

# **Military Community Compatibility Committee (MC3)**

## **Executive Summary**

The Military Community Compatibility Committee (MC3) was formed to generate solutions to minimize current and future military aircraft noise impacts on residential neighborhoods and local businesses, while maintaining the long-term viability of Davis-Monthan Air Force Base (DMAFB). This report is the product of over 19 months of intense effort by a diverse group of Tucson citizens who accepted the challenge of addressing this complex and controversial issue.

Many hours of fact gathering, public testimony, and intense debate have produced a set of “consensus recommendations” which, if implemented, would result in concrete actions intended to address the above goals set forth for the MC3.

The diverse viewpoints represented on the MC3 created considerable challenges in reaching consensus recommendations. These challenges were based on different interpretations of the goals by Committee members. Some members, for example, believed that any proposals for changes or limitations on DMAFB operations could jeopardize the viability and long-term survival of the base. Other members believed that inadequately addressing current and future noise levels could promote continuing and increasing conflict that could ultimately affect the viability of the base.

This report outlines the extensive discussions and numerous proposals where consensus was reached. Although not every participant agreed with every finding, the consensus recommendations outlined in this report were supported or accepted by all members<sup>1</sup> (Table 1 Summary of MC3 Consensus Recommendations). Proposed recommendations where consensus could not be reached are also included. These and other proposals, while they did not receive consensus support, were debated at length and strongly advocated by their respective supporters.

The Recommendations are divided into three categories:

**1. DMAFB Operations Recommendations:** Intended primarily to decrease the current and future noise impact on Tucson neighborhoods through changes in DMAFB Flight Operations procedures. Operations recommendations are contingent upon mission accomplishment and safety.

**2. Land Use/Regulatory Recommendations:** Intended to provide improved public policy guidance for current property owners and to ensure that future residents and businesses, potentially affected by DMAFB Flight Operations, are fully informed. The recommendations also include potential mitigation strategies for property owners who may be affected by those operations.

**3. Communications Recommendations:** Intended to improve communication between DMAFB and the greater Tucson community. Ongoing dialogue and communication between DMAFB and Tucson citizens would heighten the awareness of DMAFB personnel charged with flight operations planning decisions and their effects on the surrounding community, and increase the awareness and understanding of the Tucson community about the demands and intricacies of the national security mission of DMAFB.

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<sup>1</sup> As stated in the MC3 Protocols, “Consensus means an agreement supported by the Committee as a whole, that does not necessarily represent any one member’s ideal resolution, and that could be characterized as a decision that all members present can live with.” (Appendix C)

The MC3 consensus recommendations provide an example of how progress can be made on controversial community issues. However, MC3 participants emphasized that real progress on many of these recommendations can only be achieved through the appropriate allocation of resources and implementation funding. It is anticipated that these recommendations will create an ongoing partnership among: DMAFB; the City of Tucson, Pima County and other local jurisdictions; the State of Arizona; and the Tucson community. This partnership has the potential to build trust, address issues, make substantive changes, and ensure that all stakeholders' interests are considered and addressed to the greatest extent possible in future decision-making processes. The MC3 has created a framework for cooperation between an Air Force base and the surrounding community, each dependent on the other for future success and prosperity.

**Table 1: Summary of MC3 Consensus Recommendations**

<p><b><u>DMAFB Operations</u></b></p> <p><b>DMAFB Operations</b></p> <p>1A) Alter Flight Operations to as high an altitude as possible and maintain safety  1B) Create visual approach down Aviation Blvd/Railroad tracks  1C) Alter helicopter routes from west along 22<sup>nd</sup> Street to I-10  1D) Find a new helicopter route to the southeast  1E) Codify southeast departures and arrivals for night operations  1F) Publicize historical frequency and timing of night operations</p> <p><b>DMAFB Administrative Operations</b></p> <p>2) "Good Neighbor Annual Review" by DMAFB</p> <p><b>Follow-up Research</b></p> <p>3A) Commission a health study on effects of aircraft noise  3B) Establish a noise measurement program</p> <p><b>Use of Other Airfields</b></p> <p>4) Maximize use of other bases for practice approaches</p> <p><b>Future Missions</b></p> <p>5) Involve the Military Community Relations Committee as a partner to enhance public input into Environmental Assessment and related NEPA processes regarding DMAFB mission decisions</p> <p><b><u>Land Use / Regulatory</u></b></p> <p><b>Joint Land Use Study Participation</b></p> <p>1A) Form communication and coordination groups  1B) Develop City and County policy for providing timely notice to DMAFB of all development plans</p> <p><b>AEZ Regulatory Impacts</b></p> <p>2A) Eliminate sound attenuation requirement for residential expansions and reconstruction  2B) Create a sound attenuation/noise mitigation construction program and tax incentives for sound attenuation  2C) Expand opportunities for purchases, land exchanges, and transfer of development rights of devalued use-restricted property</p> <p><b>Noise Contours</b></p> <p>3) Include noise contours as additional criteria for concentrating neighborhood reinvestment</p> <p><b>Development Southeast of DMAFB</b></p> <p>4) Purchase priority parcels for open space and relocation of uses</p> <p><b>Real Estate Disclosure</b></p> <p>5) Enhance real estate disclosure earlier in transaction process</p> <p><b>AEZ Regulatory Predictability</b></p> <p>6) Standardize review of AEZ compliant development proposals</p> <p><b><u>Communications</u></b></p> <p>1) Revise DMAFB website  2) Revamp DMAFB caller hotline  3) Create ongoing Military Community Relations Committee (MCRC)  4) Increase overall publicity and information sharing</p>
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Three draft recommendations made it to the final meeting of the MC3 but did not receive consensus support. These were: 1) a displaced threshold for landing to the southeast, 2) exploring other basing options prior to expansion of snowbird infrastructure, and 3) County amendment of AEZ code to be consistent with JLUS (see Chapter 4).

In order to ensure that the multi-stakeholder dialogue and collaborative work begun through the MC3 process continue, the MC3 agreed to the following next steps:

1. Creation of the MC3 Interim Oversight Committee: This will be a temporary committee consisting of a subset of MC3 members representing the cross-section of interests in the MC3. This transitional committee will begin meeting in September 2006 and will be charged with:

- Convening the planning process to establish the new Military Community Relations Committee (MCRC),
- Following-up and reporting on MC3 recommendations to the MCRC.

2. Creation of the Military Community Relations Committee (MCRC): The MCRC will serve as a permanent forum for dialogue, information sharing and problem solving among DMAFB, local government, neighborhoods, non-residential landowners, and other key interests. It will be co-convened and staffed by key agencies and interests (see Communications recommendation #3).

## CHAPTER 1: OVERVIEW OF THE MC3

### A. Introduction

In 2001 the Arizona Legislature passed Senate Bill 1120 that appropriated funds to develop comprehensive land use plans in the noise and accident potential zones surrounding active military airports. As a result of this legislation, the Arizona Military Regional Compatibility Project was conceived as a proactive endeavor to convene the stakeholders and jurisdictions around each Arizona military base to address land use compatibility issues. Joint land use studies were initiated by the Arizona Department of Commerce and prepared as part of the Compatibility Project. Phase One of the project involved Luke Air Force Base and was completed in March 2003. Phase Two, involving the Davis-Monthan Air Force Base (DMAFB or the Base) began in Tucson in May 2003, and that Joint Land Use Study (JLUS) was completed in February 2004. On October 25, 2004 the City of Tucson's Mayor and Council voted to amend the current Airport Environs Zone (AEZ) by incorporating the recommendations of the JLUS into the appropriate sections of the City's Land Use Code<sup>2</sup>.

The guiding principle of the JLUS is to ensure that future development is compatible with the high-noise and approach-departure corridors (ADC) identified for future DMAFB operations. Land Use Compatibility Criteria identified in JLUS are based on safety and noise; more specifically, limiting exposure of people and noise-sensitive activities to high noise levels and limiting concentrations of people and safety-sensitive activities. The opportunity to present a very large ADC to the southeast of the base, where there is a significant amount of vacant land and industrial land, was a priority.

The JLUS was a planning process designed to prevent incompatible land use development to the southeast of DMAFB (through land use restrictions and restrictive development standards). The JLUS planning process integrated a set of hypothetical noise contours that were created as a planning tool. These noise contours were based upon a complex formula designed to replicate a noisier single engine aircraft assumed to eventually replace the A-10 mission at DMAFB. These expanded noise contours represent the potential for increased noise over long-established Midtown and University of Arizona area neighborhoods and throughout the DMAFB environs, and establish the framework under which land use compatibility is defined in this area. There was no formal representation from Midtown neighborhoods in the JLUS process, although many Midtown area residents were concerned that their neighborhoods would be significantly impacted by the City's code amendment incorporating the recommendations of JLUS. Midtown residents were concerned about the potential loss of residential property value due to new residential uses being restricted in the AEZ (the stigma of "incompatible residential land use") and to quality of life impacts due to the expansion of the high noise contours. Concerned stakeholders also perceived that noise and safety issues related to current DMAFB operations were not adequately addressed by JLUS.

The MC3 process began shortly after the Mayor and Council's October 2004 decision. Multiple inquiries—from the City of Tucson, DM50, and neighborhood representatives—were made to the U.S. Institute for Environmental Conflict Resolution (the "U.S. Institute") of the Morris K. Udall Foundation to assess the potential for a community dialogue on these issues<sup>3</sup>. The U.S. Institute convened a small representative group to determine if agreement could be reached on proceeding with such a discussion. Over the course of eight months and several meetings, the group (which evolved as additional interests

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<sup>2</sup> The City's Planning Commission had voted unanimously to recommend postponement of a decision to Mayor and Council.

<sup>3</sup> The U.S. Institute for Environmental Conflict Resolution is a federal program established in 1998 by the U.S. Congress to assist parties in resolving environmental, natural resource and public land conflicts. It is a program of the Tucson-based Morris K. Udall Foundation, an independent agency of the executive branch.

were identified and brought into the planning discussions<sup>4</sup>) reached consensus on issues of interest, the scope and objectives for future deliberation, a preliminary design for such meetings, and a name – the Military Community Compatibility Committee (MC3). With the help of the U.S. Institute, the group also selected and contracted with a neutral facilitator to guide them through their subsequent deliberations.

The MC3 process was supported through funding and direct staff assistance from:

- Arizona Commerce and Economic Development Commission
- City of Tucson
- Pima County
- DM50
- Diamond Ventures, Inc.
- Metropolitan Pima Alliance
- U.S. Institute of Environmental Conflict Resolution

## **B. MC3 Process**

### **1) Purpose**

The MC3 was established as an advisory committee with no power to adopt or implement any of its recommendations. The MC3 brought together representatives from diverse interests to discuss issues, gather information and generate consensus recommendations. These consensus recommendations, described in Chapter 3, are to be forwarded to elected political bodies and the Air Force for their consideration and decision (see Chapter 5 Outcomes and Next Steps for more detail).

The parameters for MC3 discussions were delimited by the goals of the MC3 which were defined by the initiating group. MC3 members, who collectively agreed upon these goals, worked to find solutions that would:

- Minimize current noise impacts on residential neighborhoods to the maximum extent feasible, consistent with the fulfillment of the mission of Davis Monthan Air Force Base;
- Minimize, or eliminate if feasible, any additional noise impact on existing residential neighborhoods that results from future mission changes; and
- Maintain the future viability of Davis Monthan Air Force Base.

In order to achieve these goals, MC3 members agreed to:

- Secure and make accessible all relevant information so that participants would have a broad understanding of the issues relevant to military overflight noise in Tucson;
- Generate reasonable and viable recommendations that have consensus support of the Committee, and forward those recommendations to the relevant decision makers for consideration; and,
- Define and seek support for an ongoing monitoring and collaborative consultation process.

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<sup>4</sup> The initiating group included representatives from DMAFB, impacted neighborhoods, non-residential landowners, DM-50, the City of Tucson, Pima County, the Governor's Office, and the Congressional Offices of Kolbe and Grijalva.

## 2) Process

The 28-member Committee met monthly between September 2005 and August 2006. The process began with education and information-sharing among members, through a series of presentations highlighting the perspectives of: DMAFB, Midtown neighbors, the University of Arizona Science and Tech Park, outdoor-based businesses, and non-residential landowners. Questions, concerns and solution ideas were gathered from the MC3, other stakeholders and the public and then sorted by theme. Responses to the questions were prepared by DMAFB, the City and County, and DM50 and were shared with the MC3 and public. A temporary technical working group was formed to help manage this process.

Based on the synthesis of issues and initial solution ideas, three theme-based working groups were formed – DMAFB Operations, Land Use/Regulatory, and Communications – to review the technical responses, discuss the issues, and generate viable solution options. The outcomes of the working groups were presented to the MC3 for their review and feedback at several points during the process. Comments were also invited from the public at all MC3 meetings. This iterative approach allowed for much more work and substantive discussion than otherwise would have occurred. This format also enabled more candid discussion and brainstorming than would likely not have happened in the open and larger MC3 meetings. No issues were eliminated nor substantive decisions made at the working group level. Given the complexity of the issues under discussion, the MC3 decided to forward recommendations regardless of identified funding sources, understanding that in many cases funding would be necessary for those recommendations to be implemented.

A seven-member Steering Committee met between the monthly MC3 meetings to prepare draft agendas, discuss challenges, and give guidance to the MC3. Substantive decisions were not made by the Steering Committee.

The MC3 process was designed to enable a broad spectrum of interests to participate in the MC3 and allowed multiple opportunities for public input (See Appendix B MC3 Process Design). The greater public was invited to participate in several ways:

- Observer comment periods during each MC3 meeting;
- Two public forums—the first one to gather issues, solution ideas and questions, and the second to gather feedback on the initial draft recommendations;
- A website where all key documents—agendas, meeting summaries, public forum reports, technical responses, etc.—were posted ([http://groups.yahoo.com/group/MC3\\_Solutions/](http://groups.yahoo.com/group/MC3_Solutions/));
- An e-mail public distribution list;
- Monthly Neighborhood Steering Committee open meetings held between MC3 meetings and convened by MC3 neighborhood representatives to inform residents about MC3 discussions and to elicit input from neighbors;
- Varied forms of communication between members and their constituencies.

All substantive and major process decisions of the MC3 were made by consensus, using the thumbs up (support), thumbs to the side (neutral, do not oppose), or thumbs down (reject) method. In order to achieve consensus, all of the consensus members needed to show thumbs up or to the side. While advisory members participated actively in discussion, they did not participate in the consensus decision making process (Appendix C MC3 Protocols).

Tahnee Robertson of Resources for Environment and Community served as neutral facilitator. Ms. Robertson was selected by the initiating group and contracted through the U.S. Institute for Environmental Conflict Resolution.

### C. MC3 Participants

In addition to agreeing on the goals, the initial planning group developed a participant selection process. The process was designed to involve a wide range of interests that affect or are affected by DMAFB, while keeping the size manageable for effective deliberation. The primary participant selection criteria were to: 1) represent a key identified interest; and 2) agree to the above goals. A full list of participants is included in Appendix A.

Selected participants determined if they wanted to participate in the consensus decision making or to serve in an advisory capacity. Participants were also asked to identify alternates to participate on the MC3 and its working groups; alternates participated in the consensus process only in the absence of their member.

The 28-member Committee was selected to represent the following entities or interests:

Category	Entity	Role
Local Government: City of Tucson  Pima County  State of Arizona	City Manager's Office Dept. of Urban Planning and Design County Administrator's Office Development Services Dept. Tucson Office of Governor Napolitano	Consensus Advisory Consensus Advisory Consensus
Davis-Monthan AFB	Inspector General's Office Installations Civil Engineering Office	Advisory
Impacted neighborhoods: Northwest of DMAFB  Southeast of DMAFB	Arroyo Chico, Broadmore-Broadway Village, Colonia Solana, Blenman Elm, Julia Keen/29 <sup>th</sup> Street Coalition Rita Ranch, Civano	Consensus
Non-residential landowners/developers (both northwest and southeast)	Diamond Ventures Triangle Ventures Cross Point Church	Consensus
DM50	DM50	Consensus
Local businesses and organizations (including outdoor-oriented)	Southern Arizona Leadership Council Tucson Botanical Gardens	Consensus
Major educational institutions	University of Arizona Tucson Unified School District Vail Unified School District	Consensus
Congressional	Office of Representative Kolbe Office of Representative Grijalva Office of Senator McCain Office of Senator Kyl	Advisory

## **D. Summary of Issues Raised**

Through an initial survey of MC3 members, observer comment during MC3 meetings, and the first public forum (December 2005), the following issues were identified. The Committee agreed to consider all of these issues, and to the greatest extent possible, generate recommendations that would have a good chance of gaining consensus support of the MC3.

### **1) Noise from military overflights:**

Groups affected: Residents, outdoor-oriented business owners, and others expressed concern that overflight noise impacts the following populations in Tucson: a) neighborhoods under or near flight paths; b) the University of Arizona campus community; c) downtown and the Rio Nuevo area; d) schools and children; e) businesses that rely on quiet (including home-based); and f) parks and other outdoor venues.

Types of impact: Some participants felt that overflight noise—particularly when frequency and decibel levels are high—may have a negative impact on: a) quality of life and outdoor livability (a distinct feature of the Tucson environment); b) health, c) children’s ability to study; d) property values; e) neighborhood character (through, for example, increased rentals or a decline in community investment); f) local business viability; and g) buildings through vibration damage.

Noise sources of concern: The specific types of overflight noise which cause concern included: jet aircraft of non-tenants and visitor jet aircraft; helicopters; military jets flying over Tucson that are not from DMAFB (e.g., Air National Guard stationed at Tucson International Airport, nearby bases), and the potential for louder planes in the future. Operational concerns were expressed over areas where planes fly at low altitudes (e.g., take-off and landing), areas under flight paths where noise is higher, night flights, and the use of afterburners. While most comments shared with the MC3 were raised by people annoyed by the noise, some people indicated that they either are not bothered by it, or “love the sound of freedom” and are happy to live or work beneath flight paths.

### **2) Health and Safety:**

Health: Some residents in high noise areas expressed concern about possible health problems from overflight noise, including hearing loss, sleep deprivation, and stress. Some residents were concerned about the potential health impact from chemicals released through jet exhaust and perceived jet fuel dumping.

Safety: Some residents were very concerned about the prospect of an aircraft accident. They felt that military flights over densely populated areas may be unsafe—especially training related flights. They advocated for stricter aircraft safety and operations regulations and enforcement, and the use of safe aircraft, to minimize the potential for accidents.

### **3) Value of DMAFB:**

Economic: Many participants and members of the public felt strongly about the positive economic impact of DMAFB<sup>5</sup>. Concern was expressed about the negative economic consequences to the

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<sup>5</sup> DMAFB is Arizona’s fifth largest and Tucson’s third largest employer (Arizona Daily Star Trend Tracker, 7/31/06), and is estimated to have contributed \$1.2 billion to the greater Tucson economy in 2005 through payroll, expenditures, indirect jobs, personnel, and Tucson area retiree payroll (DMAFB Finance Office).

community if urban encroachment, and/or the perception of an unsupportive community environment, precipitated a reduction of the current mission in the future.

Other values: Other DMAFB values identified include: a) security provided by DMAFB for Tucson and the nation; b) philanthropic and other community involvement by DMAFB personnel; and c) the numerous DMAFB tenants, other than the 355<sup>th</sup> Fighter Wing, and their varied missions (e.g. Border Patrol, 12<sup>th</sup> Air Force, and others); and d) the large number of retired military who reside in southern Arizona and depend on DMAFB for services and benefits.

#### **4) Future of DMAFB:**

The core interest of DMAFB, DM50, and other base supporters is DMAFB's viability and the security of its future in Tucson. Many residents in noise-impacted neighborhoods wanted similar or quieter missions at DMAFB in the future. However, others felt that restriction on future missions could negatively impact DMAFB viability. This dilemma remained a challenge throughout the MC3 deliberations.

Other concerns raised relating to the future of DMAFB included: a) future mission uncertainty's affect on the planning certainty of local residents and businesses; b) compatibility of new missions in the context of urban development to the south and southeast of DMAFB; c) other community implications of base realignment decisions or new missions; and d) the difficulty of determining the Pentagon's plans for DMAFB's future.

#### **5) Land use regulations, southeast development and real estate disclosure:**

Airport Environs Zone (AEZ): There were numerous concerns expressed related to the JLUS process and AEZ regulations: a) that some interests, Midtown neighborhoods in particular, were not sufficiently informed nor officially included in the JLUS process (one of the driving factors behind the formation of the MC3); b) negative economic and other impacts of AEZ regulations on homeowners, businesses, and landowners in the northwest and southeast; c) noise contour locations and how they were determined; and d) residential uses within the noise contours considered incompatible with nearby military operations<sup>6</sup>.

Southeast development: Some Midtown and southeast residents were concerned that the JLUS may not be restrictive enough to ensure that development in the southeast would not negatively impact: 1) the future viability of DMAFB; 2) future homeowners in the southeast; and 3) Midtown neighborhoods, should flights shift back to the northwest as a result.

Real estate disclosure: Effective disclosure to future homebuyers regarding the proximity of homes to an Air Force base was seen as important by many. However, disclosure has its own challenges due to the possible negative impacts on home sellers.

**6) Need for certainty/predictability:** Non-residential landowners were very supportive of having fixed AEZ regulations that would allow them to invest in planning and development without experiencing further regulatory change.

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<sup>6</sup> Within the City of Tucson, the residential use group is prohibited within both the Approach Departure Corridors (ADC-1, ADC-2 and ADC-3) and the Noise Control Districts (NCD-A and NCD-B) of the AEZ. An exception to allow new single-family dwellings limited to a density of not more than one dwelling unit per acre is made for property zoned IR, RH, SR, RX-1, RX-2, R-1, R-2, R-3, MH-1, and MH-2 prior to January 1, 2005. Existing residential uses are grandfathered.

**7) Improved communications and good neighbor relations:** Residents and others wanted more transparent and clearer communication between DMAFB, local government, and residents. Examples included: responses to information requests and noise complaints and access to Environmental Impact Statements (and involvement in these processes). Many wanted good relations characterized by mutual respect, constructive dialogue, open communication, and transparent process.

**8) Regarding the MC3 Process:** Members and the public expressed concern that: a) the MC3 process be open and participatory, with representation of all key stakeholders; b) members participate in good faith, and that DMAFB, the City, the County, and other decision-making entities offer solid commitment to consider MC3 recommendations; c) the process gather accurate, credible information to effectively inform members in their deliberations; d) the process produce achievable recommendations with specified funding sources and implementing entities; and e) a clear, agency supported plan be developed for follow-up.

## CHAPTER 2: MC3 CONSENSUS RECOMMENDATIONS

### **A. Davis-Monthan Air Force Base Operations**

#### **Introduction**

The DMAFB Operations Working Group spent numerous sessions learning a common language, and attempting to reach consensus on Flight Operation issues at DMAFB, as well as the base's relationship with its neighbors.

The Operations Working Group reached the conclusion that there is no single solution that will resolve all the noise and related issues considered by the MC3. The Working Group therefore recommended a series of operational changes that would individually make incremental improvements by reducing noise from military aircraft from DMAFB on affected neighborhoods, and collectively, result in benefit to the community. In addition, the Working Group recognized that more research is needed to assess public health concerns. Since the MC3 did not have direct expertise in this area, the Working Group proffered a recommendation to that end.

DMAFB is critical to the Air Force due to its proximity to the Barry M. Goldwater Range in southwestern Arizona. The range offers unique training opportunities not available elsewhere in the United States. The Working Group explored the option of using other bases within proximity to the Goldwater Range without reaching a consensus conclusion on any recommendations.

The Working Group does not offer any formal recommendations on matters discretely related to public and pilot safety issues. However, the Working Group thoroughly examined the issues and offered a finding of fact in Chapter 3. Safety concerns were also addressed as a product of other recommendations—targeted primarily at noise.

The Working Group made a number of modifications in its recommendations based on the input received at the second Public Forum and comments from MC3 members after initial presentation of the Group's draft.

Finally, the Working Group talked at length about current and future missions assigned to DMAFB but was unable to come to consensus regarding recommendations that would specify or limit current or future missions. The Working Group therefore developed a general recommendation regarding the public input process (Recommendation #5).

Individually, these recommendations offer incremental improvements for those concerned about DMAFB Flight Operations. However, their sum represents an overall improvement in noise exposure for the residents of Tucson while instituting processes that will integrate the impact and concerns of Tucson area residents and businesses into to planning and execution of DMAFB Flight Operations training mission.

These recommendations were made without a cost-benefit analysis. The MC3 did not have the expertise nor the funding to acquire independent technical experts to fully and adequately analyze the complex relationships, coordination, approvals, costs and funding necessary to enact these recommendations. The MC3 therefore leaves that analysis to the appropriate bodies considering implementation of each recommendation.

## *Summary of Recommendations*

### DMAFB Flight Operations

- 1A) Alter Flight Operations to as high an altitude as possible and maintain safety
- 1B) Create visual approach down Aviation Blvd/Railroad tracks
- 1C) Alter helicopter routes from west along 22<sup>nd</sup> Street to 1-10
- 1D) Find a new helicopter route to the southeast
- 1E) Codify southeast departures and arrivals for night operations
- 1F) Publicize historical frequency and timing of night operations

### DMAFB Administrative Operations

- 2) “Good Neighbor Annual Review” by DMAFB

### Follow-up Research

- 3A) Commission a health study on effects of aircraft noise
- 3B) Establish a noise measurement program

### Use of Other Airfields

- 4) Maximize use of other bases for practice approaches

### Future Missions

- 5) Involve the Military Community Relations Committee as a partner to enhance public input into Environmental Assessments and related NEPA processes regarding mission decisions at DMAFB.

## Recommendations

### Davis-Monthan Flight Operations

#### 1A) Alter Flight Operations to as high an altitude as possible and maintain safety

Issue:	Aircraft noise affects the quality of life for Tucsonans in their business, education and recreational activities
Findings:	Aircraft noise has an impact on the quality of life for some Tucson residents and businesses.
Recommendation 1A:	<p><b>The MC3 recommends that Davis-Monthan Air Force Base (DMAFB) flight operations be altered to keep assigned aircraft as high as possible over the City of Tucson during all phases of flight, within the bounds of flying safety. The MC3 recommends the following changes:</b></p> <ol style="list-style-type: none"> <li><b>1. During Visual Meteorological Conditions (VMC) all aircraft taking off to the northwest or executing a “Missed Approach” or “Go Around” from DMAFB Runway 30 will use “noise abatement” climb rates/ procedures until reaching published or assigned departure or re-entry altitudes.</b></li> <li><b>2. All aircraft approaching DMAFB for landing from the northwest on Runway 12 will be assigned as high an altitude as safety permits until descending to intercept the published instrument or visual approach to be flown.</b></li> <li><b>3. Aircraft being directed to re-enter a visual or instrument approach to either runway will be assigned the highest altitude feasible within safety and performance considerations of each aircraft type.</b></li> <li><b>4. Consider modifications to the “VFR Overhead” and “Closed Pattern”. Considerations should include, but not be limited to:</b> <ol style="list-style-type: none"> <li><b>a. Raising the altitude for “Initial”</b></li> <li><b>b. Keeping aircraft higher over the city and then “stepping down” to “Initial” altitude within two to three miles of the field</b></li> <li><b>c. Assigning aircraft a higher “Initial” altitude, followed by a descent on “Inside Downwind” prior to the “Final Turn”</b></li> </ol> </li> </ol> <p><i>Note: The MC3’s intent is for DMAFB and Tucson TRACON (Terminal Radar Approach Control) to develop new procedures that result in higher altitudes than are currently in use and to do it for every pattern/ approach where it is feasible to do so within safety and performance considerations.</i></p>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• The amount of aircraft noise is a function of distance between the aircraft and those affected. Raising the altitudes of aircraft departing and arriving at DMAFB will reduce the decibel (dB) levels experienced and thereby lessen the impact on the citizens of Tucson regardless of the aircraft type.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• The skies over Tucson serve many aircraft (Tucson International Airport, Air National Guard, Tucson Police Department, LifeNet, non-commercial aircraft, etc.) in addition to those from DMAFB. Raising the altitudes will require close coordination with the Federal Aviation Administration (FAA)</li> </ul>

	to ensure safe separation from commercial airlines, business aircraft, Police, Border Patrol, non-commercial civilian aircraft and other military aircraft flying through the area and not going to or from DMAFB.												
Comment:	<p><i>Potential Impact:</i></p> <p>The impact in decibels of raising altitude for an A-10 and F-16 from the current standard altitude [at 95°F, 15% relative humidity, and Clear Skies] would be:</p> <ul style="list-style-type: none"> <li>• Increase of 500' AGL (“above ground level”) will reduce the A-10 and F-16 effective noise level 5.1 dB and 2.7 dB respectively.</li> <li>• Increase of 1000' AGL will reduce the effective noise level 9.3 dB and 4.9 dB respectively.</li> </ul> <p>Altitude vs. dB</p> <table border="1"> <thead> <tr> <th>Altitude</th> <th>A-10</th> <th>F-16</th> </tr> </thead> <tbody> <tr> <td>1,500' AGL</td> <td>83.5 dB</td> <td>99.0 dB</td> </tr> <tr> <td>2,000' AGL</td> <td>78.4 dB</td> <td>96.3 dB</td> </tr> <tr> <td>2,500' AGL</td> <td>74.2 dB</td> <td>94.1 dB</td> </tr> </tbody> </table>	Altitude	A-10	F-16	1,500' AGL	83.5 dB	99.0 dB	2,000' AGL	78.4 dB	96.3 dB	2,500' AGL	74.2 dB	94.1 dB
Altitude	A-10	F-16											
1,500' AGL	83.5 dB	99.0 dB											
2,000' AGL	78.4 dB	96.3 dB											
2,500' AGL	74.2 dB	94.1 dB											
Implementing Body:	DMAFB, Tucson TRACON, FAA												
Potential Funding:	Costs are limited to DMAFB and Tucson TRACON for the publication of procedural manuals used by those involved with flight operations at the base. Funding should come from the implementing agencies.												

**1B) Create visual approach down Aviation Blvd/Railroad tracks**

*(Note: former Draft Recommendation 1B is in Chapter 4)*

Recommendation 1B	<p><b>The MC3 recommends that when it is safe and in accordance with the mission to do so, the visual approach path landing from the northwest to the southeast be altered to follow the Union Pacific Railway tracks, turning onto short final at the Veterans Memorial Bridge.</b></p> <p><i>Note: Recommendation (1C) also must be implemented for this recommendation to be feasible.</i></p>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• Approaching Runway 12 from the northwest along the path of the railroad tracks will reduce the number of flights over those homes lying under the normal straight-in approach, as well as over the University of Arizona campus.</li> <li>• The area surrounding the tracks is largely non-residential, resulting in a net reduction of flights over residences.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• This creates two different approach paths to the same runway, which will necessitate additional training.</li> <li>• While the areas surrounding the railway tracks are largely non-residential, this new flight path will transfer part of the approach over another part of the city, specifically over the Tucson Convention Center and downtown historic and Rio Nuevo areas.</li> <li>• This new approach would require coordination and de-confliction with</li> </ul>

	<p>Tucson International Airport.</p> <ul style="list-style-type: none"> <li>An A-10 at 750' AGL generates 91.6 dB [at 95°F/15% relative humidity, clear skies] whereas currently the HH-60 at 750' generates 87.1 dB. This flight path will expose the residents along the current Aviation Boulevard corridor to a 4.5 dB increase from the A-Mountain helicopter departure procedure.</li> </ul>
Comments:	<ul style="list-style-type: none"> <li>Although this is not a typical approach, similar approaches are used at other airports around the world.</li> <li>Helicopters currently use this route. In order for aircraft to fly along the tracks, helicopters must also establish a new flight path. This is addressed in the following recommendation.</li> <li>It is estimated that no more than 5% of the current straight-in approaches executed by DMAFB aircraft would be suitable for this approach, due to the high number of regular instrument approaches required of pilots.</li> </ul>
Implementing Body:	DMAFB, Tucson TRACON, FAA
Potential Funding:	Costs are limited to DMAFB and Tucson TRACON for the publication of procedural manuals in use by those involved with flight operations at the base. Funding should come from the implementing agencies.

### 1C) Alter helicopter routes from west along 22<sup>nd</sup> Street to I-10

Recommendation 1C	<p><b>The MC3 recommends that the flight path of helicopters currently maneuvering to/from the west along 22<sup>nd</sup> Street be altered such that departures fly south to I-10, then follow I-10 west (and return along the same route).</b></p> <p><i>Note: There is no requirement to implement recommendation 1B for this recommendation to be feasible.</i></p>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>The intention is that helicopters would take a route over the non-residential and less dense residential areas directly south of DMAFB.</li> <li>This would decrease helicopter noise along 22<sup>nd</sup> Street.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>Will affect a limited number of residents under the new flight path who may not have been previously affected.</li> <li>Because this path to training areas is less direct, there will be an increase in fuel costs. The increased travel time may have an impact on the training mission.</li> <li>Depending on the altitudes flown, there is a slight possibility of motorists becoming distracted by helicopters flying over the freeway.</li> </ul>
Implementing Body:	DMAFB
Potential Funding:	Some training impact will be borne by DMAFB flight operations. A Department of Defense Air Combat Command (ACC) Flying Hour Program increase may be required.

**1D) Find a new helicopter route to the southeast**

Recommendation 1D	<b>The MC3 recommends that a different helicopter route to the southeast be explored, with the intention of reducing flights over current and planned residential areas (e.g., flying over AMARC to the base boundary, then a route south of the current one). If the route is changed, the affected populations and property owners should be notified.</b>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• Helicopters flying to or from the southeast currently fly along Golf Links Road and other residential areas. A route that over flies over the base and over more southerly, less densely populated areas would reduce the impact of noise on this part of the city.</li> <li>• Such a route would be more direct out of town, potentially resulting in a savings to Davis-Monthan of both fuel costs and transit time.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• There are protected environments in the vicinity of the non-residential areas in question.</li> <li>• Depending on the route determined by DMAFB, there may need to be an environmental impact assessment.</li> <li>• There is the potential for conflict with fixed-wing aircraft traffic in this area.</li> <li>• Would likely shift noise over areas not currently exposed to helicopter noise.</li> </ul>
Implementing Body:	DMAFB, Tucson TRACON, FAA
Potential Funding:	There should be no funding necessary; in fact, there is a potential cost and time savings to DMAFB.

**1E) Codify southeast departures and arrivals for night operations**

Recommendation 1E:	<b>The MC3 recommends that during night operations, when conflicting traffic flow into Tucson International Airport is reduced and it is safe to do so, FAA controllers shall direct DMAFB aircraft to both approach from and depart to the southeast.</b>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• This will result in more night traffic being directed over a less densely populated area.</li> <li>• This procedure is already used on a discretionary basis and is therefore familiar to those charged with implementing the recommendation.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Slight increase in night traffic approaches in the southeast.</li> <li>• This procedure only impacts fixed wing aircraft and has no impact on helicopters.</li> </ul>
Comments:	<ul style="list-style-type: none"> <li>• <i>Potential Effect:</i> Small decrease in night traffic approaches and departures over the northwest.</li> <li>• This standardizes a practice that is now discretionary.</li> </ul>
Implementing Body:	Tucson TRACON, FAA, DMAFB
Potential Funding:	No funding is required for this recommendation.

**1F) Publicize historical frequency and timing of night operations**

Recommendation 1F:	<b>The MC3 recommends that DMAFB, without compromise to national security or flight operations, make available at the meetings of the proposed Military Community Relations Committee (MCRC) recent aggregate flight operations data on aircraft takeoffs and landings during the hours of darkness and during quiet hours.</b>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• This will further enhance the relationship between DMAFB and the community.</li> <li>• It would provide an additional level of information for Tucson residents.</li> <li>• It would differentiate the DMAFB-based noise from other aircraft.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• There is increased time and resources, both presently not available, necessary to implement the recommendation.</li> <li>• Doesn't provide relative data on aircraft originating or terminating at locations other than DMAFB.</li> </ul>
Implementing Body:	DMAFB, MCRC
Potential Funding:	Some additional personnel funding and/or reallocation of resources is required to implement this recommendation.

Administrative Operations

**2) “Good Neighbor Annual Review” by DMAFB**

Issue:	Concerns over the potential negative impact of noise, as well as the potential impacts on the safety and health of Tucson residents, require a specific effort by DMAFB personnel to ensure that all that is feasible is being done to reduce any negative impact on the citizens of Tucson who live and work under the DMAFB flight path.
Findings:	Although noise, safety and health concerns are already major considerations in decisions made concerning DMAFB flight operations now and in the future, it is important that this be better communicated to the public.
Recommendation 2:	<p><b>The MC3 recommends that DMAFB adopt specific requirements that, in addition to the paramount safety of flight operations, the following concerns be included in their internal decision processes:</b></p> <ol style="list-style-type: none"> <li><b>1. New elements incorporated into the flight operations of DMAFB aircraft and local DMAFB regulations should require an internal review that considers any potential negative impact from noise, as well as any potential negative impact on the safety or health of Tucson residents.</b></li> <li><b>2. DMAFB should convene an annual Airspace and Flight Operations internal review to consider any new “mission impacts” on the City of Tucson and identify any changes within the city itself (such as new residential developments) that now must be considered in the</b></li> </ol>

	<b>formulation of local area flight procedures.</b>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>Once these processes are institutionalized they are likely to produce a steady stream of adjustments that reflect the changing mission and growing community of Tucson.</li> <li>This process will heighten the awareness of new base personnel as they transfer into DMAFB.</li> </ul> <p><i>Concerns/Constraints:</i> None identified at this time.</p>
Comments:	<p><i>Potential Effect:</i></p> <ul style="list-style-type: none"> <li>The changes to DMAFB regulations will further improve the “Good Neighbor” commitment of DMAFB to the residents of the City of Tucson.</li> <li>The outcome has the potential to reduce noise where safely feasible while ensuring the highest level of safety for all Tucson residents.</li> </ul>
Implementing Body:	DMAFB
Potential Funding:	Limited to DMAFB

## Research

### **3A) Commission a health study on effects of aircraft noise**

Issue:	Public health risk
Findings:	<p>Some public health literature suggests that there may be risks to the public as a result of aircraft flight operations over residential areas; however, there exists neither a comprehensive review of research to date, nor specific investigation into the unique situation of Tucson. The MC3 recognizes that although it is outside the scope of the current process, the potential effects of aircraft noise and operations on the health and safety of Tucson residents is nonetheless a serious concern that warrants a response.</p> <p>An accurate assessment of risk requires the expertise of skilled and knowledgeable public health specialists with specific experience in real-world research.</p>
Recommendation 3A:	<p><b>The MC3 recommends that a qualified, impartial, peer-reviewed body with expertise in public health and epidemiology (such as an accredited College of Public Health) study the potential health effects of flight operations on Tucson residents. This study should begin with a comprehensive literature review that compares conditions in Tucson with those conditions that are acknowledged to create public health concerns. If the literature review identifies specific health risks related to flight operations, new research should be conducted to assess those risks.</b></p> <p><b>Selection of the body conducting the study, approval of the study design, and oversight of the study will be the responsibility of the MCRC.</b></p>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>With authoritative findings, it will be possible make an accurate assessment, and if further action is indicated, these findings will enable responsible</li> </ul>

	<p>decision-making.</p> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Such research can be costly and time consuming.</li> </ul>
Comment:	Results will have implications for all flight operations over the City of Tucson (e.g., Tucson Police Dept, Life Net, Border Patrol, Tucson International Airport, the Arizona Air National Guard, etc.)
Implementing Body:	The University of Arizona College of Public Health, or other similar body
Potential Funding:	The City of Tucson, Pima County, State of Arizona; initial cost may be mitigated though academic partnership projects

### 3B) Establish a noise measurement program

Issue:	Aircraft noise measurement
Findings:	There is insufficient data to adequately assess the impact of aircraft noise on the Tucson metropolitan area. In addition, accurate noise data are needed to assess any potential health effects of aircraft noise and to inform local governments relative to future land-use planning, provision of community services, neighborhood reinvestment and noise attenuation decisions.
Recommendation 3B:	<b>The MC3 recommends that a program for monitoring aircraft noise be designed and implemented by a qualified, impartial, peer-reviewed body with experience in acoustical measurement. Data will be publicly available to assist in short and long-term decision making. The MCRC will be integral to determination and approval of the scope, design and oversight of the program.</b>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <p>A noise data-collection program would:</p> <ul style="list-style-type: none"> <li>• Provide data helpful to current and future residents and businesses in order to make informed decisions.</li> <li>• Provide data to support the health study in Recommendation 3A.</li> <li>• Provide factual data to inform community planning decisions.</li> <li>• Provide data to assist in prioritization and decision making for noise attenuation programs.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Funding sources have not been identified.</li> <li>• There are concerns that data could be misinterpreted or misused.</li> </ul>
Implementing Body:	City of Tucson, Pima County, State of Arizona, MCRC
Potential Funding:	City of Tucson, Pima County, State of Arizona grants, private citizens groups
Comment:	The goals and purposes of this program must be clearly defined. Study methodology needs to be developed.

Use of Other Airfields

**4) Maximize use of other bases for practice approaches**

Issue:	Aircraft noise impacts the quality of life for some Tucsonans in their business, education and recreational activities.
Findings:	Aircraft noise has an impact on the quality of life for some Tucson residents and businesses.
Recommendation 4	<b>The MC3 recommends that DMAFB to the greatest extent possible use auxiliary airfields (for example, Fort Huachuca, Gila Bend and others) for Visual Pattern and Instrument Approach training. The MC3 acknowledges that DMAFB already employs auxiliary fields for some Visual Pattern and Instrument Approach Training; however, this recommendation asks that more pattern training be accomplished at other airfields for all aircraft assigned to DMAFB. This recommendation will not reduce the number of aircraft assigned to DMAFB, but will further reduce overall noise over Tucson by reducing multiple practice approaches at DMAFB.</b>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• The impact of aircraft noise is, in part, a function of both number and frequency of aircraft overflights. Therefore, any approach and landing training that can be accomplished at fields other than DMAFB reduces the frequency of overflights, thereby lessening the overall impact of aircraft operations on quality of life.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Shifting this training will require DMAFB aircraft to fly to those fields for this training, reducing the time available to accomplish other training events planned for a given mission and thereby increasing the number of training sorties required to meet the current requirements.</li> <li>• The volume of training that can be shifted to auxiliary fields is limited as some home field training is necessary for safe operation of assigned aircraft at DMAFB.</li> </ul>
Comment:	<p><i>Potential effect:</i></p> <p>The reduction of flights over the City of Tucson is difficult to quantify but has the potential to reduce overall noise impact by reducing overflights.</p>
Implementing Body:	DMAFB
Potential Funding:	Some training impact will be borne by DMAFB flight operations; however, additional funding may be required to increase the flying hour program due to the increase in travel time.

Future Missions

**5) Involve the Military Community Relations Committee as a partner to enhance public input into Environmental Assessments and related NEPA processes regarding mission decisions at DMAFB**

*(Note: The MC3 did not reach consensus on mission limitations)*

Issue:	Future missions will affect the residents of Tucson and the long term viability of DMAFB.
Findings:	<p>The MC3 had numerous discussions of multiple options concerning the future of DMAFB missions and the potential impact of future mission decisions on the residents of Tucson as well as the potential impact on the long-term viability of the base.</p> <p>Some members of the MC3 believe that any recommendation that limits the type of aircraft or future mission jeopardizes the long-term viability of the base. Other members of the MC3 believe that <i>not</i> making a recommendation to limit the type of aircraft or future mission jeopardizes the viability of the base.</p> <p>When future mission decisions at DMAFB are undertaken, the USAF considers how these future missions might impact the quality of life in Tucson and the surrounding community and it solicits public input as part of the Environmental Assessment associated with changes in flying mission.</p>
Recommendation 5:	<b>The MC3 recommends that, complementary to the National Environmental Policy Act’s Environmental Assessment process, the Military Community Relations Committee (MCRC) should also help publicize the public input process.</b>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• This recommendation may increase public input into the decision making process, potentially resulting in greater public input into future mission changes at the base.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• None identified at this time.</li> </ul>
Implementing Body:	MCRC, DMAFB
Potential Funding:	Limited to USAF mission decision process

## **B. Land Use/Regulatory**

### **Introduction**

The Land Use/Regulatory Working Group devoted many sessions to studying the meaning and intent of policies and regulations related to land use in the vicinity of Davis-Monthan Air Force Base (DMAFB) as well as the impact of those regulations on residents, property owners, and the greater Tucson community.

Simply understanding the existing regulations is an enormous challenge. The existing regulations were written by highly-specialized technicians, making them difficult for a layperson to clearly interpret. These regulations are often required to use legally-defined terms instead of common vocabulary, and the implications of the regulations are often difficult to determine without additional research or background knowledge. Unless an individual directly participated in drafting legislation or zoning regulations, it is likely that there will be difficulty understanding the various aspects of these regulations. Effectively communicating these regulations should be a high priority of all constituencies in the community, and requires an ongoing effort by all parties.

Arizona's military facilities and operations have been the subject of studies, plans and regulations for many years. The history of land use policy and regulation which acknowledged the presence of DMAFB goes back decades. More recently, in 2001 the Arizona Legislature passed Senate Bill 1120 that appropriated funds to develop comprehensive land use plans in the noise and accident potential zones surrounding military airports. The Arizona Military Regional Compatibility Project is a result of that legislation. It was conceived as a proactive endeavor to address land use compatibility issues. A component of the Compatibility Project was the DMAFB Joint Land Use Study (JLUS) which began in March of 2003. The JLUS resulted in a set of strategies and recommendations that supported action by a variety of public and private entities specifically related to compatible land use around DMAFB.<sup>7</sup> The land use policies of DMAFB JLUS were codified in State Statute (ARS §28-8481J).

Since the adoption of the Airport Environs Overlay Zone (AEZ) by the Tucson City Council, Tucson property owners and residents have been engaged in a series of efforts to address safety, health, economic and lifestyle impacts related to DMAFB flight operations. The nature of land use and related regulations limits their ability to fully address such a wide range of impacts. As with many land use considerations, a variety of constituencies in the community have been motivated to speak out and request that a comprehensive review and resultant actions be taken. These concerns are valid and can serve the community well—if constructive dialogue among a variety of constituencies continues and recommended solutions are implemented.

The Issues in this report have been drawn from input gathered from MC3 members and the public, via the MC3 Public Forums, and were discussed at length. The working group attempted to acknowledge that the same issues may have different impacts depending on one's perspective. The Findings in this report are not meant to be a complete listing of facts, but represent key statements that can be substantiated with data. There are additional facts that we may or may not have included in the Findings. Some of these are included as exhibits to this report. The Comments provide an overview of Working Group discussions on recommendations. Lastly, the Other Solutions/Actions Considered are not comprehensive in nature but do reflect points of discussion and distinctly different points of view within the Working Group and MC3.

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<sup>7</sup> Based on preliminary research conducted by one member of the MC3, the member concluded that “no other base and local jurisdiction in the United States have as many restrictions on land use beyond 30,000' as do DMAFB and Tucson.”

## *Summary of Recommendations*

### Joint Land Use Study Participation

- 1A) Form communication and coordination groups
- 1B) Develop City and County policy for providing timely notice to DMAFB of all development plans

### AEZ Regulatory Impacts

- 2A) Eliminate sound attenuation requirement for residential expansions and reconstruction
- 2B) Create a sound attenuation/noise mitigation construction program and tax incentives for sound attenuation
- 2C) Expand opportunities for purchases, land exchanges, and transfer of development rights of devalued use-restricted property

### Noise Contours

- 3) Include noise contours as additional criteria for concentrating neighborhood reinvestment

### Development Southeast of DMAFB

- 4) Purchase priority parcels for open space and relocation of uses

### Real Estate Disclosure

- 5) Enhanced real estate disclosure earlier in the transaction process

### AEZ Regulatory Predictability

- 6) Standardize review of AEZ compliant development proposals

## Recommendations

### Joint Land Use Study Participation

#### 1A) Form communication and coordination groups

Issue:	Concerns that some interests were not informed of and included in the Joint Land Use Study (JLUS) process.
Findings:	The JLUS has been completed, but implementation through City and County zoning regulations is on-going. Despite numerous public notices and advice from a broad range of interests, it is likely that parties who would otherwise have been interested in taking part in the JLUS process were not aware of the process or otherwise discounted the implications of the JLUS to the northwest of DMAFB. The process was also focused more on future development southeast of the DMAFB runway than on the developed neighborhoods northwest of the runway.
Recommendation 1A:	<b>The MC3 recommends immediate formulation of the below described ongoing coordinating committee (the Military Community Relations Committee - see Communications Recommendation #3), and an internal DMAFB Community Initiatives Team as per recommendations of the JLUS (Sections 6.2.5 and 6.2.6)</b>
Rationale:	<i>Benefits/Opportunities:</i> <ul style="list-style-type: none"><li>• Efficient and effective communication between the City of Tucson, Pima County, area homeowners and landowners, other local organizations, other local jurisdictions, and DMAFB is critical to the successful implementation of the JLUS.</li></ul> <i>Concerns/Constraints:</i> <ul style="list-style-type: none"><li>• Inability to ensure that all stakeholders are included.</li><li>• No immediate redress of issues.</li><li>• National security issues concerning what can be shared.</li><li>• Cost and allocation of resources, including manpower, to keep information current and to staff the MCRC and Community Initiatives Team.</li></ul>

Comments:	<p>Section 6.2.5 <i>Ongoing Organization for JLUS Implementation</i> recognizes the need for communication among stakeholders, including land owners, to wit, “To provide a means to maintain communication and coordination as the JLUS recommendations are being carried out, the City, County and Base should consider the <b>formation of an ongoing coordinating committee</b> (emphasis added). This committee, in addition to representatives from the City, County and Base, should include representatives from area homeowners, landowners and other local organizations that have an interest in compatible land use around the Base. This committee could also serve as the interface with the State Military Affairs Commission proposed by the Governor’s Military Facilities Task Force.”</p> <p>Additionally, JLUS Section 6.2.6 <i>Davis-Monthan AFB Community Initiatives Team</i> promotes an additional source of communication between the Base and the community: “As a means of maintaining effective liaison between (sic) with the surrounding community, the Base should consider the <b>formation of a dedicated “Community Initiatives Team”</b> (emphasis added). Made up of individuals with an understanding of base operations as well (as) development issues, this team, working as part of the base’s command structure, would focus on land use compatibility issues, and would serve as a consistent mechanism for outreach and input by surrounding communities on environmental and growth issues. The team would also be tasked with working at the staff level with other implementing organizations during the JLUS implementation process.” <i>Note: <u>This initiatives team should interact with the Military Community Relations Committee.</u></i></p>
Implementing Bodies:	City of Tucson, Pima County, DMAFB
Potential Funding:	Costs are limited governmental entities’ staff time, use of office supplies, mailings, meeting advertisements, and place of meetings (if not within government building facilities).

**1B) Develop City and County policy for providing timely notice to DMAFB of all development plans.**

Issue:	As an adjunct to MC3’s recommendations for a DMAFB “Good Neighbor” Annual Review” (DM Operations Recommendation #2) and for an on-going Military Community Relations Committee (Communications Recommendation #3), there is a need for DMAFB personnel to be aware of development proposals in the vicinity of DMAFB.
Recommendation 1B:	<b>The MC3 recommends that the respective jurisdictions, including the City of Tucson and Pima County, formulate a policy whereby the respective staffs will provide timely notification to DMAFB of all subdivisions and development plans which have been approved for development, in addition to all development requests which require a public hearing, including plan amendments, rezonings, and conditional use permits, within the Military Airport Vicinity Box of DMAFB.</b>

Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• DMAFB’s awareness of new development in the community will better enable the formulation of local area flight procedures.</li> <li>• DMAFB’s recommendations on discretionary (subject to approval at public hearing) development proposals will enable better informed decisions to be made by local governing bodies.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Potential for time delays on discretionary development proposals.</li> <li>• Difficulty in ascertaining compliance on phased developments.</li> </ul>
Comments:	<p>This notification policy will provide DMAFB up-to-date information on non-discretionary development proposals in most of the major military flight path areas in metropolitan Tucson. Such information will aid DMAFB’s consideration of local area flight path procedures. Additionally, DMAFB personnel will have the opportunity to influence discretionary development proposals and to include recommendations against the proposals or conditions of approval for the proposals.</p> <p>The Pima County Comprehensive Plan currently contains this recommended policy relative to discretionary development requests under <i>Military Airport Regional Plan Policies</i>. Additionally, Arizona Revised Statutes (ARS §11-829) requires notice to the military airport of rezoning proceedings on Land Located within Territory in the Vicinity of a Military Airport (Military Airport Vicinity Box).</p>
Implementing Bodies:	City of Tucson, City of South Tucson, Pima County
Potential Funding:	Costs are limited to staff time, reproductions, and mailings.

Airport Environs Overlay Zone (AEZ) Regulatory Impacts

**2A) Eliminate sound attenuation requirement for residential expansions and reconstructions**

Issue:	Concerns regarding economic and other impacts of Airport Environs Overlay Zone (AEZ) regulations on homeowners, businesses and landowners, both northwest and southeast of the DMAFB runway, as well as additional expense of sound attenuation for residential expansions and reconstructions.
Findings:	Despite the Working Group’s finding that additional costs for sound attenuation may be low in light of Model Energy Code requirements, the public remains concerned about such additional costs.
Recommendation 2A:	<b>The MC3 recommends that the State of Arizona and the City of Tucson eliminate the ARS §28-8482 (D) and the AEZ Land Use Code requirements for sound attenuation associated with new construction done as part of an expansion or reconstruction of existing residential units for which permits were issued prior to 1/1/05.</b>

Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• Eliminates additional expense of sound attenuation above the expense of the current Model Energy Code.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Lesser sound attenuation.</li> <li>• Does not address outdoor lifestyles.</li> </ul>
Comments:	<p>The requirement for the sound attenuation of structures located within the AEZ is based on recommendations included in JLUS and developed according to ARS §28-8482. Although sound attenuation associated with expansions and/or reconstruction of existing structures was not specifically addressed in the JLUS, it is within the City’s authority to include such requirement. However, the working group questions the value of the requirement of sound attenuation for the area of the partial expansion or reconstruction of a dwelling unit lacking noise attenuation for the entire unit. In addition, the requirements of the Model Energy Code, which apply to construction within both the City and the County regardless of location within or outside of the AEZ, provide significant noise reduction qualities by virtue of the building standards in the Code which are designed to promote energy-use (building heating and cooling) efficiency. Any Land Use Code amendment will require Mayor and Council approval.</p>
Implementing Body:	City of Tucson, Pima County, State of Arizona
Potential Funding:	Costs are limited to those associated with processing a County ordinance and State statute amendments, including staff time, materials and reproductions, mailings, newspaper advertisements.

**2B) Create a sound attenuation/noise mitigation construction program and tax incentives for sound attenuation**

Issue:	New AEZ regulations do not reduce noise within existing residences; and, retrofitting for noise attenuation for other than new construction is expensive.
Recommendation 2B:	<p><b>The MC3 recommends:</b></p> <ol style="list-style-type: none"> <li><b>1) Creation of a sound attenuation program similar to that of the successful program in the vicinity of Tucson International Airport (TIA). Use of the current DMAFB Air Installation Compatible Use Zone (AICUZ) noise contours is recommended for defining the initial area covered by the program. The program can be expanded as funding allows. Formulation of a committee is recommended to specifically identify and recommend funding sources and program specifics for the on-going sound attenuation program.</b></li> <li><b>2) Provision of a State tax incentive/credit for private expenses incurred from voluntary retrofitting for sound attenuation for dwellings located within the Military Airport Vicinity Box.</b></li> <li><b>3) Exploration of funding options to include user fees, general fund revenues, improvement districts, tax increment financing, grants, bonds, etc.</b></li> </ol>

Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• A sound attenuation program would provide funds for real noise reduction inside homes within older residential subdivisions.</li> <li>• A tax incentive program would help off-set expenses for voluntary sound attenuation for homes ineligible for the sound attenuation program.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Depending on the sound attenuation program funding source(s), potential demand on tax revenues.</li> <li>• A sound attenuation program could likely have limited geographic eligibility, leading to issues of equity.</li> <li>• A tax incentive program would be a drain on State revenues.</li> <li>• Historic and older non-historic residences are typically difficult to retrofit.</li> <li>• Increased utility costs of alternative air conditioning systems.</li> <li>• Does not address outdoor lifestyles.</li> <li>• Time delay for achieving funding.</li> <li>• Challenge of determining fund allocation priorities.</li> </ul>
Comments:	<p>Use of the current AICUZ contours to define the sound attenuation program boundaries is a rational prioritization which begins with the residential areas most impacted by aircraft noise, i.e. the 65 Ldn and higher aircraft noise contour area generated from DMAFB’s current missions. In addition, the Working Group understands that any federal funding that may be secured for the program needs to relate to the AICUZ noise contours derived from DMAFB’s current missions.</p> <p>Use of the Military Airport Vicinity Box to define the tax incentive/credit boundaries for voluntary sound attenuation is based on this statutorily defined area being apt to be affected by military aircraft overflights. This rectangular “Vicinity Boundary” covers 90,500 acres per the JLUS and extends from the Craycroft Road vicinity of the Catalina Foothills to the north to the Houghton Road vicinity of the Pima County Fairgrounds to the south.</p> <p>The main problem of a sound attenuation program is the funding source. Funding for the TIA program comes from airline ticket sales. Funding sources will need to be researched, whether Federal, State, or local.</p>
Implementing Bodies:	City of Tucson, Pima County, State of Arizona
Potential Funding:	Various sources including Federal, State, or local revenues

**2C) Enhance opportunities for purchases, land exchanges, and transfer of development rights of devalued use-restricted property**

Issue:	Current or future devaluation of residential and commercial developed and vacant property as a result of Airport Environs Overlay Zone (AEZ) regulations and use restrictions. Perception of negative impact by current citizens, future buyers and investors.
Findings:	<ol style="list-style-type: none"> <li>1) As a result of the implementation of the JLUS, the expanded AEZ and additional use restrictions of the AEZ have reduced the value of non-residentially-zoned property according to several private land owners in the area southeast of DMAFB and according to a representative of the University Science and Technology Park.</li> <li>2) Review of residential real estate transactions and Assessor’s Office tax records for this area does not currently demonstrate devaluation related to DMAFB operations or to adoption of AEZ land use regulations. The regulations may not have been in place for a sufficient period for the impact on residential real estate transactions to be documented. Further, possible devaluations might not be discernable due to an unprecedented healthy home sales market. It is also possible that the current practice of disclosing a home’s location in the “Vicinity Box” rather than more complete and detailed disclosure of a home in relationship to DMAFB and overflight activity in real estate sales transactions may be postponing a devaluation impact. Therefore, no specific recommendations are made to address the possibility of future devaluation of resident homes, other than to reiterate that all property owners negatively impacted by the AEZ regulations and restrictions should be made aware of funding programs and the community should seek to create additional programs and expand funding for existing programs. (Appendix F, Exhibits 1, 2, &amp; 3)</li> </ol>
Recommendation 2C:	<p><b>The MC3 recommends that:</b></p> <ol style="list-style-type: none"> <li>1) <b>The owners of <u>any</u> property devalued as a result of the JLUS process be made aware that they may either petition existing government funding mechanisms whereby the land may be purchased or seek a land exchange or purchase of development rights with the City or County.</b></li> <li>2) <b>The County pass an ordinance which allows transfer of development rights (TDR).</b></li> <li>3) <b>The State amend the existing statute pertaining to cities’ ability to engage in transfer of development rights in a manner similar to the statute now in place for Counties in order to provide an effective transfer of the development rights tool.</b></li> <li>4) <b>The State pass a statute allowing inter-jurisdictional transfers of development rights as a measure to increase the viability of this tool.</b></li> <li>5) <b>The State’s Congressional delegation be lobbied to secure budget appropriation(s) for the purchase of critical parcels around DMAFB.</b></li> </ol>

	<p><b>6) Future county bond referendums include potential for purchase of impacted property.</b></p>
<p>Rationale:</p>	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• Will provide potential measures of relief for property owners who have suffered economically as a result of local zoning regulations amended per the JLUS recommendations.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Land purchases would be based on fair market value and would not necessarily compensate for loss of property value.</li> <li>• Time delay for passage of regulations or budget appropriation provisions.</li> <li>• Difficulty balancing sending area with receiving area for development rights transfers.</li> </ul>
<p>Comments:</p>	<p>There are two current public funding sources which can be used for the purchase of undeveloped land in the vicinity (mainly southeast) of the runway. These funding sources are:</p> <ul style="list-style-type: none"> <li>• The Davis-Monthan Open Space Bond Fund - \$10 million is available for the purchase of open space within the southeast Approach-Departure Corridor from willing sellers through this voter-approved source; and</li> <li>• The Arizona State Military Installation Fund (MIF) - \$4.8 million annually is available State-wide for projects, including purchases of private land and relocation of incompatible uses in the vicinity of military installations.</li> </ul> <p>Beyond the issue of compensation, however, are the issues of increased time on the market, uncertainty of permitted uses leading to staff delays of use decisions and to investment reticence which would be eliminated with land purchases. In addition, the resultant open space promotes the JLUS recommendations for open space provision within the Approach-Departure corridor for safety purposes.</p> <p>Other potential options include:</p> <ul style="list-style-type: none"> <li>• Department of Defense Land Acquisition/Purchase of Conservation Easements - As per JLUS Section 6.2.7, this would require help from the State's Congressional delegation to secure a Department of Defense budget appropriation(s) for the purchase of critical parcels around DMAFB. These could be matching funds to the MIF; and</li> <li>• Other processes which may have a positive result similar to outright purchase of privately-held property include land exchanges, purchase of development rights (JLUS Section 6.2.14), and transfer of development rights (TDR) (JLUS Sections 6.2.15 and 6.2.16).</li> </ul> <p>Relative to TDR's, the Arizona State Legislature has given counties, cities and towns the authority to adopt TDR ordinances. Pima County currently is working on a draft ordinance. The concept of a TDR ordinance is to identify community assets to be preserved and create a mechanism by which that preservation is accomplished through the transfer of development rights. TDR's may apply to</p>

	vacant zoned land as well as established residential neighborhoods. The adoption of a TDR ordinance in Pima County and the City of Tucson could be beneficial to protecting the current and future mission of the base as well as property owners in proximity to the base.
Implementing Bodies:	City of Tucson, Pima County, State of Arizona
Potential Funding:	<p>Recommendation #1 – DMAFB Open Space Bond Fund (Pima County), State of Arizona Military Installation Fund.</p> <p>Recommendations #'s 2 through 4 – Costs are limited to those associated with processing County ordinance/State statute amendments, including staff time, materials and reproductions, mailings, newspaper advertisements.</p> <p>Recommendation #5 – Federal Government.</p>

Noise Contours

**3) Include noise contours as additional criteria for concentrating neighborhood reinvestment**

Issue:	Potential increase in residential rental property and the corresponding negative impacts on neighborhood character as a result of noise impacts from flight operations or AEZ regulations.
Recommendation 3:	<b>Apart from the specific procedures and evaluations used in programs such as “Back to Basics”, the MC3 recommends that the City and County consider the possibility of investment in existing residential neighborhoods within and adjacent to the noise and approach-departure zones delineated in the AEZ which, in addition to other established criteria, are also affected by the AEZ. In making informed neighborhood investment decisions, community decision-makers should consider in the evaluation, the neighborhood’s location relative to the AEZ and DMAFB.</b>
Comments:	This recommendation is designed to maintain quality of life within established neighborhoods and reduce out-migration of residential property owners.
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• See comments.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Due to budget limitations, neighborhood reinvestment concentration may reduce reinvestment in other neighborhoods not affected by aircraft noise.</li> </ul>
Implementing Body:	City of Tucson, Pima County
Potential Funding:	City of Tucson, Pima County

Development Southeast of DMAFB

**4) Purchase priority parcels for open space and relocation of uses**

*(Note: former Draft Recommendation 4A is now in Chapter 4)*

Issue:	The JLUS recommends exceptions to allow for new residential uses on existing residentially-zoned properties and to allow new business uses on existing commercially-zoned properties within the Approach-Departure Corridors and the Noise Control Districts. Residential and commercial uses not listed in the AEZ would constitute inappropriate land uses in the largely undeveloped area southeast of the DMAFB runway.
Findings:	<p>There is limited undeveloped commercial and residential zoning (and limited existing commercial and residential uses) within the ADC-2 portion of the southeast corridor extending 30,000 feet from the end of the runway (approximately five miles). A large portion of the ADC-2 area is the University of Arizona Science and Technology Park. There is considerably more undeveloped rural residential zoning and more existing residential uses within the ADC-3 portion of the corridor extending from 30,000 feet to 50,200 feet from the end of the runway. There are commercial restrictions in ADC-2 and ADC-3 which limit Floor Area Ratio (FAR), building heights, and numerous non-residential uses which are completely prohibited. In ADC-2, there is a restriction on the number of employees per acre. This restriction does not exist in ADC-3. A very large portion of the ADC-3 area is undeveloped land owned by the State of Arizona. ADC-3 extends west beyond I-10 and encompasses Pima County fairgrounds. (see additional Findings in Chapter 4, section B)</p> <p>The Davis-Monthan Open Space Bond Fund and the Arizona State Military Installation Fund (MIF) (both described in Recommendation #2C) are existing resources to encourage open space preservation and compatible development near DMAFB. MIF was established as “a mechanism to compensate willing landowners within the territory of Arizona’s military airports, military facilities, and operating areas to ensure compatible land use around Arizona’s military installations.” Also listed under #2C is the potential for federal funding assistance and other mechanisms, such as land exchanges or purchase or transfer of development rights, which may help achieve compatible development.</p>
Recommendation 4:	<p><b>1) The Davis-Monthan Open Space Bond Fund Committee and the County Board of Supervisors should move as quickly as possible to purchase priority parcels for open space within the southeast Approach-Departure Corridor.</b></p> <p><b>2) Property owners of parcels with non-conforming zoning/uses within the AEZ area southeast of the DMAFB runway can petition the Arizona State Military Installation Fund (MIF) for funds for the purchase of these parcels and/or relocation of these uses.</b></p>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• Purchase of undeveloped parcels and buyout of nonconforming uses with nonconforming zoning will reduce the potential for development encroachment southeast of the DMAFB runway and may therefore serve to preserve the viability of DMAFB’s missions.</li> </ul>

	<p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Land purchases would be based on fair market value and would not necessarily compensate for loss of property value.</li> </ul>
Implementing Body:	DMAFB Open Space Bond Committee, Pima County, City of Tucson, State of Arizona Military Installation Fund
Potential Funding:	Open Space Bond Fund (Pima County), State of Arizona Military Installation Fund
Other solutions/ actions considered:	Government-initiated rezoning of non-conforming undeveloped land within the southeast AEZ was considered, but rejected as too onerous an undertaking.

Real Estate Disclosure

**5) Enhance real estate disclosure earlier in transaction process**

Issue:	Concerns regarding insufficient real estate disclosure regarding impact of DMAFB flight operations.
Findings:	<p>Current State statutes appear to exclude disclosure requirements for sales of existing residences on subdivided lots or for sales of vacant subdivided lots where a public report was issued prior to December 31, 2004 relative to Military Training Routes or where a public report was issued prior to December 31, 2001 relative to the Territory in the Vicinity of a Military Airport (Military Airport Vicinity Box). This apparent disclosure omission includes the older neighborhoods northwest of the DMAFB runway. <i>(Note: This has been resolved under recently enacted House Bills 2060 and 2814)</i></p> <p>The JLUS Section 6.2.19 <i>Enhanced Local Notification and Disclosure</i> also recognizes the need for better disclosure requirements for military facilities, citing that, “The Governor’s Military Facilities Task Force is recommending that current notification and disclosure provisions in State law for military facilities be strengthened, including a recommendation that the Arizona Department of Real Estate develop a ‘rule’ to strengthen and standardize the notification process for its licensees.” The JLUS recommendations have also been adopted as part of County Comprehensive Plan <i>Military Airport Regional Plan Policies</i> which include:</p> <ul style="list-style-type: none"> <li>• Requiring AEZ notices and maps to be posted in real estate sales and leasing offices, including identification of noise contours; and</li> <li>• Requiring AEZ notices placed in model home complexes and sales offices advising potential buyers that the area is subject to military aircraft overflight.</li> </ul> <p>Due to concerns expressed about the potential for reduced property value or for increased difficulty of property sales as a result of disclosure of location of property within the Noise Control Districts (NCD), it is recommended that both the location within the NCD and the location within the current mission AICUZ noise contours be disclosed, if applicable. If a given property is not located within the current mission AICUZ noise contours, then the buyer can understand that the NCD location is relative to potential future noise impacts, not current noise impacts.</p>

<p>Recommendation 5:</p>	<ol style="list-style-type: none"> <li>1) <b>State statutes pertaining to real estate transactions should be amended to include military airport-related notification and disclosure requirements for residences within older residential subdivisions. This has been resolved under the 2006 House Bills 2060 and 2814. In addition, ARS §28-8481G &amp; H require disclosure of property within a high noise and accident potential zone.</b></li> <li>2) <b>Bilingual AEZ notices and maps should be required to be posted in real estate sales and leasing offices and model home complexes and sales offices (if the sales site is within an AEZ area), which include text and maps of military overflight areas, including codified Approach-Departure Corridors and identified current mission AICUZ noise contours as well as Noise Control District contours under current local zoning code.</b></li> <li>3) <b>AEZ information and maps should be required as part of real estate sales/purchase offers or lease agreements and closures of such which provide simply-stated information about the property’s proximity to the military airport and its potential for associated noise impacts based on military overflight maps and text explanations concerning codified Approach-Departure Corridors and current mission AICUZ noise contours as well as Noise Control District contours under current local zoning code. Any information sheet would require an initial(s) by the buyer/leaser indicating that he/she is aware of the potential impacts of the military airport operations prior to any closing/final lease agreement signing.</b></li> <li>4) <b>The real estate listing disclosure (Multiple Listing Service) should provide a more descriptive location than “Vicinity Box” for a given site’s location relative to the military airport. Information should include a descriptive location within the AEZ relative to the Approach-Departure Corridor-1, 2, or 3 and/or the Noise Control District-A or B, if applicable. See Exhibit 5 - Sample Disclosure.</b></li> <li>5) <b>An annual request will be made by the Military Community Relations Committee (MCRC) to the Pima County Assessor’s Office to track real estate transactions over time in the areas regulated by AEZ’s noise and safety zones with the intent to monitor and identify trends, such as home value appreciation or depreciation relative to comparable real estate assets in unregulated areas, etc. Any early detection of negative trends documenting the devaluation of residential real estate attributable to AEZ regulations and restrictions should be forwarded to the MCRC for review/action.</b></li> <li>6) <b>As part of the certification exam for real estate salesperson and broker licensure, the Arizona Department of Real Estate should require questions pertaining specifically to airport vicinity disclosure requirements and related airport noise disclosure necessity. As part of continuing education requirements for real estate salespersons and brokers, the Arizona Department of Real Estate should require training coursework pertaining to airport vicinity disclosure requirements and related noise disclosure necessity.</b></li> </ol>
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Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• Adequate notice and disclosure regarding military overflights and current and potential noise impact areas will ultimately help sustain DMAFB operations by advising potential land owners/users of potential noise and safety impacts associated with the military airport.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• It may take longer to sell or lease real estate with full disclosure of DMAFB flight operations and potential noise impacts.</li> <li>• Devaluation of real estate could occur with full disclosure of DMAFB flight operations and potential noise impacts.</li> <li>• Controversy of what is appropriate for disclosure.</li> <li>• Written disclosure and actual experience may not align.</li> <li>• Need to define what constitutes an actionable trend indicator.</li> <li>• A methodology must be developed to determine and validate causal factors to devaluation of property.</li> </ul>
Implementing Bodies:	State of Arizona, City of Tucson, Pima County
Potential Funding	<p>Recommendation #1 – Costs are limited to those associated with processing State statute amendments, including staff time, materials and reproductions, mailings, newspaper advertisements.</p> <p>Recommendation #'s 2 through 4 – No funding necessary.</p>
Other solutions/ actions considered:	<p>Requiring avigation easements and indemnification/release of liability language on all recorded subdivision plats was considered, but rejected because avigation easements are already required on a case by case basis as part of rezoning conditions and provision of indemnification/release of liability language on plats may not be legally viable.</p> <p>Installing overflight signage at roadway intersections within the area covered by noise contour lines was considered, but rejected because of the possibility of unnecessary stigma, especially in light of other disclosure requirements.</p>

AEZ regulatory predictability

**6) Standardize review of AEZ compliant development proposals**

Issue:	All investment seeks regulatory predictability. Unnecessary time delays in governmental decisions on land use proposals unduly impacts landowners.
Recommendation 6:	<p><b>1) Creation of an “AEZ Compliance Checklist” utilized by City and County staff to standardize review of development proposals against the restrictive overlay zone provisions for uses and safety standards. (see example in Appendix F, Exhibit 6)</b></p> <p><b>2) Add an additional requirement to create a standardized “Proposed AEZ Use Form” to be submitted by the would-be developer would ensure sufficient information concerning the use is revealed in order for governmental staff to make timely decisions concerning the permissibility of a proposed use. (see example in Appendix F, Exhibit 5)</b></p>
Findings:	<p>The restrictions on development which were recommended in the JLUS and codified in the AEZ are some of the most restrictive in the United States. For ADC-3 located between 30,000 feet and 50,200 feet off the end of the runway, the restrictions are unprecedented and have received recognition and accolades throughout the country as providing protection to DMAFB’s current and future missions.</p> <p>The land use policies and regulations have been adopted and are supported by the City of Tucson and DMAFB. The JLUS and revised AEZ code were designed to provide certainty for future development. Land owners have postponed development for several years, waiting for definitive standards. Now that those standards are in place, land owners would like to proceed with processing development plans for non-residential development that are compliant with the JLUS guidelines and the AEZ regulations.</p> <p>Time delays are experienced for development requests due to the cautiously deliberate execution of the AEZ regulatory guidelines.</p>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• Standardized information forms and checklists should reduce staff review times by ensuring complete information is received regarding use proposals and by providing staff with a tool for consistent and complete review of proposals against the AEZ code.</li> <li>• The information form would provide written evidence of the description of the proposed use should the actual development plan/permit application deviate from any initial proposal deemed compliant with the AEZ.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• AEZ compliant development at present could potentially be deemed encroachment in the future.</li> <li>• Many of the land uses are exempt from AEZ compliance.</li> </ul>
Implementing Bodies:	City of Tucson, Pima County
Potential Funding:	Costs are limited to those associated with creation and processing of the checklist and use forms, including staff time, materials and reproductions, mailings.

## **C. Communications**

### **Introduction**

The Communications Working Group focused on the need for greater, more effective and varied forms of communication and information sharing between DMAFB and the community.

The Working Group first assessed the existing forms of communication, areas for improvement, and existing opportunities.

*Existing forms of communication include:*

- *DMAFB's Public Affairs (PA) hotline (228-5091):* Established as a mechanism to contact DMAFB on any issue regarding operations on the installation. Currently serving as a noise concern line, but will be revamped.
- *DMAFB and DM50 education efforts:* Outreach to explain DMAFB operations
- *DMAFB Website (www.dm.af.mil):* Community portion has been under construction, and could include a calendar and other relevant information for neighbors and other local stakeholders (as long as security is not compromised).
- *Media advisories*
- *MC3*

*Areas for improvement/needs include:*

- Ways for citizens to voice concerns/feel heard
- Updated and easily accessed calendar with upcoming operations events (e.g., snowbird operations schedule)
- More effective and broader outreach and notice of community-relevant meetings/processes (e.g., JLUS) to all effected stakeholders
- Availability of relevant information to increase community understanding of military operations and related issues
- More opportunities for dialogue between DMAFB and the community

*Opportunities:*

- DMAFB is revamping its website and hotline and has been open to MC3 input
- JLUS calls for a Community Initiatives Team, which has been under consideration by DMAFB
- City of Tucson's Department of Neighborhood Resources has a DMAFB link on its website (<http://www.ci.tucson.az.us/dnr/>) and invited DMAFB or MC3 to learn more about the City's method and technology for receiving citizen comments
- University of Arizona's Campus Community Relations Committee offers a relevant and successful example of a multi-stakeholder forum for information sharing, dialogue and problem solving between the community and a major institution

The primary challenge for the Communications recommendations was funding. While recommendations 1 and 2 are for DMAFB specifically, 3 and 4 would be implemented and funded collaboratively. This cost sharing would likely make these recommendations more easily implemented.

**Summary of Recommendations**

- 1) Revise DMAFB Website
- 2) Revamp DMAFB Caller Hotline
- 3) Create ongoing Military Community Relations Committee (MCRC)
- 4) Increase overall publicity and information sharing

**Recommendations**

**1) Revise DMAFB Website**

Recommendation 1:	<p><b><u>DMAFB Website:</u></b>  <b>MC3 recommends that DMAFB take into account the following suggestions as they revise their website and create community pages similar to those in Luke AFB’s website (<a href="http://www.luke.af.mil/CommunityInterests/">http://www.luke.af.mil/CommunityInterests/</a>).</b></p> <p><i>Particularly useful components could include:</i></p> <ul style="list-style-type: none"> <li>- A regularly updated calendar with upcoming base events and operations, posted as early as possible</li> <li>- An on-line form for submitting comments/questions, as well as requests for quiet during large outdoor community events</li> <li>- FAQs</li> <li>- Detailed and user friendly maps</li> <li>- Links to key MC3 documents and relevant websites (e.g., City’s Department of Neighborhood Resources and the proposed Military Community Relations Committee)</li> </ul> <p><i>The working group also recommends:</i></p> <ul style="list-style-type: none"> <li>- Easily navigated format</li> <li>- Neutral, friendly and accessible language</li> </ul>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• Could provide the internet savvy public with easily accessed information about base operations as well as a method of submitting comments/questions.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Staff costs associated with creating and maintaining the site</li> </ul>
Implementing Body:	DMAFB
Potential Funding:	DMAFB

**2) Revamp DMAFB’s Caller Hotline**

Recommendation 2:	<p><b><u>D-M Hotline:</u></b>  <b>Encourage D-M to model its hotline after the City of Tucson’s Mayor and Council Comment Line that would give callers more options for gaining information, asking questions, or commenting.</b></p> <p>This type of phone system might include several options:</p>
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	<ol style="list-style-type: none"> <li>1) Recording – “if you would like more information about base operations, or would like to ask a question or submit a comment via the internet, please go to [www.dm.af.mil] or send us a message at [email address]”</li> <li>2) Option to leave a recorded message (that would then get forwarded to the appropriate person)</li> <li>3) Option for talking with a live person</li> <li>4) Option to hear recorded information about upcoming events</li> </ol> <p>The DMAFB inquiry system should include an anticipated response time for those who submit questions or information requests.</p>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• Giving more options could better meet the varied comfort and internet accessibility levels of callers, as well as reduce number of calls to a live person, and thus staff time needed.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Cost of the phone system; staff costs of message retrieval, response and management of entire process; upcoming Public Affairs staffing cuts</li> </ul>
Implementing Body:	DMAFB
Potential Funding:	DMAFB

### 3) Create ongoing Military Community Relations Committee (MCRC)

Recommendation 3:	<p><b><u>Military-Community Relations Committee (MCRC):</u></b>  <b>Create a multi-stakeholder forum, similar to the University of Arizona’s Campus Community Relations Committee, focusing on military and community related issues.</b></p> <p>Features of this committee could include:</p> <ul style="list-style-type: none"> <li>• <i>Purpose:</i> Dialogue, forum for raising and discussing concerns, joint problem solving, education, monitoring of recommendations, etc. Advisory to DMAFB, the City and the County, who would seriously consider the MCRC’s recommendations.</li> <li>• <i>Establishment:</i> The interim post-MC3 oversight committee should work with DMAFB, City, County, neighborhood and local business representatives to set up the MCRC and first meeting to ensure balanced participation and an effective process.</li> <li>• <i>Participants:</i> A broad array of stakeholders - neighborhood representatives, local businesses, non-residential landowners, DMAFB, City of Tucson (Planning Dept., Council representatives), Pima County, other local jurisdictions and elected officials, and other relevant stakeholders. Could be divided into two subcommittees—northwest and southeast—given geographically distinct concerns, or otherwise ensure neighborhood representation from geographically relevant areas.</li> <li>• <i>Meetings:</i> Regular MCRC meetings (monthly or bi-monthly meetings) that the public can observe with brief time on the agenda for comments/questions as in the MC3. Annual open public forum/town hall for information sharing, public input and discussion, and to help guide agenda setting for the coming year.</li> </ul>
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	<ul style="list-style-type: none"> <li>• <i>Shared leadership:</i> Steering Committee consisting of neighborhood, local business, DMAFB, City of Tucson, and Pima County representatives.</li> <li>• <i>Commitment and support:</i> Secure long-term commitment from the key entities listed above through staff and other support, annual participation by the base leadership, mayor and county administrator, etc.</li> <li>• <i>Clear operating principles:</i> Operating principles that will encourage participants to feel ownership for the forum, that specify decision making, that provide a process for getting recommendation to decision makers for consideration, etc.</li> </ul>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• Offers a regular opportunity for discussion, information sharing and collaborative problem solving on base-community issues. Could help mitigate base-community tension on future issues.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Staff and administrative costs associating with managing process;</li> </ul>
Implementing Body:	Steering Committee consisting of representatives from D-M, City of Tucson, Pima County, neighborhood representatives (neighborhood/homeowners associations, NW/SE), non-residential landowners, and local businesses
Potential Funding:	DMAFB, City of Tucson, Pima County

#### 4) Increase overall publicity and information sharing

Recommendation 4:	<p><b>Publicity:</b>  <b>Encourage increased publicity of information of community interest via a variety of means listed below in order to more effectively reach appropriate audiences.</b></p> <p><b>1) Website, hotline, forum and other relevant general information</b></p> <p><b>2) Specific upcoming meetings, important processes (e.g., Environmental Impact Statements), and other activities of potential interest to the public (security concerns permitting)</b></p> <p>Methods could include:</p> <ul style="list-style-type: none"> <li>• <i>No-cost/less expensive:</i> media releases, links on relevant websites (e.g., City’s Department of Neighborhood Resources), City’s Info Guide (published annually), real estate packets, neighborhood and homeowners associations, City ward offices, neighborhood newsletters, etc.</li> <li>• <i>Higher cost options:</i> door hangars, magnets, phone book info page, etc.</li> </ul>
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• Necessary in order to help public gain access to these information sources and communication mechanisms.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Who to fund more costly methods; staff and administrative costs of managing program</li> </ul>
Implementing Body:	Steering Committee of Military Community Relations Committee
Potential Funding:	Shared

## CHAPTER 3: STATEMENTS OF RESPONSE AND ADDITIONAL FINDINGS

### **A. Davis-Monthan Operations**

The MC3 offers the following statements in response to specific DMAFB Flight Operations concerns raised by the public. These statements provide accurate information in areas where information has been lacking. Formal recommendations were not required to address these areas. An additional statement on long term planning is also included.

#### ***DMAFB Operations***

##### **1. Quiet Technology**

Issue: A suggestion was offered that research should be done on quiet technology, enabling military aircraft to be designed quieter.

Statement of Response: Military aircraft design is driven by performance standards based on maneuverability and pilot survival. Noise cannot be given a higher consideration than these fundamental requirements. Given current aviation technology, it is not possible to maintain maneuverability and pilot safety while attempting to reduce engine noise. Noise reduction in commercial aircraft engines has been accomplished. However, this has occurred only because these aircraft can safely sacrifice aspects of performance in exchange for quieter operation. It is conceivable that quiet technology and military aircraft performance standards may be compatible at some point in the future.

##### **2. Fuel Dumping**

Issue: Concerns were stated regarding the dumping of fuel from military aircraft over the City of Tucson.

Statement of Response: The A-10 and the F-16 aircraft do not have the mechanical capability to dump fuel. The C-130 and HH-60 aircraft are capable of dumping fuel. The dumping of fuel is a deliberative process usually following an aircraft malfunction in which the aircraft must land immediately, requiring it to reduce its gross weight to land safely. DMAFB does not have an established fuel dumping area. Aircraft arriving into Tucson airspace that must dump fuel in order to land safely will do so under the supervision and guidance of a Federal Aviation Administration (FAA) controller. In addition to the supervision of an FAA controller, it is a requirement that the Flight Safety Office be notified if fuel is dumped. There is no record either with the DMAFB Flight Safety Office or with the FAA of fuel dumping by any DMAFB aircraft over the City of Tucson since 1997. The white stream that is sometimes observed trailing an aircraft is not related to fuel, but rather is water condensation caused by the passage of the aircraft through moist air.

##### **3. Safety**

Issue: Concerns were stated regarding the danger to those on the ground from aircraft flying overhead; specifically, the relative safety of the A-10 versus single engine aircraft; the safety record of military flying in general; and the safety of military flying in the Tucson area.

Statement of Response: Given the limited information that is easily available and interpretable by the general public, and the behavior of the news media regarding incidents involving aircraft, it is difficult for the public to develop an accurate assessment of the danger or relative safety of military flying. The following information will assist concerned residents in their effort to understand the situation in which they live.

The A-10 has flown from DMAFB since 1976. In the last 30 years, there have been 15 Class-A Mishaps involving DMAFB A-10's. A "Class-A Mishap" is any mishap which results in: 1) a direct mishap cost totaling \$1 million or more, 2) a fatality or permanent total disability, or 3) the destruction of a Department of Defense (DoD) aircraft. Example: A ground incident that results in damage to an F-16 engine could be classified as a Class-A Mishap based on cost alone as each engine can cost over \$1M. The crash of a T-37 costing \$450,000 would be classified as a Class-A Mishap not for cost, but because of the destruction of an aircraft. Generally, most Class-A Mishaps are the result of an aircraft malfunction where the aircrew positions the aircraft over an unpopulated area where they can safely eject and the aircraft crash into the ground without damage to structures or loss of life.

The tables below show the USAF and DMAFB Class-A Mishaps by rates per 100,000 flight hours.

USAF Cumulative Rates

Aircraft & Dates	Hours	Class-A Mishaps	Rate
A-7 (1972 – 1993)	1,732,045	79	4.56
F-4 (1972 – 2005)	7,181,401	304	4.23
A-10 (1973 – 2005)	4,350,296	94	2.16
F-16 (1975 – 2005)	8,042,950	278	3.46

DMAFB Cumulative Rates

Aircraft & Dates	Hours	Class-A Mishaps	Rate
A-7 (1972 – 1991)	137,410	7	5.09
A-10 (1973 – 2005)	937,194	15	1.60

Since the 1978 crash of an A-7 flying final approach, there have been no aircraft accidents within the DMAFB traffic pattern or the defined military airport vicinity box. While there are inherent risks associated with flying aircraft, Air Force safety programs are in place. Money, time and staff time are applied to minimize these risks, thereby maintaining our invaluable personnel and aircraft resources and eliminating the damage to property or loss of life resulting from a crash.

Note: The A-10 and F-4 aircraft are twin engine; the A-7 and F-16 aircraft are single engine.

**3. Afterburners**

Issue: Concerns were stated regarding the use of afterburners during takeoff and why it was necessary.

Statement of Response: Aircraft equipped with afterburning engines generate greater noise when used than those not so equipped. The table below identifies Air Force, Navy, Marine and other observed aircraft flying from the Air National Guard operated Operation Snowbird/ Freebird facilities which are

afterburner equipped and dB levels that would be experienced by an observer directly under the takeoff flight path at 300, 500 and 700 feet AGL.

Aircraft w/ Afterburner Takeoff -- Altitude versus dB  
 [Conditions: 95°F, 15% relative humidity, clear skies]

	<b>T38C</b>	<b>F-14</b>	<b>F-16</b>	<b>Tornado</b>	<b>F-4</b>	<b>F-15</b>	<b>F-18</b>	<b>B-1</b>
300' AGL	118.5	122.5	122.4	123.2	127.0	127.8	129.3	132.5
500' AGL	114.5	118.0	118.3	119.3	123.0	123.1	125.1	127.7
700' AGL	111.7	115.0	115.5	116.7	120.1	120.1	122.2	124.8

*The above dB level calculations were determined using a software program entitled Flyover Noise Calculator. This program is designed to calculate the noise level on the ground generated by an aircraft flyover. It is primarily designed for research purposes, but is applicable for field use.*

The necessity to use afterburner during takeoff is conditional, based upon aircraft configuration, temperature, pressure altitude, runway length and mission. During cooler times of the year, the pilot of an aircraft which is not configured with extra weight and drag of armament, external fuel tanks, electronic or targeting pods etc. may elect, under the proper temperature and pressure conditions, to takeoff without the use of afterburner. The F-16 must use afterburner for takeoff if the computed takeoff roll is greater than 50% of the available runway. As a general rule, most F-16's when configured for an air to ground mission (i.e. external fuel tanks, targeting pods, armaments etc.) use afterburner simply for the margin of safety they provide during takeoff and climb out.

DMAFB's published noise abatement procedures include minimizing afterburner/power use to a level that is consistent with safe flight. The intent is to encourage pilots of all aircraft (DMAFB, ANG, Snowbird, Freebird and transient), afterburner equipped or not, to use the power necessary for a safe takeoff, but to reduce power as soon as safely airborne and without degrading climb performance to reduce the noise over the community.

There is no established restriction other than described for the use of afterburner or full power during nighttime operations.

Note: The OPERATION NOBLE EAGLE, Air National Guard F-16's on alert at DMAFB takeoff and climb with afterburner to the Northwest. Their mission is national defense and they takeoff at all times of the day or night as directed by the National Command Authority.

***Preserving Additional Options for the Continued Use of the Goldwater Range***

**5. State of Arizona - long term planning**

MC3 recognizes that the military presence within Arizona represents a substantial and valuable industry in the State and is a key source of economic activity. The military presence is also vital to the nation's strategic defense and homeland security. The Goldwater Range in Southern Arizona is a vital resource unique in the nation for training missions. In the last few decades Arizona's sustained growth and development have brought new development closer to the boundaries of some installations.

In order to allow optimal use of the Goldwater Range and to ensure the viability of these assets in the region, MC3 believes that the State should begin now to work with the Federal government to identify and preserve adequate Bureau of Land Management acreage in an appropriate location close to the Range, (e.g., western Pima County) to which additional and relocated military assets could be based in the event that circumstances, decades in the future, create new opportunities or cause conflicts on existing installations in the southwestern United States.

## **B. Land Use/Regulatory**

The MC3 offers the following statements of findings in response to expressed concerns over the noise contours and Pima County's adoption of the Airport Environs Zone Ordinance.

### **1. Noise Contours** (formerly Draft Recommendation #3A)

Issue: Concerns regarding the location of noise contours and the process by which they were determined. Also, homes within noise contours that have been deemed "incompatible" for residential use.

#### Findings:

Planning, by definition, is future-oriented. Therefore, relative to land use planning and regulation in the vicinity of DMAFB, the future missions of the base must be considered. Because the future missions of DMAFB are not known for certain, but based on informed expectations, assumptions are made about potential future missions, including future aircraft associated with the missions.

The JLUS assumes that the mission supported by the A-10 aircraft will continue at DMAFB, but that the successor to the A-10 will be a noisier single-engine fighter. The JLUS also notes the possibility that DMAFB, which has growth capacity within its existing boundaries, may absorb new missions as a result of the Base Realignment and Closure (BRAC) process. As a result, the JLUS recommends use of the hypothetical "notional" contours which were derived from a 2002 study initiated by DMAFB.

The area enclosed within the notional noise contours is larger than the contours prepared by DMAFB in 2003 to reflect the additional mission of the Combat Rescue Group. The notional contours encompass a land mass larger than both the area within the 2002 contours (used in the City's former AEZ) and the even earlier contours which Pima County still uses pending amendment of the County AEZ to conform to JLUS. However, the area within the notional contours is smaller than the 1975 contours created for the first noise study relative to use of the A-7 aircraft.

Despite the JLUS use of the term, the City's AEZ Land Use Code amendment does not deem residential use as "incompatible" in the expanded Noise Control Districts (NCD's) which are based on the notional noise contours. The JLUS Chapter 5 *Land Use Compatibility*, Section 5.1 *Noise and Safety Considerations*, Subsection 5.1.1 *Noise*, notes "Both the Department of Defense's Air Installation Compatible Use Zone (AICUZ) guidance and the Federal Aviation Administration's Airport Noise Compatibility Planning Toolkit identify residential use as incompatible in the 65 Ldn (day-night average sound level) contour and higher." The 65 Ldn Standard derives from the Federal Noise Control Act of 1972.

The City's amended AEZ does prohibit the Residential Use Group within NCD-A and B as required for consistency with recommended JLUS standards per State law enacted in May 2004 regarding military airport planning. However, exception is provided in the City's AEZ for the permitted use of single-family dwellings on property zoned IR, RH, SR, RX-1, RX-2, R-1, R-2, or R-3 if the zoning was in place prior to

November 2004. Use of the term “incompatible” is not required within disclosures for residential property transactions.

Other solution/actions considered by the Working Group:

The Land Use/Regulatory Working Group considered the implications of JLUS and recommending that JLUS be repealed or modified. After consideration, the Working Group did not recommend modifications to JLUS.

The regulatory impacts to homeowners and neighborhoods northwest of DMAFB result from JLUS incorporating the expanded hypothetical noise contours for a single engine aircraft. The majority of the JLUS document identifies prohibited and allowed uses, as well as development restrictions for the un-built environment. The hypothetical noise contours were intended to guide and limit development primarily to the southeast of DMAFB.

The federal government’s BRAC decision took into consideration the Joint Land Use Studies that had been completed and adopted in Arizona. Further, the Arizona State Legislature directly references the Davis-Monthan Joint Land Use Study. These two occurrences made repealing or modifying the DMAFB JLUS unrealistic for the foreseeable future.

The Land Use/Regulatory Working Group considered the possibility of recommending the use of the AICUZ to the northwest and the expanded hypothetical noise contours to the southeast. This raised legal questions and creates challenges of intersecting the contour lines using two different aircraft models. The impacts of the hypothetical noise contours to the northwest, within central Tucson, were mitigated by grandfathering existing uses. The Working Group recommended this area be exempt from the requirement that residential building expansions/reconstructions be sound-attenuated based on the hypothetical contours.

The Working Group’s acknowledgement of the hypothetical noise contours contained in JLUS and in the Tucson AEZ was not intended to be endorsement of the process by which they were created or agreement with the type of aircraft or formula used to create the expanded contour lines. Specifically, the Working Group’s acceptance of additional restrictions placed on vacant land or new development based upon these expanded noise contours was not intended to encourage or invite a noisier military aircraft into the greater Tucson community.

## **2. Pima County Airport Environs Zone**

The MC3 acknowledged that at some point soon after final recommendations are issued, Pima County will proceed to implement a zoning code amendment for Zoning Code Chapter 18.57, Airport Environs and Facilities Overlay Zone, consistent with adopted Pima County Comprehensive Plan policies pertaining to the Military Airport planned land use designation. These zoning code amendments will be as required per previous direction by the Pima County Board of Supervisors.

**CHAPTER 4: DRAFT RECOMMENDATIONS THAT DID NOT RECEIVE CONSENSUS SUPPORT**

Numerous solution ideas were discussed by the MC3. Many of these came from the members in working group discussions. Others were submitted by the public. MC3 members diligently brought all ideas to the table for discussion. Most did not reach draft recommendation stage because they were deemed unfeasible—financially, politically, unsafe, or otherwise would not have the support of all MC3 members. The three draft recommendations that made it to the final meeting, but did not receive consensus support, are described below.

**A. DMAFB Operations**

Two DMAFB Operations draft recommendations did not receive consensus support of the MC3.

**Flight Operations - Land farther down the runway (formerly Draft Recommendation #1B)**

Draft Recommendation:	The MC3 recommended that DMAFB consider the creation of a “Displaced Landing Threshold” on Runway 12 (i.e., aircraft to “land long” on approaches from the northwest). The distance displaced should be determined by the US Air Force to ensure that the reduced runway length for landing does not unreasonably impact the safe operation of all aircraft using the base.
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>• A “Displaced Landing Threshold” offers two significant advantages to those who live and work to the northwest of DMAFB:             <ul style="list-style-type: none"> <li>• Moving the touchdown zone further down the runway will raise the altitude of all aircraft flying over homes and businesses on final approach to the runway.</li> <li>• The VFR Overhead Pattern will be shifted to the southeast, with the result that more of the pattern will lie over the base and less over the center of City of Tucson.</li> </ul> </li> <li>• Because takeoff procedures would not be affected, modifications to the JLUS would not be required</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• The distance that the threshold can be moved is limited by the need to maintain sufficient length for aircraft landing problems or runway conditions. Mechanical problems with aircraft brakes and wet runways can increase the landing distance. The distance that the threshold can be moved is limited by the need to maintain sufficient length.</li> <li>• This recommendation will require construction funding. The DMAFB touchdown zone is concrete with the remainder of the runway constructed of asphalt. Moving the touchdown zone will require a runway construction project with multiple elements including but not limited to building a new concrete touchdown zone, moving airfield lighting, moving barriers and changing applicable signage and repainting the runway.</li> <li>• This recommendation will require navigational equipment changes including movement, construction, procedural development and the requisite funding. Instrument approach procedures are designed for the current landing configuration. New approach procedures, including</li> </ul>

	published Instrument Approaches, will need to be developed and tested as part of the change.
Comment:	<p><i>Potential Impact:</i></p> <ul style="list-style-type: none"> <li>As an example of possible impact, moving the touchdown zone 3000' (½ a Nautical Mile) would raise the altitude of every landing aircraft on final approach to DMAFB 150'. (At 1 mile out the landing aircraft would be at 450' vs. the 300' as they are today)</li> <li>[95°F/15% relative humidity, clear skies] At 2.5 NM (SE end of Arroyo Chico Neighborhood) an A-10, currently at 750' AGL generates 91.6 dB. At 900' AGL (+ 150') the A-10 will generate 89.5 dB (a 2.1 dB decrease).</li> <li>[95°F/15% relative humidity, clear skies] At 2.5 NM (SE end of Arroyo Chico Neighborhood) an F-16, currently at 750' AGL generates 97.5 dB. At 900' AGL (+ 150') the F-16 will generate 96.2 dB (a 1.3 dB decrease).</li> <li>This change has the potential to move the 70 dB LDN. A new AICUZ would be required to verify new contours.</li> </ul> <p><i>Other:</i></p> <p>Aircraft taking off from northwest to the southeast would continue to use the current full length of the runway maintaining the existing noise profile and safety margin. Although aircraft will land further down the runway, they will still begin the takeoff from the same point as they do in 2006.</p>
Implementing Body:	DOD, USAF, DMAFB, Tucson TRACON, FAA
Potential Funding:	DOD, USAF, State of Arizona, City of Tucson, Pima County
Other solutions/actions Considered	The idea of moving the runway in its entirety farther to the southeast was dismissed early in the discussions as it would be very expensive and require significant land acquisition and revision of many of the planning regulations enacted in response to JLUS. Neighborhood representatives advanced the above proposal that aircraft landing from the northwest "land long."

### Flight Operations - Snowbird/Freebird Infrastructure (formerly Draft Recommendation #1H)

Draft Recommendation:	The MC3 recommended that prior to making a decision to expand the ramp space for aircraft parking to accommodate a major increase in Snowbird / Freebird operations at DMAFB, Yuma or another base in proximity to the Goldwater Range should also be considered.
Findings:	Snowbirds/Freebirds have been at DMAFB for 30 years, and there has been a significant investment in support infrastructure at the base. Snowbirds and Freebirds need to be close to the Goldwater Range, as it is a unique resource, with nothing else like it suitable for training opportunities in the United States. Cannon AFB and the Melrose Range are unsuitable for the more complex tactical training that the Goldwater Range provides due to size, infrastructure and overall training capacity.
Rationale:	<p><i>Benefits/Opportunities:</i></p> <ul style="list-style-type: none"> <li>Space at DMAFB may then be reserved for other operations or uses.</li> <li>Financial benefit for potential expansion at other bases in proximity to the</li> </ul>

	<p>Goldwater Range.</p> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• May require more coordination.</li> <li>• Potential noise impacts shifted to other bases in proximity to the Goldwater Range.</li> <li>• This recommendation could be misconstrued by the Air Force to imply that the citizens of Tucson wish to limit future missions at DMAFB, while the true intent is simply to explore other options, recognizing that the decision makers may still prefer DMAFB.</li> </ul>
Implementing Bodies:	DoD, State Department, Air National Guard
Potential Funding:	DoD, State Department, Air National Guard
Other Solutions/Actions Considered	<p>Since overflight noise was observed by neighborhood representatives as louder from the "visiting" aircraft than A-10 operations, it was proposed that decreasing visiting aircraft activity would noticeably reduce overflight noise. Because Operations Snowbird and Freebird are considered integral to the mission of DMAFB, some members felt that this proposal would jeopardize the viability of the Base. The possible recommendation that there be no increase in these operations was similarly rejected since some felt it could be misconstrued that the MC3 wanted to limit future missions at DMAFB (again perceived as negatively impacting the Base viability goal). The idea that other sites be considered in the event of infrastructure increases in Operations Snowbird or Freebird was ultimately rejected as well for the same reasons, although this proposal made it to the final draft recommendation stage.</p>

**B. Land Use / Regulatory**

One Land Use draft recommendation did not receive consensus support of the MC3:

**Development Southeast of DMAFB:**

County should amend AEZ code consistent with the JLUS (formerly 4A)

Issue:	Concerns regarding the potential negative impact on DMAFB as a result of urban development southeast of the DMAFB runway.
Findings:	<p>Development encroachment is a central concern regarding the viability of DMAFB to perform current and future missions. The development restrictions which are recommended by the Joint Land Use Study (JLUS), and which are required per State statute to be followed by the City and County, are designed to address the issue of incompatible development, especially in the largely undeveloped area southeast of the DMAFB runway. The JLUS-recommended use restrictions and safety standards for development within the Approach Departure Corridors (ADCs) and the Noise Control Districts (NCDs) are designed to prevent development of new uses which, per the JLUS, are incompatible with aircraft overflights and are otherwise considered as development encroachment. Those new uses deemed compatible, per the JLUS, for location within the ADC's are required to meet development standards designed for safety, such as limits on the number of employees per acre and limits on the percentage of buildable area allowed on a minimum development site area. In addition, those new compatible uses within the NCDs must meet noise reduction standards through sound attenuation construction measures. New development is not considered as "development encroachment" if it conforms to the both the use restrictions and the safety standards recommended by the JLUS. Additional cited information from that Arizona Department of Commerce, the National Governors Association, Arizona State Initiatives, Office of Economic Adjustment, Arizona Military Regional Compatibility Project, and the Joint Land Use Study referencing compatible land development and encroachment is provided in Appendix F, Exhibit 4.</p> <p>The City has already amended its Airport Environs Overlay Zone (AEZ) code consistent with the use restrictions and safety standards recommended by the JLUS. The County has delayed action on its AEZ code amendment pending final recommendations by the MC3 as a measure to consider and possibly incorporate applicable MC3 recommendations into the code amendment.</p>
Draft Recommendation:	The MC3 recommended that the County proceed with amendment to its Airport Environs Overlay Zone (AEZ) consistent with the JLUS recommendations for use restrictions and safety standards as soon as the final MC3 recommendations are issued.

Rationale:	<p><i>Benefits/Opportunities::</i></p> <ul style="list-style-type: none"> <li>• The County AEZ code amendment will reduce the potential for development encroachment southeast of the DMAFB runway and will therefore serve to preserve the viability of DMAFB’s missions.</li> </ul> <p><i>Concerns/Constraints:</i></p> <ul style="list-style-type: none"> <li>• Undeveloped industrial-zoned land will face further use restrictions and corresponding property devaluation.</li> <li>• Potentially reduces the value of State land.</li> </ul>
Comments:	<p>Considerable discussion on the issue of development encroachment occurred during the development and refinement of this recommendation. There is concern that what is currently deemed compatible development will change in the future and thereby place the viability of DMAFB at risk. Also, some felt that inclusion of the recommendation could imply wholesale endorsement of JLUS. Finally, the MC3 heard that the recommendation may ultimately be unnecessary since the County would need to proceed with the code amendment change anyway.</p>
Implementing Body:	Pima County
Potential Funding:	<p>Costs are limited to those associated with processing a zoning code amendment, including staff time, materials and reproductions, mailings, newspaper advertisements.</p>
Other solution/actions considered:	<p>Restricting the development of State-owned land within the southeast AEZ was considered, but rejected in light of the existing City and pending County AEZ code amendments which address land use restrictions, including on State-owned land which would likely be rezoned, and in light of legal obstacles to imposition of non-development of State-owned land.</p> <p>An open space corridor within the southeast AEZ was considered, but rejected because it would be cost prohibitive if purchased and because the existing City and pending County AEZ code amendments are designed to create a “checkerboard” of open space for safety purposes.</p>

## CHAPTER 5: OUTCOMES AND NEXT STEPS

This report, memorializing the MC3 Consensus Recommendations, will be delivered to the sponsors of the process, key decision makers and other interested agencies and parties. Key decision makers have committed to consider recommendations for implementation within their respective areas of control.

Decision-makers that will receive the MC3 Consensus Recommendations include:

- Federal: Congressional Offices of Kolbe and Grijalva, Senate Offices of McCain and Kyl, Davis-Monthan Air Force Base, and the United States Department of Defense
- State: Governor's Office and relevant State agencies, including the Arizona Commerce and Economic Development Commission
- Pima County: Board of Supervisors and County Administrator
- City of Tucson: Mayor and Council, and City Manager
- City of South Tucson: Mayor and Council and City Manager

This final report will also be presented at a media conference immediately following its distribution to the above entities, and will be posted on the Department of Neighborhood Resources' website ([www.tucsonaz.gov/dnr/](http://www.tucsonaz.gov/dnr/)). The report will also be made available at the public library.

MC3 agreed to follow-up on recommendations, ensuring that the dialogue and collaborative work begun through the MC3 process continue. MC3 follow-up includes:

1. Creation of the MC3 Interim Oversight Committee: This will be a temporary committee consisting of an expanded MC3 Steering Committee to represent the cross-section of interests in the MC3. This transitional committee will begin meeting in September 2006 and will be charged with:

- Convening the planning process to establish the new Military Community Relations Committee (MCRC),
- Following-up and reporting on MC3 recommendations to the MCRC.

2. Creation of the Military Community Relations Committee (MCRC): The MCRC will serve as a permanent forum for dialogue, information sharing and problem solving among DMAFB, local government, neighborhoods, non-residential landowners, and other key interests. It will be co-convened and staffed by key agencies and interests (see Communications recommendation #3).