachment, as do testing and evaluation facilities; research and development centers benefit from proximity to regions that have rich academic and human resources; and operating bases generally benefit from proximity to their area of responsibility.

Balancing the mission-specific benefits of geography with the realities of infrastructure capacity and evolving mission requirements is a critical challenge for Air Force planners. To that end, the intangible military value of an installation should be assessed in the context of strategic objectives. For example, the presence of and potential for joint, cross-service operations are highly desirable characteristics. Along these lines, a facility must have an institutional capacity for mission growth, including the organizational experience and track record to accommodate shifts in DoD strategy and long-term mission evolution.

Capability to Expand

The physical capability to expand is closely linked to the strategic value of an installation. To be a viable, long-term Air Force location, an installation must have adequate physical infrastructure – from housing to office space, specialized facilities to supporting utilities. Moreover, the need for expansion capability extends beyond a base’s boundaries and into the surrounding community, which must have suitable infrastructure to augment or enhance the Air Force’s own and an economic foundation that is solid enough to meet future challenges and growth needs.

Superlative Living Environment

Over the last 15 years, the Air Force has undergone extensive force structure changes. The force is now 40 percent smaller than it was at the end of the Cold War, yet operational deployments are up due to the global war on terrorism and ongoing commitments in Iraq. Despite short-term rebalancing, the long-term challenges of recruitment and retention remain the same. As the Air Force seeks to meet these challenges through institutional means, its host communities will play an important supporting role – by providing a socioeconomic environment and quality of life that provide long-term stability to airmen and their families.

Strong Local Partnerships

Finally, a spirit of partnership is a vital critical success factor in the military value of a community. This is particularly important with respect to protecting the operational capability of Air Force facilities – which requires that local and state governments work in virtual lockstep with their Air Force counterparts.

Davis-Monthan Air Force base and its host communities, the City of Tucson and Pima County, possess all of these characteristics in abundance. This paper shall focus in large part on the first element of this framework: illustrating Davis-Monthan’s strategic value and a vision for enhancing the already bright future of this critical national asset.



Davis-Monthan's Strategic Value

Overview

Located within the city limits of Tucson, Arizona, Davis-Monthan Air Force Base plays a key role in supporting and training U.S. forces, at home and around the globe. Led by the base's host unit, the 355th Wing, Davis-Monthan is home to a wide range of tenant units, including the 12th Air Force headquarters, Aerospace Maintenance and Regeneration Center, 305th Rescue Squadron, and Detachment 1, 120th Fighter Interceptor Group. Other federal agencies using the base include the Federal Aviation Administration, the U.S. Customs Service Air Service Branch, the U.S. Corps of Engineers, the Federal Law Enforcement Training Center, and a detachment of the Naval Air Systems Command.

These units are charged with a wide range of key missions:

- ? The 355th Wing is the host unit providing medical, logistical, and operational support to all Davis-Monthan units. The wing's missions are to train A-10 and OA-10 pilots and to provide A-10 and OA-10 close support and forward air control to ground forces worldwide. The wing is also tasked to provide command, control, and communications countermeasures in support of tactical forces with its EC-130H aircraft.
- ? The 12th Air Force is charged with commanding, administering and supervising tactical air forces west of the Mississippi River. As one of ACC's numbered air forces, the 12th Air Force operates combat-ready forces and equipment for air superiority – gaining and maintaining control of airspace; interdiction – disrupting enemy lines of communication and logistics; and providing close air support – working with U.S. and allied forces to defeat the enemy at the point of contact.
- ? The 305th Rescue Squadron, an Air Force Reserve unit, flies the HH-60G "Pavehawk" helicopters. Its primary mission is combat search and rescue.
- ? The Aerospace Maintenance & Regeneration Center (AMARC) is charged with storage and maintenance of aircraft, and other aerospace vehicles, as well as full-scale target support for live missile testing and training.
- ? Detachment 1, 120th Fighter Interceptor Group, an Air National Guard unit, flies the F-16 "Fighting Falcon." Each week, two F-16s rotate to Davis-Monthan from their home base in Great Falls, Montana. These aircraft can scramble in less than five minutes to identify, intercept, and, if necessary, destroy any airborne threat to US security.
- ? The U.S. Customs Service Aviation Operations Branch located at Davis-Monthan provides anti-drug surveillance throughout the border region.

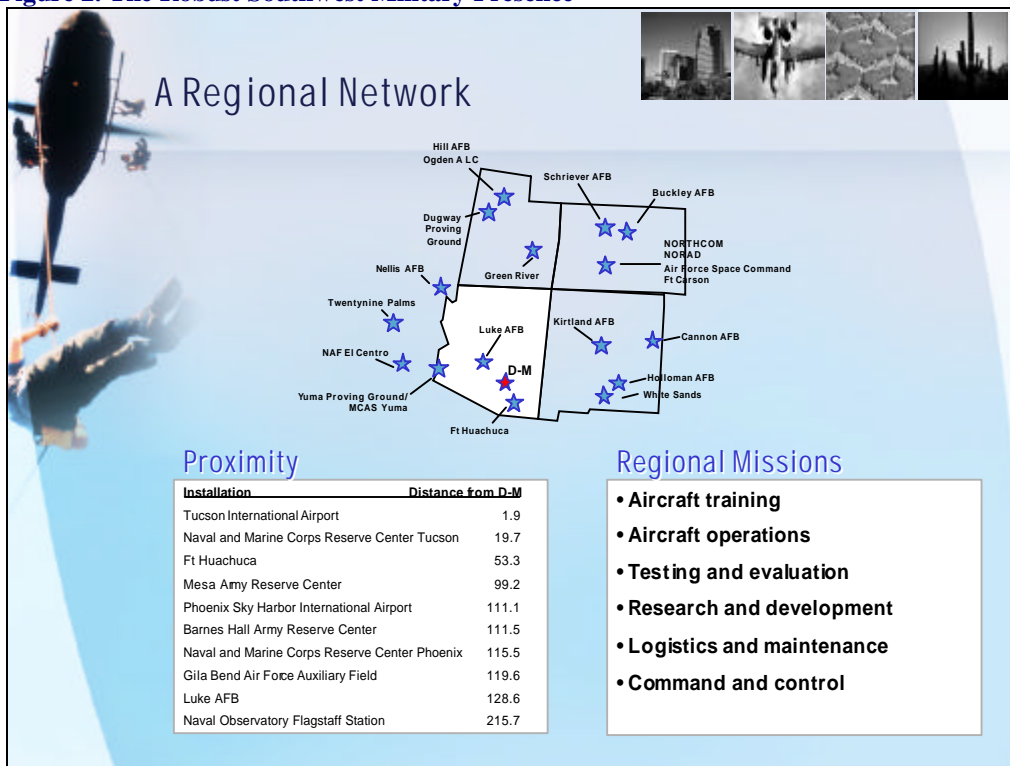


These missions represent a strong cross section of joint activities, from close air support and forward air control, from combat search and rescue to domestic interdiction. In the context of joint activities, however, it is critical to view facilities like Davis-Monthan in their broader geographic context.

At the heart of the robust military presence in southwest Arizona is the Barry M. Goldwater Training Range complex. It is a complex of air-to-air training and critical air-to-ground bombing and gunnery ranges that support training requirements of every military service. It is one of the very few range complexes in the continental United States that provides realistic live ordnance tactical training. Marine Corps and Navy fighter aircraft from MCAS Yuma, and Air Force and allied Air Force units from Luke and Davis-Monthan AFB utilize this critical training capability daily to support our nation’s most respected national training capability. The Goldwater ranges and others have made the U.S. military the most respected in the world.

Davis-Monthan is a critical base that lies at the heart of this robust military presence in southwest Arizona(see Figure 2, below). Over time, the military facilities of southwest Arizona have developed complementary capabilities, including aircraft training and operations, testing and evaluation, command, control and maintenance. Within the state of Arizona alone, Davis-Monthan AFB, Luke AFB, Fort Huachuca, and MCAS Yuma utilize the Goldwater Ranges, Yuma Proving Grounds, Chocalote Mountain, Kofa Ranges and multiple military operating areas (MOAs) for flight training – providing DoD with the capability to maintain readiness for a range of joint missions.

Figure 2. The Robust Southwest Military Presence





Scenarios for Mission Expansion

Davis-Monthan's legacy in close air support, its range of complementary tenants and its role in the region's DoD presence all imply a clear set of enhanced capabilities that the facility is well positioned to undertake in the coming years. Leveraging its ready access to an extensive complex of training airspace and ranges in the region, Davis-Monthan could play a leadership role in maximizing DoD readiness and training with a focus on close air support, and combat search and rescue. In addition, the base is in an ideal position for enhanced homeland defense and security operations that capitalize on synergy between the base's military and civil tenants.

Maximizing DoD Readiness and Training

Over the last few years, defense transformation policies have begun a period of significant restructuring of Department of Defense procedures, spending priorities, and hierarchies. Even before this recent push for reform, however, each of the services noted a decline in readiness from people being tasked to do more with less. The current period of rapid change inevitably brings about opportunities and risks: opportunities to seize on the new initiatives and changes, risks in maintaining the status quo. Nowhere is this more evident than in the area of training, where funding is being refocused through restructured and newly created commands and the administration priorities on joint force and special operations training.

Realistic training is crucial to maintaining our military's asymmetric advantage over 21st century adversaries. The complex of military training ranges and airspace in the western United States is a critical element of our military strategy to preserve position as the most respected military in the world.

As strategy evolves, the military services will seek to train in increasingly creative environments for critical joint missions. Given the criticality of this trend, there is a clear premium on the preservation and enhancement of training ranges and infrastructure. In this regard, Davis-Monthan possesses the ideal characteristics for an increased role in preserving DoD readiness and training.

Davis-Monthan's key strengths and benefits as a training facility include:

- ? The ability to accommodate all types of aircraft and most DoD missions;
- ? Access to an extensive complex of training airspace and ranges, which improves effectiveness and lowers training costs;
- ? Proximity to 27,000 square miles of prime tactical training airspace including high-speed, low-altitude routes over varied terrain;
- ? Access to 4,000 square miles in the Barry M. Goldwater range, 90 miles to the west, which affords live-fire training in air-to-air and air-to-ground gunnery and bombing;



- ? Optimal flying weather year-round, which minimizes the likelihood of lost sorties, ensures that training schedules are met, and thus lowers training costs;
- ? Ideal location to provide joint readiness training with units at Fort Huachuca, MCAS Yuma, and the Army National Guard Aviation Training Center (Marana)

Center of Excellence for Close Air Support

As the U.S. Army continues its 21st century transformation, and ground forces become lighter and leaner, their dependence upon air support grows. Building upon its legacy and the strengths outlined above, Davis-Monthan could develop into a Close Air Support (CAS) “Center of Excellence” – a thriving training center for a range of cross-service customers.

Close air support is an aerial attack mission flown against enemy ground forces that are close enough to friendly forces to require detailed coordination before commencing the attack. CAS is a dangerous and technically challenging mission: there must be adequate command, control and communication infrastructure in place to make sure that the aircraft respond quickly enough to be a factor in the battle and, most importantly, hit the correct target. To achieve mission success, ground and air troops must work together seamlessly and jointly, as a given operation dictates.

In Operation Iraqi Freedom, where air superiority was quickly guaranteed, CAS and air interdiction became critical to successfully disrupt and destroy the Iraqi army units massing behind the lines in attempts to blunt the coalition forces’ “march to Baghdad”. In future conflicts, CAS will continue to be an integral part of joint military operations. In challenging urban environments, for example, CAS may be the only precision heavy fire available.

Aircraft like the U.S. Army AH-64 and Marine AH-1 Cobra attack helicopters, the AC-130 gunship, the Air Force A-10 Warthog dedicated support plane, U.S. Marine AV-8 Harrier, and, as needed, the F-14, F-15E, F-16, and F/A-18 fighters all have played a role in CAS activities. In future years, these aircraft and new ones such as the F-35 Joint Strike Fighter (JSF), F/A-22 Raptor and a variety of unmanned aerial vehicles will enhance our CAS capability.

Perhaps more important than acquiring and introducing new aircraft, however, the military services will continue to refine and improve their capability to work together seamlessly by improving training, doctrine and operational processes. Though this effort has been ongoing for decades, consolidation of efforts at Davis-Monthan would allow for interplay of operators and the training community that would benefit the development of long-term operational concepts.

In accordance with this CAS Center of Excellence concept, Davis-Monthan would be a logical host for varying numbers of A-10/OA-10 Thunderbolt, and F-35 aircraft.

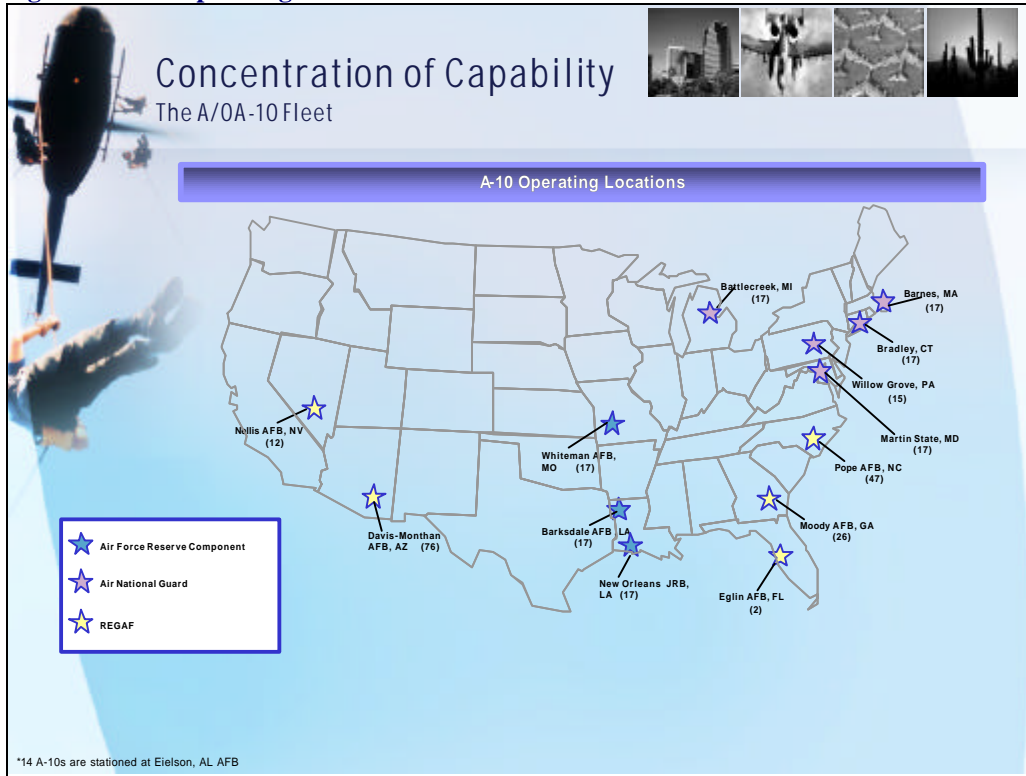


A-10/OA-10 Thunderbolt II

The A-10 and OA-10 Thunderbolt II are the Air Force’s primary aircraft for close air support of ground forces. The A-10’s primary mission is to provide day and night close air support for friendly land forces and to act as forward air controller (FAC) to coordinate and direct other friendly aircraft in support of land forces. In addition, the A-10 has a secondary mission of supporting combat search and rescue and Special Forces operations. It also possesses the capability to perform certain types of interdiction.

In the coming years, the A-10 fleet is likely to be restructured with portions receiving upgrades and enhancements. The fleet (see Figure 3, below) will also see reductions as the Joint Strike Fighter comes into service – in particular, the short takeoff/vertical landing, or STOVL, version of JSF. As the Air Force restructures its A-10 fleet and related operations, support, and training infrastructure, Davis-Monthan represents a potential center of gravity for these aircraft.

Figure 3. A-10 Operating Locations in the Continental United States



F/A-22

Designed to replace the workhorse F-15, the F-22 fighter will provide air dominance and a precision ground attack capability for U.S. forces for the next 40 years. In 2002, the Air Force announced a change in the designation of the F-22 Raptor to F/A-22. The change was intended in part to more accurately reflect the aircraft’s multimission roles and capabilities. Together with the F-35, the F/A-22 will be integral to air interdiction support for land forces and will need advanced training in the air-to-ground mission -- dictating use of advanced training ranges, like the Barry M. Goldwater Range.



The Air Force is projected to obtain over 300 F/A-22 aircraft from initial operational capability in December 2005, through final delivery in 2013. Establishment of the initial operational wing would take place over a period of approximately five years and would involve the basing of 72 operational F-22 aircraft, along with the personnel needed to operate and maintain the aircraft and associated facilities for advanced training.

In January 2000, the Air Force announced that Langley Air Force Base, Virginia, was the preferred alternative for the location of the first operational F-22 wing. In addition to Langley, the Air Force also considered Eglin Air Force Base and Tyndall Air Force Base, Florida; Elmendorf Air Force Base, Alaska; and Mountain Home Air Force Base, Idaho. The host locations for future F/A-22 operating wings have not been formally announced, and while the locations listed above are likely to receive the bulk of consideration, Davis-Monthan Air Force Base represents an excellent deployed training location for a small presence focused on joint air interdiction and CAS training.

F-35/Joint Strike Fighter (especially STOVL)

The first operational Joint Strike Fighter, designated as the F-35, is scheduled for delivery in fiscal 2010. The F-35 is actually a family of three aircraft designed to replace aircraft in the Air Force, Navy, Marine Corps and the British military. The Air Force's F-35A version of the craft is a conventional takeoff and landing airplane to replace the F-16 Falcon and A-10 Thunderbolt II, and complement the F/A-22. Beginning in 2008, the U.S. Air Force alone plans to buy over 1,000 of these aircraft.

From a CAS perspective, the multi-role Short Take-Off & Vertical Landing (STOVL) strike fighter is of particular importance. The STOVL JSF will be a single engine, stealthy, supersonic, strike-fighter aircraft capable of short takeoffs and vertical landings. It will combine the basing flexibility of the Harrier with the multi-role capabilities, speed, and maneuverability of the F/A-18 Hornet to fulfill both the air-to-ground and air-to-air requirements of the Marine Corps.

Ultimately, the Joint Strike Fighter will form the backbone of the U.S. ground attack and close air support capability. Given this role, Davis-Monthan and other southern Arizona bases are logical candidates for concentrating significant JSF operations and training. By concentrating appropriate levels of JSF aircraft at Davis-Monthan, the DoD can ensure a continuum of airborne close air support activities over the coming decades.

Joint Tactical Air Controller Training

The U.S. Army has stated a need to qualify many more personnel as joint tactical air controllers to support CAS operations for their future "units of action." The U.S. Air Force should be the executive agent for this training requirement, as it now is responsible for training air liaison officers, who serve with Army units. As the Center of Excellence for CAS, Davis-Monthan would be a logical base to locate this joint training activity. The proximity of the base to the Goldwater Range, for live CAS training and the capacity of the base for operational growth support this option.



Enhancing Homeland Defense and Security Operations

Davis-Monthan Air Force Base offers outstanding synergy with homeland security and defense missions. The current mix of tenants at the base illustrates this fact. For example, the U.S. Customs Service Aviation and Operations Branch located at Davis-Monthan provides anti-drug surveillance throughout the border region. In addition, the U.S. Border Patrol Headquarters and Detention Facility are adjacent to the base. In terms of homeland defense, Davis-Monthan is a Homeland Defense Operating Location with Air National Guard and Air Force Reserve units based there permanently.

Beyond the mix of existing tenants, opportunities for collaboration are plentiful. When required by other Federal Agencies, the 12th Air Force command and control assets could complement the U.S. Customs Service drug surveillance and interdiction missions. Moreover, the base's facilities are well suited to coordinate homeland security operations and training – a proposition that improves efficiency and lowers cost of vital security missions. For example, as the Border Patrol and U.S. Customs Service begin to employ UAVs in the border surveillance mission, Davis-Monthan offers a secure, cost-effective location for basing.

Tucson and Pima County: An Ideal Environment

Tucson and Pima County comprise a rapidly growing southwestern community with over 940,000 people enjoying an unparalleled quality of life. The city enjoys a robust economy with over 420,000 jobs, thereby providing military dependents with significant opportunities for quality employment. Since 1999, the region's employment trends have consistently outperformed the national benchmark. For example, in 2003 unemployment was approximately 2.5 points below the national average (6.0 percent nationally versus 3.5 percent in Tucson).

Davis-Monthan Air Force Base is Tucson's third-largest employer, and its annual economic impact was estimated at over \$1 billion. It is a relationship that continues to pay dividends for both the DoD and Davis-Monthan. The Air Force has been a stable long-term tenant, and the citizens of Tucson and Pima County are committed to a spirit of partnership with the military. This was never more evident than in the spring of 2004, when Tucson residents overwhelmingly approved a \$10 million bond issue as an initial move to buy land in the Davis-Monthan departure corridor to protect the base's operational capability.

Achievements of the Tucson/DoD partnership are numerous and best exemplified by the progress the community has made in protecting the operational capability of Davis-Monthan. For the last 10 years, the community has moved aggressively and with great success to combat encroachment. The state has implemented a law on compatible land use around military airports, and a permanent military affairs commission and aggressive zoning ordinances now effectively control encroachment. Moving forward, Tucson and Pima County are adopting the recommendations of the DoD/Arizona State Joint Land Use Study, which will help mitigate any risk of long-term encroachment issues.



In addition to protecting Air Force capability, Tucson and Pima County are also committed to providing an outstanding quality of life for military families. For example, the University of Arizona, Pima Community College, Tucson Unified School District, charter and private school systems combine to provide excellent educational opportunities for military dependents. Likewise, an outstanding Veteran's Administration hospital in Tucson serves 45,000 veterans and base personnel, and its new state-of-the-art consolidated outpatient mail pharmacy is scheduled to open in May 2005.

In terms of environmental quality, Tucson sets the example for water conservation in the western United States and is one of the best-managed water supplies in the world, capable of meeting all growth projections in the foreseeable future.

Finally, the Davis-Monthan community has showed its commitment through infrastructure improvements. In addition, the city is continuing to upgrade landscaping, and on/off-base businesses have become energized to undertake similar landscape improvement projects. In the 1990s, the City of Tucson spent more than \$4 million to improve access roads and interchanges around the base.

Summary

The Tucson community will support U.S. military objectives in the 21st century by maintaining a strong community partnership with the DoD, as well as a commitment to military transformation and the promotion of joint warfighting concepts. The City of Tucson and Pima County are committed to a bold vision for the future of Davis-Monthan Air Force Base – a vision in which Davis-Monthan Air Force Base maximizes DoD readiness and training as an Center of Excellence in Close Air Support, and enhances critical homeland defense and security missions.