A MODEL FOR SUCCESSFUL REUTILIZATION
OF A MILITARY INSTALLATION:
A CASE STUDY OF GENTILE AIR FORCE STATION

THESIS

Maria L. Garcia
Captain, USAF

AFIT/GLM/LAL/96S-2

DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY
AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio

(DTIC QUALITY INSPECTED)
The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.
A MODEL FOR SUCCESSFUL REUTILIZATION
OF A MILITARY INSTALLATION:
A CASE STUDY OF GENTILE AIR FORCE STATION

Thesis

Presented to the Faculty of the Graduate School of Logistics
and Acquisition Management of the Air Force Institute of Technology

Air University
Air Education and Training Command
In Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Logistics Management

Maria L. Garcia, B.A.
Captain, USAF

September 1996

Approved for public release; distribution unlimited
Preface

The purpose of this research was to determine whether the City of Kettering would successfully reuse Gentile AFS, Kettering, Ohio. The determination of success came from a case study of Gentile AFS and the local reuse authority. The study included a review of documentation and past case studies, as well as a comparison to other successfully reused installations.

Several individuals were instrumental in the completion of this research effort. I wish to thank all of the people who took the time to talk to me during this study including Mr. Dan Dollarhide, Base Transition Coordinator, Mr. Paul Rizzo, AFBCA Site Manager, Mr. Tony Climer, AFBCA Site Manager, Mayor Hartman of Kettering, OH, Mayor Randolph of Alexandria, Louisiana, and Mayor Podagrasi of Rantoul, Illinois. I would especially like to express my appreciation to Mr. Albert Fullenkamp for his endless patience in answering all of my questions during the case study. The guidance and support of my thesis committee, Dr. Craig Brandt and Dr. David Vaughan, were invaluable.

I wish to thank my husband, Gary, and children, Brendon and Keagan, for their patience, understanding and support throughout the time consuming thesis process.

Maria Garcia
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>ii</td>
</tr>
<tr>
<td>List of Tables</td>
<td>vi</td>
</tr>
<tr>
<td>Abstract</td>
<td>vii</td>
</tr>
<tr>
<td>I. Introduction and Background</td>
<td></td>
</tr>
<tr>
<td>- Background</td>
<td>1</td>
</tr>
<tr>
<td>- Specific Issue</td>
<td>3</td>
</tr>
<tr>
<td>- Investigative Questions</td>
<td>3</td>
</tr>
<tr>
<td>- Overview</td>
<td>3</td>
</tr>
<tr>
<td>II. Methodology</td>
<td>5</td>
</tr>
<tr>
<td>- Introduction</td>
<td>5</td>
</tr>
<tr>
<td>- Research Design</td>
<td>5</td>
</tr>
<tr>
<td>- Research Instruments</td>
<td>8</td>
</tr>
<tr>
<td>- Summary</td>
<td>12</td>
</tr>
<tr>
<td>III. Review of Related Literature</td>
<td>13</td>
</tr>
<tr>
<td>- Base Closure Process</td>
<td>13</td>
</tr>
<tr>
<td>- President Clinton’s Five Part Plan</td>
<td>18</td>
</tr>
<tr>
<td>- Involved Agencies</td>
<td>20</td>
</tr>
<tr>
<td>- Office of Economic Adjustment</td>
<td>21</td>
</tr>
<tr>
<td>- Air Force Base Conversion Agency</td>
<td>22</td>
</tr>
<tr>
<td>- Base Transition Office</td>
<td>23</td>
</tr>
<tr>
<td>- Local Reuse Authority</td>
<td>23</td>
</tr>
<tr>
<td>- Conclusion</td>
<td>25</td>
</tr>
<tr>
<td>IV. Data Description and Analysis</td>
<td>26</td>
</tr>
<tr>
<td>- Intoduction</td>
<td>26</td>
</tr>
<tr>
<td>- Current Status</td>
<td>26</td>
</tr>
<tr>
<td>Topic</td>
<td>Page</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Kettering Model</td>
<td>63</td>
</tr>
<tr>
<td>Liaison</td>
<td>64</td>
</tr>
<tr>
<td>Conclusion</td>
<td>65</td>
</tr>
<tr>
<td>Appendix A: Glossary of Acronyms</td>
<td>66</td>
</tr>
<tr>
<td>Bibliography</td>
<td>68</td>
</tr>
<tr>
<td>Vita</td>
<td>72</td>
</tr>
</tbody>
</table>
### List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities</td>
<td>28</td>
</tr>
</tbody>
</table>
Abstract

Previous research concerning base closure and reutilization focused on the roles of government agencies and the assistance they provided. This study looks at the community and the impact of installation closure. The process of planning for reuse of an installation is difficult and confusing. The guidance provided by the government has changed drastically since the first closures announced in the 1988 Base Realignment and Closure Committee recommendations. This study focuses on the strategy employed by Kettering, OH to successfully reuse Gentile AFS upon closure. As the final part in a longitudinal study, the research focus was lessons learned and implementation challenges for the city of Kettering. Research findings indicated Kettering would be successful in their attempts to reuse Gentile AFS as a business park. Recommendations were to locate a liaison on site to deal with the daily operations of conveying the facilities and property to the local community. This liaison should be employed by the local community to represent the community's interests. Further, the model used by Kettering could be adapted for any installation and help the local community break down the enormous task of reutilization into several tasks of more manageable size.
A MODEL FOR SUCCESSFUL REUTILIZATION OF A MILITARY INSTALLATION: A CASE STUDY OF GENTILE AIR FORCE STATION

I. Introduction and Background

Background

Base closure is never easy. However, the current economic concerns and the recent end to the Cold War have brought a closer look at our nation's military. This close look resulted in Congress's passing legislation allowing for the realignment and closure of military installations to meet the needs of the newly downsized forces. The last time bases were closed in significant numbers was in the early 1970s. The operational environment of the military has changed since then, and with it the necessary policies and procedures for managing the personnel and facilities. This change included once again closing those military installations deemed excess.

In 1993, the Base Realignment and Closure (BRAC) Committee released a list of bases to be closed or realigned. One of the bases identified was Gentile Air Force Station (AFS), located in Kettering, Ohio. Gentile AFS was the host base to the Defense Logistics Agency's (DLA) Defense Electronic Supply Center (DESC) and 38 other tenant units (31). The proposed closure and relocation of DESC to the Defense Construction Supply Center (DCSC) in Columbus, Ohio, will directly affect 10% of Kettering's city income tax base
(30). This closure will not only impact the local government’s fiscal plans, but the people themselves are greatly influenced. A lost job has much broader impact than to just the individual. Family and local businesses are affected as well. The loss of jobs is expected to result in increased unemployment and decreased patronage to local retailers and restaurants.

In 1993, two teams of AFIT students began a longitudinal study of the processes involved in a base closure and the subsequent community reuse planning. One team of researchers developed a framework to assist future community leaders in planning and decision making during base closures, while the other team looked at the roles of the many different government agencies involved with a base closure (8:6) (18:2). The following year, the development and approval process for a community reuse plan was investigated to determine how “the implementation of federal government base closure programs and policies affect the local community’s base reuse efforts” (31). The thesis looked at President Clinton’s Five-Part Plan along with federal aid programs. These three research projects covered the role of the government in the development of the Gentile AFS reuse plan. Now it is time to look at the community’s role in the planning and how well the plan prepared the community for the actual relocation of agencies and final closure of Gentile AFS. An effective plan can result in a successful reuse for
the city of Kettering. Can the city of Kettering successfully reuse the base for private enterprise and retain the income base at risk?

Specific Issue

This thesis will address the issues of how the city of Kettering planned for the closure and reuse of Gentile AFS. It will explore the base reuse issues from a community point of view, determine what makes for a successful base reuse and draw conclusions about Kettering’s success. This research will provide a framework for future communities to follow and answer the specific question: “Will the reuse efforts of Kettering be successful?”

Investigative Questions

To meet this objective, the following questions will be investigated.

1. What constitutes a successful reuse?
2. What has Kettering done to prepare for reuse?
3. How does Kettering compare to other success stories?

Overview

Chapter II describes the methodology used for this research effort. It explains the specific design and research instruments used. Chapter III is the review of literature related to base closure. It reviews a brief history of the closure process, the role of the government in the process, and the involvement of the local community. Chapter IV explains and analyzes data.
collected from case study and interviews from July 1995 through August 1996. It summarizes current status of Gentile AFS, challenges met by the local community, and information about two previous reuse projects. Chapter V contains discussion, conclusions and recommendations for future communities impacted by base closure and realignment.
II. Methodology

Introduction

This chapter discusses the methodology used in this research project. The design for my research will be the case study that will be built using documentation, unstructured, in-depth interviews and personal observation. Additionally, a series of interviews will be used to assist in defining successful reuse and to compare the Kettering project with other successful reuse projects.

Research Design

The research design is as important to the success of any effort as the conclusions drawn from the analysis. When choosing the correct research design for a study it is necessary to consider a few key points. It is important to define what research question is being asked, what scope of control is necessary over events, and whether the topic of study is current or historical.

In choosing the case study design, I have identified the research strategy that best fits the circumstances of interest. According to Robert K. Yin, "A case study is an empirical inquiry that: investigates a contemporary phenomenon within its real-life context; when the boundaries between
phenomenon and context are not clearly evident; and in which multiple
sources of evidence are used (47:23).”

Dr. Kathleen M. Eisenhardt further defines a case study as “a research
strategy that focuses on understanding the dynamic present within single
settings” (16:534). A case study design is appropriate when the question is
“how” or “why,” the scope of control is minimal, and the “focus is on a
contemporary phenomenon within some real life context” (47:13). Dr. Yin
states the benefits of a case study design in the following situations:

1. Policy, political science, and public administration research
2. Community psychology and sociology
3. Organizational and management studies
4. City and regional planning research, such as studies of plans,
   neighborhoods, or public agencies. (47:13)

The study of Gentile AFS fits all of these situations. Additionally, to
continue with the existing longitudinal study, it would be appropriate to use
the same research design as did the three previous thesis authors. Each of
these research efforts used a case study design.

Within the case study design is a method of research that is well suited
to a longitudinal study such as this. The embedded case study involves more
than one unit of analysis (47:49). A unit of analysis could be defined as the
“What” that is being researched. What is Kettering’s model for reuse? What
is Kettering's definition of a successful reuse? What is being done to achieve a successful reuse?

According to Joe R. Feagin, et al., the case study design offers several advantages. These advantages include an insight into people in natural settings and can provide the means to generate theories (19:6-13). Theory generation is supported by Dr. Eisenhardt when she explains that case study research attains different goals, including providing description, and developing and testing theory (16). The generation of theory is an important result of any research. With bases closing and downsizing continuing, theories on how to successfully reuse a government installation will continue to assist anyone involved in closure and reuse projects.

Along with the advantages of a case study research method, the disadvantages should also be addressed. A source of contention among experts in case study design is the application of single case results to the broader theory. Theories based on a single case study can result in narrow, unique views that may or may not apply on a broader scale (16:547). To address this concern, a comparison can be accomplished. After formulating a theory based on my research regarding the reuse efforts at Gentile AFS, I compared the Kettering model to other base reuse efforts. By comparing the results from different reuse efforts, I was able to support or reject my theory that Kettering's plan for reuse provides a valid and good model.
The bases used for comparison are two communities that received wide publicity on the successful planning and reuse of their two Air Force installations. These communities are Alexandria, Louisiana, once home to England AFB, and Rantoul, Illinois, once home to Chanute AFB. England AFB was home to fighter aircraft and Chanute AFB was a large technical training facility. I intentionally chose two installations with very different missions so I might show how the basic framework of the Kettering model compared with other types of closing facilities.

Research Instruments

Dr. Yin identifies six instruments of research that can be used separately, together, or any combination that will achieve the research goals set by the study itself. The six sources are documents, archival records, interviews, direct observation, participant-observation, and physical artifacts (47:84). A combination of three instruments was used in this study; documents, interviews, and direct observation.

Documents can take a variety of forms including letters, memorandums, meeting minutes, agendas, news articles, and magazine articles. I will be using a variety of these documents to develop a history of events and determine what is planned for the future.
The interviews are unstructured in nature and informal most of the time. Marshall and Rossman concluded that qualitative interviews were "more like conversations than formal, structured interviews" (34:82). This is an excellent description of the type of interview I conducted. They also stated that in-depth interviews provide quick and broad variety of information (34:82-83). Bruce Berg describes this type of interview as unstandardized. He explains that this type of interview is especially useful in conjunction with personal observation: "Such unstructured interviews allow researchers to gain additional information about various phenomena they observe by asking questions of participants" (5:32). Certain assumptions were made with the unstructured or unstandardized interview. The interviewer does not know in advance what questions will be asked during the interview as the questions depend on the responses of those being interviewed. Additionally, the interviewer recognizes that different respondents will interpret similarly worded questions differently (5:32).

Several interviews were conducted with Mr. Dan Dollarhide, the Base Transition Coordinator. These interviews provided familiarization with the research topic and the introduction of topics for additional interviews with other key players. There was difficulty in contacting the Kettering's Gentile Station/DESC Reuse manager because the position had been vacated and not filled when research began. Mr. Al Fullenkamp was eventually assigned to
the position, and interviews with him were informative and productive. As the reuse manager for Kettering, Mr. Fullenkamp has been able to provide information about Kettering's reuse process. This information included his opinion of what was done right and what could have been done better.

Additional interviews were conducted with the AFBCA site manager, the deputy director of installation services for Defense Logistics Agency, and mayors from communities that have successfully reused military installations. These interviews were informal with an open agenda. The interviews with the mayors of Rantoul and Alexandria were conducted over the telephone. A few questions were prepared prior in order to provide a framework for the interview. These questions were subjective and left room for the mayors to provide their opinions and impressions. Rantoul and Alexandria were chosen for interviews because of the visibility and recognition these towns received in their reuse efforts. The government brought these mayors to Washington DC for a news briefing on successful reuse efforts (3).

The final research instrument used in this study is direct observation. This instrument has been used effectively by the previous research teams and should continue to provide the necessary information. This process of direct observation allows reporting on formal and informal meetings, which may provide additional information.
The practice of observing meetings was not as productive as hoped. I was only informed of the Restoration Advisory Board (RAB) meetings. Whereas these meetings were helpful in understanding the environmental issues surrounding the closure and reuse, there were other meetings I found out about after the fact. Attending city reuse meetings may have provided more detailed information as well as an opportunity to observe the interaction of the attendees. The reasons for not informing me of these meetings is unclear. I believe it was due primarily to oversight. Informal meetings took place in my presence. These meetings or conversations at times took place during interviews when someone would need the attention of the person being interviewed. Overall, meetings were not as helpful as originally expected.

Direct personal observation was also exercised during interviews. There is as much to be learned from non-verbal responses as from the verbal. The informal interview and personal observation are two of the best research instruments to study processes for the traditional researcher (29:33). The information gathered from the interviews and observations supplements information obtained from documents and records.

After reading the research on observation, it became apparent to be careful not to influence outcomes while observing (29)(47)(19). It is imperative to be as unbiased in reporting and as non-participative as possible
while observing the events studied in this particular research effort. This design coupled with the data gathering instruments allowed me to observe the process without influencing it.

**Summary**

The design for this research study was based on a case study approach with additional interviews used for clarification and supporting data. Documentation was used to develop a historic perspective on base closure, and interviews and observation provided current data. The combination allowed for a complete look at past and present, as well as the ability to forecast future outcomes.
III. The Review of Related Literature

The United States government has been closing military facilities consistently since the early 1960s and will continue to realign and close facilities as necessary. Before the success and or failure of base reuse can be discussed, it is necessary to review past experiences. It is necessary to understand the role of the agencies involved in the closure of Gentile Air Force Station and their impact on the local community before the effectiveness of these agencies can be discussed. The review will recap the history of the closure process and subsequent changes, the agencies involved, and the impact on the local communities.

The Base Closure Process

The base closure and reuse process has evolved over the years in response to changes in political focus and public interest. This evolution has continually improved the process. With the large number of closures in the '60s and '70s, an ever-increasing number of agencies are becoming involved. Prior to 1977, the Department of Defense was responsible for base closures, and exercised this prerogative with the closure of 70 major bases between 1960 and 1977 (9:15). This process effectively took Congress out of the
picture and subsequently left many state representatives in the unenviable position of answering to the local communities affected. Congress prepared legislation to implement the control necessary to balance the "economic and political consequences that resulted" (6:6). President Johnson vetoed the bill. Again, Congress attempted to control the closure process, but President Ford vetoed its actions. By this time, closing a base had become extremely difficult due to the tension between the executive and legislative branches. Congress was keeping a tight rein on spending for closure as well (6:6). In 1977, Congress passed a law that effectively stopped the closures. The law was a result of their perceived ineffectiveness and a concern for the severe economic impact if the closures were to continue (9:15). This law, Section 2687, Title 10, US Code, required the DoD to meet several steps to close a base, including an environmental impact statement to be prepared in accordance with the National Environmental Policy Act (NEPA) for all closure candidates. The NEPA guidance required lengthy hearings, was costly, and could tie up a proposed closure in legalities for years (35). These controls imposed upon the DoD effectively stopped base closures for over ten years. Because of continuing budget cuts, the DoD began a force reduction. In 1988, the DoD was people poor and installation fat. To reduce the number of installations, Secretary of Defense Dick Cheney and Congress proposed
legislation that would balance the decreasing force structure with the appropriate number of installations (31:2-2).

In 1988, Public Law 100-526 was enacted, and the Commission on Base Realignment and Closure was created. The law required Congressional acceptance of the Secretary of Defense's recommendations. With the end of the Cold War, more base closures became essential to the economic survival of the DoD. The Bush Administration proposed the closure of 36 military bases. The 1988 charter had expired and Congress resented the high-handedness of the President. As a result, the Defense Base Closure and Realignment Act of 1990 was enacted as part of the National Defense Authorization Act for Fiscal Year 1991 (6:14). The law, Public Law 101-510, under Title XXIX, attempted to improve the 1988 commission's process.

In a research effort addressing the domestic base closure process, Charles Cassidy identified six significant differences from the 1988 process. First, the new closure process was to be open and public. Congress now requires the Commission to conduct its meetings in public unless classified information is discussed. The Commission is also required to be available for Congressional oversight. Second, the new law requires the General Accounting Office (GAO) to work with the DoD personnel when preparing the Commission data and gives the GAO one month after the recommendations are released to the Commission to report its recommendations and findings.
This allows for an independent yet reliable review of the recommended closures and subsequent cost savings. Third, the Commission selection process changed, becoming more independent and less politically influenced. Originally, the Secretary of Defense selected the Commission now the Commission is selected by the President and approved by the Senate. Fourth, the process for developing the evaluation criteria changed. Instead of the DoD and Congress developing the criteria jointly, the DoD is now required to develop its criteria and subject them to public scrutiny prior to implementation. Fifth, the new law establishes requirements for realignment and closure candidate lists in 1991, 1993, and 1995. The final difference is the shifting of burden of cost for environmental clean up from the Environmental Restoration Account to the Base Closure Account. This shift is intended to speed base clean up efforts (6:14-16).

These changes resulted from addressing the needs of the communities affected by the closures. It has become increasingly more important for the government to assist the local communities as much as possible. The current base closure selection process is as follows:

1) The commission members are appointed.

2) DoD develops a list of criteria for base selection.

3) DoD submits recommendations to the commission.

4) The commission completes the study and makes its recommendations to the President and Congress (18:20).
The list of recommended closures must be accepted or rejected in its entirety. This requirement of rejection or acceptance acts as a check for the independence of the commission. It also prevents hidden agendas concerning individual bases from becoming sources of contention.

There is no doubt that the government has attempted to make the base closure process as fair and unbiased as possible in the political arena. However, what happens to the communities affected by the closure? The economic impact to a community resulting from the mass removal of thousands of jobs could be devastating.

In a 1995 news briefing, the Secretary of Defense William Perry stated that the DoD "wanted to look at the cumulative economic impact from independent actions of different services to be sure the cumulative effect is not necessarily disruptive in any one region" (38:2). The admitted attempts to equalize the economic impact to each region in itself recognized the difficulty a community suffers during base closure. There are several historic examples of communities never completely recovering from nearby base closures. Glasgow Air Force Base in Montana is a prime example. After failed attempts as an industrial park and then a military retirement community, the entire base finally sold in 1993 to Boeing for an engine test facility (36:24). Glasgow closed in 1968. The community worked for 25 years
to sell the base and even now, the population has not recovered from the closure. The nearest town, Glasgow, had a population of 7,000 in 1968 and only 5,500 in 1993 (12:61).

Other communities did recover economically from closure, but only after several years of hit or miss plans for reuse. Roswell NM was hit hard when Walker AFB closed in 1967. According to one resident, close to a third of the population moved out when Walker closed. Once again a community was faced with rebuilding its economic base as well as its population. After twenty plus years of chasing down every contract, and actively recruiting businesses, Roswell can now boast an industrial air center that has resulted in economic recovery (36:24).

The communities that have successfully recovered from an installation closure benefited from the experience and assistance of federal agencies. These agencies have been created for the purpose of providing guidance and financial assistance to those communities in need. Additionally, the President’s commitment to the affected communities has improved the reuse process tremendously.

President Clinton’s Five Part Plan. Having been a Governor on the receiving end of community’s complaints, President Clinton vowed to make the process easier on local and state communities when bases close. The
President proposed a program to accelerate economic recovery for communities affected by base closure (4). This plan's intent was to assist in a rapid economic recovery through the creation of new jobs and redevelopment. Congress approved the plan by enacting Title XXIX of Public Law 103-160. This law, commonly referred to as the Pryor Amendment, established policy and procedure, assigned responsibilities, and delegated authority under the Five-Part Plan (10: 16123). This program's five parts are outlined below.

1. Jobs-centered property disposal that puts local economic redevelopment first.

2. Fast-Track environmental cleanup that removes needless delays while protecting human health and the environment.

3. Transition coordinators at major bases slated for closure.

4. Easy access to transition and redevelopment help for workers and communities.

5. Larger economic development planning grants to base closure communities.

Part one intends to rapidly create new jobs. The property disposal can occur through “conveyances for economic development” or less often through complete market sale of the property (10:16124). Part two supports early involvement in cleanup that will allow for quicker determination for property disposition. Involvement includes creating a clean up team, identifying the uncontaminated property sooner, early conveyance of some contaminated properties, timely analysis required by NEPA, and involving the local public
in the clean up process (11:16126). Part three calls for a transition coordinator and gives him or her set responsibilities. The Base Transition Coordinator's responsibilities are those mentioned previously as well as helping the communities to "identify sources of Federal assistance for developing and implementing economic redevelopment plans" (11:16127). Part four is to be accomplished by "targeting major sources of Federal funding assistance to base closure communities" (11:16127). Part five takes the grant authority a step further and provides for the OEA to fund a portion of the staff to implement the local redevelopment plan (11:16127).

Involved Agencies

The roles of the agencies involved in assisting local communities with base closure and reuse projects have become more critical in recent years as a result of the large number of base closures. Two previous studies showed there are three main agencies involved with the local communities during a base closure. These agencies assist with reuse planning and the beginning phase of the closure process (18)(8). An examination of these agencies can provide the background necessary to understand the process at Gentile AFS. The agencies involved are the Office of Economic Adjustment (OEA), the Air Force Base Conversion Agency (AFBCA), and the Base Transition Office (BTO). One agency not mentioned in any detail previously is the local reuse
authority in Kettering. This office is the focal point for the city government to prepare, plan, and implement base reuse initiatives.

The Office of Economic Adjustment. The Office of Economic Adjustment (OEA) originated in 1961 to assist communities facing the loss of tax base and employment opportunities when local bases were closed or otherwise significantly impacted. The OEA has served as the permanent staff agency for the President’s Economic Adjustment Committee (EAC) since 1970. The EAC makes recommendations to local communities to soften the blow to economies (37). The EAC interacts “with state, federal and local agencies concerning methods to redevelop the community that is affected by changes from the base closures and realignments” (6:37). The OEA also provides funding for the base reuse planning function (13).

Through the programs and involvement of this agency, many communities have successfully recovered from the economic impact of a local base closure. Since 1961, over 171,177 civilian jobs have replaced those 87,557 civilian DoD jobs that have been lost (14:5). These numbers look impressive but can in fact be deceptive. While one base may be reused to its fullest potential and realize a significant increase in civilian jobs, other bases located in less desirable climates or geographical locations could have difficulty in attracting the necessary capital. Also, white collar jobs may be
replaced with minimum wage, assembly work. Additional jobs can still result in a net loss to the community.

The Air Force Base Conversion Agency. The purpose of the AFBCA is to convert and/or dispose of Air Force property after a base closure. Previously known as the Air Force Base Disposal Agency, its mission was to sell Air Force property after a closure and generate money for the United States Treasury. The change in name and mission is an indication of President Clinton’s commitment to the communities of closing bases. Traditionally, AFBCA hires a person from the closing base to be the site manager to ensure a complete understanding of base operations and assets. The site manager’s responsibilities are as follows (32):

1. Contract with the Air Force Center for Environmental Excellence (AFCEE) and the EPA for disposal and reuse environmental impact analysis.

2. Liaison with community reuse partners.

3. Coordinate and facilitate interim use leasing activities, in support of the “fast-track” clean-up program.

4. Coordinate and facilitate interim use leasing activities, in support of community redevelopment efforts.

5. Manage maintenance and operation of installation property during the transition period to prevent property degradation and ensure property is transferred to the community in the same condition as when it was in use by the federal government.

6. Following base closure, conduct final disposal of remaining real and related personal property.
The AFBCA provides experts “in environmental and real estate law, real and personal property, environmental cleanup and compliance, resource (financial) management, facility maintenance and operations management, external affairs, civilian personnel and manpower, and information systems” to assist in a smooth transition for the base and the community (2).

The Base Transition Office. The BTO appoints a Base Transition Coordinator (BTC) for each closing base to act as a liaison and champion for the community. The BTC can fight some of the community's battles with the government and has been given the following responsibilities. The BTC assists communities in property disposal by “cutting through red tape,” keeping the environmental cleanup moving quickly, and assisting the OEA “in helping communities identify sources of Federal assistance for developing and implementing economic redevelopment plans” (11:16127).

Local Reuse Authority. Every community faced with base closure is also faced with the reuse of the government facilities. The President's Economic Adjustment Committee recommends establishing specific goals and objectives as soon as possible once the announcement for closure is made (15:1). These decisions should be made by the local leadership. People from the various involved communities and agencies should come together to form
a decision-making body. This reuse authority should have representatives familiar with the local business and economic policy.

The necessity of forming a local reuse agency is supported repeatedly as installations continue to close (28)(15)(1). The forming of an initial agency should not wait until the decision is final. Several communities faced with closure used a two pronged approach to deal with being considered for closure. This approach consists of forming two task forces at the onset of consideration. One team works publicly and diligently lobbying for the installation's survival. Meanwhile, team two works quietly behind the scenes to establish alternatives in case of closure. This two pronged approach enables the surrounding communities to be ready for immediate action if and when team one loses the battle (39:32)(7:41).

Community involvement from the first day is essential. Most communities plan for reuse through some form of a local reuse authority. This authority can consist of community leaders, local businesspersons, and local residents. All involved parties should be included in the reuse process to present a united front to the government (28:9). One spokesperson for Myrtle Beach expressed the importance of involving the "citizens, not politicians." The spokesperson went on to explain "that when you get politicians on board, everyone just starts to carve up the pie" (1:53). The reuse officials from Charleston, South Carolina and Philadelphia,
Pennsylvania both expressed the importance of a single voice when working with the federal government (33:36).

Whether the local reuse authority consists of a single community's existing leadership, several communities' representatives, or newly appointed officials, the establishment of the authority is a necessity for any region affected by an installation closure. The goals, objectives, and reuse plans established by the local authority are the cornerstones to whether or not a reuse effort is successful.

Conclusion

Two years ago, a longitudinal study of the closure of Gentile AFS was begun by two teams of AFIT students. They researched and reported on the involvement of the federal government in the closure process (18)(8). This study was continued by Capt. John Hoover, who researched the process of establishing a base reuse plan (31). Within all of these past research efforts, the importance of the role the community plays in the reuse process was only touched upon lightly. The next step in the longitudinal study is an evaluation of the efforts of the community involved in the actual closure. The evaluation should include defining a successful reuse, identifying what works, as well as recommendations for future bases that may close. This literature review has established a basis for the current research and the requirement for completing the study.
IV. Data Description and Analysis

Introduction

This chapter will report the findings of a case study of the reuse process at Gentile AFS and additional interviews conducted. First, it will provide a summary of where the station is now regarding leases, facilities and people. A framework of Kettering’s model for reuse implementation is presented, followed by a discussion of the more recent challenges to succeed that the station and the city have faced. This chapter will finish with a brief summary of the successful efforts of two other communities.

Current Status

At the time of the announced closure of Gentile AFS in 1993 the station consisted of 41 buildings occupying 165 acres of land in the city of Kettering, Ohio. The station employed as many as 2800 individuals with jobs as contract clerks, administrators, and buyers, engineers, technicians, and personnel managers. Operations and support personnel were also included. The annual payroll in 1993 was estimated at $116 million (18:52).
Leases. The city is currently operating with an interim lease contract with the Government. The city will continue to lease facilities on an incremental basis as tenants sublet these facilities from the city. Only the buildings with leases established are included in the interim lease contract between the city of Kettering and the Air Force. When the Economic Development Conveyance (EDC) is approved, it will be a contract between the Air Force and Kettering for the portion of the installation that has been leased or contracted for sale to future commercial interests. At this point a phase 1 long term lease is established between the Air Force and Kettering. As more buildings are sold or leased, more land will be added to the EDC and additional long term leases will be established. As land parcels and facilities are given a clean environmental bill of health, the Government will deed the land over to Kettering. This is also an incremental process.

Personnel. Currently, three years after the announced relocation of DESC and ultimate closure of Gentile AFS, all but eight main facilities are scheduled for demolition and only approximately 300 employees remain on site. Most of these will be let go by December 1996 when DESC and DLA cease to exist on the station. Approximately 1000 personnel from DESC relocated to Columbus already this year with the remaining employees choosing not to relocate for personal reasons. There are about 100
individuals remaining in the facilities department of DLA that will not be relocated due to redundancy in their jobs at the new site. These individuals will be laid off when DLA leaves in December. Many of the employees not moving to Columbus with DESC were offered incentive programs for early retirement or worked with DLA in an aggressive job relocation effort here in the Miami Valley area.

Facilities. While the station is still Air Force property, several companies established interim leases. Once the EDC is signed, phase 1 long term leases will be established with the current tenants. When tenants or owners are established for buildings 1, 3, 4, and 47, a phase 2 long term lease will be necessary. The present facility situation after the conveyances is outlined in the table below.

Table 1. Facilities

<table>
<thead>
<tr>
<th>Building Number</th>
<th>Square Footage</th>
<th>Tenant</th>
<th>Lease/Own</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>196,563</td>
<td>Vacant</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>196,563</td>
<td></td>
<td>Lease</td>
</tr>
<tr>
<td></td>
<td>--70,000</td>
<td>GSS</td>
<td>Lease</td>
</tr>
<tr>
<td></td>
<td>--25-45,000</td>
<td>US Car</td>
<td>Lease</td>
</tr>
<tr>
<td>3</td>
<td>182,030</td>
<td>Banc One</td>
<td>Own</td>
</tr>
<tr>
<td>4</td>
<td>182,030</td>
<td>Banc One</td>
<td>Own</td>
</tr>
<tr>
<td>5</td>
<td>28,374</td>
<td>MCBMR</td>
<td>Lease</td>
</tr>
<tr>
<td></td>
<td>--10,000</td>
<td>GSS</td>
<td>Lease</td>
</tr>
<tr>
<td></td>
<td>-- 5,200</td>
<td>AFBCA/DESC Reuse Offices</td>
<td>Lease</td>
</tr>
<tr>
<td></td>
<td>-- 5,200</td>
<td></td>
<td>Lease</td>
</tr>
<tr>
<td>45</td>
<td>202,306</td>
<td>DFAS</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>250,456</td>
<td>DFAS</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>249,385</td>
<td>Vacant</td>
<td></td>
</tr>
</tbody>
</table>
Building 1 is currently designed for office space and available for lease. Building 2 has two occupants, Graphic System Service (GSS) and US Car Composite Center. GSS has been occupying building 2 under interim lease for over a year now and US Car is scheduled to begin renovations in early 1997. The US Car Composite Center is hoping to develop a new lightweight durable truckbed. This project is the first for the National Center for Composite Materials which will locate its offices at the Miami Valley Research Park in Kettering later this year (25).

Banc One recently announced its intention to locate its national private label credit service facility on the Gentile site. It originally intended buying building 4 with an option to buy building 3 if needed. However, recent developments resulted in Banc One choosing to purchase buildings 3 and 4 together. The company intends to renovate the outside of both structures completely. The interior of building 4 and 60% of building 3 will also be renovated immediately. The remaining 40% of building 3 will remain unrenovated until either Banc One chooses to expand into the space or lease to another company (22). Banc One expects to bring in 1000 employees the first year and double that number in the next four years. This contract with Banc One provides an anchor for future development of Gentile AFS (24).

Building 5 is currently leased to GSS and to the Montgomery County Board of Mental Retardation (MCBMR). Offices for the AFBCA are being
relocated to building 5 from building 6 because of building 6's imminent demolition. Additionally, building 5 will host an on-site office for the DESC Reuse Office. There are plans to possibly host a child care facility in building 5 as well.

There will be one remaining government agency on site after the station has closed and the property conveyed to Kettering. This agency is the Defense Finance and Accounting Service (DFAS), which has already activated a regional finance center in buildings 45 and 46. The DFAS office moved into building 46 initially while renovations to building 45 are undertaken. Upon completion of the renovation project, DFAS will relocate into building 45. Building 46 will continue to be held by the federal government for potential growth of the DFAS office or other agencies that may be located there. DFAS presently employs approximately 350 personnel with the number growing to 750 within the next two years.

The remaining building is building 47. This building, like building 1, remains vacant with no plans for leasing at this time.
Kettering Model

The reuse committee established set goals and objectives for the reuse of Gentile AFS. These goals were based on public, private, and citizen inputs and can be found in the reuse plan along with objectives to accomplish the goals (26:77). The goals are:

* Reestablish Gentile Air Force Station as a high-quality, high-density employment center.

* Achieve early success in business recruitment.

* Market Gentile Air Force Station nationally.

* Become the preferred alternative in the Air Force disposal environmental impact statement.

The objectives to achieve these goals are as follows (26:77).

* Begin the absorption process and create a revenue stream to offsetting cost and establish momentum.

* Seek operations that offer high-paying, high-quality jobs.

* Include a combination of office, industrial, and distribution operations.

* Acquire property at least local cost.

* Secure interim use leases for new commercial and public agency tenants.

* Undertake “care and custody” of the Gentile Air Force Station property under contract from the Air Force.

* Retain the essential equipment and related personal property required to preserve a fully functional facility.
There are a variety of different responsibilities required to accomplish reuse. The LRA must be able to apply for grants, monitor personal property, market for tenants, manage interim leases, and understand and monitor the environmental situation at the closing facility to name just a few. The city's reuse manager, Mr. Al Fullenkamp, conceived a strategy to achieve the goals Kettering set. This strategy established a model to follow and consisted of dividing the responsibility of reuse into four main elements: Conversion, Caretaker, Redevelopment, and Marketing. Each element requires a specific knowledge or expertise to assist the city in achieving a successful reuse (20). Each element is outlined below including some of the key issues involved.

**Conversion.** The local reuse authority is responsible initially for coordinating the necessary conversion contracts. These contracts include the EDC and grants from the OEA to support a reuse authority. Interim leasing is also an important conversion issue for the LRA.

The economic development conveyance process involves the discussion and negotiation of terms and specific sites with the Air Force. This is an ongoing process that begins in the early stages of the process and continues through the ROD approval. The LRA must monitor and meet the requirements established by the government for an economic development
conveyance. The AFBCA works closely with the LRA to establish the necessary foundation to request the EDC.

When a base is announced for closure, a local agency is established within the community to work the reuse issues. The funding for this office comes from an OEA grant. The request for funds is one of the first items in the conversion process to be attended to as the funding enables the LRA to function. The individuals involved with conversion issues must continuously look at long and short term funding needs from the very beginning.

For an effective conversion process, several government agencies are involved with planning, executing, and providing guidance to the LRA. To provide a smooth and efficient conversion process, the LRA should employ a person with a background strongly oriented in legal requirements and the workings of the federal government. Mr. Larry Leese was the first appointed DESC Reuse Coordinator. Mr. Leese's background in civil service proved to be of immeasurable assistance with the initial conversion process. He was able to push the right buttons to get the visibility and direction necessary in the earliest stages of the conversion.

**Caretaker.** Caretaker issues include dealing with personal property issues, the care and custody agreement and some existing facility maintenance issues. As well as dealing with personal property issues, the
caretaker responsibilities encompass the care and custody agreement. The care and custody agreement allows the local community to "maintain the installation facilities to Air Force standards" for the six months prior to closure (26:119). In the case of Gentile AFS, a caretaker team from Kettering will work with the existing support personnel to familiarize themselves with the care and maintenance of the installation before the base is completely turned over to the city for care. This team will begin the crossover in early November 1996, and have 45 to 60 days overlap before the Gentile personnel leave. The Air Force has worked out standard care and custody agreements that are modified to meet the specific base's needs. The caretaker element would be responsible for drafting and monitoring the care and custody agreement.

An additional responsibility of the caretaker element would be providing continued attention to the facilities on the installation that are currently slated for updating or modification. For example, the heating system for Gentile AFS is a steam plant. The current heating system is old and requires continued maintenance. The future needs of the base no longer meet the original plans for modification.

As a result of the LRA working in conjunction with AFBCA, an agreement to fund a new heating system was reached. The new system allows for each building to have its heat separate and independent of the
other facilities. It is to the benefit of the LRA to have a strong caretaker element as the better condition the facilities are in when marketing, the better the opportunity for successful reuse. Derelict buildings will not present the desired impression for reuse. To maintain a productive caretaker element, it is recommended to employ individuals strong in property management.

Redevelopment. Redevelopment issues involve the planning, designing, and implementation of capital improvements to the closed installation. Rarely does a military facility have the infrastructure necessary for commercial purposes. Military installations are designed with limited access and austere facilities are encouraged. In contrast, an office or light industrial park requires easy access from main thoroughfares, and an outwardly pleasant appearance helps the overall image of the tenants. People working the redevelopment issues must decide how to modify the existing infrastructure to meet the future needs of the community. They plan the metamorphosis from military facility to thriving commercial concern.

The plan must include the interior and hidden modifications as well. The LRA has drafted a plan to convert Gentile AFS from an industrial warehouse district to a business park. The reuse plan for Gentile AFS consists of phases of modification and redevelopment to change the purpose
and appearance of the station. Phase one consists of replacing the existing water system with pipes capable of handling greater pressure and larger volume. The current phone lines are too old and outdated to handle the volume of communications required by the business park. Fiber-optic lines are planned to replace these older lines before the redevelopment is completed. The electric system also is outdated and must be replaced or improved before the necessary structural changes can take place.

The final tab for phase 1 is estimated at $16.5 million. The demolition is estimated to cost $8.5 million with infrastructure modifications costing around $8 million (21). The money for these renovations comes from the city of Kettering and grants from various federal, state, and local agencies. Kettering has requested a grant from the Economic Development Agency (EDA). It requested the complete estimated cost of $8 million but the EDA denied any grant amount. Kettering came back with a second request which the EDA approved for only $1 million. Kettering again requested funds and currently, the EDA has approved a total of $2.5 million. Additionally, the Ohio Department of Development (ODOD) gave Kettering a grant for $1.5 million. In addition to the $1.5 million, ODOD also gave Kettering $300,000 for redevelopment planning and another $300,000 for the new heating project. Montgomery County awarded Kettering a $50,000 Economic Development/Government Equity (ED/GE) grant for redevelopment. The
remaining funds for redevelopment will come from the revenue from leases, sales of buildings, and city reserves. The sale figures for Banc One are unavailable at this time because they are still in negotiations.

Once the water, power, and communication modifications have been completed, the physical layout of the installation will be tackled. The current roadways are narrow and limiting to traffic. The redevelopment plan has designed roadways that will not only provide easier, less confusing access to the facilities, but should also allow for increased traffic flow. A traffic circle will provide a pleasant appearance and effectively control traffic. The existing parking areas are not sufficient to serve the needs of the prospective tenants of the new business park. The demolition of buildings will provide the necessary space for parking. Additional modifications are planned to improve the curb appeal of the new business park. Shrubs, trees and other vegetation planted in strategic areas will make the facilities more appealing visually.

To accomplish these tasks, the LRA must employ people with forward vision, an understanding of city planning, and some financial planning as well. Mr. Fullenkamp’s background is that of a city engineer for Kettering. He has 19 years experience with the city. His knowledge and understanding of redevelopment came at an important time in the reuse process. The LRA should employ engineers and individuals who can work with federal, state,
and local Economic Development Agencies for grants to accomplish these redevelopment projects.

**Marketing.** Marketing issues of the LRA involve marketing of the installation to prospective businesses that meet the profile determined by Kettering. It is important to identify the kinds of tenants desirable to fulfill the overall reuse plan. Marketing people need to be able to identify several aspects of the tenant. These aspects include the type of tenant, the tenant requirements, what Kettering has to offer the tenant, and what the tenant has to offer Kettering. The answers to these issues are addressed in the reuse plan. The plan identifies the requirements of the community in order to achieve success. In Kettering’s case, the city is looking for tenants bringing in large numbers of people with better than average salaries. These types of tenants will rebuild Kettering’s tax base.

It is equally important to know when to market the closed facility. If the LRA were to begin a large nation-wide marketing campaign too soon, the community may not be ready for interim leasing and a prospective tenant could be lost. This also could affect other possible tenants if word of the LRA’s inability to provide the necessary facilities spread. On the other side of the coin, if a community were to begin marketing after the ROD was approved and redevelopment had began, it may be too late to attract the
businesses desired. Major companies will require time to relocate and modify existing facilities to specifications. If the marketing begins too late the community could easily experience a period of inactivity after closure. No new business means no new income for the city.

There is an additional indirect benefit to marketing a closing installation. The benefit of bringing in additional business to the community not located on the site. The proposed move of Victoria’s Secret into the Kettering area is an excellent example. Representatives of Victoria’s Secret were interested in locating in the Miami Valley area. After looking over the facilities on Gentile AFS, it was decided they did not meet the company’s requirements. The company was impressed enough with the area however to look elsewhere within Kettering.

The marketing strategy that is designed must meet the time table of the closure and redevelopment efforts. Kettering benefited greatly from the use of interim leasing and word of mouth. Dayton Power and Light and the Dayton Chamber of Commerce produced a brochure for Gentile AFS early on in the process. This brochure provided information to prospective tenants when the community was approached. However, other than the brochure, marketing has been very minimal to date. This has been a result of not needing to aggressively market the soon-to-close base. Companies have approached Kettering.
The existing leases and sales agreements will produce 1600 jobs by the end of 1997 and 1400 more in the next five years. Kettering is planning for 5000 jobs when the reuse project is finalized. The LRA has enough tenants now to work on the redevelopment of the business park while receiving revenue from the new companies.

To provide a successful marketing strategy, the involved individuals should be well versed in all the facilities on the base including those which are being renovated by the LRA. They should have experience in the commercial real estate arena. This would help the LRA continue with the reuse plan to attract the desired businesses to Kettering.

Challenges

During the course of this research many interviews were conducted to acquire background information on the process in general and the Gentile AFS closure more specifically. Through these interviews, some of the challenges faced by the involved agencies were presented. These were not problems as much as actions or questions that arose and required attention. The ability of the LRA to deal with these issues directly effects the reuse process. The more efficiently challenges are dealt with, the better chance Kettering has for success. These challenges can be divided into three
categories: personnel changes, interim lease issues and personal property issues.

**Personnel Changes.** Because this research effort is a culmination of a three year long study of the closure and reuse project, the key members involved have been a constant source of information. In the past year, there have been significant changes in key personnel that I believe had an adverse impact on the reuse process. First, Larry Leese, the initial DESC Reuse Coordinator for Kettering announced his retirement with very little notice. This left his position empty for several months until a suitable replacement could be found. Because the DESC Reuse Office has only one person employed, the responsibilities of the DESC Reuse Coordinator were spread out among other individuals in the Kettering City Government. The impact was significant considering no one knew whom to talk to concerning specific reuse issues. Additionally, the replacement, Albert Fullenkamp, was left having to get smart on numerous issues quickly with no overlap to help. Mr. Fullenkamp developed a model to tackle the task of reuse. Had Mr. Fullenkamp taken over for Mr. Leese immediately or with some overlap, the implementation of his model would have been more feasible. Instead, Kettering was behind the power curve when Mr. Fullenkamp took over the DESC Reuse Office. Mr. Fullenkamp was forced to play catch up and forecast
ahead with little or no time allowed. This model, which will be explained in
detail later, looks good in theory, but was unable to be applied fully due to a
lack of continuity and personnel in the reuse office.

Currently in the DESC reuse office, there is Mr. Albert Fullenkamp,
the reuse coordinator, and his secretary. The reuse office has been able to
use the assets available through the city, such as legal assistance, when
required. The current manning situation has not been adequate to complete
all the required tasks. With the beginning of the EDC and long term leases,
more individuals are needed. The reuse office will be hiring three additional
individuals to assist Mr. Fullenkamp in the near future. These people will be
located on site to work continuing management of the reuse effort. Areas for
continued monitoring include planning, property and construction
management, real and personal property management, fiscal, accounting,
and marketing issues, and caretaker responsibilities.

The second significant personnel change occurred when Mr. Paul
Rizzo, the AFBCA site manager, left the AFBCA and went to work for DLA
as Deputy Director of Installation Services. Whereas Mr. Rizzo's experience
with AFBCA was beneficial in his new job, AFBCA was left without a site
manager. The EDC contract is a key responsibility of the AFBCA site
manager and there was no manager at a crucial point in the development of
the EDC. Mr. Tony Climer, the AFBCA site manager for Rickenbacker AFB,
OH, was assigned to work at Gentile AFS on an interim basis until a new site manager could be hired. Mr. Climer is currently working at both bases trying to do the job of two people. The impact on the reuse effort is tremendous considering the lack of availability of Mr. Climer when he is needed. He is attempting to share his time between two bases, located in two separate cities, sixty miles apart. With the EDC close to complete, minor crises are occurring on a daily if not hourly basis at Gentile AFS. The continual presence of Mr. Climer is necessary.

The third and final significant personnel change was that of Mr. Dan Dollarhide, the DESC Chief of Staff and appointed Base Transition Coordinator. The BTO appointed Mr. Dollarhide as the BTC because he had been working with DESC and was familiar with not only the main tenant of Gentile AFS but the station itself as well. DESC was officially deactivated on Gentile in May 1996 however it continues to operate while facilities are completed in Columbus, OH for the transfer. As mentioned earlier, there are presently 300 personnel remaining on Gentile AFS, the bulk of which are assigned to DESC. Because of the relocation in three months and the alleviation of Mr. Dollarhide's position, the government found him a new job away from Gentile and moved him from his present position. There was little advance notice to the move and the base lost its transition coordinator at a most crucial time in the transition process. Mr. Steven Searcy, the Director
of the DESC Transition Office, was brought up to work Mr. Dollarhide's issues. He has been working the transition of DESC and is familiar with the current status and future requirements. Of the three key personnel changes that have occurred, this one was possibly the smoothest, since the job was filled from within the organization. Since Mr. Dollarhide's move has only just occurred, impact on Kettering is yet to be determined.

**Interim Lease Issues.** Before the Record of Decision and the Economic Impact Statement disposal document are issued, an interim lease could be established between Kettering and the Air Force. The process of interim leasing enables the LRA to work aggressively toward reuse by leasing the land and facilities for "job-producing public and private sector uses" (27:118). In effect a company will sublet facilities from Kettering who, in turn, has leased the facility from the Air Force. There were some difficulties with rates, leasing agreements, operating agreements and the process itself during the interim lease process at Gentile. The problems encountered were nothing serious however, a quick resolution of these issues can avoid a negative impact to the reuse plan.

**Establishing Rates.** When rates were established prior to leasing, the LRA considered several different factors. An analysis of the
current market value of office and industrial space was considered along with
the impact of the additional space on the Dayton Central Business District
and neighboring districts. Factored into this information was local real
estate expert opinion of what the market would bear (a subjective figure at
best). The host organization, DESC, calculated maintenance fees per square
foot including residence fees, security support fees, and utility fees. When
Kettering leased a facility to a new tenant, the price per square foot was
based on the determined market value plus the DESC calculated operating
fee. The GSS lease illustrates the fees and why they were established. The
determined market value was $3 and the determined operating fees were
$.97. Of this $3.97 per square foot, $.75 goes to the Government for interim
lease. Another $1.50 is credited to the tenant for permanent improvements
to the facility. This credit is allowed for up to five years. The remaining $.75
goes to a fund for future improvements and maintenance such as the new
heat boilers.

The leased buildings were all heated by a central heat plant. With the
renovations, separate boilers will be installed in all facilities and the heat
plant has been shut down. Because at the time of establishing these rates
the community did not really have an idea what would be required fiscally,
the existing leases may be less than profitable for the city. When asked
about increasing rates to attempt to help defer some of the phase 1
renovation costs, Mr. Fullenkamp explained the future intent. Currently, the existing leases are established through the next four years. Increasing rates on these leases is not an option. Any new leases will definitely have a rate increase according to Mr. Fullenkamp (23).

**Lease and Operating Agreement.** The actual lease and operating agreement between Kettering and interim lease tenants has been cause for some concern. Several issues surfaced after agreements were signed, which were not covered in the leasing agreement. For example, while GSS was operating without air conditioning, and before the work was completed to install an air system, DESC was approached for assistance. DESC found several large fans to help the GSS in the interim. If DESC had chosen to follow the agreement to the letter, no assistance would have been provided, since GSS’s contract is with the city of Kettering and not DESC. Whenever a problem with facilities has arisen with one of the tenants, DESC has been approached to rectify the matter. These problems have ranged from power outages to temporary furniture. These issues are not covered in the operating agreement and have become an almost daily occurrence according to Mr. Steven Searcy, the Director of the DESC Base Realignment and Closure Transition Office (42).
Mr. Searcy explained that as new tenants come to Gentile AFS, activities will be required over and above the agreement. The key to making the reuse effort work for the area has been the cooperation DESC has provided with the city in order to keep the interim tenants satisfied. The key to the successful efforts to date with the tenants has been the cooperation and willingness to go the extra step on the part of all of the players. The LRA, DESC, and the AFBCA have all worked well together to achieve the current status of the reuse project. The residents of the base realize the learning curve that results from a conversion effort and have been willing partners in the process of reuse. The base commander has supported the reuse efforts tremendously by encouraging the vacating of buildings as early as possible in order to facilitate a smoother transition later.

Perhaps the most frustrating problem for the Kettering representatives was the interim lease process itself. To properly lease a facility to a commercial business, an interim lease must be established with government approval. This approval process coupled with the required environmental review can take upwards of four months to complete. There is a thirty-day waiting period just for the environmental review and the number of days required for any type of approval from the Air Force could take anywhere from weeks to months. If there are any changes to the lease for any reason, the whole process must begin again. Commercial companies do
not always understand this and can make changes to their requirements on a regular basis. Mr. Fullenkamp explains that the sheer volume of paperwork and the time to approval make this process tedious and cumbersome (23).

**Personal Property Issues.** The term personal property is defined by the Federal Property Management Regulations as “personal property includes all property except land and fixed-in-place buildings, naval vessels, and records of the Federal Government”(43:1). The reuse process allows for a community to identify personal property necessary to remain at the facility to accommodate a quick, smooth transition to commercial use once the military has vacated the facility. How quick and how thorough a base is in determining the disposition of personal property has a large impact on the successful reuse of the installation. If personal property is not identified quickly, then the reuse plan must wait for information on future available assets.

Personal property identification is a challenge faced by all bases when they close. The base commander must inventory all property on the base owned by the military within six months of the closure announcement. To assist with an easy disposition, the commander is required to identify that personal property that is mission essential and will be leaving with the military. The commander must also identify what property is ordinary
fixtures and what property is needed to support the LRA's reuse plan. Finally, the commander must also identify that property that is available for redistribution within or outside the DoD (43:4-5).

The challenge to the base and to the LRA comes once the inventory is completed. It is difficult to identify what will be required and available on an installation two or three years in the future. The mission requirements may change, and the actual property changes as well. The government recognizes this fact and requires the inventory to be updated regularly after initial draft. The requirement to continuously update an inventory drafted early in the process has become more difficult than imagined.

The nature of the mission at DESC involves numerous computers. The computer technology has advanced so quickly that what was acceptable three years ago is no longer adequate to meet mission needs. Over the past three years, DESC has prepared for relocation to Columbus while still performing the mission here in Kettering. To continue to function within the necessary requirements, DESC has upgraded its computers as much as possible. With the influx of new computers and office equipment and furniture, the base inventory has changed faster than people can feasibly maintain. This became specially true in the case of the Automated Data Processing Equipment (ADPE). Mr. Fullenkamp was being called out to the base almost daily to identify whether or not the LRA required something that was added
to the list. The base personnel were spending large amounts of time attempting to determine the disposition of items. As a result of the continuous changing list, the local involved agencies developed a solution to the confusion.

The BTO worked with the LRA to develop a minimum requirements list for ADPE. The city of Kettering identified what the minimum capabilities of a computer would be for their purposes. If the ADPE does not meet these minimum requirements, then the equipment will be disposed of at the Defense Reutilization Management Office (DRMO). The setting of criteria enabled the base to assign disposition to the property without having to call the LRA on a regular basis. There are still several items other than ADPE that require personal monitoring (42). The management of the personal property issues at a closing installation requires excessive amounts of time for several different agencies.

**Communities for Comparison**

To conclude whether Kettering's efforts will be successful or not, a comparison of Kettering to other communities with already closed bases would be beneficial. To accomplish this comparison, two communities were chosen. The bases are Chanute AFB in Rantoul, Illinois, and England AFB in Alexandria, Louisiana. These bases and surrounding communities were
used because of their recognized success, as well as providing varying conditions to apply to the Kettering model. This section identifies some basic background for each community reuse effort and expands on Kettering’s definition of a successful reuse.

Rantoul, Illinois. Rantoul, Illinois, is approximately 15 miles north of Champaign-Urbana and is primarily a rural village. Chanute AFB, an aerospace and weapon system support training facility, was named in the first round of BRAC closures (27). There was no question of which community should lead the reuse effort as the base was located adjoining Rantoul’s city limits. Rantoul is unique in that it chose not to establish a local reuse authority. Instead, the mayor took on the reuse project personally with the assistance of a reuse coordinator and an economic development consultant (17). Both of these individuals had prior military experience stationed at Chanute AFB. A redevelopment team was established initially to develop a plan. After one year the team was disbanded and the Mayor’s team took complete control of the project.

The community of Rantoul suffered extreme frustration when attempting to use the existing closure process and was instrumental in bringing about many of the changes to the reuse process (40). Rantoul lost 1035 jobs at closure and now, eight years later, the mayor and her team have
replaced those jobs with 1506 new jobs (40). The replacement of jobs was not as emphasized by Rantoul’s mayor as the integration of the installation into the Village of Rantoul.

The base was 2132 acres and contained student and family housing, a theater, parks, a commissary, and the flightline facilities for the aircraft maintenance training school. Rantoul has successfully leased or sold property and office space to 53 different businesses. These numbers do not include the pending sale of the golf course or the University of Illinois satellite campus (45). The hospital is being used, as well as the commissary, clubs, and recreational facilities.

Alexandria, Louisiana. The city of Alexandria is located in central Louisiana and hosted England AFB before the closure. Alexandria was the largest municipality in the area and adjacent to England AFB. Alexandria had annexed the land around the base and zoned for development. The city had also originally donated 2200 acres of the 2500 acre base. These ties to the base gave the city of Alexandria a vested interest in the reuse of the soon-to-close fighter base. Because the base was not within any city limits, the question of who should benefit from the reuse surfaced. According to the mayor of Alexandria, Mr. Edward Randolph, the most important step of the community for a successful reuse was establishing the England Authority
(41). The England Authority was the local reuse authority and consisted of ten members representing all interested parties. The distribution of representation was commensurate with the size of the community. Alexandria was the largest community and had three representatives on the LRA. The parish authority also had three representatives, with the smaller communities contributing another two. The final two positions were filled with representatives from the Central Louisiana Chamber of Commerce. The practice of including all of the surrounding communities resulted in little dissension and alleviated tariff wars and in-fighting among the interested parties (41). For the England Authority, cooperation was the key.

The reuse of England AFB has been a huge success for Alexandria and the other surrounding communities. The elementary school on base reopened as a magnet school for the area, boasting a television studio for the students. This is the first time a school has been used for this purpose (41). The hospital is now a state out-patient facility, and some of the runways, dorms, and office buildings are being used by JB Hunt for a driver training school. A general aviation service has also opened up at the base and a jet engine maintenance facility leases hangar space as well. The chapel, theater, golf course, and even a deli remain open for business. The housing is being renovated for a Lutheran retirement community and some is being used for economic development. Overall, 800 civilians lost their jobs when England
closed and an excess of 1000 jobs were replaced with a higher salary on
average (41). The reuse of as many existing facilities as possible and the
replacement of the lost jobs were both important issues to Mayor Randolph
when discussing successful reuse efforts.

Kettering, Ohio. The city of Kettering is faced with a city income tax
loss of $1.5 million annually due to the closure of Gentile AFS (21). The sale
of the buildings and land at fair market value will not replace the lost
income. Therefore, the desired outcome for reuse of Gentile is to replace the
lost tax base by replacing the jobs that were lost with the closure and
realignment. The DESC reuse coordinator, Mr. Al Fullenkamp, defines
successful reuse as accomplishing the reestablishment of Gentile AFS as a
large employment center on-schedule, on-budget, and as quickly as possible
(21). According to Kettering’s reuse plan, “The key to successful military
base reuse is the commitment and leadership of the individuals attracted to
the board and the operating staff” (26:121). The individuals referred to are
those members of Kettering’s local reuse authority, the DESC Reuse
Committee. Cooperation and vision by the city are essential to achieve the
goals and objectives set by the committee.
V. Conclusions and Recommendations

Introduction

The intent of this research is to determine if Kettering will be successful in its reuse efforts. This final chapter will review the current research in the context of the initial investigative questions and conclude whether Kettering will be successful or not. It will also provide some recommendations to assist future efforts in the closure process.

Defining a Successful Reuse

Investigative question #1 asks what constitutes a successful reuse. Before one can determine if a reuse effort is successful or not, a clear understanding of what successful means is necessary. The Webster's Third New International Dictionary defines successful as "resulting or terminating in success: having the desired effect" (45:2282). Considering this definition, a successful reuse project would be a project that meets the desired outcome. It would be a mistake to assume every base closure and reuse effort has the same desired outcome. The communities affected by base closure react differently depending on the circumstances. For example, an average installation located in a major metropolitan area could be more valuable to
the surrounding community closed than open. The land could be more profitable to the community once sold and redeveloped. A community that has a strong economic base may benefit more from developing the land into parks and other recreational facilities, whereas a community that is dependent on the revenue from the military installation would benefit more from replacing the lost jobs.

When the mayors of Rantoul, Alexandria, and Kettering were asked to define successful reuse, the answers were direct. Mayor Podagrasi believed a successful reuse was the complete integration of the installation into Rantoul. She was looking for the facilities to be reused however possible. Replacing the jobs lost was only one factor for reuse success (40). On the other hand, Mayor Randolph from Alexandria responded much the same as Mayor Hartman. Both mayors defined successful reuse in terms of job replacement with equal or higher salaries to replace the lost revenue to the community (30)(41). The DoD uses the number of jobs created as one measure of a successful reuse (27:8). Successful reuse can be determined based on the goals of the reuse committee. In the case of the two comparison bases, the number and quality of jobs created would be a useful measure of success. In the case of Kettering, a successful reuse is defined as the successful replacement of the tax revenue lost when Gentile AFS closes. This would be a direct result of the number and quality of the jobs replaced. To
accomplish this goal, a reuse plan was developed to create new jobs to replace the lost ones. Kettering's success is dependent on the outcome of the plan which is ultimately the replacement of the tax revenue.

Model for Success

Investigative question #2 asks what has Kettering done to prepare for reuse. As reported in the previous chapter, Kettering began immediately forming a plan for reuse when the closure announcement was made. The Kettering government formed a local reuse authority to plan alternatives for reuse and plan for the future of Gentile AFS and Kettering. The LRA formed a reuse office and hired a reuse coordinator to oversee and work the many issues of reuse. Mr. Larry Leese worked diligently for the city to get grants to begin planning for reuse and operating a reuse office. Approximately two years later, Mr. Leese retired and Mr. Albert Fullenkamp, a city engineer was hired. Mr. Fullenkamp took all of the tasks already begun and those needing to be accomplished and created a strategy to accomplish all in the necessary time frame. This strategy formed the basis of a generic model that can be applied to any closing installation. The model consists of breaking the tasks down into four distinct elements: Conversion, Caretaker, Redevelopment, and Marketing. These elements, if given the appropriate
staff, address all of the tasks necessary to successfully close and reuse a military installation.

The Kettering model is primarily a management model. It helps the reuse office break down the many tasks for reuse into manageable pieces. Like any major project or undertaking, organization of the tasks is necessary in order to succeed. Mr. Fullenkamp was unable to fully implement this strategy for reuse due to his lack of personnel assigned as well as the matter of his replacing Mr. Leese. It is difficult enough implementing a strategy for a new project, but to implement a strategy mid-way through a project can be even more onerous. Mr. Fullenkamp feels strongly that had he the people from the very beginning, his model for reuse would have resulted in proactive rather than reactive management. Even though the manning has not been what was needed, through sheer willingness and cooperation on the part of all, the reuse efforts of Kettering are going well.

The Question of Success

Investigative question #3 asks how Kettering compares to other successful reuse communities. Kettering has been planning and working toward a single goal for the last three years: the successful reuse of Gentile AFS after the DoD agencies have left. Where neither base had a similar
mission to Gentile AFS, the reuse efforts of England AFB more closely resemble the Gentile reuse project than Chanute AFB project.

Local Reuse Authority. The England Authority was established to support and include all impacted communities around England AFB. The England Authority had representatives from local businesses and state government. Similarly, the DESC Reuse Committee included members from a local prominent bank, a local commercial real estate agency, the local utilities company, the county economic development office, the Miami Valley Economic Coalition, and the state economic development department. Whereas the impact would be most felt in Kettering, the committee did consider inputs from all involved agencies. Both of these LRAs recognized the need for open discussion and cooperation between the community and government agencies. The mayor of Alexandria attributes the success of the England Authority to this cooperation and so does the DESC Reuse Coordinator.

Marketing. An additional similarity exists between Kettering and Alexandria in the marketing area of reuse. What happened with Victoria's Secret in Kettering was not a unique occurrence. When England AFB was closing in Louisiana, Boise Cascade approached the England Authority to
locate a major expansion on the base. The company was not able to find facilities on base to meet their needs however, the area was what it was looking for and built a new facility just north of the closed base. The company may not have located on the closed installation, but the jobs brought to the area had the same effect (41).

Geographic Location. Rantoul's geographic situation was similar to Kettering's. Neither community had to deal with outside communities' agendas when the question of reuse plans or economic conveyance arose. The city of Kettering is located in a populated area with several surrounding communities including the major city of Dayton. The opportunities for reuse were many, and only close examination of the options by interested, knowledgeable parties could result in a strong reuse plan that would benefit not only Kettering, but the surrounding areas as well.

Facilities. Both Chanute and England AFBs had flightlines, hospitals and recreational facilities like gymnasiums and golf courses to offer the local community. Gentile AFS has few of these facilities to offer Kettering. Gentile AFS was used primarily as a warehouse facility. Instead of this lack of facilities being a negative factor to the community, it has had a positive effect. Because Kettering is surrounded by other townships and cities on all
boundaries, there is no need for an additional hospital or airport in the area. Additionally, the city of Kettering has a large recreation center that includes parks, ball fields, an indoor gymnasium, ice rink and a water park. Realistically, if Gentile AFS had these facilities, I believe the committee would have been challenged beyond its capabilities to reuse them effectively. Kettering has the enviable position of deciding the future of acres of land containing mostly buildings. Buildings can be torn down to make room, or renovated to meet changing requirements. Gentile AFS does boast a baseball diamond and some park land in one corner of the station. This land fits in beautifully with Kettering’s Park and Recreation Department’s already established Open Space Standards developed in 1991 (26:3).

**Changing Processes.** Many of the differences between Alexandria, Rantoul, and Kettering can possibly be attributed to the times of their announced closure. Chanute AFB was first in 1988, with the announced closure for England AFB being in 1991. Gentile AFS was approved for closure in 1993. When Rantoul was attempting to reuse Chanute AFB, there were no recent closures to look to for guidance. Many of the recent changes to the process for closure were a direct result of the earlier BRAC closures lobbying for change. Rantoul experienced great difficulties dealing with the government concerning personal property and environmental issues. There
was no guidance to the community or the Air Force defining who had rights to what property. Because of these difficulties, procedures have changed, and personal property guidance is much more detailed.

When England AFB was recommended for closure three years after Chanute, enough bases had tackled the job of closure and reuse to offer some guidance. The England Authority took advantage of the lessons learned, and was able to avoid many of the pitfalls earlier reuse authorities had faced. A strong example was the local reuse authority itself. The people of Alexandria and surrounding communities had the benefit of previous failures to show them the need for a common body to oversee the reuse with a common goal. Rantoul did not have that benefit, and thus Mayor Podagrasi took on the giant task herself. There is no denying the mayor of Rantoul was able to successfully reuse Chanute however, what other areas suffered due to her complete involvement with the reuse efforts?

Gentile AFS was announced for closure two years after England AFB and five years after Chanute AFB. Kettering has been able to benefit dramatically from the lessons learned from Chanute and England as well as other early base closures. From the involvement of the mayor to how to apply for grants, the policies and procedures have been improved and published for Kettering's benefit. Difficulties still arise from personal property issues, environmental clean up issues, and even from personnel
issues, but the amount of literature available to the affected community can only serve to help not hinder the reuse effort.

Recommendations

Overall, the city of Kettering has all of the ingredients to make a success of the Gentile reuse project. The community and surrounding area is a thriving metropolis and there is a great opportunity for economic development. The LRA has an excellent working relationship with the government agencies, fostering an atmosphere of cooperation and goodwill. Location, cooperation, and opportunity all contribute to a successful reuse effort.

Kettering Model. Mr. Fullenkamp developed a model to manage the monumental task of reusing a military installation once it was closed by the government. Based on the analysis of the information gathered during the case study, it became evident that the strategy being used by Kettering to plan and implement a successful reuse was sound and could be used at other communities. There are only a few installations still in the reuse process at this time however, history has a way of repeating itself and more closures are bound to happen in the future. The model Mr. Fullenkamp developed has worked well for Kettering, even with the minimal implementation, and it is
recommended that future community reuse authorities consider this model to assist in the managing of the reuse effort.

**Liaison.** Despite the apparent success Kettering is having with the reuse plan, there is room for improvement. It is difficult for the community to move in while the military is still present, but a liaison on base would serve many purposes. Several of the challenges mentioned in the previous chapter could have been diminished or avoided altogether if a representative of the LRA had been located on the installation. If there had been an LRA office on Gentile AFS once the first interim lease tenants arrived, much of the difficulties with leasing and custodial responsibilities could have been avoided. The LRA would have been present to deal with the unusual requests of tenants. Having a LRA liaison would allow for the DESC transition office to work the relocation issues for DESC. A local representative could handle the on-site inspection of personal property much easier than calling someone in from the city on a continuous basis. The Kettering LRA is locating an office on Gentile AFS now that the EDC has been approved and a more permanent presence is required. The need for a representative is valid, but sooner would have served a better purpose and alleviated some of the stress between agencies that comes from continuously having to compromise.
Conclusion

The purpose of this research effort was to determine if after three years of planning and preparing, Kettering could be successful in its reuse efforts. The investigative questions regarding successful reuse were researched thoroughly through the use of interviews, observations, and reading exhaustive amounts of documentation. After researching and answering what constitutes a successful reuse, what Kettering has done to plan for a successful reuse, and how does Kettering's efforts compare to those of other successful communities, recommendations were made. The model used by Kettering gave the LRA direction and the ability to break up the large task into smaller, manageable tasks. It is my opinion that a unique characteristic of this community effort is the cooperation that existed throughout the process. The city of Kettering, the base commander, the DESC commander, and the AFBCA all worked together to make the relocation of DESC and the closure of Gentile AFS a successful one. Kettering's reuse efforts will be successful because of the strategy it took and the attitude of everyone involved being a partner in the process.

It would be beneficial to evaluate an installation reuse effort that used the management strategy provided by the Kettering Model. Further research could investigate the individual tasks involved within each element and the community's interaction with the government agencies involved.
Appendix A: Glossary of Acronyms

ADPE - Automated Data Processing Equipment

AFB - Air Force Base

AFBCA - Air Force Base Conversion Agency

AFCEE - Air Force Center for Environmental Excellence

AFIT - Air Force Institute of Technology

AFS - Air Force Station

BRAC - Base Realignment and Closure

BTC - Base Transition Coordinator

BTO - Base Transition Office

DCSC - Defense Construction Supply Center

DESC - Defense Electronics Supply Center

DFAS - Defense Finance and Accounting Service

DLA - Defense Logistics Agency

DoD - Department of Defense

DRMO - Defense Reutilization Management Office

EAC - Economic Adjustment Committee
EDA - Economic Development Agency
EDC - Economic Development Conveyance
GAO - Government Accounting Office
GSS - Graphic System Service
LRA - Local Reuse Authority
MCBMR - Montgomery County Board of Mental Retardation
NEPA - National Environmental Policy Act
ODOD - Ohio Department of Development
OEA - Office of Economic Adjustment
RAB - Restoration Advisory Board
ROD - Record of Decision
Bibliography


22. Fullenkamp, Albert E. DESC Reuse Coordinator. Phone Interview. 23 August 1996.


36. Murphy, Kevin D. "Making the Most of a Base Closing," *Governing*, 22-23 (September 1993).


42. Searcy, Steven. Director of DESC BRAC Transition Office. Phone Interview. 23 August 1996.


44. Village of Rantoul Aviation and Reuse Development Lease Data, 26 June 1996.


Vita

Captain Maria L. Garcia was born on 21 July 1963. She graduated from Thomas B. Doherty High School in Colorado Springs, Colorado. She earned a Bachelor of Arts degree in psychology from the University of Colorado at Colorado Springs in May 1989. She was assigned to the 27th Tactical Fighter Wing, Cannon AFB, New Mexico and graduated from Supply Officers Training in May 1990. While stationed at Cannon, she served as Officer in Charge of Aircraft Parts Store and War Readiness Spares Kits, Maintenance Supply Liaison Branch Chief, and Fuels Management Branch Chief. Captain Garcia graduated Fuels Management Training in May 1992 and was assigned to the 5th Bomb Wing, Minot AFB, North Dakota. While stationed in North Dakota, she served as Fuels Management Flight Commander, Commander Supply Readiness Control Center, and Combat Operations Support Flight Commander. She graduated from Squadron Officers School in June 1994. Upon graduation from AFIT, she will serve as project manager for Logistics Plans division, Air Force Logistics Management Agency at Maxwell AFB, Gunter Annex, Alabama.

Permanent Address: 4291 Hammock Dr. S
Colorado Springs, CO 80917
A MODEL FOR SUCCESSFUL REUTILIZATION OF A MILITARY INSTALLATION: A CASE STUDY OF GENTILE AIR FORCE STATION

Maria L. Garcia, Captain, USAF

Air Force Institute of Technology
2750 P Street
WPAFB OH 45433-7765

Mr. Dan Dollarhide, Transition Coordinator
Base Transition Office
Gentile Air Force Station OH 45420

Approved for public release; distribution unlimited.

Previous research concerning base closure and reutilization focused on the roles of government agencies and the assistance they provided. This study looks to the community and the impact of installation closure. The process of planning for reuse of an installation is difficult and confusing. The guidance provided by the government has changed drastically since the first closures announced in the 1988 Base Realignment and Closure Committee recommendations. This study focuses on the strategy employed by Kettering, OH to successfully reuse Gentile AFS upon closure. As the final part in a longitudinal study, the research focus was lessons learned and implementation challenges for the city of Kettering. Research findings indicated Kettering would be successful in their attempts to reuse Gentile AFS as a business park. Recommendations were to locate a liaison on site to deal with the daily operations of conveying the facilities and property to the local community. This liaison should be employed by the local community to represent the community’s interests. Further, the model used by Kettering could be adapted for any installation and help the local community break down the enormous task of reutilization into several tasks of more manageable size.
AFIT RESEARCH ASSESSMENT

The purpose of this questionnaire is to determine the potential for current and future applications of AFIT thesis research. **Please return completed questionnaire** to: AIR FORCE INSTITUTE OF TECHNOLOGY/LAC, 2950 P STREET, WRIGHT-PATTERSON AFB OH 45433-7765. Your response is **important**. Thank you.

1. Did this research contribute to a current research project?  
   a. Yes  
   b. No

2. Do you believe this research topic is significant enough that it would have been researched (or contracted) by your organization or another agency if AFIT had not researched it?  
   a. Yes  
   b. No

3. **Please estimate** what this research would have cost in terms of manpower and dollars if it had been accomplished under contract or if it had been done in-house.  
   Man Years___________  $___________

4. Whether or not you were able to establish an equivalent value for this research (in Question 3), what is your estimate of its significance?  
   a. Highly Significant  
   b. Significant  
   c. Slightly Significant  
   d. Of No Significance

5. Comments (Please feel free to use a separate sheet for more detailed answers and include it with this form):

   ________________________________________________________________
   ________________________________________________________________
   Name and Grade  Organization
   Position or Title  Address