103-06 a.
BRAC 1995 – Defense Base Closure and Realignment Commission
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KIRTLAND AFB REALIGNMENT

Report From the Community

April 1995

INTRODUCTION

On February 28, 1995, the Secretary of Defense announced the 1995 Base Realignment and Closure (BRAC) candidates. Kirtland Air Force Base was identified for major realignment actions including the following:

(a) Relocate the 58th Special Operations Wing to Holloman AFB, NM.

(b) Relocate the Air Force Operational Test and Evaluation Center to Eglin AFB, FL.

(c) Relocate the Air Force Security Police Agency to Lackland AFB, TX.

(d) Relocate the Air Force Inspection Agency and the Air Force Safety Agency to Kelly AFB, TX.

(e) Relocate Defense Nuclear Agency to Kelly AFB, TX.

(f) Deactivate the 377th Air Base Wing and close other activities and facilities at Kirtland AFB including medical services and family housing.

(g) Retain Phillips Laboratory and the 898th Munitions Squadron in cantonment (a small, secured location within the base).

The Kirtland AFB Task Force was formed in response to the Department of Defense announcement to realign Kirtland. The proposal would result in the loss of 6850 direct jobs and 5066 indirect jobs (USAF estimates). The proposal went to the Base Realignment and Closure (BRAC) Commission on March 1st.

The Task Force consists of volunteers from the affected community of Albuquerque, New Mexico, as well as the surrounding area and the state. The Mayor of Albuquerque nominated the original members. Later, the NM Congressional Delegation named a Steering Group to coordinate the Mayor's Task Force with other in-being and soon-to-be-formed groups.

The Steering Group and Task Force have reviewed the DOD/USAF proposal for mission impacts, consistency with BRAC criteria, cost impacts, and community effects, including potential reuse. This report expresses the results of that review.

STEERING GROUP MEMBERS

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COST SUMMARY

Cost Differences Between AF Proposal and Community Estimate

Note: Costs were gathered from many sources and may be in FY 95, 96 or 97 dollars. No attempt was made to normalize the inputs since the conclusion would not change.

Recurring

USAF Claimed Savings	$62.0M

Omissions in AF Proposal (These reduce AF claimed savings.)

DOE Infrastructure	$30.6M
Security for 898th MSS	8.2
BOS for Base X(COBRA calculation) and FCDNA	10.6
VA Hospital (loss of AF personnel)	5.1
CHAMPUS (impact on retirees/dependents)	20.2
New Recurring Savings Total	**Minus $12.7M**

One Time Costs

USAF Claimed Costs	$277.5 M

Omissions in AF Proposal (These add to claimed costs.)

DOE	$64.1M
Phillips Laboratory	18.4
150th FG, ANG	7.1
KUMSC	2.8
Move 58TH Simulators	26.7
Move TACCSF	9.9

Disagreements (Community suggests these as requirements; AF may disagree.)

Housing for 58TH SOW	$ 75.6M
USAF Safety Center Building	13.6
Field Command, Defense Nuclear Agency	11.6
NCO Academy	7.4
Additional ramp (for 58th SOW)	7.2
Simulator Building (for 58th SOW)	3.8
New One Time Costs Total	**$525.7M**

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CHAPTER 1
KIRTLAND AFB REALIGNMENT: WHY? WHY NOT?

1.1 History

Kirtland Air Force Base is a **unique, one-of-a-kind federal installation** which encompasses almost 52000 acres. A "normal" Air Force Base has a primary flying mission and a few organizations that support that single mission. Kirtland on the other hand could be compared to a mid-sized community that has a variety of businesses and activities that are different but interrelated. The Air Force as the host military department provides the support for Air Force units, Department of Defense (DOD) agencies, Department of Energy (DOE) organizations, including Sandia National Laboratories, and a host of contractors who support Air Force and non-Air Force missions. In total, there are over 150 on and off base tenant organizations supported by the 377th Air Base Wing, the host Air Force organization. These tenant organizations represent over 18000 people that receive support from the Air Force. The 377th Air Base Wing provides their support with 2750 people, making the total work force at Kirtland almost 21000. Kirtland Air Force Base is the largest employer in the State of New Mexico.

Kirtland Air Force Base, as we know it today, was created in 1971 by the consolidation of Sandia Base, Manzano Base and the original Kirtland Air Force Base. The original Kirtland Base began in 1939 as a refueling station for transient military aircraft on 2000 acres of leased land near the municipal airport. In 1941, it became a training site for combat aircrews.

The original Sandia Base began as a training site for aircraft mechanics. Later, it became an extension of the nation's nuclear weapons research and development program when units of Z Division of Los Alamos Laboratory and an Army Military Police Detachment moved to the base in 1941. Z Division was the forerunner of Sandia National Laboratories; the military detachment was the forerunner of Field Command, Defense Nuclear Agency. From a humble beginning in what was described as "a motley assortment of prewar structures," the military services established elaborate, interrelated research and development facilities for more advanced work on weapons of the future.

Sandia National Laboratories was created in 1947, and assumed the responsibility for weapons development. It has since been described as the "nuclear ordnance engineer for the United States of America." The military departments were the end user of the weapons and in 1947 a joint "Armed Forces Special Weapons Project" was established at Sandia Base to handle all the logistical support associated with atomic weapons. This organization subsequently became Field Command, Defense Nuclear Agency (DNA) and was the forerunner of many other separate but related agencies, organizations, and units which came together under the umbrella of nuclear support.

The Air Force Special Weapons Center was established at Kirtland in 1952, and handled weapons related projects, including the planning of nuclear tests. The Air Force Weapons Laboratory was formed in 1963, and was a premier research and development organization which formed the nucleus for Phillips Laboratory.

Although many other atomic or nuclear organizations existed at one time or another, all military services and many other governmental agencies recognized Kirtland AFB as the nuclear "headwaters" and have participated in activities on the base. By consolidating numerous nuclear related functions at Kirtland, the Department of Defense and others have achieved a single source of expertise to handle the myriad of technical, developmental, and operational issues associated with nuclear weapons. This "nuclear community" is nationally recognized as the source of information, guidance, direction and authority on any and all issues related to military weapons.

The nature of research and development, test and evaluation, and operational aircrew training requires a large facility and Kirtland offered adequate space to conduct all missions. Excess space was available and Kirtland has been favorably considered for the addition of other missions over the years. The Air Force Operational Test and Evaluation Center (AFOTEC) was established in 1974, to be the single manager for operational test and evaluation of new weapons systems intended for Air Force use. Kirtland was selected as the home for AFOTEC as a means to separate operational testing and evaluation from the Air Force Major Commands responsible for developing and supporting weapons systems. An independent location was required to keep functions separated and prevent possible influence during operational testing and evaluation.

The Air Force Office of Security Police was activated at Kirtland in 1978. Security police have a critical role in weapons security and a strong connection with the nuclear community. The most recent additions to Kirtland were the Air Force Inspection Agency (AFIA) and the Air Force Safety Agency (AFSA) which moved from Norton AFB, California in the summer of 1993. Both agencies were displaced by a BRAC action which closed Norton AFB, and they moved into a new $14 million facility that was specifically designed and built to accommodate them. Both the AFIA and AFSA have important roles in the safety and security of military nuclear weapons, which made their new home an ideal addition to the nuclear community.

Kirtland was selected as the focal base for providing centralized training for all Rescue and Special Operations Forces in the Air Force. The 58th Special Operations Wing (SOW) takes its lineage from the 1550th Aircrew Training and Test Wing which was transferred to Kirtland in 1976. The unique simulator facilities, diverse terrain, and specialized training areas provide an exceptional capability to train aircrews and conduct mission rehearsals for highly sensitive operations.

Kirtland has been considered a "core" base or a location that has the potential to receive additional organizations or missions. Several units are or were in the process of relocating to Kirtland as part of Air Force consolidation efforts. In recent years the Air Force Space and Missile Center was considered a candidate to move from Los Angeles Air Force Base to Kirtland; however, that move was predicated on closing Los Angeles Air Force Base in one of the BRAC cycles.

1.1.1 US Air Force Affiliation

The US Air Force has provided the support at Kirtland AFB for many years. For decades, the base supported flying activities, drawn by excellent flying weather, and weapons research and development, drawn by like activities dating back to the post World War II years.

Today, Kirtland has the largest collection of activities at any DOD installation (over 150). The base has changed hands many times. The base currently belongs to the AF Materiel Command whose only mission activities are the Phillips Laboratory and the Kirtland Underground Munitions Storage Complex (KUMSC). Support for **all activities** is provided by the 377th Air Base Wing (ABW), operating through a series of host-tenant support agreements.

The Air Force Materiel Command (AFMC), the parent organization for the Phillips Lab (PL) and the 377th ABW, the host unit, is proposing to realign Kirtland to divest itself of a large cost in a location where its mission interest is small. Thus, it places Kirtland in the Laboratory and Product Center subcategory for assessment in the Base Realignment and Closure (BRAC) process, yet PL has only 5% of the worker population at Kirtland. Then, after examining it in this questionable category, the AF goes along with the Joint Cross-Service Group high score for PL by recommending to keep PL. Then it proposes to remove the support unit. If the lab scored well, why not keep the support in place?

1.2 AF Questionnaire

As part of the BRAC process, all installations must complete a questionnaire. The completion of the AF questionnaire on Kirtland was not comprehensive, leaving gaps in information needed to decide the future of Kirtland. There seemed to be great difficulty in rating this Air Force Base when taxiways and runways are owned by the City of Albuquerque. What should have been a plus (maintenance and upgrade of runways would be paid for by non-DOD money) became a negative (no credit was taken for airfield capabilities since someone else owned them). The analysis reviewing the questionnaire point by point is at Appendix C.

It is interesting to note a **major change** to the percentage of facility space rated at condition code one **occurred during the process of evaluation**. That change was so significant that it **dropped the overall Facility Condition rating for Kirtland**. (The summary chart for these changes is at Appendix D).

1.3 BRAC Considerations

1.3.1 Consolidation Objective

A **stated objective of the BRAC is to consolidate a variety of activities and to provide support via a single service**. That is exactly the case at Kirtland where over 150 activities are supported by the US Air Force. ***Kirtland is a model BRAC base*** rather than one that should be considered for realignment.

1.3.2 Costs and Reuse

Another major point of inconsistency in proposing a realignment of Kirtland is the cost impact. The BRAC process is designed to identify higher cost installations for realignment or closure. The best way to accomplish savings is to completely close the installation. This also makes reuse much more beneficial to the local community. In the case of Kirtland, the proposed realignment leaves major cantonment areas (PL, ANG, DOE/SNL) that occupy approximately 95% of the land area. In addition, over 60% of the work force is still in place (and needing support). Thus, the claim of significant savings and reuse possibilities are greatly diminished. **A major installation will still be in place even after the realignment**. See map at Appendix A.

BRAC criteria includes an analysis of the implementation costs, annual savings, and return on investment (ROI) for each closure or realignment. At Kirtland, there are major impacts to the units remaining who need to support themselves. For example, the additional annual costs of support for major activities remaining are estimated at $30.6M annually for DOE/SNL.

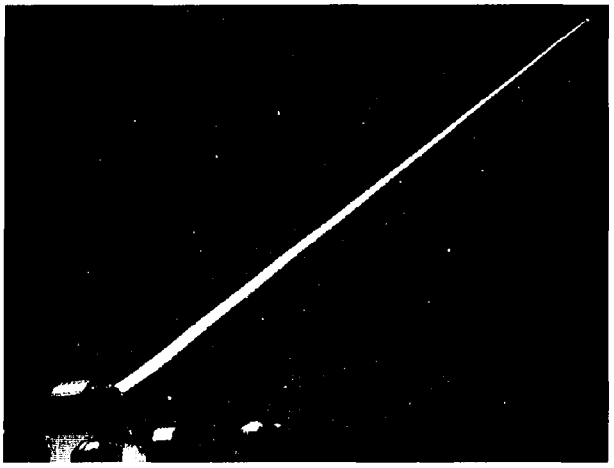
Although some costs for PL and ANG are included in the AF analysis, DOE costs are not. **The DOE costs of $30.6M should be deducted from the AF claimed savings** since:

- they are a **direct impact** of the proposal, and
- the majority of **funding** for remaining DOE activities comes from DOD (through DOE Defense Programs).

1.3.3 Air Quality

Air Quality Considerations as They Relate to Capacity for Future Growth at Kirtland AFB

Albuquerque/Bernalillo County is currently classified as a low-moderate non-attainment area for the criteria pollutant carbon monoxide (CO). However, Albuquerque/Bernalillo County has not exceeded the National Ambient Air Quality Standards (NAAQS) for three years, making the area eligible for redesignation to attainment/maintenance status. As part of the formal redesignation procedure, the City's Air Pollution Control division has prepared a State Implementation Plan (SIP) for Maintenance of the CO standard. The SIP submittal is scheduled for public hearing before the Albuquerque/Bernalillo County Air Quality Control Board on April 13, 1995. Once approved, the SIP submittal will be transmitted to the EPA Region VI office by the Governor. EPA has committed to take action on the redesignation request by July 15, 1995. To date, no adverse public comments have been received, and all EPA comments have been addressed.



Phillips Laboratory Starfire Optical Range

Included in the SIP document is a maintenance demonstration which shows that even with significant projected increases in population, employment, and vehicle miles of travel, total CO emissions for the next ten years (analysis period through 2005) will be significantly lower than the 1993 emissions cap. This difference between the 1993 cap and projected emissions in subsequent years is the so-called "headroom" in the emissions budget. This headroom is generated as the 1993 vehicle fleet is replaced by newer, lower emitting vehicles, as well as by an upgraded vehicle inspection program, and the continued implementation of the oxyfuel program and mandatory no-burn program.

The various Air Force/Phillips Laboratory relocation to Kirtland scenarios ranging from an initial 625 employees to a total of 6000 employees would take up no more than 10% of this headroom and thus could be easily accommodated from an emissions cap perspective. In March 1994, Phillips Lab completed a conformity analysis which conservatively estimated that the relocation of 625 jobs to Kirtland would result in the addition of 85 tons of CO per year to the local airshed. The City's Air Pollution Control Division concurred with this estimate. Assuming 6000 relocations would generate 10 times the emissions or 850 tons CO per year and even rounding up to 1000 tons per year to be conservative, this figure is still less than 3 tons per day or less than 10% of the projected 31 tons per day headroom available in 1996. This percentage would be even less in later, higher headroom years when such sizeable relocations would realistically be fully realized. The implementation year of the proposal is a critical element of any conformity analysis.

In addition to the emissions cap and headroom issues, an applicable requirement of General Conformity to any proposed expansion at Kirtland involves project or plan specific demonstrations that the action will not cause or contribute to an exceedance of a National Ambient Air Quality Standards (NAAQS). General Conformity rules set specific thresholds of pollutants that apply to federal actions. The CO

threshold of 100 tons is applicable to non-attainment and maintenance areas. If a federal action will provide 100 tons or more of CO, as determined by a specific applicability analysis, then a more detailed site specific analysis using intersection modeling techniques becomes necessary.

In a CO non-attainment area without current violations like Bernalillo County or in a maintenance area such as Bernalillo County will become upon redesignation, this second level of analysis requires the federal agency to demonstrate that the proposed action will not cause or contribute to a violation of the NAAQS for CO. This is a significantly easier test to meet than that required for a CO non-attainment area experiencing violations where the federal action is not allowed to exacerbate an existing violation, cause or contribute to a new violation or delay attainment of the standard. By way of further comparison, the most difficult demonstration of conformity would be in an ozone non-attainment area where actions exceeding the 100 ton per year threshold are required to mitigate or offset emissions to no net increase.

It is important to note that should such an analysis for a specific proposal indicate a violation of the CO standard, the expansion would not necessarily be precluded. Moreover, the federal agency would not have to bring net emissions increase down to zero or even 100 tons per year. Rather, the agency would have to mitigate the actions' impacts so that the action did not cause or contribute to a violation. Federal installations like Kirtland are in a uniquely advantageous position in terms of mitigating CO emissions associated with vehicle travel and traffic congestion. In general, an Air Force base is capable of exercising a much greater impact on the commuting habits and on-site activities of its employees and tenants than other employers.

The City Air Pollution Control Division has reviewed the March 1, 1995, Preliminary Conformity Analysis for Kirtland, prepared by Radian Corporation and concurs with the generally conservative approach taken. The City also agrees with the study conclusion that the emissions cap would allow for a 20% growth at Kirtland by the year 2005.

In contrast, the Air Force conformity analyses appear to be oversimplified at best, resulting in incorrect conclusions. In his letter of March 15 to Senator Bingaman, Col. Bull accurately lists the numerous requirements of general conformity and states it would have been unwise for the Air Force to proceed with an action where a positive conformity determination was in doubt. Nowhere in said correspondence is it stated that such a conformity analysis was conducted specific to Kirtland, much less what assumptions or baseline data were used.

However, two statements made to Senator Bingaman's office raise serious questions about the purported conformity analysis. The first assertion in question is that a move of 2600 personnel to Kirtland would result in 450 tons of CO and that this would violate the SIP. This tonnage is less than 1 and 1/3 tons of CO per day or an insignificant 3% of the 1996 headroom. How does 450 tons of CO per year violate the SIP? We can only surmise that the Air Force failed to take into account the implementation year of the action, and, thus, the headroom in the emissions budget that would have been available.

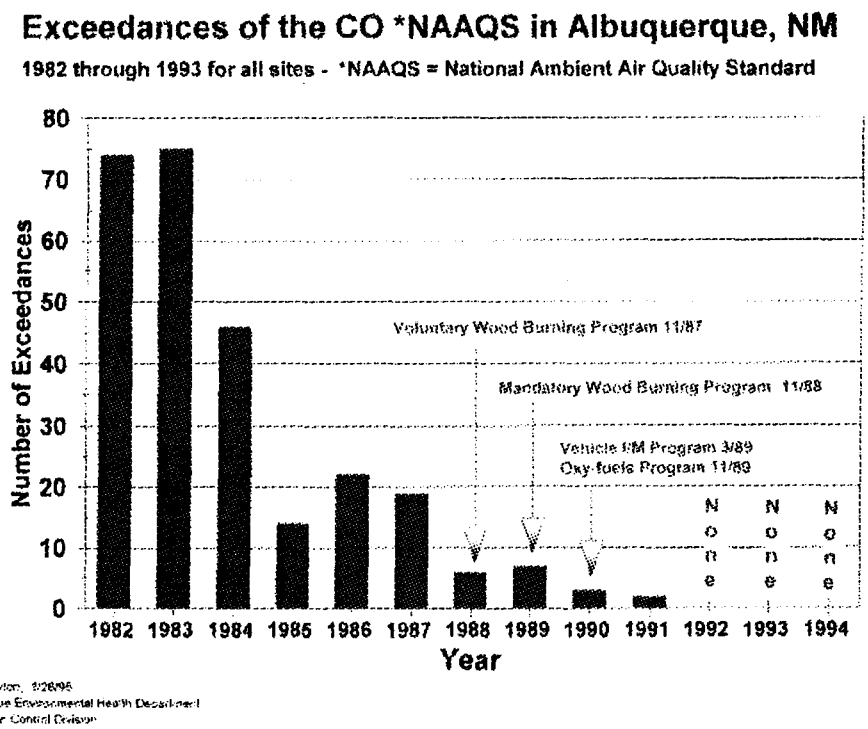
A related issue is the AF's statement that they had to use MOBILE4.1 due to federal law. In actuality EPA guidance even prior to the release of MOBILE5 was that 1990 inventories would need to be redone using MOBILE5. Moreover, while the preamble to the transportation conformity rule allows for a one year grace period from November 24, 1993, to November 24, 1994, this grace period was put in place to allow Metropolitan Planning Organizations more time to update their transportation conformity demonstrations. This grace period is not applicable to Albuquerque/Bernalillo County since both the 1994 and 1995 Transportation Conformity Demonstrations were done using MOBILE5a and a

recalculated 1990 Base Year Inventory as per EPA guidance. Consequently, this MOBILE5a based 1990 inventory was documented and available upon request.

In conclusion, the maintenance of attainment SIP does not significantly constrain future growth at Kirtland. It is unfortunate that the Air Force did not request the most current and relevant Air Quality information from the local agency before embarking on the purported analysis. Clearly, the result has been to unnecessarily penalize an environmentally proactive community with an award-winning vehicle inspection program, one of the nation's first and most effective oxyfuel programs, and the nation's first predictive meteorology based no-burn program.

Fairly late in its decision process (December 1994), the Air Force ordered a reevaluation of BRAC proposals based on air quality impacts. Prior to this time, Los Angeles AFB was a candidate for closure with a major portion of its mission moving to Kirtland. Within ten days of the reevaluation request, the Los Angeles proposal was withdrawn from consideration and Kirtland became a candidate for realignment. (See USAF BCEG minutes at Appendix E). Bernalillo County including Albuquerque and Kirtland AFB is in a non attainment status for carbon monoxide only, but **has been in compliance for three years**. As described, efforts are underway to redesignate it to attainment /maintenance status for carbon monoxide. The AF should have used current information which would have shown a positive impact of moving people to Kirtland. **That assessment would have kept Kirtland as a receiving base allowing additional missions such as the Space and Missile Systems Center to move from Los Angeles AFB. The BRAC should consider that alternative**.

The figure below illustrates the positive results of CO controlled programs in a growing community.



Ken E. Peyton, 1/26/95
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Air Pollution Control Division

1.3.4 Base Status

In previous BRAC cycles, **Kirtland was exempt from consideration**. It is interesting that Kirtland was a last minute change after **years of being a "core" base** for the AF. The BRAC should determine what changed; the last minute look at air quality appears to have caused this change (BCEG minutes in Appendix E). The Air Force reasoning was wrong.

1.3.5 Economic Impact

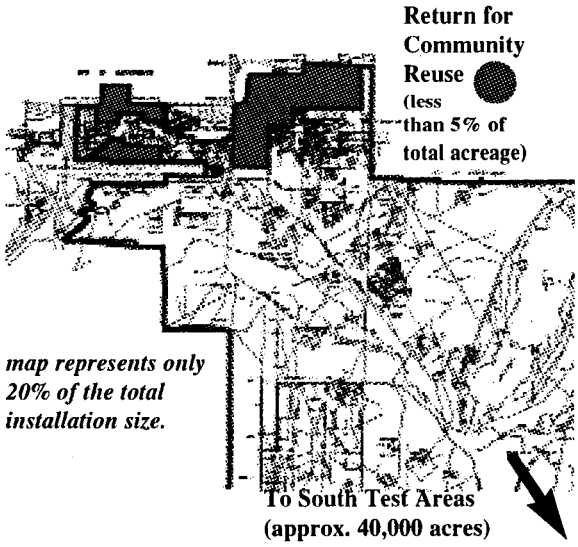
Realignment of Kirtland would produce the largest job loss of all AF BRAC 95 proposals; it is the second largest on the DOD BRAC 95 proposal. Impacts on the Albuquerque, NM area include the loss of:

- 6850 direct jobs
- 5066 indirect jobs
- $223M in payroll

A thorough discussion of economic impact is provided in Appendix F.

1.3.6 Reuse by Local Community

It is BRAC policy to expedite the transition of property and facilities to the local community to soften the blow of a realignment or closure. In the case of Kirtland, the cantonment areas around the PL, ANG, and DOE/SNL activities leave **approximately ninety-five percent (95%) of the property occupied, greatly hindering any reuse**. The majority of the available facilities will include housing. Although the housing may be of some benefit to the community, there is no fostering of economic activity when housing encompasses most of the reusable facilities. **This lack of viable reuse potential violates the plan unveiled in July 1993 by President Clinton to revitalize communities affected by base closure. With essentially nothing but housing being in excess, reuse options that can generate jobs are nonexistent**.



CHAPTER 2
COST CORRECTIONS TO THE USAF ESTIMATE

Chapter Overview

The USAF cost estimates have serious omissions that result in false conclusions regarding the potential cost savings to the Department of Defense. These omissions occur in both categories of recurring cost savings and one-time costs to realign Kirtland AFB. Less seriously, there are disagreements with some one-time costs within the USAF cost estimates. The USAF projects an annual recurring savings of $62 million. Considering the omissions, that figure should be an annual **cost** of $12.7 million. Similarly, the USAF projects a one-time cost of realignment to be $277.5 million. Considering omissions and disagreements, that cost should be $525.7 million.

2.1 Recurring Cost Omissions

2.1.1 Base Operating Support Funds for Non-Air Force Units

The USAF has overstated a cost savings for BOS by $10.6 million. Of the $62 million that the USAF projects as recurring savings, $52 million is due to personnel reductions within the 377th Air Base Wing (ABW) of 1375 "excess" support personnel. Under the realignment, the USAF has retained support personnel for USAF units at a rate of 9.6% of the authorized strength of the supported units. The USAF did not retain support personnel for non-USAF units. Since none of the non-USAF units at Kirtland are being disbanded, the necessity for the support those units currently receive from the USAF remains. What the USAF has done is merely pull the support provided to the non-USAF organizations and claimed a savings without identifying that there will be a replacement cost to someone else within the DOD. If the non-USAF organizations are provided BOS at the same rate of 9.6% as USAF units are provided support, an additional 209 personnel should be retained from the pool of 1375 "excess" personnel eliminated by the USAF. Using the personnel cost data from the COBRA model, the annual BOS cost of $10.6 million is determined by multiplying the number of support personnel by the annual cost of a person.

2.1.2 Security for the 898th Munitions Support Squadron

The USAF has not provided a security force to replace the military policemen currently performing the security mission for the 898th MSS, which reflects an omission of $8.2 million annually. Currently, the 377 Security Police Squadron provides the security function to the 898th MSS. This organization is eliminated as part of the 1375 "excess" support personnel from the 377 ABW discussed above, and the USAF cost estimate does not include the costs for the establishment of a replacement organization.[1] The Government Accounting Office was informed by the USAF that the security force includes approximately 175 personnel. Using the personnel cost data from the COBRA model, the annual security force cost of $8.2 million is determined by multiplying the number of guards by the annual cost of a person.

[1]While the USAF cost estimate includes personnel for the 898th MSS security mission, these personnel are not accounted for correctly in the COBRA model to reflect they are a new organization, resulting from a BRAC action.

2.1.3 Department of Energy Cost Shift

As in the case of BOS in paragraph 1 above, the USAF shifted some cost of base support from the USAF to the DOE organizations. The Secretary of the Department of Energy has certified an annual cost to DOE of $30.6 million. While DOD policy explicitly states that cost shifts to other agencies are not to be considered, the bulk of the DOE work at Kirtland AFB is funded by DOD appropriations. DOE will merely transfer this added annual cost on to its customer, the DOD. "Costs to the taxpayer" should be the measure.

2.1.4 Veterans Hospital Cost Shift

The USAF has unilaterally dissolved a partnership arrangement with the Department of Veteran Affairs Medical Center in Albuquerque that will result in an increased cost to that hospital of $5.1 million annually. The hospital at Kirtland AFB is a prototype, joint hospital between the USAF and the Department of Veterans Affairs. The VA informally provided information indicating a cost to them of $5.1 million annually when the USAF abandons their obligations. While DOD policy explicitly states that cost shifts to other agencies are not to be considered, the cost shift to the VA is covered under the DOD exception to that policy.

2.1.5 CHAMPUS

The USAF failed to calculate the $20.2 million increase in CHAMPUS cost as a result of their realignment recommendation. DOD guidance explicitly requires the military departments to include the added costs to CHAMPUS that will result from BRAC actions. The USAF ignored that requirement. From patient visit data, and from the CHAMPUS per-visit cost data provided by the USAF hospital at Kirtland AFB, an annual cost shift to CHAMPUS of $20.2 million is determined by multiplying the cost per visit by the number of visits. This is the method used internally in the COBRA model. This cost was corrected to reflect the elimination of an annual $3.4 million dollar liability paid by the USAF to the VA.

2.2 One-Time Cost Omissions

2.2.1 Cantonment Costs

The USAF failed to consider costs to organizations remaining at Kirtland AFB that are necessary to transition from an active air force base into a cluster of cantonment areas. These one-time costs affect Sandia National Laboratories for $64.1 million as determined by the Secretary of Energy; affect Phillips Laboratories for $18.4 million as determined by the USAF site visit team; affect the 150 FG (ANG) for $7.1 million as determined by the USAF site visit team; and affect the Kirtland Underground Munitions Storage Complex for $2.8 million as determined by the USAF site visit team.

2.2.2 Moving the Flight Simulators of the 58th Special Operations Wing

The USAF failed to consider the one-time cost to move the simulators of the 58th SOW for a cost of $26.7 million. This cost estimate was generated by the contractor who builds and operates these special simulators for the USAF. It is composed of three elements: first, the cost of disassembly and assembly of the simulators; second, the cost of packing and transporting the simulators to Holloman AFB (as determined by Mayflower Movers); and third, the cost of relocating the contractor operators of the simulator to Holloman AFB in a manner consistent with the requirements of the current contract.

2.2.3 Move the Theater Air Command and Control Simulation Facility

The USAF failed to consider the cost of moving the Theater Air Command and Control Simulation Facility (TACCSF), a large training computer simulation, for a total of $9.9 million. This cost was provided by the USAF personnel who would be responsible for its movement. This cost does not include any MILCON necessary to house TACCSF.

2.3 One-Time Cost Disagreements

2.3.1 Milcon for Simulator Buildings at Holloman AFB

The USAF has not provided sufficient funds for MILCON for simulator buildings for the 58th SOW, reflecting a one-time cost of $3.8 million. The stated requirement by the USAF for MILCON for the flight simulators is 12 simulator bays. The USAF included cost estimates for four bays and stated that the 6 bays currently scheduled for construction at Kirtland AFB would be reprogrammed for Holloman AFB. The USAF estimate is two bays short of the stated requirement. The cost of $3.8 million is determined by a proportional factoring of the USAF cost of the four bays to six bays.

2.3.2. Milcon for the USAF Safety Center and Inspection Agency

The USAF cost estimate proposes to renovate World War II buildings for the Safety and Inspection Centers at a cost of $1.4 million. The USAF decision to renovate the proposed facilities is not supportable. The Corps of Engineers provided the cost of the current facilities, recently built for these organizations for $15 million. The one-time cost of $13.6 million reflects the difference in the cost of a new facility beyond the funds allocated by the USAF for a renovation.

2.3.3 Milcon for the Defense Nuclear Agency

The USAF has understated the cost of MILCON for DNA by $11.6 million. USAF cost documents reflect requirements for classrooms, light SCIFs, and a library whose costs were not included in the USAF cost estimates. The $11.6 million cost for these facilities was determined by proportional factoring on a square foot basis with similar facilities that were costed by the USAF at Holloman AFB.

2.3.4 Milcon for the NCO Academy

The USAF has understated the cost of a new NCO academy by $7.4 million. COBRA model input shows a requirement for a new 51400 square foot facility, with an estimated cost provided of $2 million. This cost is clearly unreasonable. A cost of $9.4 million was determined by proportional factoring on a square foot basis, with similar facilities that were costed by the USAF at Holloman AFB. The cost understatement is the difference between the $9.4 million and the USAF $2 million.

2.3.5 Ramp for "Unauthorized" Aircraft of the 58th SOW

The 58th SOW has additional aircraft beyond their authorized number: four each C-130, two each MM-53 and two each UH-1. The USAF plans to authorized strength; however, these aircraft will require, at a minimum, a parking space. By proportional factoring on a square yard basis with the cost of the ramp cost provided in the USAF estimate, the additional cost for ramp of $7.2 million is determined. No other facilities are provided for these extra aircraft.

2.3.6 Housing for Holloman AFB

Housing construction is understated by $75.6 million. The USAF shows a requirement for 648 sets of quarters but provides costs for only 100 units. By proportional factoring of the USAF cost for 100 units, a cost understatement of $75.6 million is determined. Clearly, the number of quarters required is a subjective determination. However, Holloman AFB has a housing shortage and also is located in a rural area of New Mexico. There simply are not hundreds of extra homes in the Holloman AFB area to absorb the relocation of the 58th SOW without imposing hardships on military personnel.

CHAPTER 3
MILITARY VALUE - MISSION CONCERNS FOR NUCLEAR SURETY

Chapter Overview

Kirtland has a 50 year history in nuclear surety. The Department of the Air Force (DAF) realignment proposal may have unwittingly underestimated the crucial operational requirements of the joint Department of Defense (DOD)/Department of Energy (DOE) nuclear weapons mission at Kirtland Air Force Base. The team of DOD/DOE military and civilian organizations, scientists, engineers, executives, technicians, and specialists who develop and manage the nation's nuclear weapons stockpile cannot be broken up without jeopardizing the safety and surety of that stockpile. Air Force Safety Agency/Directorate of Nuclear Surety(AFSA/DNS), the Air Force Inspection Agency (AFIA), Field Command Defense Nuclear Agency (FCDNA), Nuclear Weapons Integration Division (NWID), the Naval Air Warfare Center Weapons Division Detachment (NAWCWDD), and the Navy Liaison Office (NLO) should remain located as near to other members as possible to continue co-developing and co-managing the nation's nuclear weapons stockpile.

The consolidation of Kirtland, Sandia Base, and Manzano Base support functions in 1971, resulted in major savings. The termination of consolidated base support will result in major additional support costs. In addition, DAF only considered the value of the consolidated base to itself, not its value to all federal agencies. Much of the savings claimed are actually transfers of costs and responsibilities for support to other bases and other agencies, primarily DOE and DNA. Kirtland should remain fully active with all the existing tenant organizations remaining in place.

3.1 Nuclear Surety

3.1.1 History/Mission

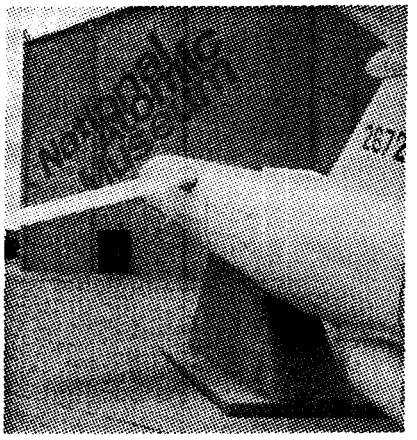
The United States' first nuclear weapons were developed by a joint military-civilian team called the Manhattan Project. The military provided security and base support while the civilians developed, constructed, and tested the first weapon. After the war, the government began taking extraordinary precautions to be sure that our nuclear weapons would always be extremely well designed and manufactured; be safe to transport, survive an accident and store; be safe and secure aboard ships, aircraft, and missiles; never fall into the wrong hands; be secure from unauthorized use; and would work. That effort, known as "Nuclear Weapons Surety," remains top priority with the team that today manages the nation's weapons.

In 1946, the Congress passed the Atomic Energy Act to put our nuclear weapons under civilian control and split the Manhattan Project team into two agencies: one civilian, the Atomic Energy Commission (AEC), and the other military, the Armed Forces Special Weapons Project (AFSWP). Together, they develop and manage the nuclear weapons stockpile. The two established separate headquarters in Washington, D.C. for liaison with the President, the Congress, and the military department's headquarters. That same year, the two agencies began construction of Sandia Base in Albuquerque, New Mexico, a single base operated by AFSWP for both agencies where they could co-develop, co-manage, and co-accomplish the field work necessary to provide the safest and surest nuclear arsenal on Earth. One of the first facilities constructed was Sandia Laboratory. The people of Sandia Laboratory,

AFSWP's Field Command, and AEC's Albuquerque Operations Office (ALO) were, and still are, a team and an extremely valuable pool of military and civilian managerial and technical knowledge and experience. The organizations have changed names several times. Today, AFSWP is known as the Defense Nuclear Agency, the AEC is the Department of Energy, and Sandia Laboratory is known as Sandia National Laboratories (SNL). They still perform the same joint mission at the same location. Sandia Base is now part of Kirtland Air Force Base, and the team includes several new military organizations.

During the Cold War, nuclear weapons become far more sophisticated and numerous and Army, Navy, and Air Force organizations joined the team at Sandia Base, assuming greater responsibilities in the development and management of nuclear weapons. Co-locating nuclear management team members on Kirtland ensures daily interaction on classified and sensitive issues, enables a rapid, team response to urgent problems, and permits sharing of resource materials, data, and libraries. This is especially critical for FCDNA stockpile and nuclear material managers who must rely on daily in-person contact with SNL and LANL counterparts to perform their daily duties. Air Force Safety Agency/Directorate of Nuclear Surety(AFSA/DNS), the Air Force Inspection Agency (AFIA), the Air Force Nuclear Weapons Integration Division (NWID),the San Antonio Air Logistics Center/Nuclear Weapons Integration Division (SA-ALC/NWI), the Naval Air Warfare Center Weapons Division Detachment (NAWCWDD), and the Navy Liaison Office (NLO) representatives rely on the same in-person contacts and access to SNL data to assure the safety and surety of nuclear weapons systems. Their SNL counterparts rely on the same in-person contacts to perform their duties. The need for their inter-organizational coordination is far more intense and essential than it was during the Manhattan Project. Breaking up and moving FCDNA and USAF members of the team would make such interactions, rapid responses, and sharing resources extremely difficult and expensive.

Kirtland is the only place in the country where the Department of Energy, Sandia National Laboratories, the Department of Defense, and the Air Force come together in a continuous, daily effort to develop and to work the vital procedures that have kept our nuclear arsenal safe and secure. The synergy that has been created by the co-location of the major players in this effort is a result of years of relationships and interaction of a very diverse group of individuals, ranging from scientists, engineers, munitions specialists, security specialists, and operations personnel. The result of the national effort has been a perfect record - not a single mishap involving nuclear weapons has produced a nuclear yield.



With the ongoing reduction in numbers of nuclear weapons and no new weapons production, the primary emphasis in nuclear stockpile management is now on more effective and economical support of the remaining stockpile, including surety, safety, and logistical support. It is important that all agencies involved be located at the hub of these activities. FCDNA is a key organization in managing and providing stockpile support. All Service maintenance activities and Joint Nuclear Weapons Publications Systems (JNWPS) activities funnel through FCDNA, including maintenance manuals, parts manuals, and catalogs. FCDNA's nuclear stockpile support duties include, but are not limited to:

a. Maintaining the national accountability database of the national nuclear stockpile and its associated reporting system.
b. Managing the nuclear weapons material system including limited life components, test and handling equipment, spare parts, and supplies from initial provisioning through final disposal, including cataloging, standardization, acquisition, and distribution to the Services.

c. Administering the Unsatisfactory Report (UR) System whereby all deficiencies in weapons, manuals, test and handling equipment, and joint test assemblies (JTA) are reported to FCDNA as a central clearing house. FCDNA is responsible for resolving the deficiencies through coordination with SNL and others and for coordinating and distributing the answers to the Services.
d. Organizing and chairing conferences of Service and SNL officials to coordinate development of alterations and retrofits to nuclear weapons. Since complicated design, engineering, and special equipment is required, in-person coordination by FCDNA, SNL, and Services counterparts is essential.
e. Conducting Nuclear Weapons Effects Tests (NWET), which simulate various nuclear detonation effects including blast, thermal, electro-magnetic pulse, and ionizing radiation effects on Service designed equipment and facilities. Most of these tests are conducted at expensive, permanent FCDNA facilities at Kirtland or White Sands Missile Range.
f. Operating the Interservice Nuclear Weapons School, which conducts general training for senior officers and other personnel from the Department of Defense, the Services, and other government agencies, in particular, the Department of Energy. Of critical importance are the Flag Officer, Senior Officer, and Nuclear Emergency Team nuclear accident response courses.

Currently, at Kirtland, there are eight training sites, five active and three inactive, that were established in the late 1950s and early 1960s under special AEC permits. These sites were "seeded" with radioactive thorium to provide realistic training to designated response team members. The sites contain wreckage of aircraft and vehicles that simulate possible nuclear weapons accident scenarios. Team members don protective gear and masks and perform surveys of the accident sites where they map the area and identify the potential "hot spots" of radioactive contamination that could occur during an actual accident. This is done under the strict supervision of highly qualified instructors who ensure no radioactive exposure occurs to the students or to themselves. These sites at Kirtland are the only such sites in the United States. With new environmental requirements, it is doubtful that other such sites could be opened anywhere. The sites are "grandfathered," being established before environmental legislation passed in the late 1970s and 1980s. These sites are invaluable for realistic nuclear accident response training.

Hopefully, the United States will never have another nuclear weapons accident, but there have been over 30 incidences in our history. If another one occurs, the responding personnel need to be well trained in advance. No time exists for "on the job training." Instant communication from television, radio and the press will put a constant strain on the response team members. Training on the four active radioactive sites is the only way to do this with realistic conditions. The Department of Defense cannot afford to lose these irreplaceable assets.

Breaking up and scattering FCDNA nuclear weapons support operations would be contrary to the primary objective and final recommendations in a 1994 assessment of DNA functions directed by Congress (Public Law 103-139, November 1993) and conducted for the Office of the Secretary of Defense (OSD) by the National Defense Research Institute/Rand Corp. (ie, consolidation of all agencies reporting to a single OSD executive). ("An Assessment of Defense Nuclear Agency Functions - A Pathway Toward a New Nuclear Infrastructure for the Nation," The Rand Corp., 1994, ISBN 0-8330-1545-1). Most of the nuclear weapons support functions proposed for organizational consolidation are already geographically consolidated at Kirtland.

FCDNA has been planning and managing nuclear effects tests and simulations at numerous remote locations from its offices at Kirtland since the 1950s. Previous efforts to break up and relocate these

functions were unsatisfactory; therefore, they were returned to their present organization and physical location. The FCDNA Interservice Nuclear Weapons School operates in a facility specially designed and constructed for that purpose. Previous efforts to relocate the school were unsatisfactory. There is no known rationale or justification for moving this FCDNA mission element from its tailor-made facility. Over the years, Kirtland evolved into a tailor-made base for developing and managing the stockpile (and the peripheral activities such as modifications, upgrades, etc.) in one-of-a-kind facilities as the SNL, the Interservice Nuclear Weapons School, the Manzano Base munitions area and KUMSC, and numerous nuclear weapons effects simulation facilities. AFSWP (now FCDNA) and AEC (now DOE-AL) jointly funded many facilities on Sandia Base; DOE still owns much of the Sandia Base land.

3.1.2 Discussion

The nuclear weapons support functions performed by DOE-AL, FCDNA, AFSA/DNS, AFIA, NWID, SA-ALC/NWI, NAWCWDD, and the NLO rely on a synergistic and unique mix of corporate knowledge and infrastructure. The impact of breaking up and separating these functions would have severely adverse impacts, including:

- Dramatic loss of corporate knowledge,
- Loss of daily interaction and awareness of current developments,
- Delay and difficulty in resolving critical problems, and
- Major increases in secure communications and travel costs.

The proposed realignment will remove FCDNA, and the AFSA from the "nuclear community." They are vital players in the surety of the nation's nuclear weapons programs. Members of all agencies within the "nuclear community" interact daily on the important time sensitive, classified issues of nuclear surety and security. Removing vital players could be detrimental to the future viability of the nation's nuclear deterrent posture. The relationships built up over the past 40-plus years cannot continue on a "long distance" basis. Fax machines and teleconferencing cannot replace daily interaction of all of the key players in the nuclear surety process.

3.1.3 Conclusions

- KUMSC security requirements would be better satisfied as a military base than as a DOE contractor operated installation.
- Relocating FCDNA from its facilities, some of which are tailor-made for its mission, is not necessary to effect closure of Kirtland AFB. It would be a waste of federal funds and would seriously impair joint DOD-DOE management of the nations nuclear stockpile for no logical reason.
- Maintaining a military base would provide an ideal location for future geographic and organizational consolidation of nuclear weapons functions from other locations and organizations as recommended to OSD and the Congress in Rand Corporation's assessment of DNA functions.

3.1.4 Recommendations

- Leave Kirtland Air Force Base intact as an active military installation.
- Conduct a joint DOD-DOE study to determine how best to manage and operate the base to provide consolidation of the nation's nuclear weapons functions and infrastructure.
- Leave FCDNA, AFSA/DNS, AFIA, NWID, SA-ALC/NWI, NAWCWDD, and NLO in their current facilities pending further study of how to best manage and operate the complex facilities.

CHAPTER 4
MILITARY VALUE - UNITS MOVING FROM KIRTLAND AFB

Chapter Overview

This chapter focuses on the primary units proposed to move from Kirtland:

- 58th Special Operations Wing (SOW)
- Air Force Operational Test and Evaluation Center (AFOTEC)
- Field Command, Defense Nuclear Agency (FCDNA)
- Air Force Inspection Agency (AFIA)
- Air Force Safety Agency (AFSA)
- San Antonio Air Logistics Center, Nuclear Weapons Integration Division (SA-ALC/NWI)
- Air Force Security Police Agency (AFSPA)
- Theater Air Command and Control Simulation Facility (TACCSF)

The 58th receives a lot of attention because of potential mission degradation and cost to move. The potential receiver site, Holloman AFB, has limited infrastructure. The proposal would cost about twice the Air Force estimate.

AFOTEC, FCDNA, AFIA, AFSA, and AFSPA are moves "for the sake of moving" in order to reuse Base Operating Support at Kirtland. Mission impacts are addressed in this chapter and in Chapter 2.

AFIA and AFSA were moved into a new $14M building at Kirtland as part of BRAC 93.

TACCSF is one example of a significant small tenant being overlooked.

4.1 58th Special Operations Wing

4.1.1 History

The 58 SOW takes its lineage from the 1550 Aircrew Training and Test Wing assigned to Kirtland AFB in 1976. It was the Air Force's Formal Helicopter and Rescue HC-130 Training School under the command of the Aerospace Rescue and Recovery Service (ARRS). Rescue Forces recovered 3883 people during the Vietnam Conflict. Towards the end of the war, Search and Rescue began to explore a new concept of operations due to increasing threats. From the search and rescue task force (consisting of armed escort, helicopters and HC-130 tankers controlled by an Airborne Mission Control), the Air Force began to explore night, low-level, single ship, clandestine operations. The first successful recovery was made using these specially equipped aircraft, and Kirtland and the 1550th began to develop and refine follow-on equipment and procedures that would change rescue operations in a higher threat environment forever.

By March of 1979, the first production model Pave Low HH-53H with unique nighttime, terrain following/terrain avoidance, low-level, adverse weather capability was rolled out of the Naval Rework

Facility at Pensacola, FL. The 1550th performed all operational test and evaluation of these aircraft. ARRS was prepared to declare eight HH-53H's operationally ready in the Spring of 1980, when a mission to rescue American hostages from Iran was attempted. This mission was unsuccessful partly due to many of the factors the 1550th was addressing through enhanced aircraft capabilities and procedures. The Air Force embarked upon preparations for a second attempt, and all Pave Low Aircraft were transferred from Kirtland to the Tactical Air Command. They were assigned to the 1st Special Operations Wing at Hurlburt Field, FL, joining the MC-130E Combat Talon and the AC-130H Gunship to support clandestine operations of the Army Special Operations Forces. The 1550th continued to provide initial qualification and upgrade training on H-1, H-3, and HC-130 while training for the HH-53H, MC-130E, and AC-130H was accomplished at the operational 1st Special Operations Wing. ARRS embarked upon another helicopter modernization program using the H-60 airframe and many of the same equipment features as the Pave Low H-53. The 1550th's expertise was vital in establishing the requirements for this development program, and the first of the MH-60G aircraft was delivered to Kirtland in late 1988.

As the terrorist threat continued to increase in the 1980s, a focused effort to improve United States Counterterrorist capabilities took place within the Department of Defense. Following the 1982 USAF Scientific Advisory Board Summer Study on Airlift and Force Projection, the Air Force reorganized Rescue and Special Operations Forces under a single command, the Military Airlift Command. Twenty Third Air Force, at Scott AFB, IL was established under MAC as the lead Command to enhance capabilities to deal with the terrorist threat, including the recovery of future potential hostages within hostile territory countries.

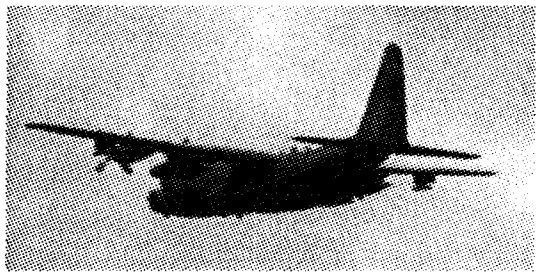
In 1984, the Pentagon approved the first Special Operations Master Plan, a modernization plan to organize and equip forces with the capability to deal with terrorism and hostage situations, as well as low level conflict in third world nations. This plan included the concept of centralized training, separate and distinguished from operational forces. Operational units would be forward deployed and stationed in areas where threats were most likely to occur. These forces would be able to quickly react to situations requiring immediate and precise action. The concept was for Special Operations Forces to be formally trained at a central location, be rehearsed in actual mission profiles, and be exercised with other forces in their designated areas of responsibilities to remain combat ready and to provide an immediate response capability. In 1987, the Joint Special Operations Command at Fort Bragg, NC was established, and 23rd Air Force became the Air Component Command of the United States Special Operations Command. Twenty Third Air Force in conjunction with Dep Sec Def for Special Operations and Low Intensity Conflict (SOLIC) conducted exhaustive studies to refine the separation of operations and training **to permanently establish a Centralized Training and Mission Rehearsal location.**

Kirtland Air Force Base was selected as the base for centralized training for all Rescue and Special Operations Forces. Climate, vast sparsely populated areas for low level training, mountains, water, desert, forest, designated firing ranges, assault strips, a base with room for expansion, and a community and state willing, ready, and able to support all military operations of United States priority were factors that consistently rose to the top for Kirtland. After exhaustive studies at all levels, including the United States Special Operations Command at MacDill AFB, FL (a joint command), the decision to make Kirtland the centralized location for

Special Operations Forces Training and Mission Rehearsal was complete. The first MH-53 J Pave Low Helicopter (an upgraded version of the Pave Low HH-53H developed at Kirtland) was delivered in November of 1987. **Special Operations training systems along with appropriate construction have been designed, developed, and installed at Kirtland. These systems combine and interface to provide the world's most technologically advanced and sophisticated training and the only mission rehearsal data base development system within DOD.**

4.1.2 Mission

The 58th Special Operations Wing (SOW) is a USAF formal school for the training of special operations aircrews for Air Force Special Operations Command and air rescue aircrews for Air Combat Command, Air Force Materiel Command, Air Mobility Command, Theater Commands, Air Force Reserve, and Air National Guard. Training is also conducted for pararescue specialist and combat controllers. There are 83 separate courses, providing combat training for 1000 plus students per year. Training is provided for aircraft qualification, mission qualification, and annual refresher training in the UH-1N, MH/HH-60G, TH-53A, MH-53J, HC-130, and MC-130 aircraft. Training encompasses academics, flight simulators, field exercises and aircraft. The unit has 33 assigned aircraft to include six UH-1s, six H-60s, ten H-53s, six HC-130, and five MC-130s. There are currently six high fidelity aircraft simulators, and four low/medium fidelity procedure trainers, building to fifteen simulator/training devices by FY97. The simulators are housed in large specialized facilities requiring unique air-conditioning, mechanical, electrical, and space requirements. The highest fidelity simulators are capable of six degrees freedom of motion and incorporate advanced visual displays. These devices are supported through contracts with Lockheed Martin, Hughes, and Loral.



58th SOW flight operations are primarily at night and are conducted at low altitudes. Very specific types of terrain and flight operations are required, which are ideal in the Kirtland area but are marginal in the Holloman area. For example, there are a lack of low-level training routes in the Holloman area suitable for the types of aircraft flown by the 58th. Most of the terrain-following and terrain-avoidance routes are obstructed by wilderness areas and spotted owl habitats. In fact, some training may have to be done by flying up to Kirtland and using the current routes, at greater fuel expense and degraded training time.

The unique ability to support mission rehearsal is provided to the Department of Defense by the 58th SOW. These missions support critical national objectives, most of which are classified. This one-of-a-kind facility has generated over one million square nautical miles of visual data bases covering major "hot spots" of the world. This mission rehearsal display generation capability is unique to the 58th SOW in support of the DOD. The operating budget for 1994 was approximately $25.5M. The additional budget for unique special operations requirements was approximately $22.5M.

4.1.3 Costs of Realignment

4.1.3.1 Costs to Move

The Air Force proposal moves the 58th SOW to Holloman. Holloman does not have enough water, electrical power, or overall infrastructure. It is not widely known, but the 58th operates a power and water intensive operation for their flight simulators and the associated computer complex, which is quite extensive. **The excellent infrastructure now at Kirtland is virtually nonexistent at Holloman** (fiber optic lines, water mains, ramp space, hangers, simulator space, on and off base housing, etc.).

Current 58th SOW facilities number in excess of 40 buildings and 927000 square feet. **Among its dedicated assets are 2500000 sq. ft of ramp and an auxiliary field for helicopter operations, including a fire house**. When the unit was considered for realignment in 1992 to Fairchild AFB, its estimated needs were in excess of 1 million sq. ft plus similar amounts of ramp space and an auxiliary field. **Infrastructure was already available at the destination base which satisfied nearly 40% of stated requirements, yet the Air Force estimated the beddown of the wing would cost in excess of $170M, the majority of which was in new military construction.** (Personnel costs were not included on these figures.) **The 1992 move of the 58th SOW to Fairchild AFB was overturned due to cost. Holloman AFB provides less capacity than Fairchild AFB** whose departing B-52 and KC-135 mission left approximately 600000 sq. ft of available space. New training devices have added to the facility requirements. Eight million dollars in MILCON for a new simulator facility and a new academic support facility are contracted and on hold pending BRAC decisions. Holloman AFB has no existing open facilities due to recently added F-117 and German Tornado aircraft.

4.1.3.2 Construction Cost Considerations

The AF proposal to move the 58th SOW does not provide the wing with all the facilities it enjoys at Kirtland. For example, the AF provides hangar and ramp space based on primary aircraft. At Kirtland, there is enough space for primary and backup aircraft. This can be important when winds are strong and maintenance personnel are trying to prevent damage to helicopters. With sufficient hangar space, the helicopters can be moved inside. If space is insufficient, rotor blades must be removed at a significant manpower cost. Other considerations include:

- Base housing to support approximately 1500 military and civilian personnel
- Specialized simulator facilities
- Networked classrooms
- Networked learning center
- Contractor support facilities
- Loss of hangar space for all aircraft (existing hangar capacity is not planned to be placed elsewhere)
- Hangars (helicopters must be hangared or blades removed in high winds)
- Realignment plans call for only four of nineteen helicopters to be hangared
- Specialized maintenance shops
- Operations facilities
- Aerial port
- Dorms/single family
- Dining facilities
- Loss of auxiliary field
- Assault landing strips and drop zones
- Environmental impact assessments/statement
- Must establish new training areas at significant delay, cost, and flying time (increase aircraft and maintenance flying hours)
- Surveys
- Approvals/coordination
- Incompatible aircraft in the traffic pattern (e.g., Pope AFB mishap)
- Discrete special operations no longer masked by commercial traffic

4.1.4 Summary Points

OPERATIONAL ADVANTAGES OF MOVING:

- Air Force dedicated runway

OPERATIONAL DISADVANTAGES OF MOVING:

- Extensive range restrictions for flying in and about Holloman vs. Kirtland
- Disruption of training profiles; Kirtland provides immediate access while Holloman requires circumnavigating extensive restricted areas to reach training areas. (Note: all flying activities stop when mission profiles are active)
- Rebuilding a mission ready status
- Cost and difficulty of moving simulators
- Disruption of mission rehearsal capability for prolonged period of time
- Disruption of unique one-of-a-kind facility for real world mission rehearsal
- Disruption of training pipeline (6 to 12 months)
- Current shortage of qualified operational crewmembers will increase
- Impact overseas short tour/CONUS balance
- Manning turmoil at gaining units as tours are extended

COSTS:

Our estimate of the one time construction cost to move the 58th SOW is about two times the original AF estimate. Differences in cost estimates are in the cost summary. Additional information on the 58th SOW is at Appendix D.

4.2 Air Force Operational Test and Evaluation Center (AFOTEC)

4.2.1 History

The Air Force Operational Test and Evaluation Center was formally activated on January 1, 1974 at Kirtland. Originally named the Air Force Test and Evaluation Center (AFTEC), AFOTEC was chartered to be an independent organization, separate from the Air Force commands which develop, procure, and use Air Force weapons and subsystems. The headquarters was located at Kirtland as an adjunct to the Air Force Test and Evaluation Systems Program Office (TESPO). The decision to locate at Kirtland was influenced by the fact that no significant system development or developmental test activity was taking place at Kirtland. AFOTEC achieved initial operational capability in April 1974 with full operational status following in October 1974. Prior to AFOTEC's creation, the translation of users needs into contract specification was without focus or structure, frequently resulting in a product that failed under operational conditions. With the advent of AFOTEC, the developmental test results were called into question. As a result, the decision was made to not subject AFOTEC to the pressures of being a tenant unit on a base where the host activity was a key developmental tester.

4.2.2 Mission/Manning

In accordance with DOD policy, AFOTEC is an Operational Test Agency aligned independently from organizations that develop, procure, and use any of the equipment to be tested. The operational units which employ the systems are AFOTEC's most important customers. AFOTEC is the agent responsible

for verifying that the system will be operationally effective and operationally suitable when employed in the intended operational environment. Other important customers for AFOTEC are the acquisition decision-makers. The findings resulting from OT&E contribute to decisions on the acquisition of new systems, improvements to systems already being produced, and modifications of systems currently deployed in the field. The requirements for OT&E have been set forth in Public Law (Title 10, US Code). The law requires that a system must successfully accomplish initial operational test and evaluation prior to proceeding into the Full Scale production phase of the acquisition life cycle.

The current authorized manning level at Headquarters AFOTEC at Kirtland is approximately 615 people. This breaks down into approximately 342 officers, 96 enlisted, and 177 civilians. In addition, approximately 130 person-years of contractor personnel provide technical support to the AFOTEC staff in Albuquerque and at the detachments. Headquarters AFOTEC personnel currently reside in four buildings in close proximity to the intersection of Wyoming and Gibson on Kirtland. The amount of floor space in use is 167185 square feet. The current facilities include a large SCIF, numerous vaults, a presentation center capable of seating 200 people, a computer operations room, a classroom and training center, and a computer preparation area. The SCIF contains a substantial mainframe computer system. According to the Host Tenant Support Agreement between AFOTEC and the 377th ABW, the annual cost of supporting AFOTEC at Kirtland is $3,484,026.

4.2.3 BRAC Criteria

A. MILITARY VALUE

1. **Current and future mission requirements and impact on operational readiness of the DOD total force**. AFOTEC has the mission to plan and conduct operational test and evaluation independent from the system developers and testers. AFOTEC's current location at ***Kirtland offers excellent insulation of the OT&E process from the system development and DT&E processes.*** Eglin AFB is one of the two Air Force locations with a very significant amount of developmental test activity. While relocating AFOTEC to a systems development test base may not result in any real compromise of AFOTEC's independence, **the perception by acquisition decision makers and the Congress that the Air Force has eroded AFOTEC's independence is very probable**.

   One of AFOTEC's missions is to assess the survivability of a weapon system in a nuclear environment. Sandia National Laboratories is the recognized expert in the testing of systems in both simulated and realistic nuclear environments. The relocation of AFOTEC would result in the loss of this synergism with the nuclear community.

   When the proposed relocation of AFOTEC to Eglin AFB is viewed in a larger BRAC context, additional mission impacts are apparent. Separate from the Kirtland proposal, the Air Force has proposed to relocate the Electronic Combat Test Environment from Eglin AFB to Nellis AFB. This proposal will have the effect of centralizing in one location, Nellis AFB, all of the Air Force Electronic Combat open air range activities. AFOTEC's mission of testing a system in realistic environments has resulted in significant AFOTEC use of these open air test activities. Future requirements continue this significant use. **As a result of relocating to Eglin AFB, AFOTEC will be a significantly greater distance away from the test assets intended to be used in OT&E resulting in increased operational costs**.

2. **Availability and conditions of land, facilities, and associated airspace at both the existing and potential receiving locations**. Of these items, only facilities applies to AFOTEC. The facilities currently occupied by AFOTEC at Kirtland have recently undergone significant upgrades. The facilities are in very close proximity to each other--a requirement for the significant dialogue and interaction between AFOTEC personnel. In addition, AFOTEC currently has specialized facilities including a SCIF, several vaults, a presentation center/auditorium, a computer operations center, a classroom/training center, and a computer preparation area. These facilities must be replicated at the gaining location for AFOTEC's overall mission accomplishment. According to reliable sources, existing facilities meeting these requirements do not currently exist at Eglin AFB. The absence of SCIF at Eglin will significantly hamper the AFOTEC mission. **This necessitates construction of new facilities**.

3. **Ability to accommodate contingency mobility and future total force requirements at both the existing and potential receiving locations**. This question is not applicable to AFOTEC.

4. **Cost and manpower implications**. From AFOTEC's standpoint, operating costs will be the same at Eglin AFB as they are at Kirtland AFB. The size of AFOTEC is not expected to change appreciably. The current Base Operating Support paid by AFOTEC to the 377th ABW is approximately $3.5 million. A relocation to Eglin AFB would not result in any significant change in the amount of BOS. Facilities at Eglin AFB comparable to the facilities currently occupied by AFOTEC at Kirtland, are not available. **New military construction will be required for a move to Eglin AFB, including the construction of a SCIF for AFOTEC's Special Test activity.**

   The relocation of AFOTEC to Eglin AFB will also result in a significant increase in the organization's annual operating budget caused by increased travel costs. The increased travel costs result from the location of Eglin AFB as compared to the destinations of most of AFOTEC's travel. Travel in and out of the Eglin AFB area is high cost because Eglin is not a major airline hub.

   A manpower implication with potentially significant impact on the overall mission accomplishment of AFOTEC deals with the portion of the civilian workforce unwilling to relocate to Eglin AFB. ***Recent surveys within the organization indicate that as many as 25% of the civilians will choose not to relocate. If this 25% happens to be made up of a significant number of the senior civilians within the organizations, serious mission degradation could occur.*** In addition to relocating government personnel, AFOTEC has approximately 130 person-years of contractual support. Costs to move them may be passed on to the government.

B. RETURN ON INVESTMENT

5. **Extent and timing of potential cost savings including the number of years beginning with the date of completion of closure or realignment for savings to exceed costs**. Data for AFOTEC associated costs contribute to the overall return on investment figure, but specific data for AFOTEC is not available. However, it should be noted that the relocation costs from Kirtland to Eglin AFB are not small. **Because of one-time costs for MILCON and for government personnel relocation, there are no net savings in support costs for AFOTEC as a result of the proposed relocation**.

C. IMPACTS

6. **Economic impact on communities**. Information from AFOTEC contributes indirectly to this criteria. The total direct jobs affected by the proposed relocation is approximately 615. With the addition of another 130 contractor personnel, the total comes to about ***745 jobs affected by the relocation of AFOTEC from Kirtland AFB to Eglin AFB***.

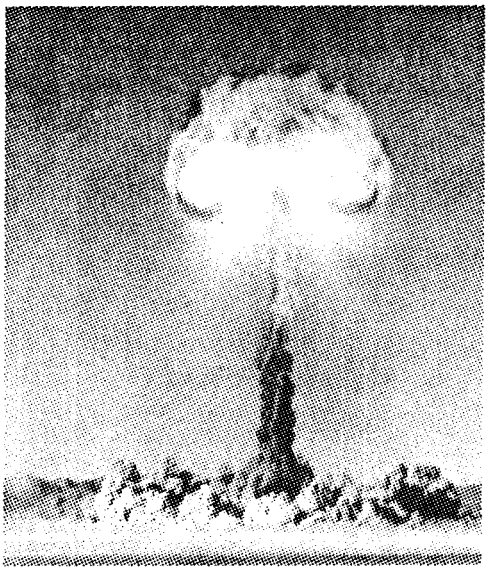
7. **Infrastructure to support forces, missions, and personnel of both the existing and potential receiving communities**. The infrastructure required to support AFOTEC will not change as a result of moving the organization from Kirtland to Eglin AFB. However costs may be higher. Facilities, personnel, and BOS are all discussed above.

8. **Environmental impact**. There will be no environmental impacts as a result of the proposed relocation of AFOTEC.

4.3 Field Command, Defense Nuclear Agency

4.3.1 Mission

Field Command Defense Nuclear Agency (FCDNA) is the field operations element of the Defense Nuclear Agency (DNA) which was originally the Manhattan Engineer District, formed in 1942 during the Manhattan Project to develop the world's first nuclear weapon. It was a joint service project, giving DNA the lineage and distinction of being the oldest joint service agency, even older than the present-day Department of Defense.



The Agency's name was changed to the Armed Forces Special Weapons Project in 1947, to the Defense Atomic Support Agency in 1959, and to the Defense Nuclear Agency in 1971. However, its mission and joint Service nature have remained basically unchanged.

Field Command's mission includes maintaining the accountability database on all nuclear weapons in the national stockpile; conducting Nuclear Weapons Effects Tests using high explosives, thermal, electro-magnetic pulse, and radiation simulation facilities; conducting Joint Nuclear Surety Inspections of all Services' nuclear capable units; providing arms control and counterproliferation support; providing Cooperative Threat Reduction (Nunn-Lugar) Program support; operating the Interservice Nuclear Weapons School; and operating Johnston Atoll, the Pacific Nuclear Test Site where the Army's Chemical Agent Demilitarization System is now located. DNA research helps ensure US forces are prepared to operate on future battle fields where opponents may possess conventional, nuclear, biological, or chemical warfare capabilities.

Headquarters, Field Command DNA is located adjacent to DOE and Sandia National Laboratories facilities in the nuclear weapons support complex, which occupies 95% of the present Kirtland Air Force Base, and which Field Command formerly managed and operated as Sandia Base. Field Command also conducts operations at Nevada Test Site, White Sands Missile Range, and Johnston Atoll, 700 miles southwest of Honolulu.

Field Command's work requires close coordination with all the military services and daily contact with the Department of Energy's Albuquerque Operations Office, Sandia National Laboratories, and all other Nuclear Weapons Support organizations on the base. Field Command is an integral element of the worldwide nuclear support structure that helps maintain the validity of our nuclear deterrent.

4.3.1.1 Costs to Move
The move of FCDNA is one of several that is a pure cost in order to effect the realignment. The only reason to move is removal of the support wing from Kirtland.

4.4 Air Force Inspection Agency

4.4.1 Mission
Air Force Inspection Agency at Kirtland reports to The Inspector General, Office of the Secretary of the Air Force. AFIA, comprised of four inspection directorates, is charged with assessing Air Force fighting capability and resource management effectiveness and making appropriate recommendations for improving Air Force mission capability. The agency also conducts special reviews and inquiries as directed by the SECAF, chief of staff and The Inspector General. There are currently 191 personnel assigned to AFIA.

As a result of BRAC 93, AFIA along with AFSA moved from Norton AFB, CA to Kirtland in July 1993 at a total cost of $21.8M. The new location provides AFIA with a modern facility tailored to the agency's mission and incorporates state-of-the-art communications and information processing capabilities designed to improve the efficiency of the organization.

The Field Inspection Directorate provides independent assessments of USAF capability at MAJCOMs, field operating agencies, and direct-reporting units. In addition, field inspectors accompany MAJCOM IG teams to maintain contact with field units. The inspectors also look into items of special concern in accordance with the statutory obligation of the Air Force IG to "inquire into and report upon the discipline, efficiency, and economy of the Air Force."

Two new directorates, Management Inspection and Acquisition Inspection, were formed in late 1991 to execute a new approach to management and acquisition management reviews replacing the functional management and system acquisition management inspections. The FMRs and AMRs provide assessments of specific aspects of a process or program, rather than the broad-scale program or systems analyses done previously. The reviews stress owner responsibility for development and implementation of corrective action.

The Medical Inspection Directorate continues its rigorous oversight of the Air Force Medical Service, performing health services inspections of active duty, Air Force Reserve, and Air National Guard medical treatment facilities. Medical inspectors use a new and streamlined approach, emphasizing outcome and performance and incorporating data from multiple sources to provide commanders with the most effective assessments possible. The directorate has also enhanced its capability to perform medical FMRs and conduct more realistic evaluation of medical readiness in conjunction with MAJCOM Quality Air Force Evaluations and Operational Readiness Inspections.

4.4.1.1 Costs to Move
The proposed move of AFIA is one of several that is a pure cost in order to effect the realignment. The only reason to move is removal of the support wing from Kirtland.

4.5 Air Force Safety Agency

4.5.1 Mission

The Air Force Safety Agency, a field operating agency (FOA), manages the Air Force Mishap Prevention Program and the Air Force Nuclear Surety Program. It develops regulatory guidance, provides technical assistance in all safety disciplines, and maintains the Air Force data base for all safety issues throughout the Air Force.

As a result of previous BRAC action, AFSA and AFIA moved to Kirtland. Their new facility was tailored to their mission and provides state-of-the-art information and communications support. The agency comprises eight directorates and a command section. The command section provides legal, budget, personnel, and administrative support. The agency has four mission directorates: Flight Safety, Ground Safety, Weapons and Space Safety, and Nuclear Surety--and four support directorates: System Safety and Engineering, Live Sciences, Safety Education, and Data Operations and Analysis.

The Flight Safety Directorate leads the Air Force Mishap Prevention effort for manned aircraft. The Ground Safety Directorate concentrates on ensuring a safe work environment. Weapons and Space Safety personnel ensure safe handling of explosives, with a focus on ammunition transportation and storage, as well as oversee mishap prevention programs for ballistic missiles, remotely piloted vehicles, and satellites. *The Directorate of Nuclear Surety is responsible for managerial oversight of the Air Force nuclear weapons surety programs.*

The System Safety and Engineering Directorate plays an important role in ensuring safety in the engineering concepts applied to USAF aerospace systems. The Safety Education Directorate publishes mishap prevention periodicals, oversees a variety of courses for individuals assigned to mishap prevention duties, and operates the Air Force Crash Laboratory. The Data Operations and Analysis Directorate maintains the Air Force data base for all safety issues throughout the Air Force. The Directorate of Life Sciences provides operational insight, scientific and technical support, and Headquarters USAF oversight to aeromedical, life support, egress, physiological and psychological human factor issues.

HQ AFISC,
New $14 million building f
irst occupied in 1993

4.5.1.1 Costs To Move

AFSA also moved to Kirtland as part of previous BRAC action. The proposed move of AFSA is one of several that is a pure cost in order to effect the realignment. The only reason to move is removal of the support wing from Kirtland.

4.6 San Antonio Air Logistics Center/Nuclear Weapons Integration Division (SA-ALC/NWI)

4.6.1 Mission

This division, consisting of 78 (16 military; 62 civilian) people is a detachment of the San Antonio Air Logistic Center's Directorate of Nuclear Weapons (SA-ALC/NW). *The division is the Air Force technical arm in the nuclear weapons arena.*

There is a compelling argument to keep the division at Kirtland. In addition to working technical nuclear issues (weapon program management, safety, compatibility, logistics, analysis, publications, R+D,), *NWI is the Air Force official liaison between DOE and SNL to USAF nuclear units in the field and to the 898 Munitions Squadron at Kirtland.*

NWI personnel meet at least weekly with SNL on vital nuclear issues such as weapon management, weapon compatibility, publications and safety. In addition, NWI writes, in conjunction with DOE and SNL, the Technical Nuclear Safety Analysis (TNSA) for the Air Force Nuclear Weapons Systems Safety Group (NWSSG). The group meets 8-10 times per year to write nuclear weapons system rules for all Air Force nuclear weapons systems (B-1, B-2, B-52, F-16, F-111, Minuteman II, III and Peacekeeper). The TNSA forms the technical backbone for all weapon system safety rules and cannot be written without close consultation with DOE and SNL.

4.6.1.1 Costs to Move:

The move of SA-ALC/NWI is one of the several that is a pure cost in order to effect the realignment. The only reason to move is removal of the support wing at Kirtland.

4.7 Air Force Security Police Agency (AFSPA)

4.7.1 Mission

The Air Force Security Police Agency reports directly to the Air Force Chief of Security Police, Headquarters U.S. Air Force. The agency is the center of expertise for implementing programs to meet the needs of Air Force commanders in the protection of vital resources. Guidance is provided to a total force of 30,000 security and law enforcement personnel.

A wide range of programs is overseen by the agency, including air base ground defense, aerospace systems security, the U.S. Air Force corrections program, security police training, security education, intrusion detection systems, safeguarding national security information, combat arms training and maintenance, security police equipment, and the Security Police Automated System.

The agency also manages the Department of Defense Military Working Dog Program which supports civilian law enforcement efforts. It maintains liaison and coordinates with federal, state and local law enforcement agencies.

4.7.1.1 Costs to Move

The proposed move of AFSPA is one of several that is a pure cost in order to effect the realignment. The only reason to move is removal of the support wing from Kirtland.

4.8 Theater Air Command and Control Simulation Facility (TACCSF)

4.8.1 Mission

This unique USAF Air Warfare Center facility supports Air Combat Command requirements. Of special note is the simulator which would be extremely difficult and costly to move from Kirtland.

4.8.2 Impact

This unit is one of several overlooked in the original proposal. The immediate cost impact is estimated at **$9.9M**.

CHAPTER 5
MILITARY VALUE - UNITS REMAINING AT KIRTLAND AFB

Chapter Overview

This chapter focuses on units approved to remain at Kirtland:

- Phillips Laboratory (PL)
- 150th Fighter Group, Air National Guard
- Department of Energy/Sandia National Laboratories (DOE/SNL)
- Veterans Administration Medical Center (VAMC)
- Kirtland Underground Munitions Storage Complex (KUMSC)

Most units remaining at Kirtland will be in three cantonment areas: 1) DOE/SNL, 2) ANG and 3) PL.

Because of continuing operational requirements (especially hazard and safety zones for explosive storage and testing) **over ninety-five percent (95%) of the Kirtland land area will still be in use.** (See map inside front cover.) Significant support costs shift from the Air Force to other federal agencies; for example, DOE/SNL estimates one time costs of $64.1M and annual costs of $30.6M.

The VAMC loses Air Force medical capabilities currently part of a joint use agreement. This is another example of a program that is a national model for cost sharing (a BRAC objective) being dismantled ($5.1M).

The AF proposal to "civilianize" the KUMSC workforce and security raises great concern.

5.1 Phillips Laboratory (PL)

5.1.1 History

Newly formed in late 1990 as one of four Air Force "super laboratories," the Phillips Laboratory brings a proud heritage to New Mexico. It was formed, in part, from Kirtland resources of the Air Force Space Technology Center headquarters and the Weapons Laboratory.

5.1.2 Requirements

5.1.2.1 Mission

An Air Force scientist helps develop a laser that uses oxygen and iodine to produce a short wavelength, high-impact beam. Another researcher is developing microcircuitry that can operate reliably in the radiation-rich environment of space. Meanwhile, others are developing trillion-watt microwave devices that may be used for future weapons, producing exotic propulsion sources that will allow travel into deep space, and studying the effects of the sun on aerospace systems. These are among the more than 2,000 men and women who make up the Phillips Laboratory.

Headquartered at Kirtland AFB, Phillips Laboratory is the primary Air Force laboratory for the development of space and missile technologies whose dedicated work force focuses on space- and missile-related geophysics, and directed energy research and development. With more than 1,500 projects in progress, the Laboratory has an annual budget of more than $750 million.

Phillips Laboratory, and its predecessor units, have been instrumental in developing radiation-hardened space micro-electronics, prototype high-energy laser weapons, projectiles that can intercept intercontinental ballistic missiles, and world-class facilities for simulating and evaluating nuclear weapons effects.

Involved in every rocket engine ever developed by the Air Force, the Laboratory continues improving systems and operations through a greater understanding of the near-earth and deep-space environment. Additionally, the organization will have prepared the groundwork for future generations of directed-energy plasmas and microwaves.

Named after General Samuel C. Phillips, a leader in space research and development, the laboratory concentrates its activities in six scientific directorates: geophysics, propulsion, space and missiles technology, lasers and imaging, advanced weapons and survivability, and space experiments. Although the majority of the Lab's people are in New Mexico, major operations are conducted in California and Massachusetts.

5.1.2.2 Land
The Phillips Laboratory (PL) will continue to occupy its current buildings in a west side cantonment area. Security and other support would be needed.

5.1.3 Impacts
Of particular concern is the negative long term ramifications of the Air Force proposal, including the loss of the vision of a world-class center-of-excellence for USAF space research activities at Kirtland. Achieving this vision requires completing the partial consolidation of the PL geographically dispersed directorates approved in 1991, continuing the move of the Space and Missile Systems Center/TE to Kirtland, and implementing the first step of full PL consolidation by moving all of their Hanscom AFB operations to Kirtland. Increased operating efficiency and research synergisms would then occur. This grand vision is now at risk. All of the PL Hanscom operation should be moved to Kirtland by adding them to the BRAC language, because they have tremendous synergies with the other PL directorates.

Additionally, PL acquires many junior officers in the early stages of an Air Force career. The Air Force proposal will forfeit the training mission for junior officers who now receive direct personal experience actually conducting research. These officers then take this experience with them to other jobs in the USAF, such as acquisition programs.

5.1.3.2 Assumptions
PL would isolate itself and its utilities into its cantonment area.

5.1.3.3 One Time
In order to transition from support of the 377th ABW to standing on its own, PL would need to complete several projects. The total construction costs are estimated at **$18.4M**.

5.1.3.4 Annual Costs
There is an increase to the annual operations cost for manpower, equipment, and training.

5.2 150th Fighter Group, Air National Guard (ANG)

5.2.1 History

The New Mexico Air National Guard's 150th Fighter Group has been stationed on Kirtland since 1947. The 150th was called to active duty for the Korean War and its pilots flew 1,413 combat missions in F-51 and F-86 aircraft. The unit won the coveted Spaatz Trophy in 1956. The 150th was called to active duty again in 1968 and was deployed to Southeast Asia. In 15 months, the 150th flew more than 6,000 combat missions in the F-100 fighter. In September 1973, the 150th began flying the A-7D Corsair II, a single-engine tactical fighter. The unit was awarded the Winston P. Wilson Trophy in 1979 for being judged the most outstanding Air National Guard unit equipped with jet fighter or reconnaissance aircraft.

In July 1980, the 150th was assigned as the first A-7D unit in the newly formed Rapid Deployment Force (RDF), now designated the U.S. Central Command. In November 1980, the unit participated in RDF joint task force exercise\Bright Star 81: and achieved a record for A-7D nonstop flight when unit pilots flew 11 1/2 hours from Pease AFB, NH, directly to Cairo West AB, Egypt. The 150th Fighter Group also participates in bi-annual Gunsmoke competitions, and was named the best A-7 unit in the tactical air forces in 1989 and 1991.

Each year, the unit participates in several deployments and exercises throughout the United States and overseas. Past deployments have taken the unit to Alaska, Hawaii, the United Kingdom, Germany, the Netherlands, Spain, and Central America.

With a long and proud history as a fighter unit capable of meeting any challenge, the 150th was selected to convert from the A-7D to the F-16C/D conversion in October 1992. In addition to flying its new F-16 mission, the unit also has a unique Defense Systems Evaluation Branch, which is involved in testing U.S. Army air defense weapon systems at ranges at Fort Bliss, Texas, and White Sands Missile Range, NM.

5.2.2 Requirements

5.2.2.1 Mission

The 150th continues to fly F-16 aircraft in support of "Total Force" requirements.

5.2.2.2 Land

If the realignment occurs, the 150th would transition to a "stand alone" ANG unit at a commercial airport (Albuquerque). The cantonment area is based on the needs of that configuration. (See map at appendix A).

5.2.3 Impacts

5..2.3.1 Assumptions

The cantonment area would need security; operations require firefighting and base support.

5.2.3.2 One Time

The one-time construction costs to isolate the area, provide security, and add facilities to become a "stand alone" unit are estimated at **$7.1M**.

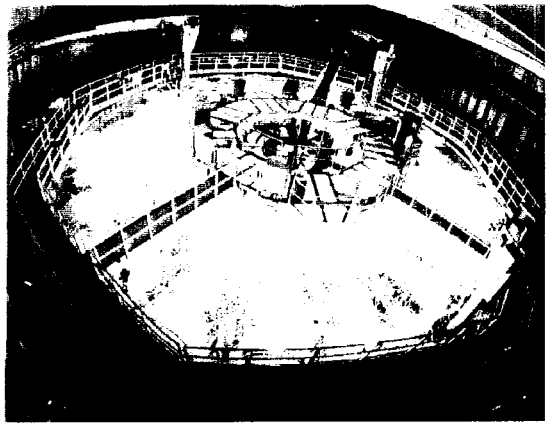
5.2.3.3 Annual Costs

The annual costs include hiring 86 personnel to replace services formerly provided by the 377th ABW.

5.3 Department of Energy/Sandia National Laboratories

5.3.1 History

In 1945, Sandia was a small part of Los Alamos Laboratory, called Z Division, which provided technical support to the US Army. In 1949, Harry Truman wrote to the president of AT&T to offer "an opportunity to render an exceptional service in the national interest" through management of Sandia Laboratories. After 44 years as a government-owned contractor-operated laboratory, Sandia continues to provide exceptional service in the national interest as one of the country's largest technical resources.



Today, Sandia is operated by Sandia Corporation, a subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy. Its headquarters and main laboratory are located on Kirtland Air Force Base in Albuquerque, New Mexico. Another Sandia laboratory complex, in Livermore, California, was established in 1956 to provide a close working relationship with Lawrence Livermore National Laboratory. Test ranges are operated near Tonopah, Nevada, and on the island of Kauai, Hawaii.

Sandia employs more than 8,500 people; the majority are based in New Mexico. Some 1,050 employees work in California, and smaller groups work at Tonopah, Kauai, and the DOE Pantex Plant in Amarillo, Texas. Approximately 60 percent of the Laboratories employees are in technical and scientific positions, and the remainder are in crafts, skilled labor, and administration.

5.3.2 Requirements

5.3.2.1 Mission

DOE will retain all of its activities at Kirtland AFB including its Albuquerque Operations Office, the Kirtland Area Office, Sandia National Laboratories(SNL), the Inhalation Toxicology Research Institute(ITRI), Ross Aviation, and Allied Signal. The latter two activities will occupy space on the west side of the installation in the ANG or PL cantonment areas. SNL and ITRI will be on the east side in the DOE cantonment area (see map at appendix A).

5.3.2.2 Land

The east side cantonment area will contain 2842 acres currently owned by DOE, 15000 acres provided by land-use permits from the USAF, the Forest Service, and the Isleta Indian Reservation, and the remaining area that would be vacated by the AF **but still required as safety/buffer zones for DOE existing activities**.

5.3.3 Impacts

5.3.3.1 Assumptions

DOE has no reason to leave Kirtland. Its activities would remain in their existing buildings. DOE would need to fulfill its safety, security, and infrastructure support requirements by operating the cantonment area on the east side (map at appendix A). The costs to assume these responsibilities and make the cantonment area a viable installation are outlined below. There are one-time costs (needed if the AF leaves) and annual costs (for continued operation of functions previously provided by the AF).

5.3.3.2 One Time Costs
The proposed realignment of Kirtland would shift major burdens to the DOE and its contractors remaining at the installation. The costs of projects and equipment to make the transition to sole operator of the east installation include:

• *Utilities* projects planned by the AF but not completed, and, projects to isolate east installation utilities	Total	$29.2M
• *Infrastructure* roads, bridge, fencing, gates	Total	19.8M
• *Public Safety* fire protection, security, and emergency operations	Total	15.1M
	Overall Total	**$ 64.1M**

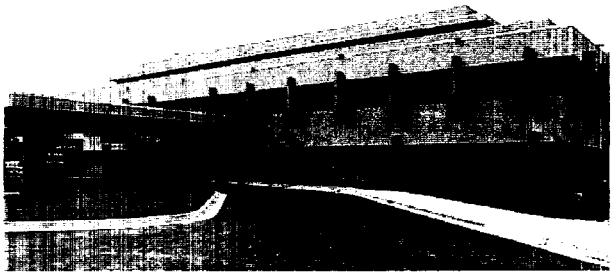
5.3.3.3 Annual Costs
The AF proposal would remove over 2500 people providing support to organizations at Kirtland. Although DOE activities have internal support (human resources, accounting, payroll, purchasing, communications, and maintenance), additional personnel would be required to replace functions provided by the AF.

DOE estimates that nearly 300 people would be required along with supplies, training, and other recurring items. The total annual costs to support the nearly 10000 workers involved in DOE activities is $30.6M.

Overall Total $ 30.6M

5.4 Veterans Administration Medical Center (VAMC)

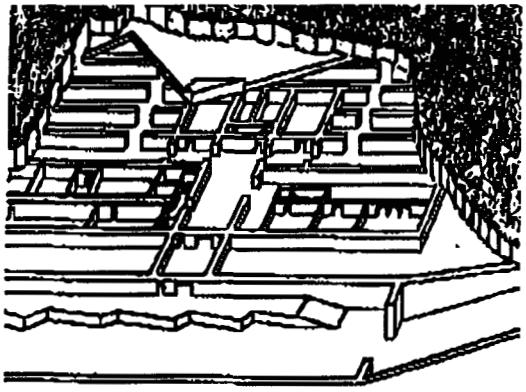
5.4.1 History/Mission
The AF host organization (and its medical component) entered into an agreement with the Veterans Administration (VA) to provide service through a joint medical center in Albuquerque. This arrangement saved the AF a replacement hospital at Kirtland AFB. The AF is the main provider of emergency service at the center and sharing arrangements exist for the remaining variety of services in the center. **This was the first joint military/VA medical center and is now a model for similar arrangements throughout the US.**


New AF Outpatient Clinic adjacent to VAMC

5.4.2 Impact
The AF proposal to realign Kirtland will remove the AF medical presence in its clinics and the joint medical center. As a result, the VA would have to provide additional staffing to continue required services (emergency) and other existing services. **The estimated cost of lost income from breaking up the joint-use arrangement is $5.1M to the VA.**

5.4.3 Retirees/Champus
After a realignment, retirees and their dependents in the area would no longer be able to obtain care at AF facilities. Satisfying these needs via CHAMPUS or an alternative system would mean additional costs subsidized by the government. **We estimate these costs at $20.2M based on actual use of AF medical facilities in previous years.**

5.5 Kirtland Underground Munitions Storage Complex (KUMSC)



5.5.1 Mission

This unique facility, occupied in 1992, is the workplace for the 898th Munitions Squadron. The 898th provides depot level maintenance and logistics support to DOD agencies.

5.5.2 Impact

The AF proposal would "civilianize" the 898th and its supporting security force. *This raises great concern and should be carefully evaluated.* KUMSC needs several projects completed to make this transition. The estimated construction costs are **$2.8M**.

CHAPTER 6
SUMMARY

Why was Kirtland selected for major alignment? We may never know all the factors, but from the Air Force perspective, Kirtland is a very large and costly base to operate. Air Force units are in the minority on the base, yet the Air Force is the single military Department charged with operating the base. The Air Force evaluation is based solely upon a view of the Air Force mission and the cost to support that mission.

Viewed from the National resource perspective, Kirtland is a major federal installation, hosting Department of Defense, Department of Energy, and many other governmental activities. The consolidation achieved at Kirtland is one of the BRAC objectives; it has been ongoing since the late 1940s. The number and types of facilities and capital investment in specialized buildings, ranges and equipment would make it impossible to relocate or rebuild the capability that exists at Kirtland. In fact, several units were specifically excluded from the realignment actions because of such facilities and missions.

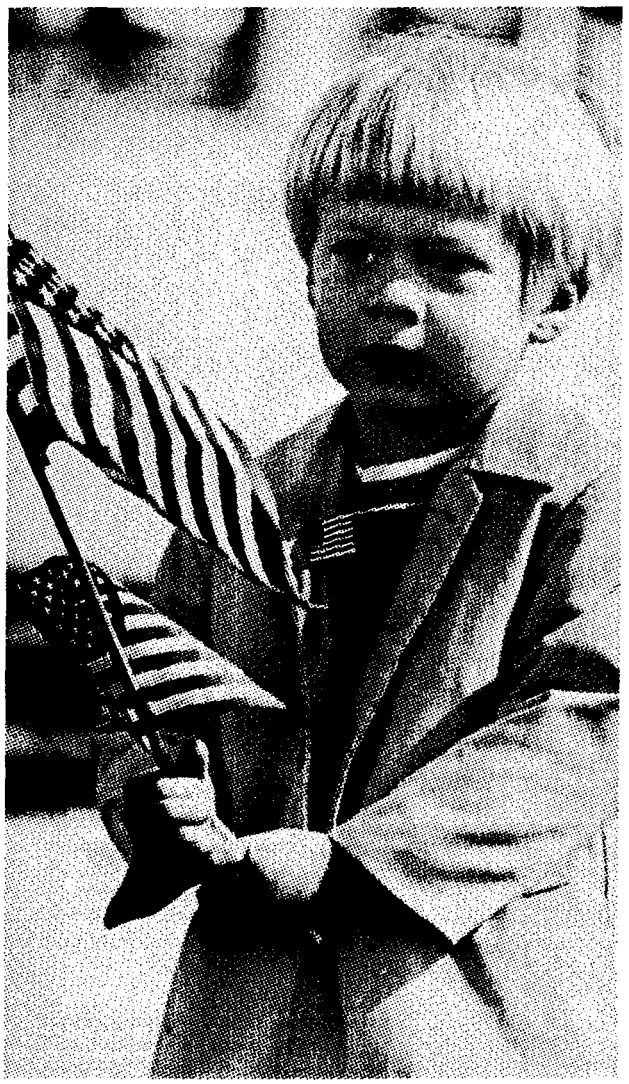
The Air Force made a major shift in direction during BRAC 95. **During previous BRAC rounds, the Air Force insisted that Kirtland was "essential in supporting several irreplaceable research and testing facilities essential to DOD, DOE, and other government agencies."** In fact, Kirtland was excluded from evaluations during BRAC 91 and 93 due to these critical support requirements--over 150 tenant organizations. What has changed? The irreplaceable research and testing facilities will remain at Kirtland. However, the Air Force is removing critical support functions and in some cases even parts of the irreplaceable research and testing facilities and synergism that has been developed over the last 50 years. If the Air Force desired to separate the research and testing facilities from the supporting base, then it should have done two evaluations. In one case, the lab would be rated high and remain; in the other, the support base would rate high against other small aircraft bases or support bases. In fact, Kirtland's support base was rated against all major Air Force flying missions and did quite well. Therefore, if an appropriate analysis had been done, Kirtland in its entirety would be retained and probably expanded.

The Air Force decided to reduce costs at Kirtland by eliminating the Base Operating Support (BOS). The proposal was to move six major tenants and essentially close the base from a military support standpoint. Unfortunately, in analyzing the decision, major factors were excluded. First and foremost, major non-DOD organizations would be left at Kirtland (Sandia Laboratories, DOE operations) which would result in over 10,000 employees still being employed on the base. Required support would be shifted to other government agencies. The Department of Energy has estimated additional operation and maintenance costs to be $ 30.6 million per year. Secondly, the Air Force identified six major units for realignment but neglected the 52 other Department of Defense organizations also on the base. Some of those can probably be deactivated but many will have to move and those costs need to be added to the Air Force analysis. Lastly, two Air Force units will remain at Kirtland and will require some level of support. The Air Force plan is to put a fence around the units (cantonment) and to provide minimal support. Because Phillips Lab has numerous facilities and ranges throughout the base, a single cantonment concept becomes very difficult to implement. Also, the Air Force proposal to have a civilian guard force at the weapons storage area is a radical departure from DOD policy and requires serious consideration before destroying the positive military controls on entitled weapons.

The issue of air quality was raised and appeared to be an Air Force criterion for elimination of moves to Kirtland. In fact, the region has attained compliance with carbon monoxide standards and is being removed from non-attainment status. Kirtland can return to "receiving site" status.

Reuse of all or part of a realigned installation is of prime importance to the community. It gives them an opportunity to occupy facilities and to provide new jobs to replace those that were lost. In the case of Kirtland, over ninety-five percent (95%) of the property would still be occupied and the available property would be mostly housing. This situation makes reuse very difficult and seems to violate BRAC criteria.

In the final analysis, the Air Force viewed Kirtland as a high cost installation which could be eliminated by relocating major military units and deactivating the support functions (Air Base Wing) to provide true manpower cost savings. The fact that Kirtland is a national asset from the nuclear community perspective or that other agencies would remain and need support was not adequately considered in the Air Force evaluation. Additionally, reexamination of the costs involved show that this proposal saves nothing. **Instead, the proposal is a cost to the US Government and taxpayers and should be cancelled.**



APPENDICES

APPENDICES SUMMARIZED

APPENDIX A

The maps provided illustrate the cantonment areas emphasizing the point that over ninety-five percent (95%) of the land area of Kirtland will still be occupied after a realignment. Equally as important, they show the safety areas and buffer zones still active for the remaining activities.

APPENDIX B

Shows the size and scope of the 58th Special Operations Wing and reinforces the expense of moving with no gain in mission effectiveness.

APPENDIX C

An analysis of the AF BRAC Questionnaire for Kirtland showing the difficulties in interpreting questions for this "federal" installation.

APPENDIX D

Shows critical changes made in Kirtland's facilities condition code ratings during the BRAC Process. Apparently, the base was attempting to support future construction requests; the result was a lowering of its BRAC rating.

APPENDIX E

Is a series of base closure executive group minutes showing that Kirtland was a receiver for the proposed closure of Los Angeles AFB until air quality is raised as a criterion for cancellation.

APPENDIX F

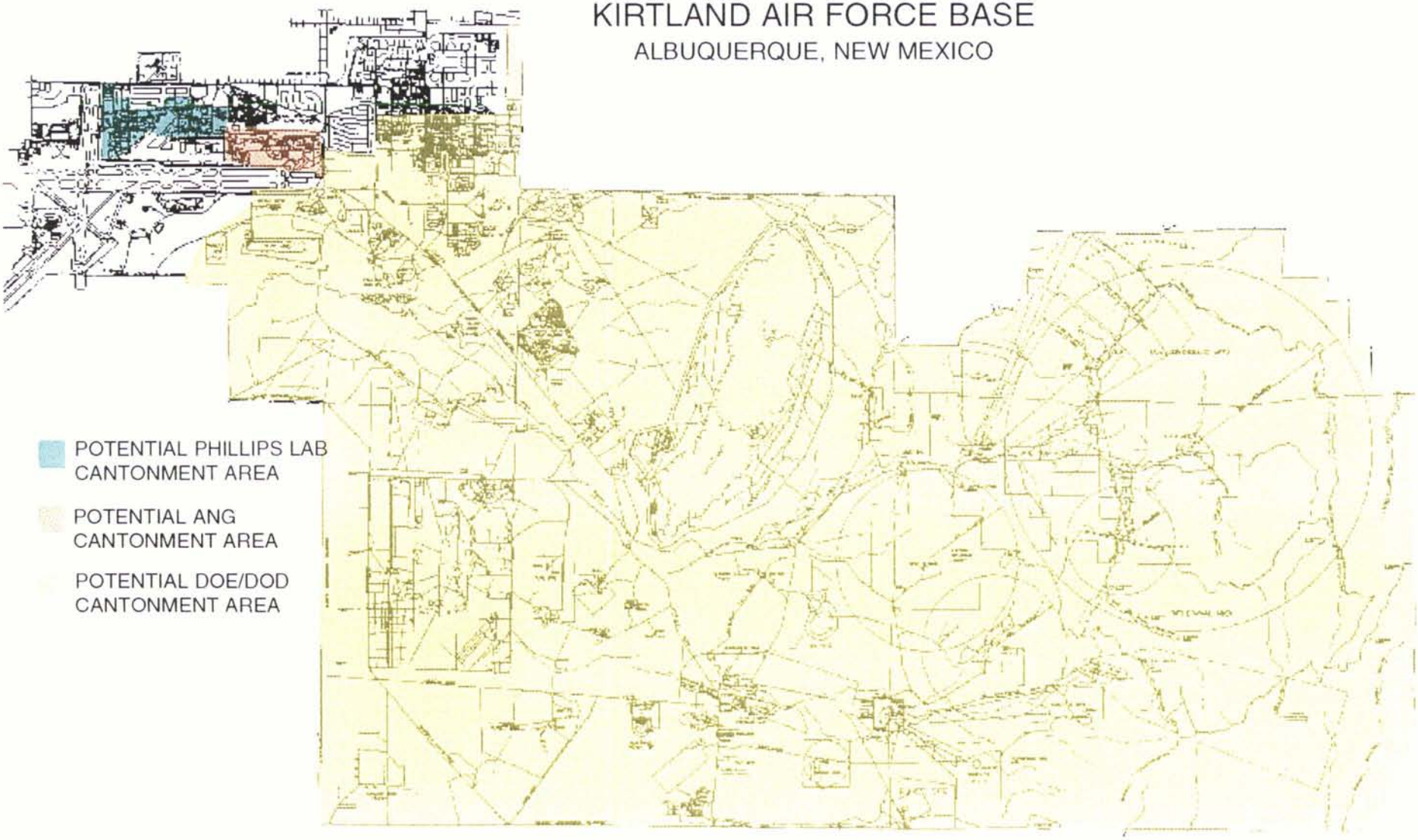
Is a discussion of the tremendous economic impact on the Albuquerque, NM area, as well as the limited reuse potential.

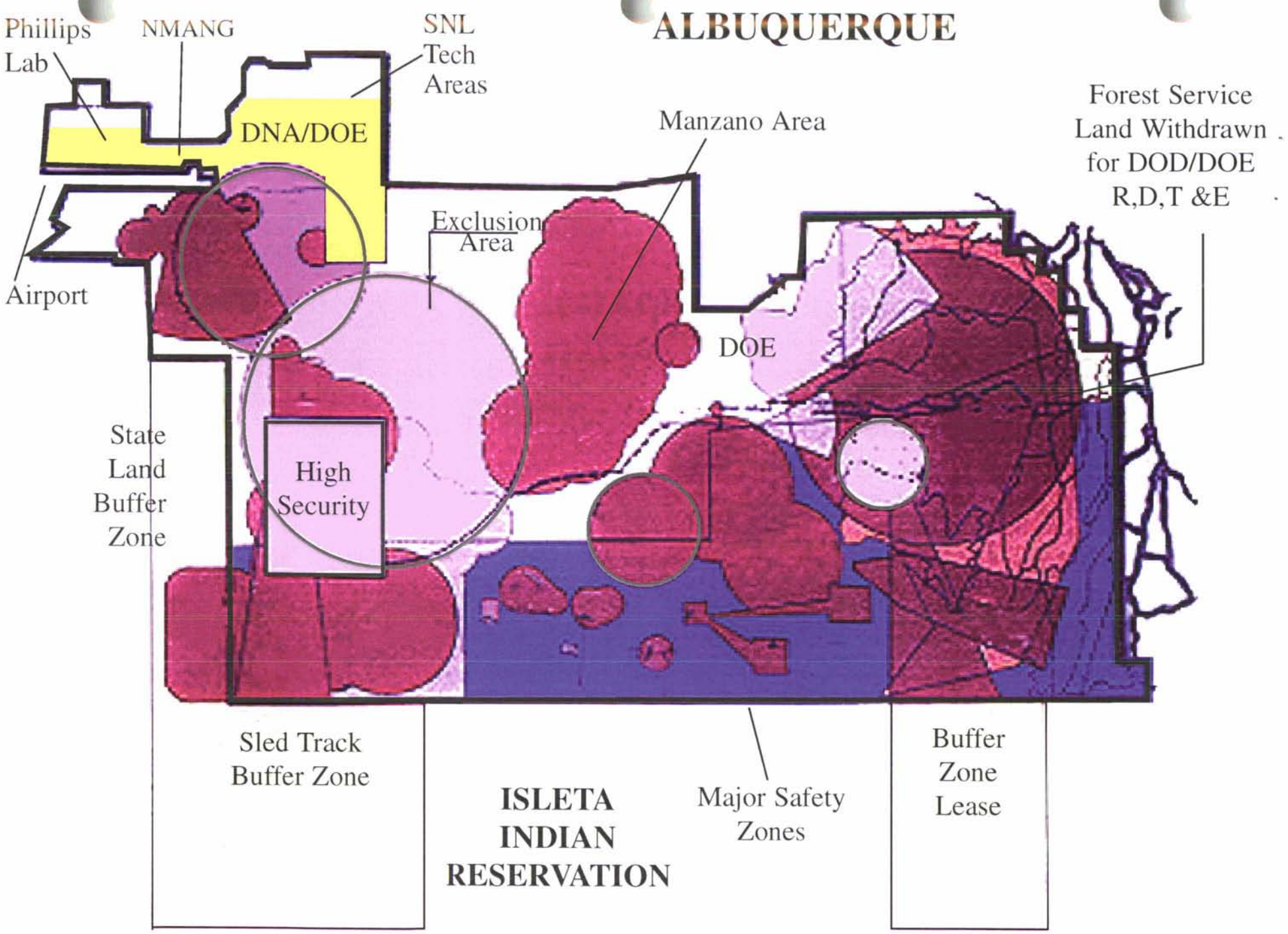
APPENDIX A

MAPS

KIRTLAND AIR FORCE BASE

ALBUQUERQUE, NEW MEXICO





Kirtland Air Force Base, New Mexico

Kirtland Air Force Base
Albuquerque, New Mexico

- Kirtland AFB Boundary
- Paved Roads
- Unpaved Roads
- SNL Environmental Restoration Sites
- Safety Buffer Zones
- SNL Installation Restoration Sites
- Ordnance Impact Areas
- City of Albuquerque
- D.O.E. Owned Lands
- Projected Re-Use Areas

CITY OF Albuquerque
Albuquerque Geographic Information System
PLANNING DEPARTMENT

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Map created April 18, 1995

SCALE IN FEET
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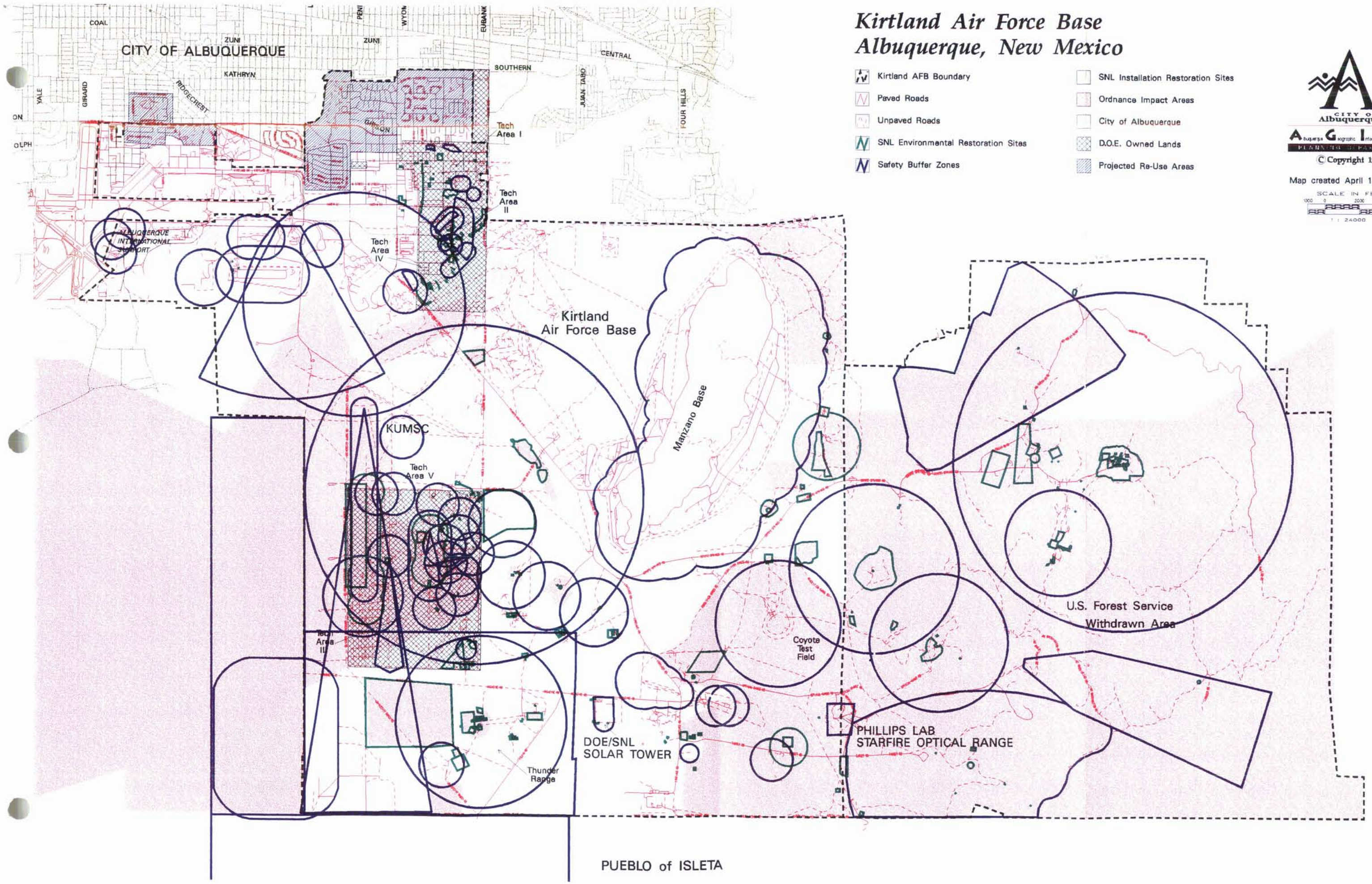
1 : 24000



APPENDIX B

58th SOW Considerations

58th Special Operations Wing
Kirtland AFB, New Mexico
(to be relocated to Holloman AFB, NM)

Personnel:	Military:	1195	
	Civilian:	84	
	Contractor:	194	(estimated FY96 staffing 247)
Facilities:	Current Facilities:	927,765	square feet
	Dedicated Ramp space:	2,500,000	square feet
	Training Systems/ Simulation Devices:	15	

Existing Kirtland AFB/58th SOW Facilities

Bldg	*Purpose*	*Sq Ft*
330	Engine Shop	4000
331	Engine Shop	12
332	Oxygen Storage	476
336	Engine Shop	31679
376	Gun Shop	7158
381	AGE	15909
404	Pararescue	9425
436	Pararescue	9370
437	Pararescue	9802
438	Training Wall	N/A
482	Corrosion Control	50386
483	HAZMAT	290
702-704	Engine Test	7511
926	Simulator Support	3545
941	Combat Control	2880
945	Combat Control	3570
948	Flight Simulators	24567
952	Contractor/Classrooms	23982
953	Classrooms	11935
954	Learning Center	7023
955	Flight Simulator	4972
956	Flight Simulator	11483
960	NVD Lab	1200
975	Field Training	26435
992	FAST	4,000

Bldg	*Purpose*	*Sq Ft*
994	Aerial Delivery	15,772
996	Avionics	38,100
1000	Hangar	121,408
1001	Hangar	161,408
1002	Hangar	131,684
1008	AGE	3,280
1009	Life Support	1,800
1010	Parachute Shop	8,966
1010	Sim Support	10,000
1016	HAZMAT	1,133
1017	LSS/OSS	22,535
1018	Flying Squadron	17,980
1019	Flying Squadron	11,895
1020	Wing/Group HQ	14,839
1028	Wing Staff (EM)	2,016
1037	Hangar/Fuel Cell	13,939
XXX	**FY95 MILCON**	**78,900**
Total		927,765

Simulator and Training Systems

- MH-53J Weapons System Trainer (WST)/Mission Rehearsal System (MRS)
- MH-60G WST/MRS
- HC-130 WST/MRS
- TH-53A Operational Flight Trainer (OFT)
- HH-60G OFT
- MH-53J Part Task Trainer (PTT)
- MH-53J Helicopter Procedures Trainer (HPT)
- HC-130 PTT
- LoadMaster PTT
- UH-1N PTT
- MC-130H WST (FY95 delivery)
- Aerial Gunner Scanner Simulator (AGSS) (FY95 delivery)
- Aerial Refueling Part Task Trainer (ARPTT) (FY96 delivery)
- MH-60G/UH-1N Reconfigurable OFT (FY-97 delivery)
- Night Vision Device (NVD) Lab

Local Training Areas and Facilities

- Paved lighted helicopter auxiliary field with fire station
- Gunnery ranges (2)
- Electronic warfare range
- Drop zones for personnel and equipment (2)
- Assault landing strips (2)
- Helicopter remote landing sites (37 within 25 mi.)
- Air-refueling tracks (1 high, 2 low altitude)
- Water training area
- Pararescue ground training area (4)
- Fixed wing low level routes
- Helicopter low level training area (32, 000 sq. Miles)

Operational Advantages of Moving

- Air Force dedicated runway

Operational Disadvantages of Moving

- Extensive range restrictions for flying in and about Holloman vs. KAFB
- Disruption of training profiles - Kirtland provides immediate access while Holloman requires circumnavigating extensive restricted areas to reach training areas. Note: all flying activities stop when mission profiles are active.
- Rebuilding a mission ready status.
- Cost and difficulty of moving simulators.
- Disruption of mission rehearsal capability for prolonged period of time.
- Disruption of unique one of a kind facility for real world mission rehearsal.
- Disruption of training pipeline (6-12 months).
- Current shortage of qualified operational crewmembers will be increased.
- Impact overseas short tour/CONUS balance.
- Manning turmoil at gaining units as tours are extended.

APPENDIX C

Analysis of USAF BRAC Questionnaire

Kirtland AFB's BRAC 95 Air Force Ratings

During the Defense Base Realignment and Closure (BRAC) 1995 process, the Air Force collected an array of data from the field (bases) and major commands. The Air Force then applied color-coded ratings to most of the key information elements of the eight DOD approved criteria. Green , Yellow, and Red color-coded ratings were used for Criteria I, II, III, VII, & VIII. In keeping the meanings to these color coded ratings simple, "Green" equals retain, "Red" equals candidate for closure and/or realignment, and "Yellow" is somewhere in the middle. Of course, one red rating did not drive a closure recommendations nor did one green rating drive a retention decision. During BRAC 95, the Air Force used an aggregate or rolling up of grades, by applying numerical weights and values. These weights represented the relative importance of each subelement as compared to the other subelements within a given level of the analysis. Subelement weights always added up to 100. For example, subelement A has three subelements A1, A2, and A3. Each of these three subelements could be assigned the same or different weights, however, the sum will be 100. Additionally, the Air Force established a color-coding to numerical conversion chart and vice versa, e.g., a green equals 1.00, a green minus equals 0.67, a yellow equals 0.00, a red equals minus 1.0, etc.. To obtain an overall rating, simply multiply the numerical value times the weighting for each subelement, then total the resulting numbers, then divide by 100, the resulting number is the weighted subelement rating and can be converted back to a color-coding. Additionally, the Air Force used standard deviations for certain subelements. Once the deviations were determined, the Air Force provided a chart to convert them to color-codings. The Air Force used actual COBRA numbers for criteria IV and V. As in past BRAC rounds, the Air Force used a level-playing field COBRA for each base. Criteria VI, the economic impact on communities, was provided by the DOD Joint Cross-Service Group for Economic Impact. Criteria VI was presented as two numbers, which represented total job loss, direct and indirect, and job loss as a percentage of statistical or economic area population. BRAC decisions were based on overall analysis results and comparisons.

Specifically, this paper will address all ratings below Green and will discuss perceived and actual variations in ratings. The results of this paper could be used to identify potential historic and BRAC 95 Air Force reported strengths and weaknesses of Kirtland AFB.

Note: Source documents for this paper were obtained from the material provided by the DOD to the 1995 Defense Base Closure and Realignment Commission to support the DOD BRAC 95 recommendations.

A review of all Kirtland's BRAC 95 ratings, by criteria and subelement, that fell below a green rating follows:

Criteria I
(Current and future mission requirements and the impact on operational readiness of DOD total force)

Fighter-Operational Effectiveness (I.1.A.1)

Fighter-Geographic Location (I.1.A.1.a)

Element: **Alternate Airfield** Rated: **Yellow**
Element number: I.1.A.1.a.1 (Questionnaire element: I.2.B.4)
Rationale: Kirtland reported the closest military airfield with a 8000 ft runway as Holloman AFB 134 NM away. Possible ratings: Green rating was less than or equal to 100 NM. Yellow rating was greater than 100 NM but less than or equal to 200 NM. Red was greater than 200 NM.
Comment: **Non-concur.** The Air Force referenced questionnaire element I.2.B.4 to answer this question. This element addressed military airfields with 8,000 ft runways; however, Santa Fe Co Muni has a 8000 ft runway and it can be used by fighter type aircraft. Element should be rated "Green."

Element: **Freezing Precipitation** Rated: **Red**
Element number: I.1.A.1.a.4 (Questionaire element: I.2.J.3)
Rationale: The Air Force's BRAC 95 certified questionnaire reported 21 days of freezing precipitation annually. Possible ratings: Green rating was 10 or less days. Yellow rating was greater than 10 days but less than or equal to 20 days. Red was greater than 20 days.
Comment: **Non-concur.** Just the number of days of freezing precipitation is not an accurate method of evaluating operational impacts. Impacts should be based on missions lost, delayed, or rescheduled due to freezing precipitation. In Kirtland's case, it is not an active duty operational fighter base, it supports national assets and labs. And, freezing precipitation is not a critical factor for lab operations. However, Air National Guard forces operate fighters at Kirtland with no mission degradations. Additionally, freezing precipitation's negative affects are normally associated with runway operations, i.e., take-offs and landing on icy or snow covered runways. But in Kirtland's case, this is not a problem, because the City of Albuquerque pays to have the runways plowed and deiced. In fact, the runways have temperature sensing devices that alert airfield operations when deicing is required. All of these actions are taken at no fiscal expense to DOD.

Element: **Supersonic Air Combat MOAs** Rated: **Red**
Element number: I.1.A.1.b.1 (Questionnaire element: I.2.C.1)
Rationale: The Air Force's BRAC 95 certified questionnaire reported no supersonic airspace (with a minimum size of 4200 sq NM) within 300 NM. Possible ratings: Green rating was less than or equal to 100 NM. Yellow rating was greater than 100 NM but less than or equal to 150 NM. Red was greater than 150 NM.
Comment: **Concur.** However, Kirtland is not an active duty operational fighter base; it supports national assets and labs. Supersonic airspace is available much closer, but not one area with 4200 sq NM.

Element:	**Other Air Combat MOAs**	Rated: **Yellow**
Element number:	I.1.A.1.b.2 (Questionnaire element: I.2.C.2)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported air combat MOA/restricted area 76 NM away. Possible ratings: Green rating was less than or equal to 50 NM. Yellow rating was greater than 50 NM but less than or equal to 100 NM. Red was greater than 100 NM.	
Comment:	**Non-concur.** Certified questionnaire reported training areas within "Green" rating ranges.	

Element:	**Low Altitude MOAs**	Rated: **Yellow**
Element number:	I.1.A.1.b.3 (Questionnaire element: I.2.C.3)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported low altitude capable MOA 112 NM away. Possible ratings: Green rating was less than or equal to 75 NM. Yellow rating was greater than 75 NM but less than or equal to 125 NM. Red was greater than 125 NM.	
Comment:	**Concur.** However, Kirtland is not an active duty operational fighter base; it supports national assets and labs.	

Element:	**Scorable Range Complexes**	Rated: **Red**
Element number:	I.1.A.1.b.4 (Questionaire element: I.2.C.4)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported 3 ranges within 250 NM. Possible ratings: Green rating was greater than or equal to 1 within 100 NM and greater than or equal to 4 within 250 NM. Yellow rating was less than 1 within 100 NM and greater than or equal to 4 within 250 NM. Red was less than 4 within 250 NM.	
Comment:	**Concur.** However, Kirtland has and does effectively support fighter operations, even though the base primarily supports national assets and labs.	

Element:	**Ground Forces/Tactical Aircraft Employment**	Rated: **Red**
Element number:	I.1.A.1.b.6 (Questionnaire element: I.2.C.14)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported ground forces/tactical aircraft employment area 192 NM away--Ft Bliss. Possible ratings: Green rating: less than or equal to 100 NM. Yellow rating: greater than 100 NM but less than or equal to 150 NM. Red : greater than 150 NM.	
Comment:	**Concur.** However, Kirtland is not an active duty operational fighter base, it supports national assets and labs.	

Element:	**Air Combat Maneuvering Instrumentation (ACMI) Ranges**	Rated: **Red**
Element number:	I.1.A.1.b.7 (Questionnaire element: I.2.C.6)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported an ACMI range 313 NM away--Luke ACMI. Possible ratings: Green rating was less than or equal to 100 NM. Yellow rating was greater than 100 NM but less than or equal to 150 NM. Red was greater than 150 NM.	
Comment:	**Concur.** However, Kirtland is not an active duty operational fighter base; it supports national assets and labs.	

Element:	**Visual Routes/Instrument Routes (VR/IR)**	Rated: **Yellow**
Element number:	I.1.A.1.b.9 (Questionaire element: I.2.C.8)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported 5 VR/IR within 100 NM. Possible ratings: Green rating was greater than or equal to 10 within 100 NM. Yellow rating was less than 10 within 100 NM and greater than or equal to 3 within 100 NM. Red was less than 3 within 100 NM.	
Comment:	**Concur.** However, Kirtland is not an active duty operational fighter base; it supports national assets and labs.	

Bomber-Operational Effectiveness (I.1A.2)

Element:	**Geographic location (freezing precipitation)**	Rated: **Red**
Element number:	I.1.A.2.a.3 (Questionnaire element: I.2.J.3)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported 21days of freezing precipitation annually. Possible ratings: Green rating was 10 or less days. Yellow rating was greater than 10 days but less than or equal to 20 days. Red was greater than 20 days.	
Comment:	**Non-concur.** Rationale provided under Fighter-Operational Effectiveness.	

Airspace/Training Area Growth Potential (I.1.A.2.c)

Element:	**Airspace/Training Area Growth Potential**	Rated: **Yellow**
Element number:	I.1.A.2.c (Questionaire element: not given)	
Rationale:	Possible ratings: Green was airspace available for future expansion. Yellow was airspace expected to maintain status quo. Red was airspace reductions possible.	
Comments:	**Non-concur.** Kirtland reported airspace available for expansion.	

Tanker-Operational Effectiveness (I.1.A.3)

Element:	**Freezing Precipitation**	Rated: **Red**
Element number:	I.1.A.3.c (Questionaire element: I.2.J.3)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported 21 days of freezing precipitation annually. Possible ratings: Green rating was 10 or less days. Yellow rating was greater than 10 days but less than or equal to 20 days. Red was greater than 20 days.	
Comment:	**Non-concur.** Rationale provided under Fighter-Operational Effectiveness.	

Element:	**Tanker Saturation**	Rated: **Yellow**
Element number:	I.1.A.3.f (Questionaire element: I.2.C.10.d)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported that Kirtland was located in a tanker balanced region. Possible ratings: Green rating was tanker poor. Yellow rating was balanced. Red rating was tanker rich.	
Comment:	**Non-concur.** Air Force presented no bounds for determining whether a region was tanker poor, balanced, or rich. However, BRAC 93 certified data reported similar located bases to be located in a tanker poor region, i.e., more receivers than tankers. At that time, Dyess AFB had KC-135 tankers assigned and Barksdale AFB had KC-10s. However, now both Dyess' and Barksdale's tankers have been relocated to northern locations. In fact, most tanker aircraft are now located in the northern tier	

or at the east and west coast mobility bases. The South is still being espoused as having a tanker shortfall. Even the decision to reopen MacDill was based partly on a tanker shortfall in the South. Kirtland should have been identified as being in a tanker poor region, and as such, receive a ***GREEN*** rating.

Airlift-Operational Effectiveness (I.1.A.4)

Element:	**Geographic location (freezing precipitation)**	Rated: **Red**
Element number:	I.1.A.4.a.3 (Questionaire element: I.2.J.3)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported 21days of freezing precipitation annually. Possible ratings: Green rating was 10 or less days. Yellow rating was greater than 10 days but less than or equal to 20 days. Red was greater than 20 days.	
Comment:	**Non-concur.** Rationale provided under Fighter-Operational Effectiveness.	

Airlift - Training Areas (I.1.A.4.b)

Element:	**Landing Zones - Closest**	Rated: **Yellow**
Element number:	I.1.A.4.b.4 (Questionnaire element: I.2.C.12)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported a landing zone 189 NM away - Pinon Cayon. Possible ratings: Green rating was less than or equal to 150 NM. Yellow rating was greater than 150 NM but less than or equal to 400 NM. Red was greater than 400 NM.	
Comment:	**Concur.** However, Kirtland is not a operational airlift base; it supports national assets and labs.	

Element:	**Instrument Routes (IR) for DZs (Equipment)**	Rated: **Red**
Element number:	I.1.A.4.b.6 (Questionnaire element: I.2.C.11)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported 0 IR routes for the DZs identified. Green rating was greater than or equal to 2 IR count. Yellow rating was less than 2 IR count and greater than or equal to 1 IR count. Red rating was less than 1 IR count.	
Comment:	**Concur.** However, Kirtland is not a operational airlift base; it supports national assets and labs.	

Element:	**Slow Routes (SR) for DZs (Equipment)**	Rated: **Red**
Element number:	I.1.A.4.b.7 (Questionnaire element: I.2.C.11)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported 0 SR routes for the DZs identified. Green rating was greater than or equal to 2 SR count. Yellow rating was less than 2 SR count and greater than or equal to 1 SR count. Red rating was less than 1 SR count.	
Comment:	**Concur.** However, Kirtland is not a operational airlift base; it supports national assets and labs.	

Training Airspace (I.1.B)

Existing Training Airspace (I.1.B.1)

Element:	**Military Operating Areas/Bombing Ranges**	Rated: **Yellow**
Element number:	I.1.B.1.a (Questionnaire element: not given)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported only normal operational restrictions. Green rating was fully adequate MOA/bombing ranges available. Yellow rating was generally adequate MOA/bombing ranges available; some restrictions to access or limited route quantity. Red rating was inadequate MOA/bombing ranges available.	
Comment:	**Non-concur.** Kirtland officials reported restrictions on operating hours of MOAs/ranges; however, other times were available. Minor restrictions like these are the norm for all Air Force utilized airspace, not the exception. Therefore, this element should be rated "Green"--certified questionnaire does not support a yellow rating.	

Future Training Availability (I.1.B.2)

Element:	**Military Operating Areas/Bombing Ranges**	Rated: **Yellow**
Element number:	I.1.B.2.a (Questionnaire element: not given)	
Rationale:	The Air Force's BRAC 95 certified questionnaire reported only normal operational restrictions and no adverse indicators. Green rating was fully adequate MOA/bombing ranges expected to remain available. Yellow rating was generally adequate MOA/bombing ranges expected to remain available, but improvements needed. Red rating was expect inadequate MOA/bombing ranges in the future.	
Comment:	**Non-concur.** Certified questionnaire does not support a yellow rating. Element should be rated "Green."	

Airfield Evaluation (I.1.C)

Element:	**Runway/Taxiway for Fighter Mission**	Rated: **Red**
Element number:	I.1.C.2 (Questionaire elements: II.1.B.2.c, II.2.C.1, II.2.C.2, II.2.E, II.2.F.1)	
Rationale:	Certified data reported: the primary runway as - 300 ft wide and 13775 ft long runway; 150 ft wide taxiways; 673459 sq ft apron; and supports F-15, F-16C/D, but some upgrades are desired for long term. Possible ratings: Green was runway at least 150 ft wide and at least 9000 ft long taxiway at least 75 ft wide, apron at least 75600 sq ft, and pavement strength supports fighter mission. Red was anything else.	
Comment:	**Non-concur.** The runways and airfield infrastructure, including part of the military apron, either have been or will be completely upgraded at non-DOD expense. DOD is normally only responsible for its apron areas and a $50,000 annual payment for airfield use. Kirtland supports fighter operations at this time with no restrictions. In fact, not only has Albuquerque improved the runways and taxiways, but they built a new apron for the Air Force as a trade-off for allowing the City to build a new taxiway. In this case, DOD benefitted from the new apron and new taxiway at no expense to DOD. This element was rated red because the Air Force stated that apron upgrades were needed for long term use. However, the Air Force was referring to all apron areas--not just the apron that is required. Kirtland has had aprons needing repairs, since the late 1970ís. Kirtland can accomplish its mission within the upgraded apron areas, if desired. Therefore, Kirtland should be rated Green for this element. Note: Criteria I addresses current operational missions requirements, while Criteria III addresses future missions.	

Element:	**Runway/Taxiway for Bomber Mission**	Rated: **Red**
Element number:	I.1.C.2 (Questionaire elements: II.1.B.2.c, II.2.C.1, II.2.C.2, II.2.E, II.2.F.3)	
Rationale:	Certified data reported: the primary runway as - 300 ft wide and 13775 ft long runway; 150 ft wide taxiways; 673459 sq ft apron; and supports most aircraft, but some upgrades are desired for long term. Possible ratings: Green was runway at least 200 ft wide and at least 10000 ft long, taxiway at least 75 ft wide, apron at least 278400 sq ft, and pavement strength supports bomber mission. Red was anything else.	
Comment:	**Non-concur.** See Runway/Taxiway for Fighter Mission.	

Element:	**Runway/Taxiway for Tanker Mission**	Rated: **Red**
Element number:	I.1.C.3 (Questionaire elements: II.1.B.2.c, II.2.C.1, II.2.C.2, II.2.E, II.2.F.5)	
Rationale:	Certified data reported: the primary runway as - 300 ft wide and 13775 ft long runway; 150 ft wide taxiways; 673459 sq ft apron; and supports most aircraft, but some upgrades are desired for long term. Possible ratings: Green was runway at least 150 ft wide and at least 8000 ft long taxiway at least 75 ft wide, apron at least 283200 sq ft, and pavement strength supports tanker mission. Red was anything else.	
Comment:	**Non-concur.** See Runway/Taxiway for Fighter Mission.	

Element:	**Runway/Taxiway for Airlift Mission**	Rated: **Red**
Element number:	I.1.C.4 (Questionaire elements: II.1.B.2.c, II.2.C.1, II.2.C.2, II.2.E, II.2.F.8)	
Rationale:	Certified data reported: the primary runway as - 300 ft wide and 13775 ft long runway; 150 ft wide taxiways; 673459 sq ft apron; and supports most aircraft, but some upgrades are desired for long term. Possible ratings: Green was runway at least 150 ft wide and at least 8000 ft long,taxiway at least 75 ft wide, apron at least 433104 sq ft, and pavement strength supports airlift missions. Red was anything else.	
Comment:	**Non-concur.** The runways and airfield infrastructure, including part of the military apron, either have been or will be completely upgraded at non-DOD expense. DOD is normally only responsible for its apron areas and a $50000 annual payment for airfield use. Kirtland supports airlift operations at this time with no restrictions. In fact, not only has Albuquerque improved the runways and taxiways, but they built a new apron for the Air Force as a trade-off for allowing the City to build a new taxiway. In this case, DOD benefitted from the new apron and new taxiway at no expense to DOD. This element was rated red because the Air Force stated that apron upgrades were needed for long term use. However, the Air Force was referring to all apron areas--not just the apron that is required. Kirtland has had aprons needing repairs, since the late 1970s. Kirtland can accomplish its mission within the upgraded apron areas, if desired. Therefore, Kirtland should be rated Green for this element. Note: Criteria I addresses current operational missions requirements, while Criteria III addresses future missions. Additionally, the City of Albuquerque constructed an extension on Taxiway E to allow direct access to the special cargo area.	

Laboratory Evaluation (I.5)

Priority (I.5.A)

Element: **In-House Capability** Rated: **Green (-)**
Element number: I.5.A.3 (Questionaire elements: not given)
Rationale: Possible ratings: Green was quantitative assessment greater than or equal to 6.5. Green (-) was quantitative assessment greater than or equal to 5.5. Yellow (+) was quantitative assessment greater than or equal to 4.5. Yellow was quantitative assessment greater than or equal to 3.5. Yellow (-) was quantitative assessment greater than or equal to 2.5. Red (+) was quantitative assessment greater than or equal to 1.5. Red was quantitative assessment less than 1.5.
Comment: **Concur.**

Element: **Average Direct Funding** Rated: **Yellow**
Element number: I.5.B.3 (Questionaire elements: not given)
Rationale: Possible ratings: Green was lab/product center average at least 0.50 standard deviations above the mean. Green (-) was lab/product center average at least equal to the mean. Yellow (+) was lab/product center average at least 0.33 standard deviations below the mean. Yellow was lab/product center average at least 0.67 standard deviations below the mean. Yellow (-) was lab/product center average at least 1.00 standard deviations below the mean. Red (+) was lab/product center average at least 1.50 standard deviations below the mean. Red was lab/product center average at less than 1.50 standard deviations below the mean.
Comment: **Concur.**

Personnel (I.5.C)

Element: **Experience Level** Rated: **Yellow (-)**
Element number: I.5.C.3 (Questionaire elements: not given)
Rationale: Possible ratings: Green was greater than or equal to 15 years. Green (-) was greater than or equal to 13 years. Yellow (+) was greater than or equal to 11 years. Yellow was greater than or equal to 9 years. Yellow (-) was greater than or equal to 8 years. Red (+) was less than 8 years. Red: no rating guideline given.
Comment: **Concur.**

Element: **Patents Awarded** Rated: **Yellow**
Element number: I.5.C.4 (Questionaire elements: not given)
Rationale: Possible ratings: Green was average at least 0.50 standard deviations above the mean. Green (-) was average at least equal to the mean. Yellow (+) was average at least 0.33 standard deviations below the mean. Yellow was average at least 0.67 standard deviations below the mean. Yellow (-), Red (+), and Red were not given guidelines.
Comment: **Concur.**

Element: **Papers Published** Rated: **Yellow**
Element number: I.5.C.5 (Questionaire elements: not given)
Rationale: Possible ratings: Green was average at least 0.50 standard deviations above the mean. Green (-) was average at least equal to the mean. Yellow (+) was average at least 0.33 standard deviations below the mean. Yellow was average at least 0.67 standard deviations below the mean. Yellow (-) was average at least 1.00 standard deviations below the mean, Red (+) was average less than 1.00 standard deviations below the mean, and Red were not given guidelines.
Comment: **Concur.**

Location (I.5.E)

Element:	**Interconnectivity**	Rated: **Red**
Element number:	I.5.E.1 (Questionaire elements: not given)	
Rationale:	Possible ratings: Green was top quartile. Green (-) was second quartile. Yellow was third quartile. Red was bottom quartile.	
Comment:	**Non-concur.** Phillips Lab has space and missile focus; location of activities has been unchanged for many years. AF should rate this Green.	

Element:	**Special Support Infrastructure**	Rated: **Red**
Element number:	I.5.E.3 (Questionaire elements: not given)	
Rationale:	Possible ratings: Green - yes. Red - no.	
Comment:	Phillips Lab has what it needs; should be Green.	

Criteria II
(Availability and conditions of land, facilities, and associated airspace at both the existing and potential receiving locations)

Facilities Base (II.1)

Element:	**Facilities condition: building aggregate**	Rated: **Yellow**
Element number:	II.1.B (Questionnaire element: II.1.B.1.b-g, j, l-z, aa-gg)	
Rationale:	Possible ratings: Green was greater than or equal to 80 percent Condition Code 1; yellow was less than 80 percent Condition Code 1 but greater than or equal to 50 percent Condition Code 1; red was less than 50 percent Condition Code 1.	
Comment:	**Non-concur.** AF changed ratings during process. See Appendix D.	

Element:	**Facilities condition: infrastructure**	Rated: **Yellow**
Element number:	II.1.C (Questionaire element: II.1.B.2.a-c,e-k)	
Rationale:	Possible ratings: Green was greater than or equal to 95 percent Condition Code 1; yellow was less than 95 percent Condition Code 1 but greater than or equal to 70 percent Condition Code 1; red was less than 70 percent Condition Code 1.	
Comment:	**Non-concur.** This element was rated inconsistently. For example, aircraft runways were listed as condition code three; however, supporting data stated that runways could support all Air Force aircraft with no upgrades required, even for prolonged use. A similar statement was made about all taxiways.	

Element:	**Facilities Condition: Housing**	Rated: **Red**
Element number:	II.1.B (Questionaire element: II.1.C.2.a)	
Rationale:	Possible ratings: Green was less than or equal to the mean; yellow was greater than the mean but less than or equal to plus 1 standard deviation; red was greater than plus 1 standard deviation.	
Comment:	**Non-concur.** Numerous other Air Force bases have most of their housing in need of whole-house renovation or replacement, but they were rated higher for this element. Kirtland has more adequate units (both number and percentage) than most bases have for a total number. Therefore, Kirtland should be rated "Green," or most of the other bases should be downgraded for this element.	

Encroachment (Airfield)

Existing Associated (Special Use) Airspace (II.3.A)

Element:	**Military Operating Areas/Restricted Areas**	Rated: **Yellow**
Element number:	II.3.A.1 (Questionaire element: no source identified)	
Rationale:	Possible ratings: Green was civil and commercial aviation development generally compatible with existing Military Operating Areas and Restricted Airspace; yellow civil and commercial aviation development impacts access to some (limited) MOAs; red was civil and commercial aviation dominates the development of and access to MOAs or Restricted Airspace.	
Comment:	**Non-concur.** Civil and commercial aviation in New Mexico is completely compatible with military areas; that is why the AF has three NM bases.	

Future Associated (Special Use) Airspace (II.3.B)

Element:	**Military Operating Areas/Restricted Areas**	Rated: **Yellow**
Element number:	II.3.A.1 (Questionaire element: no source identified)	
Rationale:	Possible ratings: Green was future civil and commercial aviation development generally expected to remain compatible with existing Military Operating Areas and Restricted Airspace; yellow was future civil and commercial aviation development may impact access to some (limited) MOAs. Future development of MOAs or Restricted Airspace may be limited; red was future civil and commercial aviation may dominate the area and access to MOAs may become severely limited. Future development of Restricted Airspace incompatible.	
Comment:	**Concur.**	

Existing Local Community Encroachment (II.3.E)

Element:	**Clear Zone Compatibility (worst case, all runways ends)**	Rated: **Red**
Element number:	II.3.E.1 (Questionaire element: II.6.A.1)	
Rationale:	Possible ratings: Green was off-base development compatible (percent incompatible equals 0) within. Red was off-base incompatible (percent incompatible greater than 0) within CZ.	
Comment:	**Non-concur.** Of four runways, only 3 CZs of 8 CZs reported any incompatibility (runway 12: 5 percent incompatible; runway 17: 33 percent incompatible; and runway 30: 2 percent incompatible). Runways 26/08 account for 95 percent of the airfield operations, and neither of these runways have a CZ problem. Additionally, the airfield infrastructure (runways & taxiways) is owned by the City and operated as a joint-use facility. All runways meet FAA clearance requirements, but not all DOD standards. However, IAW AFR 86-14, "DOD standards pertain to land-based military installations under DOD control. DOD tenant organizations on civil airports use military standards to the extent practical; otherwise, FAA criteria or standards apply." Therefore, Air Force standards do not apply. The Air Force acknowledged this fact in a HQ USAF/LEY letter dated 18 Mar 87. In that letter, the Air Force stated that AICUZ studies for Kirtland were exempted and FAA standards (Part 150) would be the official document for Albuquerque/Kirtland airfield. Flight operations to runways other than 08/26 are currently by exception. In fact, future plans will close runway 17/35.	

Element:	**Accident Potential Zone I (APZ I) Compatibility Aggregate** Rated: **Yellow**
Element number:	II.3.E.2 (Questionaire element: II.6.A.2)
Rationale:	Of 8 runways, Kirtland reported 20 percent incompatibility for runway 12, 94 percent incompatibility for runway 17, 10 percent incompatibility for runway 21, and 20 percent for runway 26. Possible ratings: Green was off-base development generally compatible within APZ I (0-5 percent incompatible development). Yellow was off-base development generally incompatible in some (limited) areas of APZ I (greater than 5 and up to 10 percent incompatible development). Red was off-base development significantly incompatible within APZ I (greater than 10 percent incompatible development).
Comment:	**Non-concur.** Runways 26/08 account for 95 percent of the airfield operations, and neither of these runways have major APZ problems. Additionally, the airfield infrastructure (runways & taxiways) is owned by the City and operated as a joint-use facility. All runways meet FAA clearance requirements, but not all DOD standards. However, IAW AFR 86-14, "DOD standards pertain to land-based military installations under DOD control. DOD tenant organizations on civil airports use military standards to the extent practical, otherwise, FAA criteria or standards apply." Therefore, Air Force standards do not apply. The Air Force acknowledged this fact in a HQ USAF/LEY letter dated 18 Mar 87. In that letter, the Air Force stated that AICUZ studies for Kirtland were exempted and FAA standards (Part 150) would be the official document for Albuquerque/Kirtland airfield. Flight operations to runways other than 08/26 are currently by exception. In fact, future plans will close runway 17/35.

Element:	**Accident Potential Zone II (APZ II) Compatibility Aggregate** Rated: **Yellow**
Element number:	II.3.E.3 (Questionaire element: II.6.A.3)
Rationale:	Of 8 runways, Kirtland reported 3 percent incompatibility for runway 03, 4 percent incompatibility for runway 08, 20 percent incompatibility for runway 12, 96 percent incompatibility for runway 17, 100 percent incompatibility for runway 21, and 20 percent for runway 26. Possible ratings: Green was off-base development generally compatible within APZ II (0-5 percent incompatible development). Yellow was off-base development generally incompatible in some (limited) areas of APZ II (greater than 5 and up to 10 percent incompatible development). Red was off-base development significantly incompatible within APZ II (greater than 10 percent incompatible development).
Comment:	**Non-concur.** Runways 26/08 account for 95 percent of the airfieldoperations, and neither of these runways have major APZ problems. Additionally, the airfield infrastructure (runways & taxiways) is owned by the City and operated as a joint-use facility. All runways meet FAA clearance requirements, but not all DOD standards. However, IAW AFR 86-14, "DOD standards pertain to land-based military installations under DOD control. DOD tenant organizations on civil airports use military standards to the extent practical, otherwise, FAA criteria or standards apply." Therefore, Air Force standards do not apply. The Air Force acknowledged this fact in a HQ USAF/LEY letter dated 18 Mar 87. In that letter, the Air Force stated that AICUZ studies for Kirtland were exempted and FAA standards (Part 150) would be the official document for Albuquerque/Kirtland airfield. Flight operations to runways other than 08/26 are currently by exception. In fact, future plans will close runway 17/35.

Future Local Community Encroachment (II.3.F)

Element: **Clear Zone Compatibility (worst case, all runways ends)** Rated: **Red**
Element number: II.3.F.1 (Questionaire element: II.6.B.1)
Rationale: Possible ratings: Green was off-base development compatible (percent incompatible equals 0) within. Red was off-base incompatible (percent incompatible greater than 0) within CZ.
Comment: **Non-concur.** Of four runways, only 3 CZs of 8 CZs reported any incompatibility (runway 12: 5 percent incompatible, runway 17: 51 percent incompatible, and runway 30: 2 percent incompatible). Runways 26/08 account for 95 percent of the airfield operations, and neither of these runways have a CZ problem. Additionally, the airfield infrastructure (runways & taxiways) is owned by the City and operated as a joint-use facility. All runways meet FAA clearance requirements, but not all DOD standards. However, IAW AFR 86-14, "DOD standards pertain to land-based military installations under DOD control. DOD tenant organizations on civil airports use military standards to the extent practical, otherwise, FAA criteria or standards apply." Therefore, Air Force standards do not apply. The Air Force acknowledged this fact in a HQ USAF/LEY letter dated 18 Mar 87. In that letter, the Air Force stated that AICUZ studies for Kirtland were exempted and FAA standards (Part 150) would be the official document for Albuquerque/Kirtland airfield. Flight operations to runways other than 08/26 are currently by exception. In fact, future plans will close runway 17/35 and rearrange arrivals and departures to minimize use of runways 21. The Air Force has endorsed Albuquerque's airfield master plan that includes these statements.

Element: **Accident Potential Zone I (APZ I) Compatibility Aggregate** Rated: **Yellow**
Element number: II.3.F.2 (Questionaire element: II.6.B.1)
Rationale: Of 8 runways, Kirtland reported 20 percent incompatibility for runway 12, 94 percent incompatibility for runway 17, 10 percent incompatibility for runway 21, and 20 percent for runway 26. Possible ratings: Green was future off-base development generally expected to be compatible within APZ II (0-5 percent incompatible development). Yellow was future off-base development may become incompatible in some (limited) areas of APZ II (greater than 5 and up to 10 percent incompatible development). Red was future off-base development may become significantly incompatible within APZ II (greater than 10 percent incompatible development).
Comments: **Non-concur.** Runways 26/08 account for 95 percent of the airfield operations, and neither of these runways have major APZ problems. Additionally, the airfield infrastructure (runways & taxiways) is owned by the City and operated as a joint-use facility. All runways meet FAA clearance requirements, but not all DOD standards. However, IAW AFR 86-14, "DOD standards pertain to land-based military installations under DOD control. DOD tenant organizations on civil airports use military standards to the extent practical, otherwise, FAA criteria or standards apply." Therefore, Air Force standards do not apply. The Air Force acknowledged this fact in a HQ USAF/LEY letter dated 18 Mar 87. In that letter, the Air Force stated that AICUZ studies for Kirtland were exempted and FAA standards (Part 150) would be the official document for Albuquerque/Kirtland airfield. Flight operations to runways other than 08/26 are currently by exception. In fact, future

plans will close runway 17/35 and rearrange arrivals and departures to minimize use of runways 21. The Air Force has endorsed Albuquerque's airfield master plan that includes these statements.

Element: **Accident Potential Zone II (APZ II) Compatibility Aggregate** Rated: **Yellow**
Element number: II.3.F.3 (Questionaire element: II.6.B.3)
Rationale: Of 8 runways, Kirtland reported 3 percent incompatibility for runway 03, 4 percent incompatibility for runway 08, 20 percent incompatibility for runway 12, 96 percent incompatibility for runway 17, 100 percent incompatibility for runway 21, and 20 percent for runway 26. Possible ratings: Green was future off-base development generally expected to be compatible within APZ II (0-5 percent incompatible development). Yellow was future off-base development may become incompatible in some (limited) areas of APZ II (greater than 5 and up to 10 percent incompatible development). Red was future off-base development may become significantly incompatible within APZ II (greater than 10 percent incompatible development).
Comments: **Non-concur.** Runways 26/08 account for 95 percent of the airfield operations, and neither of these runways have major APZ problems. Additionally, the airfield infrastructure (runways & taxiways) is owned by the City and operated as a joint-use facility. All runways meet FAA clearance requirements, but not all DOD standards. However, IAW AFR 86-14, "DOD standards pertain to land-based military installations under DOD control. DOD tenant organizations on civil airports use military standards to the extent practical, otherwise, FAA criteria or standards apply." Therefore, Air Force standards do not apply. The Air Force acknowledged this fact in a HQ USAF/LEY letter dated 18 Mar 87. In that letter, the Air Force stated that AICUZ studies for Kirtland were exempted and FAA standards (Part 150) would be the official document for Albuquerque/Kirtland airfield. Flight operations to runways other than 08/26 are currently by exception. In fact, future plans will close runway 17/35 and rearrange arrivals and departures to minimize use of runways 21. The Air Force has endorsed Albuquerque's airfield master plan that includes these statements.

Air Quality (II.4)

Element: **Attainment Status** Rated: **Yellow**
Element number: II.4.A (Questionaire element: VIII.1.B.1)
Rationale: Possible ratings: Green was ozone, carbon monoxide and PM-10 in attainment. Yellow was ozone, carbon monoxide and PM-10 is in maintenance or in nonattainment at marginal or moderate levels. Red was ozone, carbon monoxide and PM-10 is in nonattainment at serious, severe or extreme levels.
Comment: **Non-concur.** Certified data for questionnaire element VII.1.B.1 reports no pollutants in maintenance. Kirtland/Albuqureque has just completed three years of not exceeding recommended carbon monoxide levels, and their status will be upgraded to an attainment status within the next few months. Therefore, this element should receive the appropriate rating "Green."

Element:	Future Growth	Rated: Yellow
Element number:	II.4.C (Questionaire element: VIII.16.--C.1, C.2, E.1, G.1.a, G.1.c, G.1.d, G.1.f, G.2.a, G.2.c, G.2.d, G.2.f, G.3.a, G.3.b, G.3.c, G.3.d, G.4.a, G.4.b, G.4.c, G.4.d, H)	
Rationale:	Possible ratings: Green was ozone and carbon monoxide in attainment. Yellow was not green and [carbon monoxide in attainment or maintenance or nonattainment at marginal or (nonattainment and VOC growth of greater than or equal to 10 percent and NOX growth of greater than or equal to 20 percent)] and [CO in attainment or maintenance or nonattainment at marginal or (nonattainment and no VMT limits)]. Red was anything else.	
Comment:	Non-concur. Kirtland/Albuqureque has just completed three years of not exceeding recommended carbon monoxide levels, and their status will be upgraded to an attainment status within the next few months. Therefore, this element should receive the appropriate rating Green.	

Criteria III
(Ability to accommodate contingency, mobilization, and future total force requirements at both the existing and potential receiving location)

Element:	**Maximum on Ground (MOG)**	Rated: **Yellow**
Element number:	III.1 (Questionaire element: III.1.A.1)	
Rationale:	Kirtland reported a C-141 working MOG of 3. Possible ratings: Green was 4 or more. Yellow was 2 or more but less than 4. Red was less than 2.	
Comment:	**Partial-concur.** Kirtland could easily support a variety of airlift requirements. Of all the requirements for loading, Kirtland's only limiting factor is material handling equipment. Kirtland can easily support a ***GREEN*** rating if given the material handling equipment required.	

Element:	**Fuel Hydrant System**	Rated: **Red**
Element number:	III.3(Questionaire element: not given)	
Rationale:	Kirtland does not have an operational fuel hydrant system. Possible ratings: Green - yes. Yellow - yes, with limitations. Red - no.	
Comment:	**Concur.**	

Element:	**Fuel Storage by Pipeline**	Rated: **Red**
Element number:	III.4 (Questionaire element: III.1.D)	
Rationale:	Kirtland is not serviced by fuel pipeline(s). Possible ratings: Green - yes, and Red - no.	
Comment:	**Concur.** However, Kirtland has multiple methods of fuel delivery and ample storage-no problems have existed in the past, nor are any forecast.	

Geographic Location (III.7)

Element:	**Ground Forces Installation within 150 NM**	Rated: **Red**
Element number:	III.7.A (Questionnaire element: III.1.G.1)	
Rationale:	Questionnaire stated Kirtland did not have an Army/Marine ground forces installation within 150 NM. Possible ratings: Green - yes or Red - no.	
Comment:	**Concur.**	

Element:	**Port Facility within 150 NM**	Rated: **Red**
Element number:	III.7.C (Questionnaire element: III.1.G.3)	
Rationale:	Questionnaire stated Kirtland did not have port facilities within 150 NM; therefore, the element was rated red. Possible ratings: Green - port available and Red - port not available.	
Comment:	**Concur.** However, the port requirement is overstated when there are ample rail and interstate highways nearby.	

Criteria IV
(Cost and manpower implications)

Kirtland's cost and manpower implications were noteworthy.

- Out of 6 product centers and laboratories, Kirtland almost tied for the second most costly to close (448M).
- 20 year net present value of closure option reported as 469M savings.
- Steady state savings were 81M.
- Manpower reductions realized were 1492.

Comment: Kirtland's numbers and assumptions for this criteria appear questionable.

Criteria V
(Return on investment)

A Kirtland closure, as discussed above, was projected to realize a payback in six years.

Comment: See Cost Summary.

Criteria VI
(Economic impact on communities)

Key data used to evaluate Kirtland/Albuquerque follow (the Air Force used cumulative job loss for all BRACs and cumulative percent job loss for all BRACs as the primary measure for this criteria):

Economic Area Employment (93)	327209
Direct job loss (current BRAC)	10915
Indirect job loss (current BRAC)	10518
Previous job loss (prior BRAC)	-
Total job loss (current BRAC)	21433
Percent job loss (current BRAC)	6.6%
Cumulative loss (all BRACs)	**21433**
Percent job loss (all BRACs)	**6.6%**

Community Statistics

Economic Statistical Area	Bernallio County, NM MSA
Population (1992 Census)	499000
Per capital income (1991)	$18582
1984-1991 Average Income Increase	4.8%

Unemployment Statistics

Economic Statistical Area	Bernallio County, NM MSA
Unemployment (10 year average)	5.8%
Unemployment (3 year average)	5.5%
Unemployment (1993)	6.6%

Criteria VII
(Ability of both the existing and potential receiving communities' infrastructure to support forces, missions, and personnel)

Off-Base Housing (VII.1)

Element: **Affordable** Rated: **Yellow**
Element number: VII.1.A (Questionaire element: VII.1.A.4)
Rationale: Kirtland's certified BRAC 95 questionnaire reported off-base housing as affordable with a median monthly cost of $742. Possible ratings: Green was less than or equal $625 monthly price; yellow was greater than $625 but less than or equal to $938 monthly price; and red was greater than $938 monthly price.
Comment: **Non-concur.** Certified questionnaire reported off-base housing as affordable. Additionally, VHA is used to supplement individuals that are located within areas where monthly housing costs exceed a given average. Element should be rated "Green."

Element: **Suitable** Rated: **Yellow**
Element number: VII.1.B (Questionaire element: VII.1.A.3)
Rationale: Kirtland's certified BRAC 95 questionnaire reported that 5.5 percent of the off-base housing was unsuitable within the $625 and less per month range. Possible ratings: Green was less than or equal 5 percent unsuitable; yellow was greater than 5 percent but less than or equal to 14.999 percent unsuitable; and red was greater than 14.999 percent unsuitable.
Comment: **Non-concur.** Survey results can be in error by small amounts and given that Kirtland reported housing that was affordable and their VHA housing survey reported an unsuitable rate that was only 0.5 percent over the green rating, Kirtland should receive a "Green" rating. Additionally, VHA supplements offset higher housing costs, and when included, allow individuals to move up in price ranges, thus reducing the number of unsuitable units.

Transportation (VII.2)

Element:	**Commute time to work**	Rated: **Yellow**
Element number:	VII.2.D (Questionnaire element: VII.1.B.4)	
Rationale:	Kirtland's certified BRAC 95 questionnaire reported a 50 minute round-trip commuting time. Possible ratings: Green - less than or equal to 40 minutes; Yellow - between 40 and 60 minutes; Red - more than 60 minutes.	
Comment:	**Concur.** However, how was this average obtained? Minor errors could change a Green rating to a yellow rating.	

Off-Base Recreation (VII.3)

Element:	**Boating**	Rated: **Red**
Element number:	VII.3.E (Questionaire element: VII.1.C.4)	
Rationale:	Questionnaire reported boating (Cochiti Lake) 1.25 hours driving time. Possible ratings: Green was boating less than or equal to 30 minute drive. Yellow was boating between greater than 30 minutes and less than or equal to 45 minute drive. Red was boating more than 45 minute drive or not available.	
Comment:	**Concur.**	

Element:	**Aquarium**	Rated: **Red**
Element number:	VII.3.H (Questionaire element: VII.1.C.8)	
Rationale:	Questionnaire reported aquarium (Sea World) located 14 hours driving time. Possible ratings: Green was aquarium less than or equal to 1.5 hour drive. Yellow was aquarium between greater than 1.5 and less than or equal 2.5 hour drive. Red was aquarium more than 2.5 hour drive or not available.	
Comment:	**Concur.**	

Local Area Crime Rate (VII.6)

Element:	**Violent Crime Rate**	Rated: **Red**
Element number:	VII.6.A (Questionaire element: VII.1.F.1)	
Rationale:	Questionnaire reported a violent crime rate (per 100,000) of 1196. Possible ratings: Green was 600 or below. Yellow was greater than 600 but less than or equal to 900. Red was greater than 900.	
Comment:	**Partial-concur.** Actual 1993 U.S. Department of Justice (FBI) violent crime rate statistics for Albuquerque, NM MSA was 1,273.6 per 100,000.	

Element:	**Property Crime Rate**	Rated: **Red**
Element number:	VII.6.B (Questionaire element: VII.1.F.2)	
Rationale:	Questionnaire reported a property crime rate (per 100,000) of 6360. Possible ratings: Green was 4000 or below. Yellow was greater than 4000 but less than or equal to 6000. Red was greater than 6000.	
Comment:	**Partial-concur.** Actual 1993 U.S. Department of Justice (FBI) property crime rate statistics for Albuquerque, NM MSA was 6,274.2 per 100,000.	

Education (VII.7)

Element:	**Attend College**	Rated: **Yellow**
Element number:	VII.7.D (Questionaire element: VII.2.D)	
Rationale:	Questionnaires reported 45 percent of Albuquerque students go on to college. Possible ratings: Green was 60 or more percent of the students within local catchment or 25 miles of base go on to college. Yellow was less than 60 but more than or equal to 40 percent of the students within local catchment or 25 miles of base go on to college. Red was less than 40 percent of the students within local catchment or 25 miles of base go on to college.	
Comment:	**Concur.** For comparison, Holloman reported 92 percent of students go on to college.	

Criteria VIII
(The environmental impact)

Environmental Impact

Element:	**Asbestos**	Rated: **Yellow**
Element number:	VIII.2 (Questionaire element: VIII.7)	
Rationale:	Questionnaire reported 8 percent of facilities surveyed with 98 percent of the surveyed facilities containing asbestos. Possible ratings: Green was less than or equal to 10% facilities with asbestos containing materials (ACM). Yellow was 10% to 25% facilities with ACM; survey incomplete or unable to assess percentages. Red was greater than 25% facilities with ACM.	
Comment:	**Concur.** Kirtland received a yellow rating because it had not completed an asbestos survey.	

Biological (VIII.3)

Element:	**Habitat**	Rated: **Red**
Element number:	VIII.3.A (Questionaire elements: VIII.8.A, VIII.8.A.1, VIII.8.D)	
Rationale:	Certified Kirtland questionnaire reported no resources. Possible ratings: Green was resources not present. Yellow was resources present which do not currently constrain construction/operations. Red was resources present which constrain current construction/operations or require "work arounds" to support current operations.	
Comments:	**Non-concur.** Certified questionnaire does not support a red rating. In fact, questionnaire supports a "Green" rating. Resources are located adjacent to the base on US Forest Service withdrawal land, but not on the base.	

Element:	**Floodplains**	Rated: **Yellow**
Element number:	VIII.3.D (Questionaire element: VIII.10.C, VIII.11.A, VIII.11.A.1))	
Rationale:	Questionnaire reported floodplains present on the base, but no constraints. Green was floodplains not present on the base. Yellow was floodplains present which do not currently constrain construction/operations. Red was floodplains present which	

constrain current construction/operations or require "work arounds" to support current operations.

Comment: **Concur.** However, floodplains location on the base are not a current problem nor do they present a future problem, even when flooded.

Element: **Cultural** Rated: **Yellow**

Element number: VIII.4 (Questionaire elements: VII.12.A, II.12.C, VII.12.D.4, VII.12.F)

Rationale: Kirtland reported cultural resources present with no known impacts and an incomplete survey. Possible ratings: Green was no existing cultural resources. Yellow was cultural resources are present, but do not currently constrain construction/operations or base survey incomplete. Red was cultural resources are present and constrain current construction/operations.

Comment: **Concur.**

Element: **Installation Restoration Programs (IRP)** Rated: **Yellow**

Element number: VIII.5 (Questionaire element: VIII.13.A.1, VIII.13.F)

Rationale: Questionnaire reported 55 IRP sites, with all on-site remediation in place by 1999. Kirtland reported no constraints on construction or operations. Possible ratings: Green was IRP sites do not exist on base; or it has been determined that no remedial action is required.Yellow was IRP sites present which do not currently constrain construction/operations. Red was IRP sites present which constrain construction (siting) activities/operations on base.

Comment: **Concur.**

APPENDIX D

CLOSE HOLD - BCEG/BCEG STAFF ONLY

Facilities Condition - Buildings
Kirtland AFB Changes

cat_code	Title	Condition Code 1		Condition Code 2		Condition Code 3	
		Change to	Instead of	Change to	Instead of	Change to	Instead of
211-111	Maint Hangar	58.0%	87.0%	42.0%	13.0%		0.0%
211-157	Jet Engine I&R	27.0%	95.0%	73.0%	5.0%		0.0%
211-179	Fuel Sys Maint Doc	15.0%	100.0%	85.0%	0.0%		0.0%
214-425	Trailer/Equip Maint Fac	10.0%	80.0%	90.0%	20.0%		0.0%
214-467	Refueling Veh Shp	0.0%	72.0%	100.0%	28.0%		0.0%
218-852	Survival Equip Shp	29.0%	100.0%	71.0%	0.0%		0.0%
219	Maint - Installation, Rpr and Ops	13.0%	92.0%	86.0%	8.0%	1.0%	0.0%
310	Science Labs	10.0%	99.0%	90.0%	1.0%		0.0%
317	Elec Comm, and Elec Equip RDT&E Facs	16.0%	85.0%	83.0%	14.0%	1.0%	0.0%
510	Medical Ctr/Hospital	78.0%	78.0%	0.0%	22.0%	22.0%	0.0%
530	Med Labs	33.0%	100.0%	67.0%	0.0%		0.0%
610	Admin Bldgs	18.0%	83.0%	70.0%	15.0%	12.0%	2.0%
722-351	Amn Dining Hall	50.0%	100.0%	50.0%	0.0%		0.0%
730	Personnel Spt & Svcs Fac	51.0%	90.0%	46.0%	7.0%	3.0%	3.0%
740	MWR - Interior	0.0%	49.0%	88.0%	39.0%	12.0%	12.0%

APPENDIX E

Air Force Base Closure Executive Group
Meeting Chronology

AIR FORCE BASE CLOSURE EXECUTIVE GROUP
MEETING CHRONOLOGY

Sep 14 1994 — LAAFB move reviewed. Options to split activities between Hill and McClellan AFBs. Base Closure Executive Group (BCEG) directed move to Kirtland as proposed and McClellan and Hill also be examined and the cheapest option used. BCEG directed that KUMSC remain in cantonment. Final COBRA analysis will be more closely examined for operational effectiveness.

- LAFB closure assumptions appear as open item
- Level playing field assumptions for complete closure of LAFB
  - Space and Missile Center moved to Kirtland AFB
- Level playing field assumptions for complete closure of KAFB
  - Phillips Lab moved to McClellan
  - KUMSC moved to Nellis *
  - SOF moved to Hill AFB
  - ANG remain in cantonment on joint use civilian airfield
  - * BCEG directed that the Kirtland Underground Munitions Storage Complex remain in cantonment, since it cannot be moved due to factors other than cost.

Oct 17 — Lab/Product Center COBRA assumption update. Recommended that the move of LAFB to a split between Hill and McClellan not be pursued and move to Kirtland be used instead (lowest cost option).

Oct 19 — COBRA assumptions briefed for LAFB closure

- Appropriate excess capacity at KAFB greatly exceeds excess capacity at McClellan/No excess capacity at Hill.
- Construction costs at McClellan and Hill higher than or commensurate with construction costs at KAFB.
- No COBRA cost advantage exists for moving LAFB wholly or in part to Hill and/or McClellan.

- Recommendation
  - Retain KAFB as the receiver site for LAFB under level playing field COBRA cost assumptions.

Oct 20 — The eight DOD criteria for the Lab and Product Centers were reviewed. Criterion I (Operational Effectiveness) was considered as most important (additional consideration should be given to bases with the added flexibility of a runway). Criteria IV (one time cost of action and 20 year net present value of the action), and V (number of years for cost to be repaid) were considered second. Criteria II (Facilities) was next

most important. Criteria III (Contingency, Mobility and Deployment Requirements) not deemed important for this subcategory. Remaining criteria valuable only to resolve close comparisons. They are VI (Economic Impact represented by total job loss (direct and indirect) and job loss as a percentage of economic area population), VII (Community) and VIII (Environmental Impact). BCEG voted on tiering, 1 to 3, with 1 as highest rating for retention. KAFB and LAFB placed in tier 2.

▸ Priority Ratings

	KAFB	LAFB
IA	G	Y+
IB	Y+	R
IV	448/469	450/142
V	6	10
II	Y+	Y
III	Y	R+
VI	20,364(8.0%)	22,935(.6%)
VII	G-	Y
VIII	G-	G-

Green (G) more desirable for retention
Yellow (Y) in between
Red (R) less desirable for retention

Dec 6 Overview of air quality conformity impacts on some of the bases directed for detailed analysis by the SECAF. Analysis dealt only with ability to comply with conformity requirements and did not consider operational restrictions or other impacts. BCEG concludes that all proposed force structure moves should be reviewed for air quality concerns first. If the move can't satisfy conformity requirements, the move should not be considered further. If conformity appears to be satisfied, further analysis of the move should be removed. BCEG directed that this air quality analysis be further refined.

▸ Clean Air Impacts listed

- Kirtland: Difficult to add 635 people (no aircraft) Carbon Monoxide (CO) > Budget

Dec 15 Preliminary look at brief to be given to Secretary of the Air Force (SECAF) regarding lab and product centers.

▸ Identified that level playing field analysis for LAAFB, in which Kirtland was used as a receiver, <u>was not a viable option because of air quality conformity problems in Albuquerque.</u> The BCEG directed the Base Closure Working Group (BCWG) work the remaining cost estimates for the focused COBRA analysis of Los Angeles, Kirtland and Brooks AFBs, since the

information provided was based on level playing field only.

Dec 29 BCEG discussed which portions of Kirtland would remain after realignment, since some significant facilities would remain in cantonment or in stand alone status.

- Briefed results of air quality considerations for some proposed moves resulting from closures and realignments. BCEG will be called upon to make any final determinations of the advisability of the move and SECAF will determine any closures or recommendations using this information.
- Receiver bases in nonattainment area for candidate closures. KAFB listed as gaining 635 personnel from Scott. Kirtland rated as 180 CO above 1990 baseline. Given a Y (yellow) meaning BCEG emissions are within reasonable range of the 1990 baseline.

Jan 4 1995 KAFB closure option examined. Noted that the optical telescope at Phillips Lab would remain, as well as three satellite buildings. There was still some $800M of equipment to be moved. The option of cantoning the Phillips Lab operation was also examined. This option appeared much more cost effective.

Jan 11 BCEG met with SECAF on 6 Jan. SECAF asked that the Kirtland tenants be reviewed for better locations, even though the move to Offutt as briefed might be cheaper noting that their functions potentially could be better served in other locations.

- SECAF noted that the closure of LAAFB would result in a loss of its connectivity with the aerospace community in that area. On the other hand, SECAF noted that the cantonment option for KAFB seemed to offer an opportunity for considerable savings at relatively low cost.

Jan 20 BCEG met with SECAF on 12 Jan. Kirtland cantonment reviewed with updates on tenant locations. SECAF requested a comparison of the ROI from a closure including Phillips Lab, but using the same assumptions on cantonment of the weapons storage and Sandia Lab tenants.

- KAFB listed as a candidate for realignment

Feb 1 MG Blume noted the option of moving Army directed energy work to KAFB, Phillips Lab, seemed consistent with other AF options regarding KAFB as long as only civilian employees were added to the Lab.

Feb 8 SECAF requested that movement of SOF training to Holloman or Cannon be reviewed.

- New COBRA figures for Kirtland briefed, with options for bedding down SOF training mission at Beale, Cannon or Holloman.

Feb 10 SECAF presented with 3 alternatives for moving SOF training function out of KAFB. Cannon AFB cheaper but did not offer best training environment, while Beale and Holloman options were expensive but offered better terrain. Site survey team will examine costs and will report back with better cost data.

Feb 17 New cost figure for KAFB realignment, reflecting Holloman beddown for SOF training as developed by the site survey team. Three options will be presented to SECAF for consideration.

Feb 24 SECAF reviewed KAFB realignment and SOF training. SECAF selected Holloman as the better beddown choice.

- Remaining Kirtland issues
  - Resolution of DNA status
  - Guard post realignment personnel requirements
  - Safety center relocation questions
  - Updated SOF MILCON requirements

APPENDIX F

The Economic Impact of Realigning Kirtland Air Force Base

Introduction

Kirtland Air Force Base is one of the primary anchors of the Albuquerque area's economy. Indeed, asthe Kirtland Air Force Base Economic Impact Statement for Fiscal Year 1994 explains, the base plays a major role in the economic health of the Albuquerque economy, significantly affecting local economic and social life. Total base employment in Fiscal Year 1994 was 19,000, making Kirtland the largest employer in the State of New Mexico. These jobs represent 6.5 percent of the total non agricultural and military employment in the Albuquerque metropolitan area. Similarly, the $824 million Kirtland payroll represents 6.5% of the metropolitan areas personal income. The proposed realignment of Kirtland Air Force Base will significantly harm the Albuquerque metropolitan area's economy. The purpose of this study is to provide an estimate of the overall impact of the proposed realignment on the Albuquerque economy. It will report the losses to area employment, wages and tax revenues as determined by an input-output analysis.

Methodology and Data Sources

Input-Output are based on the simple idea that all sectors of the economy are linked together. Goods and services are produced using outputs from other sectors in the economy and primary inputs, i.e. capital, labor and natural resources. Outputs are created from inputs according to the fixed relations observed in the real world at a particular moment in time. Demand for an industry's output depends on the demands of other industries and final demand, that is, demand for the good in its finished form for private consumption, investment, government, or exports.

In practice, input-output analysis is widely employed to capture the impacts of some major change in a local economy. Common applications include the attraction or loss of a major industry to the local economy. The gain or loss of an industry results in an injection or loss of spending from outside the region. Typically, direct impacts in the areas of employment and income are estimated. Indirect impacts due to the industry's purchases and the increased income to the area are then calculated based on a multiplier analysis. Software packages are widely available for performing such analysis. This study made use of the IMPLAN software program which was initially developed by the United States Department of Agriculture and is currently maintained by the University of Minnesota. The University of New Mexico Economics Department owns a copy of the software and the associated 1990 data bases for the State of New Mexico. The State of NewMexico data base include information on over 500 industrial classifications for each New Mexico County. For purposes of this study, the 1990 data bases were aggregated into ten industrial categories which were then updated based on the latest employment figures reported by the University of New Mexico's Bureau of Business and Economic Research.

The impact area defined for the study includes the following counties: Bernalillo, Sandoval, Valencia and Santa Fe. The first three counties were included because they are part of the Albuquerque

MSA. Santa Fe County was also included because of the likelihood that there may be some inter industry linkages given the general proximity and observed commuting patterns.

Profile: Kirtland Air Force Base

Kirtland Air Force Base is one of the most diversified military bases in the country. It employs just under twenty thousand people, nearly six thousand of these being military personnel. In addition to being a major employer in the local economy, Kirtland is also a large buyer of goods and services. The base has embraced the Federal government's efforts to obtain as much of the goods and services as it can from the private sector, having increased the share of awarded contracts to small business from approximately thirty percent in 1991 to just under ninety percent in 1994. Furthermore, two-thirds of these purchases have gone to New Mexico firms, the vast majority located in the Albuquerque area.The total value of these local contracts reported in Fiscal Year 1994 was approximately $374 million.

The Economic Impact ot the Proposed Realignment

Direct Impacts

The proposed realignment of Kirtland Air Force Base will result in the direct loss of 6,850 jobs. 4,556of these are military positions, the remaining 2,294 jobs are held by civilians. According to the Air Force, the current phase-out plan is as follows: 240 jobs will leave in 1996, 493 in 1997, 1245, in 1998, 1950 in 1999, 1698 in 2000, and 760 in 2001. Note that this sums to 6,386 jobs, less than the 6,850 reported by the military's economic impact data. To reconcile the numbers, the proposed phase out plan was used, and the remaining jobs were added arbitrarily to the military positions in the last year. The difference was added to military positions because the phase-out already counted more civilian jobs than the economic impact statement. The military jobs were allocated between officers and enlisted men proportionately.

According to the Air Force, the proposed realignment will also result in the loss of $17 million dollars in military construction: $11 million in 1996 and $6 million in 1997. Approximately 204 full time construction jobs will be lost in those years based on an estimation procedure derived from the 1992 Census of Construction which reports on the value and payroll of construction activity nationwide. The census reports that about thirty percent of total construction costs goes to payroll. Based on an estimated average salary and benefit package of $25,000 per year for a construction worker in New Mexico, it is estimated that12 full time jobs are created per one million dollars of construction expenditures. The loss of construction dollars and employment may well be understated. Review of several past Kirtland economic impact statements indicate average annual construction budgets in excess of 100 million dollars. Unfortunately, we are unable to determine how much of this might be lost in addition to the $17 million already counted. If annual construction budgets were to fall by twenty five percent for example, or roughly $25 million, an additional 300 construction jobs would be lost each year. The direct job impacts are summarized in Table 1 on the following page.

Table 1: Direct Job Losses

	1996	1997	1998	1999	2000	2001	total
OFFICERS	50	104	265	335	281	268	1303
ENLISTED	92	188	475	853	757	680	3045
CIVILIANS	98	201	505	762	660	276	2502
CONSTRUCTION	132	72	0	0	0	0	204
TOTAL	372	565	1245	1950	1698	1224	7054

The loss of this much employment represents a large loss of income to the local economy. Based on City staff discussions with Kirtland personnel, the average salary of military personnel expected to leave under realignment is $28,669; the average salary for civilians is $37,000. Simple calculations, thus suggest a direct loss of $222 million of income from these sources. The loss of direct jobs at the base also implies smaller tax revenues to state and local governments. According to the New MexicoDepartment of Taxation and Revenue 1989 study on the distribution of state and local taxes, people withaverage incomes of $27,000 and $36,000 (reasonably close approximations of the military and civilian incomes that will be leaving Kirtland) contribute a little over ten percent of their income to support state and local government. Assuming the tax revenues from military personnel more or less parallel those of the larger'"community, this suggests a direct loss of $23 million dollars in tax revenues over the six year phase-out ($20.3 million in present value terms). The revenue lossesare projected as follows: $1.1 million in 1996, $1.8 million in 1997, $4.2 million in 1998, $6.5 million in 1999, $5.6 million in 2000, and $3.9 million in 2001. This estimate may be a little high because many military personnel pay income taxes to their home state rather than New Mexico and because of the opportunity to purchase some goods on base and thus avoid gross receipts taxes. Given the relatively small share of revenues raised by the state income tax, however, any over-estimate is expected to be no more than 15 %.

Finally it should be noted that Kirtland is the hub for a relatively largeretirement community. Military retirees were estimated at 18,300 people with retirement income of more than $250 million in the 1994 Kirtland Economic Impact statement. The base provides important shopping and health care services as well as a sense of community to the retirees. Once the base is gone, some, perhaps many of these people will decide to leave the area. The loss of retirees will result in the loss of their income to the community, and a loss of jobs supported by it. This is no small impact if many, in fact, do decide to leave. For example, assuming half of the retirees leave results in the direct loss of $125 million dollars in income to the area. Large income losses result in sharp decreases in expenditures, and thus large tax revenue losses to the local economies. The loss of half of the retirees would result in a loss of approximately twelve to thirteen million dollars in tax revenue in the year of their departure.'" Direct tax revenues lost are summarized in Table 2.

Table 2: Direct Tax Revenue Losses (Millions of $)

Year	1996	1997	1998	1999	2000	2001	total
Revenue	1.1	1.8	4.2	6.5	5.6	3.9	23.1

Indirect Impacts

Kirtland purchases many goods and services from the local community. Many of these purchases and contracts will be lost with the realignment of thebase. In addition to lost purchases, the local economy will suffer from the decreased spending power due to job losses. These indirect impacts are significant. The Department of Defense estimates based on the multiplier from their input-output analysis suggest that an additional 5,066 private sector jobs willbe lost to the Albuquerque economy. This estimate is relatively close to the estimate from the IMPLAN analysis. The Department of Defense (DOD) used an employment multiplier that was one standard deviation larger than their point estimate to estimate job losses. They use the higher multiplier because of theconcern that the calculated multipliers may be too low to capture all base closure effects. This seems to be a reasonable approach and thus analysis bases both its direct and indirect jobs analysis on the DOD's total estimates. The timing and sectoral analysis is based on the results of the IMPLAN analysis. Based on the' phase-out schedule provided by the Defense Department, it is estimated that the heaviest impacts will fall in the later years. The timing of the estimated indirect job losses roughly parallels that of the direct jobs losses. The indirect job losses are projected as follows: 334 in 1996, 454 in 1997, 746 in 1998, 1203 in 1999, 1609 in 2000, and 722 in 2001. The indirect job losses are summarized in table 3.

Table 3: Indirect Job Losses

Year	1996	1997	1998	1999	2000	2001	total
Revenue	334	454	746	1203	1609	722	5068

The indirect job losses will have different affects on different industries. Not surprisingly, the lost income associated with the direct job losses will hit theconstruction, trade and service sectors hardest. Over the six year phase-out period, 1611, 1219, 1153 jobs will be lost to these sectors, respectively. The Finance, Insurance and Real Estate sector similarly will be impacted by decreased demand and thus experience approximately 602 jobs over the six year period. With fewer people in the community, the demand for government services will also decline; the estimated fall in government jobs is 137. The story for educational services (public and private) is the same; 68 jobs will be lost here. The manufacturing sectors and the TCU sectors will be negatively impacted as well, mostly due to losses associated with providing goods and services to the base.

Total indirect job losses in the manufacturing sector are expected to amount to 123 jobs; employment losses in the TCU sector should be on the order of 144 jobs. Job losses by sector are summarized in table 4 on the following page.

Table 4: Indirect Job Losses by Sector

	1996	1997	1998	1999	2000	2001	total
Agriculture	0	1	1	3	4	2	11
Construction	279	287	294	303	309	139	1611
Manufacturing	2	5	14	28	40	18	108
Hi-Tech Mftg	0	1	2	4	5	2	15
T.C.U.	2	7	19	38	54	24	144
Trade	19	59	160	318	458	205	1219
F.I.R.E.	9	29	79	157	226	102	602
Services	18	55	150	299	435	195	1153
Education	1	3	9	18	25	11	68
Government	2	7	18	36	52	23	137
TOTAL	334	454	746	1203	1609	722	5067

Again, it should be noted that these estimates do not account for the potential loss of retirees. If large numbers of retirees leave the community, the indirect job losses will be significant. For example, if half of the retirees left in 2001 when presumably many of the services currently provided to them could be expected to end, an additional 1600 to 1700 job losses are estimated. The indirect jobs and associated income losses will be associated with additional losses to state and local government revenues. Based on the IMPLAN projections and the five thousand plus indirect job losses, revenue losses over the six year phase-out period are expected to be approximately $16 million dollars ($14 million in present value terms). The timing of these losses will be as follows: $0.5 million in 1996, $1.4 million in 1997, $2.4 million in 1998, $3.8 million in 1999, $5.6 million in 2000, and $2.3 million in 2001. Again, these figures do not reflect the loss of any retiree income, and thus are probably understated. Indirect tax revenue losses are reported in table 5.

Table 5: Indirect Tax Revenue Losses (Millions $)

Year	1996	1997	1998	1999	2000	2001	total
Revenues	0.5	1.4	2.4	3.8	5.6	2.3	16.0

Total Impact
The total employment impacts of the proposed Kirtland realignment thus sum to 12,122 jobs. The timing of these losses are 706 jobs in 1996, 1019 in 1997, 1,991 in 1998, 3,153 in 1999, 3,307 in 2000 and 1,946 in 2001. These estimates do not account for the potential loss of any retirees, which may be substantial. Table 6 reports total jobs lost over the six year period.

Table 6: Total Job Losses

Year	1996	1997	1998	1999	2000	2001	total
Jobs	706	1019	1991	3153	3307	1946	12,122

The total tax revenue losses to state and local governments will be on the order of $39 million and will distributed over the phase out period as follows: $1.6 million in 1996, $3.2 million in 1997, $6.6 million in 1998, 10.3 million in 1999, $11.2 million in 2000 and $6.2 million in 2001. Total government revenues losses are shown in table 7.

Table 7: Total Tax Revenue Losses (Millions $)

Year	1996	1997	1998	1999	2000	2001	total
Revenues	1.6	3.2	6.6	10.3	11.2	6.2	39.1

REUSE POSSIBILITIES FOR KIRTLAND AIR FORCE BASE
Current analysis of cantonment plans for Kirtland after the realignment suggests that only three percent of the base would be removed from behind the current fences. All of this area is residential. Consequently, we expect that little any jobs can be created at the base. This is a rather unique and detrimental circumstance. One of the primary tools for economic recovery by communities harmed by base closures has always been the subsequent availability of land for economic reuse. This land is usually donated to the community which in turn markets it to the private sector for job creation purposes. The closing of this option for Albuquerque will make the creation of lost jobs considerably more difficult.

Document Separator

April 20, 1995

MEMORANDUM FOR THE BRAC COMMISSION

SUBJECT: Biographies of Witnesses for the Retention of Kirtland Air Force Base

MAJOR GEN. EDWARD R. GILLER, USAF (RET)

Major Gen. Edward R. Giller has for the past 45 years, served in numerous positions relating to the stewardship and development of nuclear weapons. These positions include: the JCS representative to the comprehensive Nuclear Test Band, Director of Nuclear Weapons Program at the Atomic Energy Commission, and Director of Science & Technology at USAF Headquarters. He worked in the Air Force Office of Research, and was Commander of the predecessor of Phillips Laboratory. Gen. Giller has a Ph.D. in Chemical Engineering from the University of Illinois and served in WWII as a fighter pilot.

BRIG. GEN. HANSON L. SCOTT, USAF (RET)

Brig. Gen. Scott is currently Director of Aviation for the City of Albuquerque, responsible for the safe and efficient operation of Albuquerque International Sunport and Double Eagle II Airport. He retired in 1991 following his assignment as Commander, Special Operations Command, Pacific, Camp H. M. Smith, Hawaii. Brig Gen Scott was the first Air Force officer to command SOCPAC, and was assigned command of theater assigned Army Special Forces, Navy Special Warfare Forces (SEALS), and Air Force Special Operations Forces. His earlier command assignments included Vice Commander, Air Force Special Operations Command; Command; Command; Commander, 1st Special Operations Wing, Hurlburt Field, Florida; Commander, 463d Tactical Airlift Wing, Dyess AFB, Texas; and Vice Commander, 314th Tactical Airlift Wing, Little rock AFB, Arkansas. He had varied operational and staff assignments, including duty at HQ USAF (the Pentagon.) He flew 108 combat missions in the AC-130 Gunship during his assignment in Southeast Asia. Brig. Gen. Scott is from Reserve, New Mexico--he graduated from the United States Air Force Academy and received a MBA from Auburn University. He is USAF Command Pilot, with over 6000 flying hours as well as being a rated parachutist.

COL. CHARLES G. THOMAS

Col. Charles G. Thomas was commander of Kirtland AFB from 1985 through 1988. Kirtland won numerous awards during his tenure including two annual "Installation Excellence" awards. Prior to coming to Kirtland, he directed the Air Force "Bases and Units" organization at the Pentagon. Base Closures and Realignments were part of his responsibility. Since retirement, he has held several positions including Cabinet Secretary for the State of New Mexico. He is currently a Department Manager at Sandia National Laboratories. Col. Thomas also serves on several community boards including the Airport Advisory Board, Hospital Board, and Arts Boards. He has received state and local awards for community involvement.

Lt. GEN. MARQUEZ

Lt. Gen. Marquez is a former Air Force officer who retired in 1987. At the time of retirement he was serving as the Deputy Chief of Staff for Logistics and Engineering, Headquarters, United States Air Force. Since his retirement, he has served as corporate Vice President of Advanced Sciences Corporation, a local environmental engineering firm. He recently retired from the position of Board Chairman and CEO of Avacelle, Inc. an aerospace firm specializing in designing and manufacturing noise attenuation devices for jet aircraft. He is a lifelong New Mexico resident. He received a Bachelor of Science degree from New Mexico State University, and a MBA's from the George Washington University and Carnegie Mellon University. He was awarded an honorary doctorate of letters from NMSU and named the outstanding graduate of the school's first century. He is a fighter pilot with over 2500 hours of single engine jet fighter time. He commanded several units, the latest being the air logistics center in Ogden, Utah.

SHERMAN MCCORKLE

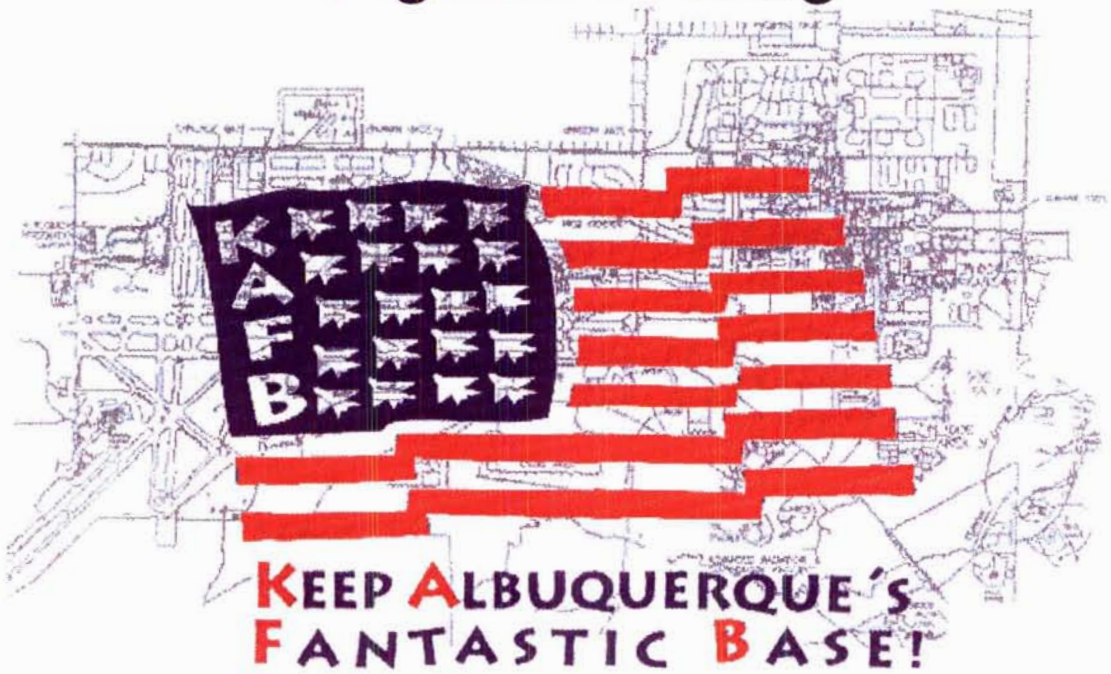
Sherman McCorkle is President and Chief Operating Officer of Technology Ventures Corporation founded by Martin Marietta as a nonprofit New Mexico Corporation in 1993. He was President and Chief Executive Officer of Sunwest Credit Services Corporation from 1988 to 1992. He founded and developed the corporation. Within two years the enterprise became a self-sustaining, highly profitable operation. He was senior Vice President and Director of Electronic Banking of Sunwest Bank of Albuquerque, N.A. from December 1982 to December 1988. He was a corporate Senior Vice President with Albuquerque National Bank from 1976 to 1982. He is a member of the Board of Directors of First State Bancorporation and Chairman of its Executive Committee, and is a Director and Vice Chairman of the Board of the Credit Card Services, Incorporated. He is also a member of the board of Riotech. He was an originating board member of Plus System Incorporated, the world's largest retail electronic funds corporation. He is a 1984 Graduate of the Colorado Graduate School of Banking, at the University of Colorado. He has served as faculty member at the University of Oklahoma for both the National School of Retail Banking and the National School of Bankcard Management. He served an extended term as Chairman of the Greater Albuquerque Chamber of Commerce. He served on the select committee on the Uniform Commercial Code of the United States. He served in 1990 as Honorary Commander of Kirtland Air Force Base in New Mexico.

MR. JOHN VUKSICH

Mr. John Vuksich is the Science Advisor to the Governor of New Mexico, and has served in that capacity since January 1995. Prior to his appointment, Mr Vuksich, then an Army Lieutenant Colonel, served within the Office of the Assistant Secretary of Defense for Program Analysis and Evaluation. During this assignment, he was a cost analyst on the DOD Cost Analysis Improvement Group, and was responsible for cost estimation of major defense acquisition programs. Prior to that assignment, Mr Vuksich belonged to the Strategic Defense Initiative Organization and the Combined Arms Operation Research Activity. Mr. Vuksich, an infantry officer, served in both the 101st Airborne Division and the 7th Infantry Division. Mr. Vuksich has a B.S. from the U.S. Military Academy, an MS in Operations Research from Stanford, and an MA in International and Strategic Studies from the Naval War College.

KIRTLAND AIR FORCE BASE

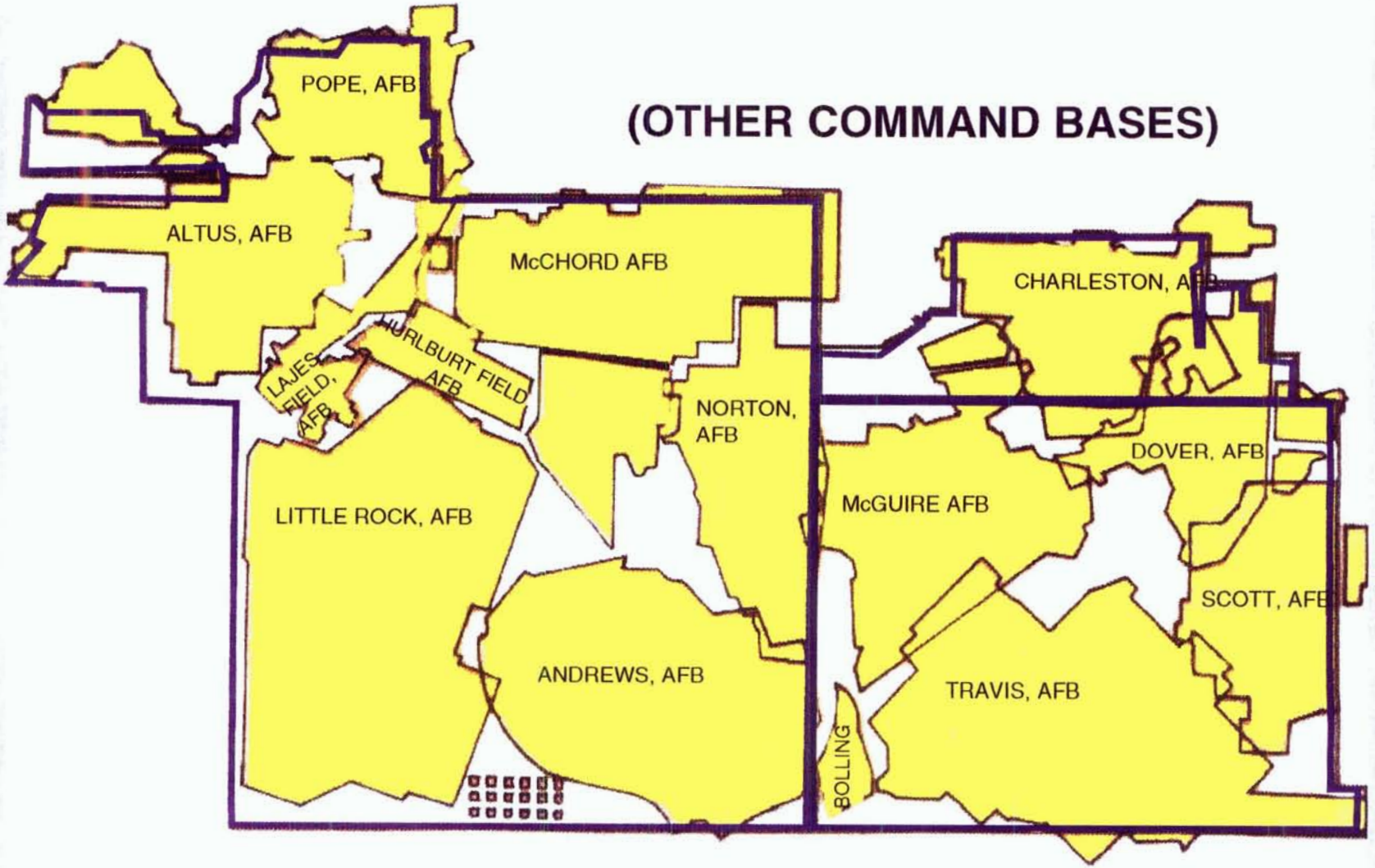
Albuquerque, New Mexico
Regional Hearing



Community Presentation
to
The Defense Base Closure and Realignment Commission

April 20, 1995

KAFB



KIRTLAND AFB

KAFB

KIRTLAND AIR FORCE BASE:

"ESSENTIAL IN SUPPORTING SEVERAL IRREPLACEABLE RESEARCH AND TESTING FACILITIES ESSENTIAL TO DOD, DOE AND OTHER GOVERNMENT AGENCIES."

—FROM BRAC 93

KAFB

REALIGNMENT RECOMMENDATION

- **DEACTIVATE** — 377th Air Base Wing
- **RELOCATE**
  - 58th SOW
  - AFOTEC
  - AFOSP
  - FCDNA
  - AFSA/AFIA
  - 150 Other Tenants
- **IN CANTONMENT**
  - Phillips Laboratory
  - 898th Munitions Squadron
  - AFRES/ANG
  - Sandia National Laboratories (SNL)
  - DOE/AL

KAFB

REALITY OF AIR FORCE PROPOSAL

- <u>COSTS</u>; NOT SAVINGS
- Nuclear Surety—*SEVERELY COMPROMISED*
- Operational Effectiveness—*IMPAIRED*
- Reuse—Virtually *NONEXISTENT*
- Kirtland Air Force Base is a *MODEL BRAC FEDERAL INSTALLATION*

KAFB

REALIGNMENT

AIR FORCE COSTS/SAVINGS

COST TO IMPLEMENT	ANNUAL SAVINGS	ROI
$277 M	$62M	5

WE CONTEND THAT:

- ONE-TIME COSTS ARE UNDERSTATED BY AT LEAST $248.7M, TOTALING $525.7M.
- ANNUAL SAVINGS ARE OVERSTATED BY AT LEAST $74.7M.

RETURN ON INVESTMENT WILL NEVER BE ACHIEVED!

KAFB

BRAC '95 GOALS

(Policies, Procedures, Authorities, and Responsibilities)

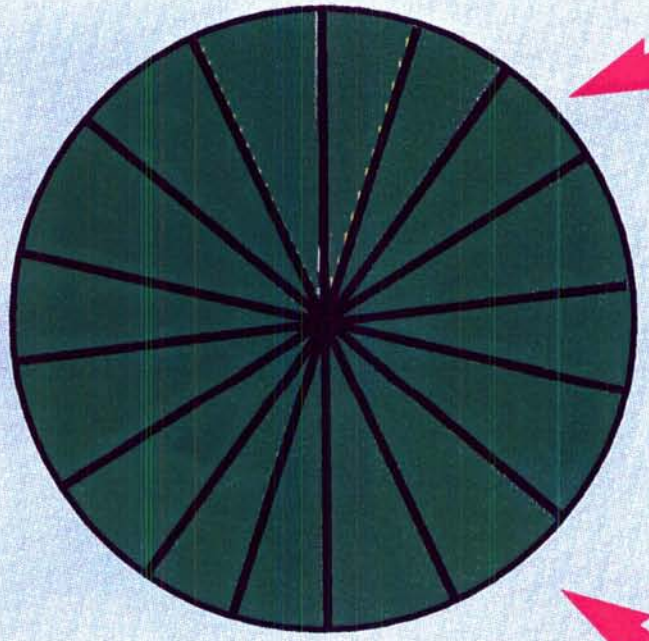
"Goal: savings to taxpayer..."
-Chairman Alan J.Dixon

"...Make maximum use of common support assets...look for cross-service or intra-service opportunities to share assets and look for opportunities to rely on a single Military Department for support."

KAFB

TODAY'S KIRTLAND AFB

USAF ORGANIZATIONS
58th SOW
AFOTEC
AFIA
AFSA
AFSPA
Phillips
150th FG (ANG)
898th MSS
Others



NON-DOD ORGANIZATIONS
Sandia
DOE, ABQ
VA Hospital
Others

DOD ORGANIZATIONS
FCDNA
DESA
Others

377th Air Base Wing
"The Support Pie"

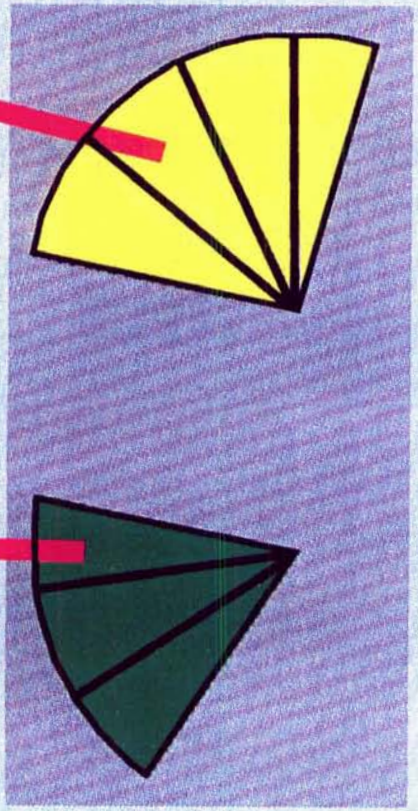
KAFB

THE AIR FORCE PROPOSAL

Disband 377th ABW—Save USAF $62M

DEPARTING USAF ORGANIZATIONS

58th SOW
AFOTEC
AFIA
AFSA
Others



REMAINING USAF ORGANIZATIONS

Phillips
150th FG (ANG)
898th
Others

ALL DOE, DOD, VA and other activities MUST SEEK alternative support!!!

KAFB

COST ADJUSTMENTS TO USAF COST ESTIMATE

ONE-TIME

HQ USAF One-Time	$277.5

KAFB

COST ADJUSTMENTS TO USAF COST ESTIMATE

ONE-TIME

HQ USAF One-Time	$277.5

OMISSION

DOE	$64.1
Phillips	$18.4
KUMSC	$ 2.8
58th SIMULATOR	$ 26.7
MOVE TACCSF	$ 9.9
150th FG	$ 7.1

DISAGREEMENT

Simulator Bldg	$ 3.8
USAF Safety Cntr	$13.6
DNA to Kelly	$11.6
NCO Academy	$ 7.4
Ramp for Extra A/C	$ 7.2
Housing for 58th SOW	$ 75.6

Adjusted One-Time	**$525.7**

KAFB

COST ADJUSTMENTS TO USAF COST ESTIMATE

RECURRING

HQ USAF Annual Savings

$62.0

KAFB

COST ADJUSTMENTS TO USAF COST ESTIMATE

RECURRING

HQ USAF Annual Savings	$62.0

COST SHIFTING

DOE	-$30.6
Support for Non-USAF	-$10.6
VA Hospital	-$ 5.1

OMISSION

Security for 898th MSS	-$ 8.2
CHAMPUS	-$20.2
subtotal	-$74.7

Adjusted Annual Saving -$12.7

(annual cost to taxpayer)

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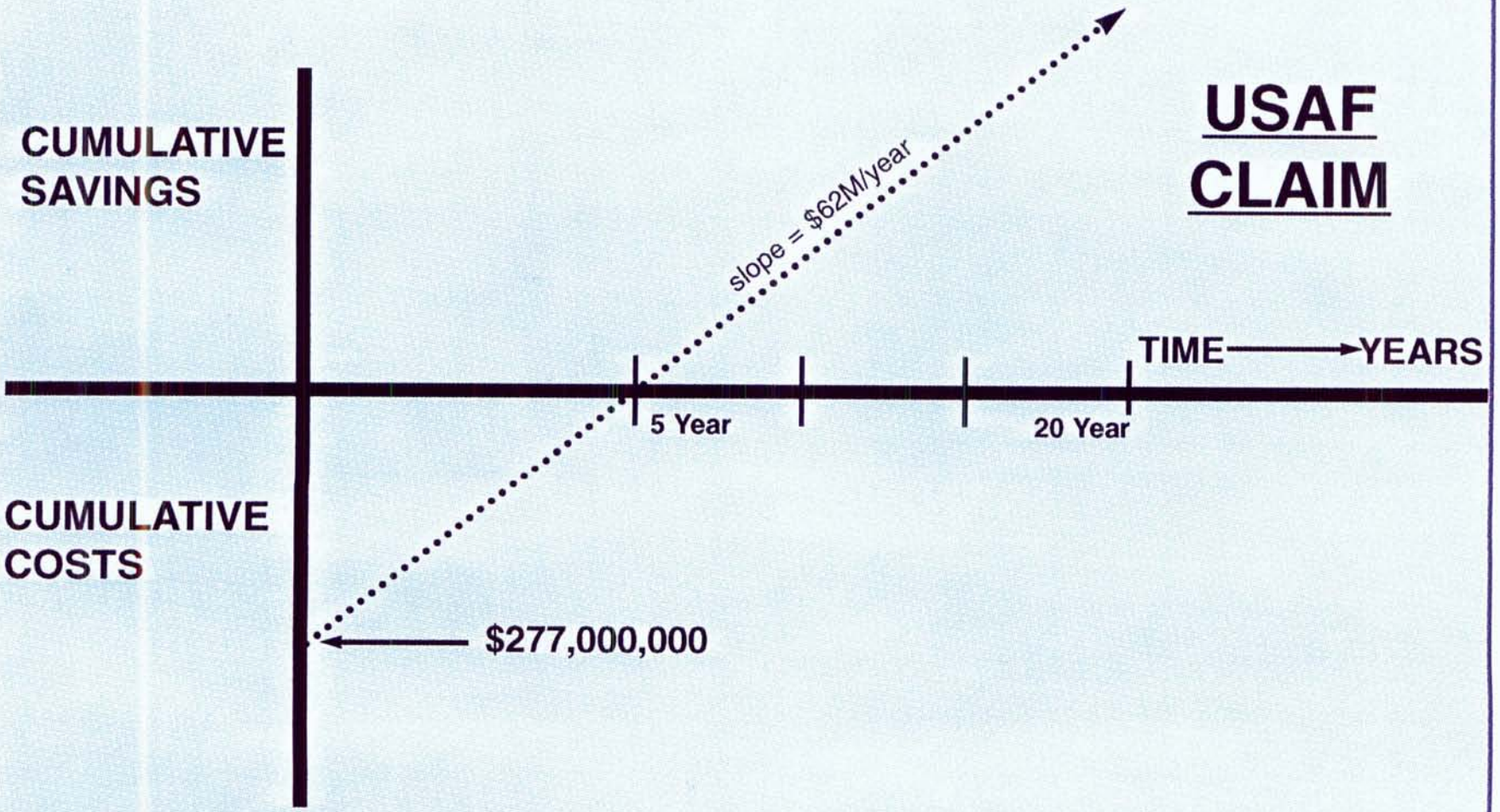
THE PROPOSAL



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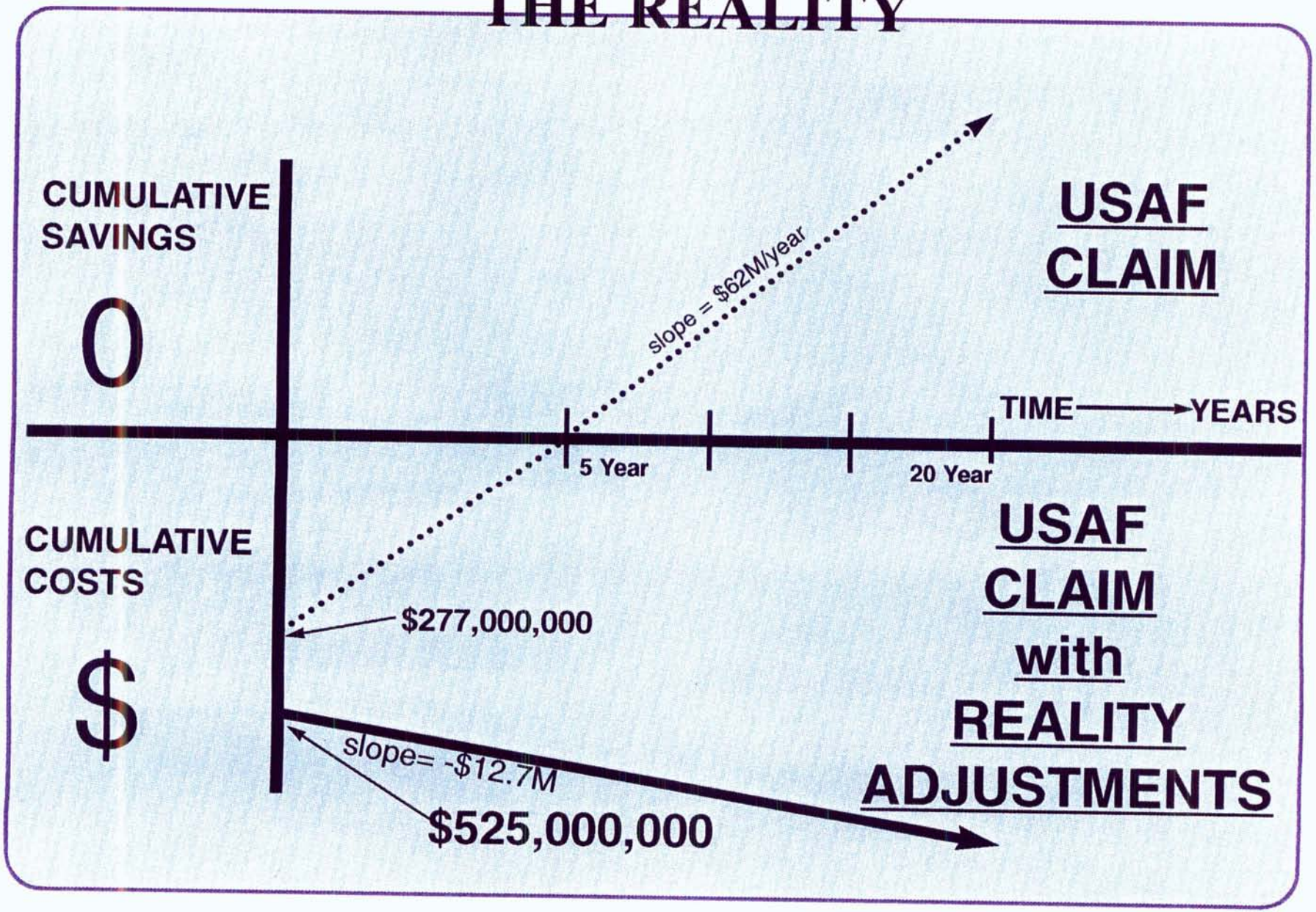
THE REALITY



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NUCLEAR WEAPONS
ACTIVITIES REQUIRING AN INFRASTRUCTURE

1. *SAFETY*
2. *SECURITY*
3. DESIGN
4. *USE CONTROL*
5. NUCLEAR WEAPONS SYSTEMS
6. PROJECT OFFICER GROUPS
7. *STORAGE*
8. *TRANSPORTATION*
9. JOINT NUCLEAR WEAPONS PUBLICATIONS
10. UNSATISFACTORY REPORT SYSTEM
11. *NUCLEAR ACCIDENT TRAINING*
12. *ACCIDENT RESPONSE GROUP*
13. *EXPLOSIVE ORDNANCE DISPOSAL TRAINING*
14. *NUCLEAR EFFECTS SIMULATION*

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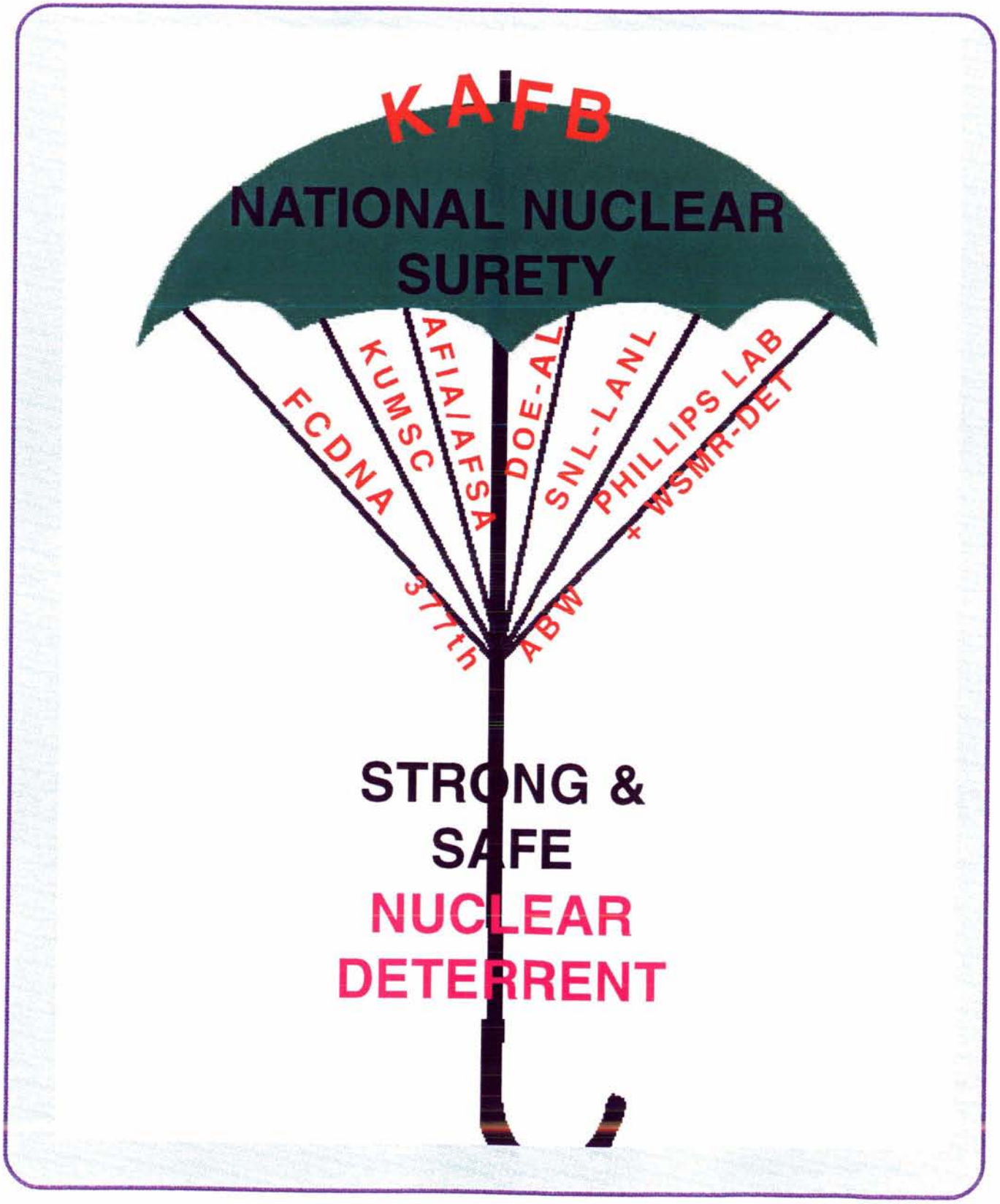
NEW WEAPON
RELATED ACTIVITIES REQUIRING AN INFRASTRUCTURE

1. NON - PROLIFERATION
2. COUNTER - PROLIFERATION
3. TERRORISM
4. INTERNATIONAL COOPERATION
   a. R & D
   b. NEST
   c. DISMANTLEMENT (NUNN LUGAR)

Nuclear Weapons Support Team Interactions

Team Members \ Functions	SAFETY	SECURITY	DESIGN	USE CONTROL	NUCLEAR WEAPONS SYSTEMS	PROJECT OFFICER GROUPS	STORAGE	TRANSPORTATION	JOINT NUCLEAR WEAPONS PUBLICATIONS	UNSATISFACTORY REPORT SYSTEM	NUCLEAR ACCIDENT TRAINING	ACCIDENT RESPONSE GROUP	EXPLOSIVE ORDNANCE DISPOSAL TRAINING	NUCLEAR EFFECTS SIMULATION
DOE - SANDIA NATIONAL LABORATORY	●	●	●	●	●	●	●	●	●	●	●	●	●	●
DOE-LOS ALAMOS NATIONAL LABORATORY	●	●	●	●	●	●	●	●	●	●	●	●	●	●
FIELD COMMAND DEFENSE NUCLEAR AGENCY	●	●	●	●	●	●	●	●	●	●	●	●	●	●
AIR FORCE INSPECTION AGENCY AIR FORCE SAFETY AGENCY	●	●		●	●					●				
AFMC NUCLEAR WEAPONS INTEGRATION DIVISION	●		●	●	●		●	●	●			●		
NAVY LIAISON OFFICE NAVAL SURFACE WARFARE	●			●	●				●	●				
NAVAL AIR WARFARE CTR. WEAPONS DIVISION DET	●	●	●	●	●									
WHITE SANDS MISSILE RANGE	●													●

KAFB


KAFB
NATIONAL NUCLEAR SURETY
FCDNA
KUMSC
AFIA/AFSA
DOE-AL
SNL-LANL
PHILLIPS LAB
+ WSMR-DET
377th ABW
STRONG & SAFE
NUCLEAR DETERRENT

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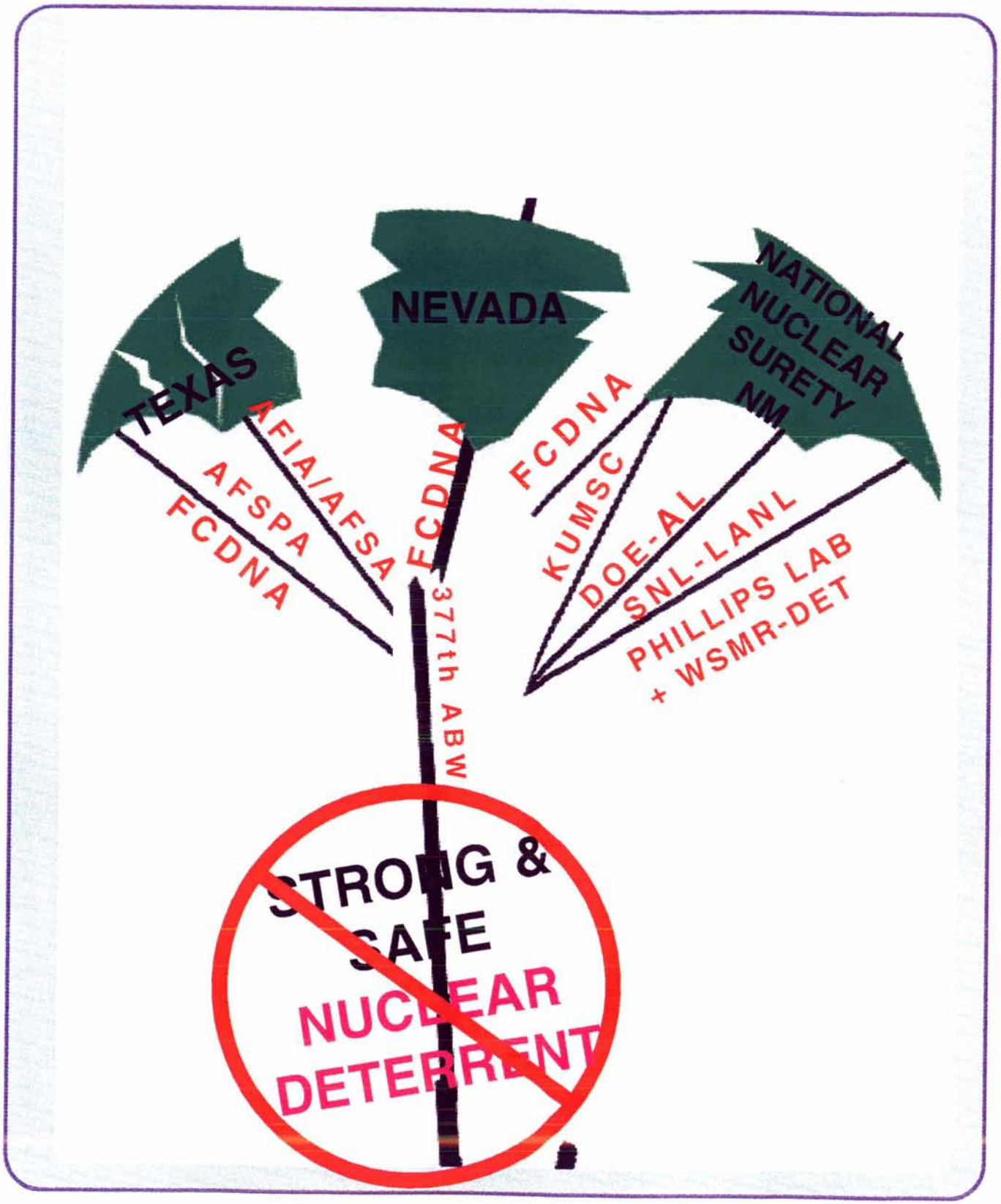

TEXAS
NEVADA
NATIONAL NUCLEAR SURETY NM
AFSPA
FCDNA
AFIA/AFSA
FCDNA
FCDNA
KUMSC
DOE-AL
SNL-LANL
PHILLIPS LAB
+ WSMR-DET
377th ABW
STRONG &
SAFE
NUCLEAR
DETERRENT

KAFB

OPERATIONAL IMPACT

- 58th SPECIAL OPERATIONS WING
  - FORMAL SCHOOL:
    - Special Operations & Combat Rescue
    - 60 Courses - 720 Students/year
    - Initial Quals, Mission Quals, Annual Refresher
  - USSOCOM STUDY:
    - Validated KAFB as Location for AFSOF Training:
      - CLIMATE
      - TERRAIN VARIETY
      - LOW LEVEL ROUTES
      - DENSITY ALTITUDE

KAFB

OPERATIONAL IMPACT

- 58th SPECIAL OPERATIONS WING
  - SIX HIGH FIDELITY AIRCRAFT SIMULATORS & FOUR LOW/MEDIUM FIDELITY PROCEDURE TRAINERS
  - *HIGH FIDELITY SIMULATORS:*
    - CAPABILITY:
      - CLASSIFIED MISSION REHEARSAL
      - SUPPORT OF NATIONAL OBJECTIVES
        - ONE MILLION SQUARE MILES OF VISUAL DATA BASE !
        - MAJOR "HOT SPOTS" IN THE WORLD! ! !

KAFB

OPERATIONAL IMPACT

58th RELOCATION:

- LACK OF INFRASTRUCTURE & FACILITIES:
  - SIMULATOR RELOCATION
    - TRAINING PIPELINE DISRUPTION (APPROXIMATELY 50% OF TRAINING IN SIMULATORS)
    - SIMULATOR OUTAGE - MINIMUM OF ONE YEAR
    - POTENTIAL DISRUPTION - CONUS/OVERSEAS BALANCE OF EXPERIENCE

DEGRADED TRAINING ENVIRONMENT

KAFB

OPERATIONAL IMPACT

AIR FORCE OPERATIONAL TEST & EVALUATION CENTER (AFOTEC)

- ACTIVATED 1974 TO MEET CONGRESSIONAL DEMAND FOR REALISTIC TESTING OF NEW WEAPON SYSTEMS
- LOCATED AT KIRTLAND TO ISOLATE AND INSULATE FROM DEVELOPMENT WORLD
- PROPOSED RELOCATION COMPROMISES INDEPENDENCE OF OPERATIONAL TEST
- BOTTOM LINE: MAKING AFMC AFOTEC'S HOST PUTS FOX IN CHARGE OF THE HENHOUSE

KAFB

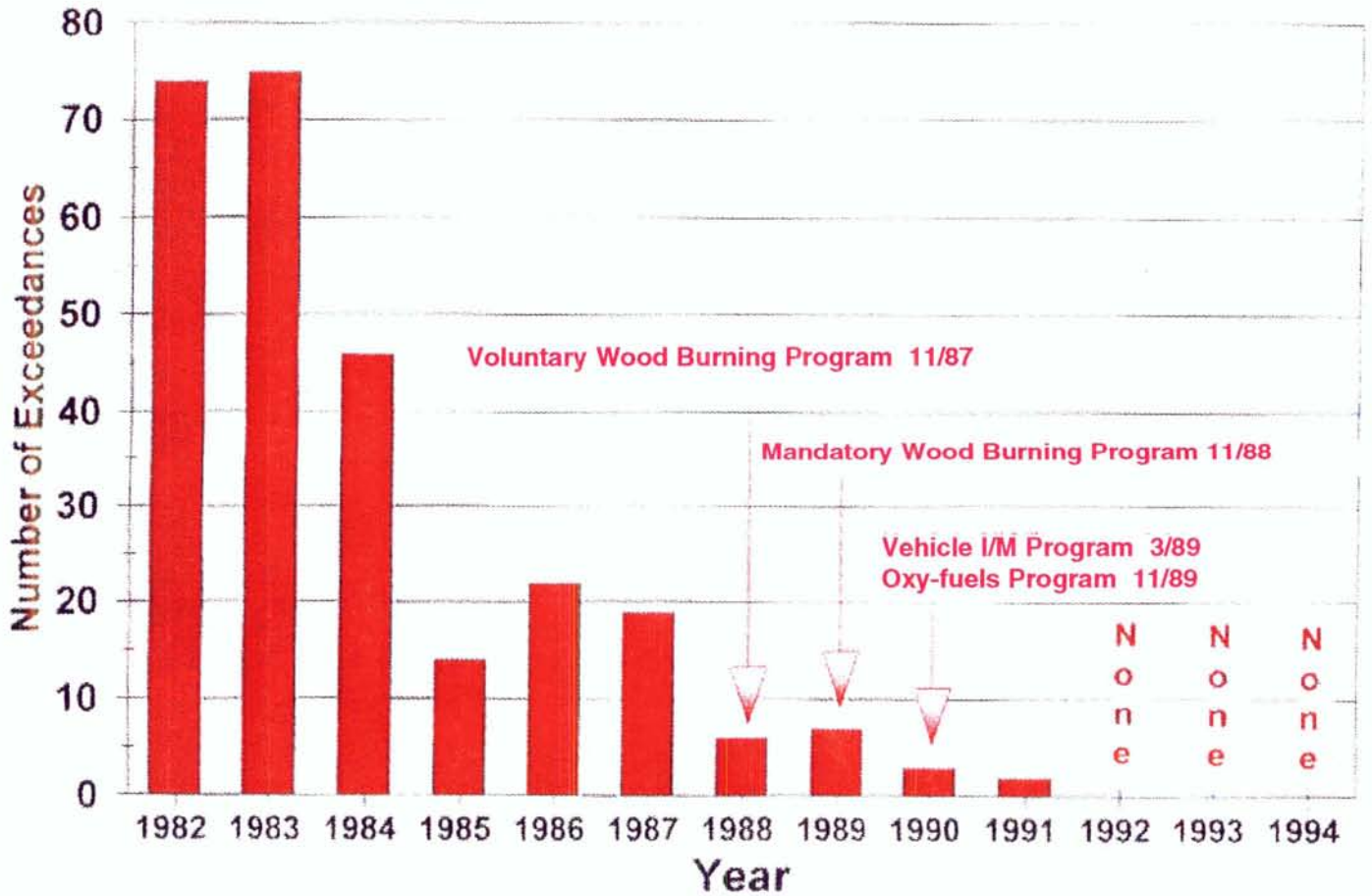
ENVIRONMENTAL

- The single issue that caused HQ USAF to change Kirtland from a "receiver base" to a listed "reduction base"
- Based on Albuquerque being a "Non-Attainment Area" by EPA Standards
- In fact, Albuquerque has MET THE NAAQS for the past three years
- Redesignation of attainment status requested April 14, 1995. Approval assured
- GROWTH IS PERMITTED AT KAFB

KAFB

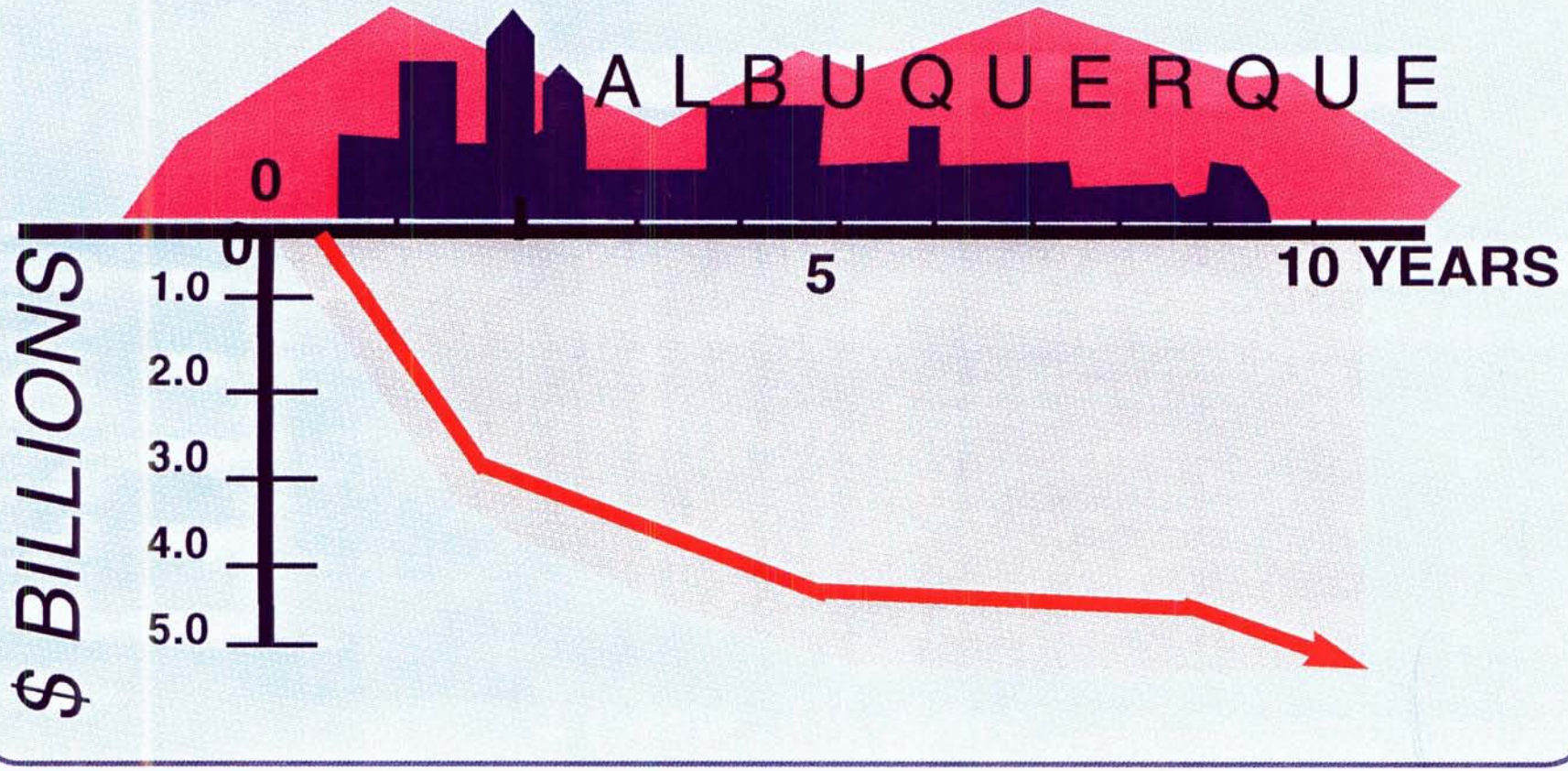
Exceedances of the CO *NAAQS in Albuquerque, NM

1982 through 1993 for all sites - *NAAQS = National Ambient Air Quality Standard



KAFB

LOCAL IMPACT



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... "I ASSURE YOU THAT THE AIR FORCE HAS NO INTEREST IN PURSUING AN ACTION THAT IMPROPERLY DIMINISHES SECURITY, REDUCES OPERATIONAL EFFECTIVENESS, OR IS NOT COST EFFECTIVE." . . . . .

SIGNED,

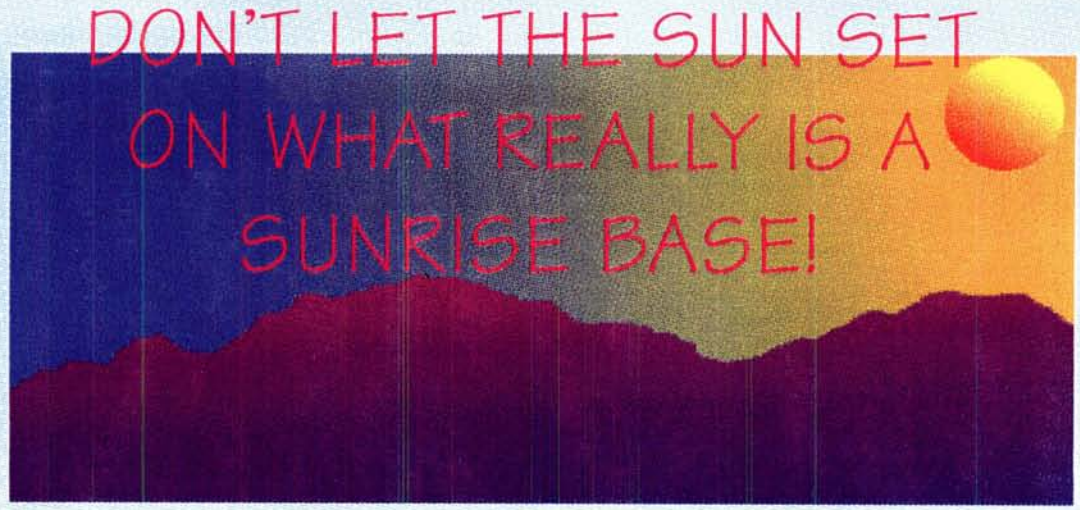
NORMAND G. LEZY
MAJOR GENERAL, USAF
DIRECTOR, LEGISLATIVE LIAISON

APRIL 14, 1995

KAFB

CONCLUSION

- COSTS; NOT SAVINGS
- Nuclear Surety—*SEVERELY COMPROMISED*
- Operational Effectiveness—*IMPAIRED*
- Reuse—Virtually *NONEXISTENT*
- Kirtland Air Force Base is a *MODEL BRAC FEDERAL INSTALLATION*



April 20, 1995

MEMORANDUM FOR THE BRAC COMMISSION

SUBJECT: Biographies of Witnesses for the Retention of Kirtland Air Force Base

MAJOR GEN. EDWARD R. GILLER, USAF (RET)

Major Gen. Edward R. Giller has for the past 45 years, served in numerous positions relating to the stewardship and development of nuclear weapons. These positions include: the JCS representative to the comprehensive Nuclear Test Band, Director of Nuclear Weapons Program at the Atomic Energy Commission, and Director of Science & Technology at USAF Headquarters. He worked in the Air Force Office of Research, and was Commander of the predecessor of Phillips Laboratory. Gen. Giller has a Ph.D. in Chemical Engineering from the University of Illinois and served in WWII as a fighter pilot.

BRIG. GEN. HANSON L. SCOTT, USAF (RET)

Brig. Gen. Scott is currently Director of Aviation for the City of Albuquerque, responsible for the safe and efficient operation of Albuquerque International Sunport and Double Eagle II Airport. He retired in 1991 following his assignment as Commander, Special Operations Command, Pacific, Camp H. M. Smith, Hawaii. Brig Gen Scott was the first Air Force officer to command SOCPAC, and was assigned command of theater assigned Army Special Forces, Navy Special Warfare Forces (SEALS), and Air Force Special Operations Forces. His earlier command assignments included Vice Commander, Air Force Special Operations Command; Command; Command; Commander, 1st Special Operations Wing, Hurlburt Field, Florida; Commander, 463d Tactical Airlift Wing, Dyess AFB, Texas; and Vice Commander, 314th Tactical Airlift Wing, Little rock AFB, Arkansas. He had varied operational and staff assignments, including duty at HQ USAF (the Pentagon.) He flew 108 combat missions in the AC-130 Gunship during his assignment in Southeast Asia. Brig. Gen. Scott is from Reserve, New Mexico--he graduated from the United States Air Force Academy and received a MBA from Auburn University. He is USAF Command Pilot, with over 6000 flying hours as well as being a rated parachutist.

COL. CHARLES G. THOMAS

Col. Charles G. Thomas was commander of Kirtland AFB from 1985 through 1988. Kirtland won numerous awards during his tenure including two annual "Installation Excellence" awards. Prior to coming to Kirtland, he directed the Air Force "Bases and Units" organization at the Pentagon. Base Closures and Realignments were part of his responsibility. Since retirement, he has held several positions including Cabinet Secretary for the State of New Mexico. He is currently a Department Manager at Sandia National Laboratories. Col. Thomas also serves on several community boards including the Airport Advisory Board, Hospital Board, and Arts Boards. He has received state and local awards for community involvement.

Lt. GEN. MARQUEZ

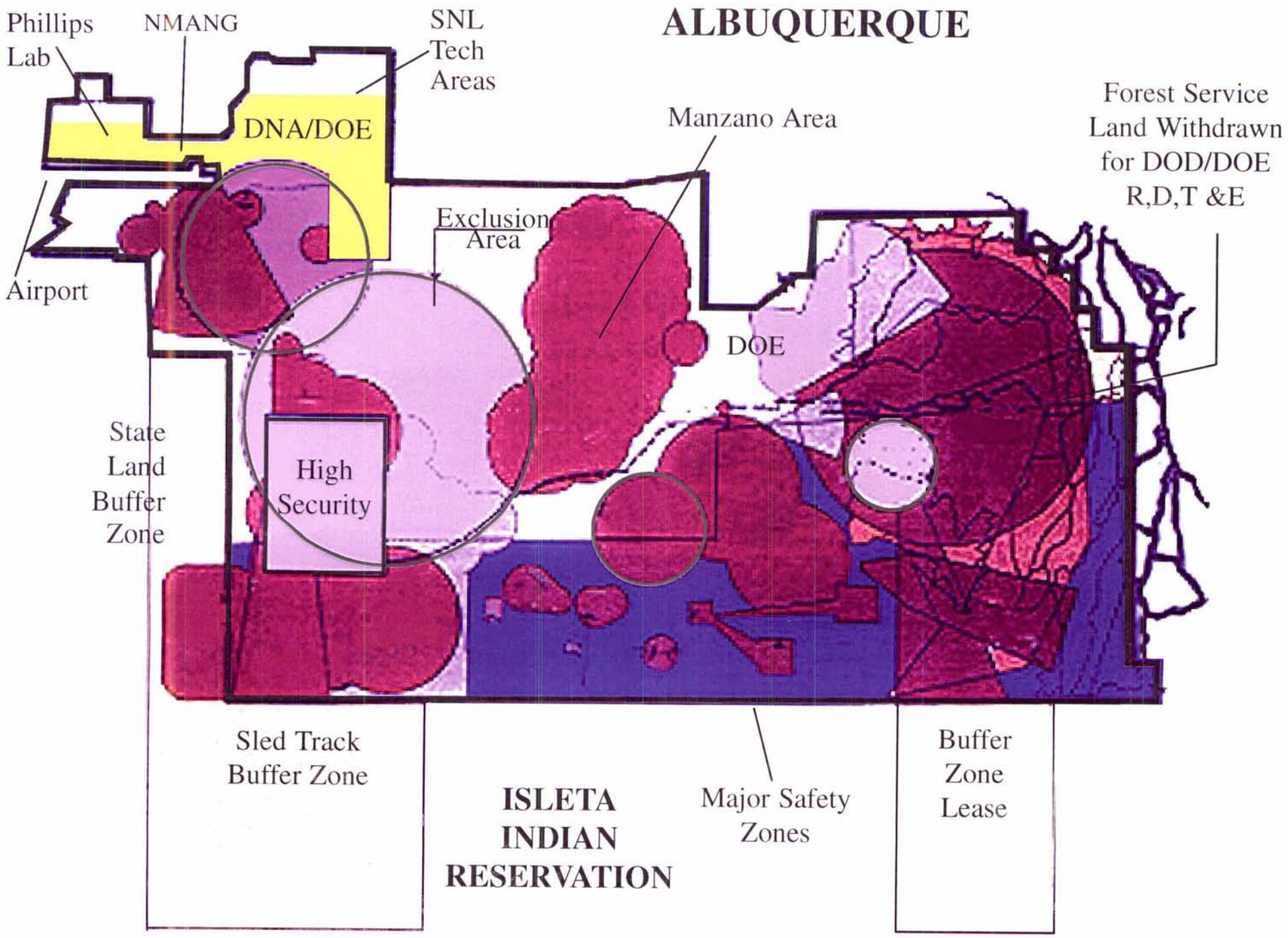
Lt. Gen. Marquez is a former Air Force officer who retired in 1987. At the time of retirement he was serving as the Deputy Chief of Staff for Logistics and Engineering, Headquarters, United States Air Force. Since his retirement, he has served as corporate Vice President of Advanced Sciences Corporation, a local environmental engineering firm. He recently retired from the position of Board Chairman and CEO of Avacelle, Inc. an aerospace firm specializing in designing and manufacturing noise attenuation devices for jet aircraft. He is a lifelong New Mexico resident. He received a Bachelor of Science degree from New Mexico State University, and a MBA's from the George Washington University and Carnegie Mellon University. He was awarded an honorary doctorate of letters from NMSU and named the outstanding graduate of the school's first century. He is a fighter pilot with over 2500 hours of single engine jet fighter time. He commanded several units, the latest being the air logistics center in Ogden, Utah.

SHERMAN MCCORKLE

Sherman McCorkle is President and Chief Operating Officer of Technology Ventures Corporation founded by Martin Marietta as a nonprofit New Mexico Corporation in 1993. He was President and Chief Executive Officer of Sunwest Credit Services Corporation from 1988 to 1992. He founded and developed the corporation. Within two years the enterprise became a self-sustaining, highly profitable operation. He was senior Vice President and Director of Electronic Banking of Sunwest Bank of Albuquerque, N.A. from December 1982 to December 1988. He was a corporate Senior Vice President with Albuquerque National Bank from 1976 to 1982. He is a member of the Board of Directors of First State Bancorporation and Chairman of its Executive Committee, and is a Director and Vice Chairman of the Board of the Credit Card Services, Incorporated. He is also a member of the board of Riotech. He was an originating board member of Plus System Incorporated, the world's largest retail electronic funds corporation. He is a 1984 Graduate of the Colorado Graduate School of Banking, at the University of Colorado. He has served as faculty member at the University of Oklahoma for both the National School of Retail Banking and the National School of Bankcard Management. He served an extended term as Chairman of the Greater Albuquerque Chamber of Commerce. He served on the select committee on the Uniform Commercial Code of the United States. He served in 1990 as Honorary Commander of Kirtland Air Force Base in New Mexico.

MR. JOHN VUKSICH

Mr. John Vuksich is the Science Advisor to the Governor of New Mexico, and has served in that capacity since January 1995. Prior to his appointment, Mr Vuksich, then an Army Lieutenant Colonel, served within the Office of the Assistant Secretary of Defense for Program Analysis and Evaluation. During this assignment, he was a cost analyst on the DOD Cost Analysis Improvement Group, and was responsible for cost estimation of major defense acquisition programs. Prior to that assignment, Mr Vuksich belonged to the Strategic Defense Initiative Organization and the Combined Arms Operation Research Activity. Mr. Vuksich, an infantry officer, served in both the 101st Airborne Division and the 7th Infantry Division. Mr. Vuksich has a B.S. from the U.S. Military Academy, an MS in Operations Research from Stanford, and an MA in International and Strategic Studies from the Naval War College.



Kirtland Air Force Base, New Mexico