STRATEGY RESEARCH PROJECT

BASE REALIGNMENT AND CLOSURE: ANOTHER OPTION

BY

COLONEL RAYMOND W. CARPENTER
United States Army National Guard

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COL Raymond W. Carpenter

Colonel William T. Vossler
Project Advisor

U.S. Army War College
Carlisle Barracks, Pennsylvania 17013

ABSTRACT

AUTHOR: Raymond W. Carpenter (COL), ARNG

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The prevailing belief within the Department of Defense (DOD) and the federal government is there is a need for an additional round of Base Realignment and Closures (BRAC) because DOD still has an estimated 18% excess infrastructure. Assuming that is true, perhaps the next round of BRAC should be premised on deactivation and mothballing or leasing rather than deactivation and disposition of the property. There are many contentious issues related to BRAC including: unrealistic land revenue sales estimates, unreliable savings projections, incomplete cost data, impact of environmental issues, the measure of excess capacity and future expansion requirements. BRAC should be recognized for what it is, an infrastructure reduction program, not a budget windfall. Mothballing is not only a viable alternative to disposition, in an uncertain world, it may be the wisest.

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"In order to retain only those sources necessary to the Service's missions, the Department supports the 1995 Commission's recommendation that Congress authorize another BRAC Commission for the year 2001."[1] This quote from the Secretary of Defense's Report to the President and Congress in 1996 represents the prevailing belief within the Defense Department and the federal government. The assumption is despite four rounds of Base Realignment and Closure (BRAC), the Department of Defense (DOD) still has an estimated 18% excess infrastructure which should be targeted for elimination in another BRAC. Assuming that is true, perhaps the next round of BRAC should be premised on deactivation and mothballing or leasing rather than deactivation and disposition of the property. The motivation for reducing the excess capacity follows the reasoning that the maintenance of the unneeded capacity is expensive. If the capacity were eliminated, the savings or avoidance of costs could be applied to other higher priority budget initiatives. The Secretary of Defense's Report also states that "Until we fully execute the BRAC process, money will be tied up in non-performing real estate, draining funds from our modernization effort and other programs."[2]

This paper will begin with an examination of the historical background of U.S. military bases and the mobilization requirements that prompted the development of the current base structure. The structure is large and complex and includes depots, laboratories, training bases, arsenals, industrial facilities, shipyards, ports, medical centers, air bases, operational bases and support bases. The expansion and reduction of the size and number of bases will be reviewed. The impact of the BRAC rounds will

be reviewed together with the current DOD base capacity. With the history and current status of DOD bases as the foundation, an alternative to BRAC will be discussed. Finally, a summary of the facts developed and the conclusions drawn will be presented.

History

The United State's first experience with large mobilizations for war and the requirement for infrastructure to support the mobilization was World War I. Prior to the First World War, in the event of a national crisis involving the use of military power, able bodied men from the general population were called to duty. They received minimal, if any, training and then moved to the military engagement. Although it did not place a serious demand on the nation's manpower resources, the Spanish American War was important to future large mobilizations. The Spanish American War brought to the fore several long-standing problems with the armed forces and prompted action by Elihu Root, Secretary of War in the Theodore Roosevelt administration. Secretary Root established a General Staff reporting to the Commanding General, rather than the Secretary of War. The new organization gave control to the Commanding General and facilitated coordination on the part of the various military branches and departments. A second issue was the need for further senior officer professional education, for which the Secretary instituted the War College. Both initiatives contributed to more efficient and effective subsequent mobilizations.

World War I was a much different mobilization because of the dawn of the industrial age and the scope of the conflict. The effect was a never before seen

requirement for arsenals, expanded ports, factories, military installations, support facilities and training areas. By the close of WWI the United States had invested a great deal in facilities and real estate. The Army's construction program alone consisted of 581 different projects with a cost of $1.1 billion.[3] Because the large camps and facilities had no purpose after the war, they were abandoned. The leased properties were returned to their owners and the temporary structures were dismantled or moved.

Although World War II was not the first large scale mobilization requiring significant infrastructure, the nation was essentially in the same predicament because the necessary facilities and training areas were not available. However, the nation did have the benefit of the institutional knowledge associated with the WWI mobilization. In 1935 a study entitled Protective Mobilization Plan was initiated by the War Department. The plan provided for an Initial Protective Force of 400,000 and a contingency force of 4 million.[4] The planners envisioned a force that would mobilize at their home stations and move overseas a month later. Such a plan had a limited requirement for facilities and training areas. The reality was much more dramatic than expected. The plans eventually called for mobilization of 9 million. From 1 July 1940 through 30 September 1945, the size of the War Department grew dramatically. The real estate holdings went from 2.1 billion to 45.8 billion acres, an area larger than the six New England states. At the height of the war, the War Department had 482 Air Force facilities, 389 Army facilities, 164 logistical installations and 149 industrial plants.[5]

The Navy Department had more than tripled its shore activities from a base of 278 in 1940.[6]

After WWII, planners made the assumption the next war would be similar. As a result, the country did not dispose of all of the surplus military facilities. An estimated 25% of the facilities were retained in an inactive status.[7] Some of the properties were retained because disposal was difficult. Some manufacturing plants could not be sold, so they were leased. As of 1 October 1946, of the 1,156 plants operated during WWII, 524 had been sold and 358 were leased. The remainder were idle awaiting disposition.[8] Either by design or driven by the circumstances, the nation retained ownership of much of the property and facilities acquired in the prosecution of WWII.

The next major mobilization facing the United States was the Korean Conflict. Thanks to the facility strategy pursued after WWII, the mobilization for Korea concentrated on the rehabilitation of existing facilities and military installations, rather than acquisition and construction of new ones. The actual construction expenditures were under $3 billion and were for permanent facilities and family housing.[9] After Korea military installations were stabilized to support the large Cold War active military force.

The Berlin Crisis and the Vietnam Conflict did not require any significant increases in infrastructure. However, a phenomenon not seen since WWII was reinstituted in the 1960's, the reduction, consolidation and closure of military installations. Secretary of Defense Robert McNamara in the Kennedy Administration began a program to rid the Defense Department of unused installations. By 1966, a Congressional Report outlined that some 852 separate actions had been taken

unilaterally by the Department of Defense. Because Congress was intent upon being involved in the process, Public Law 89-188 was passed in 1966. The law required Congressional Approval for base closures or reductions within the United States or Puerto Rico that involved more than 250 military or civilian personnel. Overseas base downsizing remained a DOD and Administration prerogative with budget oversight by Congress.[10]

Base Realignment and Closure

Congress had managed to block all significant base closures or reorganizations during the 1970's. In 1983, the Private Sector Survey on Cost (Grace Commission) commissioned by the Reagan Administration reported there were economies to be found in the base structure. The Grace Commission also recommended that a non-partisan commission study the issue to find a less constrained process for closing and realigning military installations. However, it was not until 1988 that Secretary of Defense Carlucci proposed the concept of a Base Realignment and Closure Commission to recommend changes in the military base structure. The concept was formalized in statute by Public Law 100-526 which authorized a one time BRAC for 1989. The law streamlined the process because it provided relief from other statutory provisions which had prevented previous changes to the base structure.[11]

The process established by the Public Law was designed to develop a list of closures and reorganizations and prevent picking and choosing by political officials after the list was finalized. The procedure required the military departments to review their respective base structure using criteria established in the law (see appendix 1). The

service was required to forward the list to the Secretary of Defense for review. After review, the Secretary was required to forward a consolidated list to Congress and the Presidentially appointed Base Closure and Realignment Commission. The BRAC Commission was to review the list and hold public hearings. The Commission had the authority to make changes to the list if they determined that the Secretary of Defense had not followed the force structure plan or the BRAC criteria. The Commission was required to report their findings to the President. The President had to either approve the commission's report in total or reject it and return it to the commission for further work. If the report was rejected, the commission was required to analyze the list further and return it to the President. If the report was rejected a second time by the President, the BRAC process was terminated. If the President approved the list, he was to notify Congress, which had to approve or disapprove the Commission's report without change.

The 1988 BRAC Commission recommended closing 86 military installations, realigning 13 and increasing 46. The report was approved by the President and the Congress and became law.[12]

By 1990, the Berlin Wall had come down and the Cold War was deemed to be over. The large standing military forces the U.S. had established and maintained for four decades were no longer justified. The loss of justification together with the search for a peace dividend caused the Bush Administration to reduce the size of U.S. military forces. In 1990, Congress passed a new BRAC Law (Public Law 101-510) to further reduce the base structure. The law followed the same concept as its predecessor,

PL100-526, except the 1990 law provided for three BRAC rounds; one in 1991, 1993 and 1995.

The criteria for BRAC II-IV was established in the 1990 law (see appendix 2) and was essentially the same as that used in BRAC I with minor exceptions. The 1990 version used the term total force to accommodate the consideration of Reserve and National Guard use of installations and training areas. Additionally, the requirement for realized savings to exceed costs was replaced by a requirement for a computation showing the number of years necessary for the costs to be recovered.

When the General Accounting Office (GAO) reviewed the process used by the BRAC I Commission, they found the savings for the bases closed or realigned was approximately 25% less than originally estimated. Despite the finding, GAO confirmed the bases selected were sound choices. The review also found environmental and economic impact criteria played little or no part in the selection process. The environmental impact was not considered because of the fundamental requirement for DOD to complete the work on all installations, BRAC candidates or otherwise. The economic impact was essentially ignored because it would have required detailed studies, the completion of which would have exceeded the time available to the commission.[13]

BRAC Savings

One of the driving forces in the BRAC program was the federal budget. The premise for BRAC was that savings or cost avoidance could be gained indefinitely for current installation closures. The BRAC statutes require an initial estimate of the one time costs, one time savings and annual savings to be garnered by BRAC actions in each round. Table 1 summarizes the original estimates made by the BRAC Commissions, the current estimates and the differences. Each category, revenue from land sales, environmental costs and savings documentation, will be discussed in detail.

BASE REALIGNMENT AND CLOSURE
REVENUE, COSTS & SAVINGS COMPARISONS

Category	Original BRAC Estimates	Current BRAC Estimates	Difference
Revenue from Land Sales	$4.274 billion[a]	$179.2 million[b]	$4.0948 billion
Environmental Costs	$5.6 billion[a]	$11 billion[c]	$5.4 billion
Annual Savings	$6.094 billion[a]	$5.8 billion[d]	$294 million

[a]Office of Industrial Affairs and Installations (DUSD-IA-I), 21 March 1997.

[b]General Accounting Office, Military Bases: Update on the Status of Bases Closed in 1988, 1991 and 1993 (96-149). (Washington: U.S. Government Printing Office, 1996), 5.

[c]General Accounting Office, Military Base Closures: Reducing High Costs of Environmental Closing Requires Difficult Choices (96-172). <http://www.access.gpo.gov/filename=ns96172> 7 April 1997.

[d]AU.S. Department of Defense, Report of the Secretary of Defense to the President and Congress. (Washington: U.S. Government Printing Office, 1996), 128.

Table 1

As shown in Table 1, the sales proceeds from disposition of BRAC property in all four rounds as of March 1996 amounted to $179.2 million. The revenue from sale of BRAC property was originally estimated to be $4.274 billion. The total acreage sold to date under the BRAC program is 6,849, less than 4% of the property scheduled for disposition.[14] Why was the revenue from land sales so unrealistic for the early rounds? The answer can be found in the federal government property disposition procedures, of which many are not new. The Federal Property and Administrative Services Act of 1949 established the procedures for disposition of excess federal property. Before property can be sold to the general public, it usually is required to be offered in systematic order to sister services, other federal agencies, public programs and state and local governments. Other statutes bearing on land disposition include the Stewart B. McKinney Homeless Assistance Act passed in 1987 and the 1994 Base Closure Community Redevelopment Act.

Another factor contributing to the lack of revenues from the sale of land was the desirability of the property. While the property may have been valuable to DOD, it may have held little value commercially. For example, a base in an isolated area or a facility with a unique military purpose may have few, if any, interested buyers. The result is either an unrealistically low sale price or no sale at all.

Environmental costs were specifically deleted from consideration in the BRAC selection process. The costs in BRAC I were to be funded by the Defense Environmental Restoration Account. However, the costs were estimated as part of the BRAC process. The 1990 BRAC legislation changed the funding mechanism and

required that the environmental costs associated with BRAC properties be paid out of the BRAC appropriation. Table 1 summarizes the original environmental costs estimated by the four BRAC rounds was $5.6 billion. In FY 96, GAO estimated the cleanup costs at $11 billion and growing.

Some of the environmental problems associated with BRAC properties are very serious. GAO's study of environmental problems at 84 BRAC installations showed there were 51 polluted groundwater sites, 67 contaminated land fills and 25 unexploded ordinance sites. Some of the conditions are nearly impossible to remediate with today's technology. For example, Norton Air Force Base in California is the site of a groundwater contamination problem that extends beyond the boundaries of the installation and affects several community water supplies. Because of the limitations of current technology, the groundwater will remain contaminated for decades to come. At the Jefferson Proving Ground in Indiana, 51,000 acres of forested lands were used to test munitions. Today the area is contaminated with unexploded ordnance and there is no reasonable technology available to remedy the environmental problem. One estimated cost for cleanup of this site alone was $8 billion. Cleanup of the site is not being pursued at this time.[15] GAO recommended in a report concerning BRAC environmental issues that DOD "...develop an environmental program cost estimate that reflects the total financial impact of realignment and closure actions."[16]

The other environmental impact is the delay of property disposition. BRAC originally envisioned disposition of the subject property in six years or less. Because of the restrictions on disposition of contaminated sites most timelines have been extended

well beyond six years to an average of ten years. McClelland Air Force Base serves as an example of how BRAC has exacerbated both the costs for cleanup and timeline for disposition. The base was originally scheduled for remediation by 2034 with an estimated cost of $925 million. After McClelland was selected for BRAC, the disposition timeline could only be compressed to the year 2018, well past the 6 year criteria. But more alarming, the cost doubled to $1.8 million.[17]

Environmental laws governing the problems are numerous and complex. Applicable statutes include the National Environmental Policy Act, the Federal Facilities Compliance Act, the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation and Liability Act, and a whole host of other state and federal laws. The overall focus of the legislative initiatives is to ensure the property is returned to an environmentally safe condition by the responsible party.[18] Under the provisions of several of the above Acts, DOD has transferred property which has not been remediated to other Federal agencies. Leases have been executed to various other organizations while the cleanup is ongoing.

Then there is the documentation of what costs were avoided. As part of the GAO's responsibility under BRAC, the computation of savings and cost avoidance has been audited on a nearly annual basis. A number of problem areas with regard to costs were identified in the studies. There was inconsistency between the services in determining the amount of savings. The GAO found that some BRAC related costs were paid out of the Defense Business Operations Fund (DBOF) and Operations and Maintenance accounts. The costs charged against those accounts were not captured

as a BRAC expense. The GAO also found some of the relocation costs were not categorized as BRAC related by the receiving installation, but were included as a regular operating cost. Costs charged out as other than BRAC expenses caused the savings to be greater than actual. GAO described the BRAC cost estimates as incomplete.[19]

The annual savings was the subject of a GAO Report in 1996. What GAO found was the services have used the budget system to track costs, the accuracy of which has already been discussed. However, the services and DOD admit that there is no system in place to track annual savings. From a budget standpoint, the savings are shown as a memo entry only. The entry is not a verified figure. GAO referred to the savings figures as unreliable, but GAO did not recommend DOD go back and correct or develop comprehensive savings figures because the information was or is no longer available.[20]

Another aspect of the issue is the costs borne by federal agencies other than DOD which are not considered in BRAC. Specifically, the expense generated by grants made to foster acquisition and develop the BRAC property. In a GAO study of 37 bases closed in the 1988 and 1991 rounds, grants from the federal government were made to the Office of Economic Adjustment, the Federal Aviation Administration, the Economic Development Administration and the Department of Labor, among others. The grants were designed to facilitate BRAC property reuse plans. The grants totaled $368 million for the installations included in the study.[21] Despite numerous

recommendations by GAO to consider other federal costs in the BRAC computation, DOD's practice remains unchanged.

Current Base Capacity and Expansion Potential

The BRAC process was a significant undertaking for the Department of Defense. In an information paper, the Army summarized its accomplishments as of 24 January 1997 as having closed 89 of 112 domestic bases scheduled for closure.[22] DOD wide, the four rounds of BRAC have resulted in the closing 311 domestic installations and the realignment of 112.[23]

The excess base capacity after four rounds of BRAC is a subjective area. While many experts agree that there is excess capacity, the question is how much and where? One method used to determine the excess capacity was based upon the 1985 DOD budget, which was the peak budget year in recent history. Using FY85 as the measure, the budget for 1996 represents a reduction in real dollars of 39%. The cumulative BRAC reductions for all four rounds have reduced the installation inventory by 21%. The difference is 18%, which is the estimate of excess capacity under this method.[24]

A second measure of capacity was initiated as part of BRAC IV in 1995. DOD established five Joint Cross Service Groups to determine the amount of excess capacity and assist in cross leveling service requirements to eliminate duplication. The five cross service groups were: depot maintenance, test and evaluation, laboratories, medical treatment facilities and undergraduate pilot training. Each of these groups

determined the capacity of each base performing the specialized function in their respective area. The groups then projected the workload at several years into the future. The groups all came up with excess capacity in terms of work effort, number of facilities or a percentage of existing capacity. However, a gross percentage estimate of overall excess capacity was not developed. Each group forwarded their closure and realignment recommendations to the 1995 BRAC Commission. The Joint Cross Service Groups recommendations were largely ignored and only minor recommendations were implemented. The report did comment that the excess capacity results were dependent on the accuracy of the estimate of future work requirements and the measurement of current capacity.[25]

A third measure is the manpower reductions experienced by DOD. From FY85 projected through FY01, the civilian work force will have been reduced from 1.129 million to 806 thousand, or 29%. The active military personnel strength for the same period has been reduced from 2.151 million to 1.457 million, or 32%. Again, a comparison with the reductions made as part of BRAC indicates a potential further reduction in bases of some 10%.[26] This measure is highly subjective and assumes personnel and infrastructure were optimal in 1985.

What is the potential for expansion in the event of a major crisis? If the above determinations of excess capacity can be used as a measure, it would seem that DOD could sustain an expansion of 10% to 18% with little impact. The most recent mobilization, the Gulf War, activated 225,000 Guard and Reserve personnel.[27] That was an increase of approximately 33% of the active duty forces. The mobilization and

demobilization was accomplished using vacant or inactive facilities at existing installations. The expansion was accomplished without any significant additional installation capacity requirements beyond DOD's inventory because there were inactive facilities available.

Environmental issues increasingly bear on capacity requirements. Environmental regulations have necessitated that training areas be much larger to conduct the same training as in the past. Driven by environmental assessments and environmental impact studies, many portions of training areas are off limits or restricted to specific uses. Additionally, training area rotations in some instances have been implemented to minimize maneuver damage. Training areas cannot be used but must be rested for months or even years in the off rotation. The impact on training area capacities is to double the land requirements in many cases. The excess capacity computations do not appear to have accounted for this development.

A Critical Look at a Future BRAC Based on the Past

If further reductions in infrastructure are determined to be necessary, a critical look back on the past BRAC experience would benefit planning for a future BRAC. The original computation of the billions of dollars available in the potential sales of DOD property of which only 4% has been realized today is certainly an issue. Planners must realize sale of property is the last option for disposal and to plan for significant revenues from the sales is unrealistic. A future BRAC should minimize those types of revenues.

The exclusion of the environmental costs from the decision making equation has proved to be problematic. The real effect is to eliminate 40% (and growing) of the costs associated with the project. The time estimates for cleanup are also an issue. Much of the property will remain an environmental problem for decades into the future. The environmental laws place the cleanup liability with the polluter: in this case the federal government or DOD. Despite the fact that a case could be made for the way in which the environmental issues were handled in the decision making and budgetary process in the past, it is not realistic to ignore a factor that accounts for 40% of the costs and significantly affects the milestones for disposition. If BRAC is implemented again, environmental costs and restrictions on disposition must be considered.

Finally, the question of what are the real savings from BRAC? Repeated GAO studies have found the savings are significant, but the accounting problems are worthy of attention. Still, the savings projected are future savings which have been shown to vary from those actually realized. Experience indicates future savings will most likely be less and will take longer to realize, an issue for future BRACs.

There is much concern about modernization and the savings from BRAC are slated to assist in funding that endeavor. There is a plan in place to increase modernization in the DOD budget to $60.1 billion by the year 2001 to deal with the predicted emergence of a near peer competitor in the year 2010.[28] To meet the challenge, the force must be modernized with the most current technology and equipment available. On the other hand, an equally strong case can be made for limiting the savings in favor of retaining a certain amount of excess capacity. In the

disposition process, the bases closed by BRAC will be lost to the DOD inventory permanently. If the need for them arises in the future, the acquisition of the infrastructure may be difficult or impossible. The same environmental laws that require detailed studies and plans for cleanup in the disposition process also call for detailed studies and public hearings and restrictions on property uses in the acquisition process.

A somewhat dated example of the hurdles associated with property acquisition and the resulting limitations on use can be found in the case of the Pinon Canyon Maneuver Site in Colorado. In 1974, the Department of Army initiated a plan to acquire an additional maneuver area near Ft. Carson, Colorado. The project ended with the acquisition of 235,896 acres in 1983 for $29.6 million. The property is subject to significant use limitations as a result of the Environmental Impact Statement. The maneuver rotation program in place allows one half of the training area to be used for two years and then rested for two years. The maneuver training is alternated every two years between the two halves. The effect is that now it requires twice as much capacity (training area) as was required previously to conduct the same amount of maneuver training. It is also worth noting that this dated example does not take into account the requirements which have been added in the intervening years.[29]

Mothballing, Leasing or Both

If a further reduction in the number of DOD bases is required, there is another option available to a BRAC in the same style as the previous four rounds. A different type of infrastructure reduction initiative could be pursued. Rather than DOD

completely divesting itself of the facility or the installation, it could be mothballed, leased or a combination of both.

In Mothballing, DOD retains ownership of the property. The definition of mothballing is "...retention of facilities and real estate at a closing or realigning base are necessary to meet the mobilization or contingency needs of Defense. Bases or portions of bases "mothballed" will not be excessed and disposed. It is possible they could be leased for interim economic uses." [30] Mothballing, like the original BRACs, would require the deactivation or transfer of the activities currently using the facility.

Mothballing is legal and the Department of Defense does employ the strategy for facilities. The authorization to retain the property is dependent upon contingency or mobilization need. The limiting factor which could require a BRAC is the effect the closure or reorganization has on the workforce. "Decisions to realign defense facilities authorized at least 300 civilians that involve a reduction of more than 1,000 civilians, or 50 percent or more of the civilians authorized also must undergo the BRAC process."[31]

The cost of retaining the facility is a drawback. However, the magnitude of the drawback is directly related to the method of accounting for costs associated with mothballing. DBOF is the prevailing method for installation and base cost accounting. Under DBOF, facilities and organizations are responsible for the direct costs they incur. Those are the costs that are directly identified with a facility such as man hours for repair or material used. Under DBOF, installation level general and administrative function costs are allocated to tenants of the installation in addition to the direct costs. The general function costs range from communications to youth services. Obviously, if

the general function costs are not allocated discretely, they could significantly distort the cost of an inactive facility. A persuasive argument could be made for considering very few general function costs to more clearly reflect the cost of maintaining a mothballed facility.

An alternative to preservation of the facilities is to raze the buildings or structures. This has been ongoing within DOD and is a sound management practice. When a building or structure has reached the end of its useful life and the cost of maintenance and repair exceeds its useful value, good judgment dictates demolition as the best option. As a testament to DOD's use of this practice, the Army has budgeted the destruction of 60 million square feet of an estimated 150 million square feet of deteriorated facility space in the next six years.[32]

Another variation is leasing the space. GAO studied the case of the Ft. Ord, California housing area. There were nearly 1,200 family housing units involved in the BRAC process. The units were two story and only the ground floor was rented. The objective was to have the renter act as the caretaker for the upper story to prevent vandalism and monitor serious maintenance and repair problems. The study found that the program returned monies to the government. An additional benefit was the tenant maintained the rental property. In some cases the tenant even maintained the vacant property. GAO considered the program a success and recommended the option be pursued in the disposal process.[33]

Another variation of the leasing option can be found at Letterkenny Army Depot in Pennsylvania. The Paladin Project, which is an upgrade of the M109 howitzer to a

modernized M109A6, is located there. The contractor through a teaming process, was allowed to use nearly 70,000 square feet of shop space as an assembly plant for $1. The contractor renovated the building to make it a state of the art office and assembly facility. There are many advantages to locating the contractor's operation on a government facility ranging from proximity to government furnished equipment, to availability of government owned ranges and test facilities to the renovation and upgrade of a vacant facility. The arrangement has saved the government $45 million on the contract. When the Letterkenny facility undergoes BRAC in 2001, the contractor has the right to retain the renovated facility until the lease expires. The teaming effort has met with such success, a similar arrangement is being made at the receiving installation for Letterkenny's operation, the Anniston Army Depot in Alabama. For this project, the use of inactive facilities has saved the government money, an option which will not be available after BRAC.[34]

Ammunition plants offer another example. The Industrial Operations Command has ten inactive plants which are contractor maintained under the Armament Retooling and Manufacturing Support (ARMS) initiative. The program allows the contractor to lease the equipment and buildings to private enterprise. The contractor is required to reduce the maintenance costs charged the government by the income received from the leases. Nine of the inactive plants are in the program. The cost to the government to maintain five plants is less than $700,000 each and no cost at tow plants. Costs have declined significantly and have the potential to have no cost at all nine plants.[35]

A Comparison

A comparison of the advantages of each option is in order. The advantage of the established BRAC process is it does eliminate bases and infrastructure. The savings is touted as an advantage, but the amount is imprecise. One of the disadvantages of the BRAC process is it does not consider the environmental costs, which remain to be accurately quantified in the current process. The disposition causes additional expense because of the accelerated cleanup requirements. The program does not allow for future expansion in the event of national crisis or increased environmental restrictions. In the event of a crisis generating additional basing requirements, the acquisition process would need to be energized. The national will would probably allow the bureaucracy to be bypassed in some cases, but the property necessary to accomplish the mission may no longer be available. For example a port facility for overseas shipping may be required for the crisis but may no longer be available because of other private sector development.

Like the original BRAC program, mothballing advantages include elimination of active infrastructure. However, because the property is retained, it can be reactivated when needed. There are normally less environmental costs associated with mothballing because the accelerated cleanup requirements are not incurred. The laws require the containment of any contamination, but do not normally require remediation to be performed unless the property is being transferred. An additional environmental advantage is the improvement of technology over time. If and when the mothballed site

is transferred, the technology may have improved to allow a quicker, better method of clean up or remediation.

If the option of leasing the space is included in the mothballing strategy, the advantage of an income source, as well as a tenant to do maintenance and repairs, is added. Normally occupied space is better maintained and repairs are accomplished as needed. As a result, the deterioration of the facility is held to a minimum.

There are also disadvantages to mothballing. There are costs associated with the deactivation and transfer of activities currently using the bases or facilities. In the cases of facilities that will be retained and maintained in an inactive status, a certain amount of preparatory work is required. However, if the work is accomplished correctly, the direct costs of maintaining ownership by DOD are minimal. If DBOF general function costs allocated to the inactive facility are realistic, mothballing becomes a viable alternative.

Conclusion

We have reviewed the historical background of U.S. military bases and their development. The inventory of DOD bases is large and spans the spectrum from laboratories and medical facilities to air bases, maneuver areas and shipyards. The end of the Cold War has caused an intense review of the purpose of DOD bases. The belief that another BRAC is necessary because there is too much excess capacity and there are dramatic savings to be reaped should not be taken at face value. BRAC should be viewed for what it really is, a program designed to eliminate unneeded

infrastructure. It should not be touted as a vehicle for saving or avoiding the expenditure of federal dollars. The revenue projections from land sales in the early BRACs have been shown to be absolutely incorrect, and should have been recognized as such at the time they were made. The cost computations have been shown to have irregularities. The environmental costs, because the requirements have been compressed, will partially offset the annual savings in the future. The assertion concerning the amount of excess capacity is highly subjective. There are no detailed studies published to accurately identify the amount and type of excess capacity. There is a use for a certain amount of excess capacity. Training areas now require approximately twice the land area because of environmental restrictions. As demonstrated most recently in the Gulf War, in times of large scale mobilizations the additional capacity is necessary.

The thesis of this study is far from unrealistic. In the final analysis, retaining and or mothballing facilities is not only a viable alternative, but may be the wisest. Why dispose of property that may be necessary for future operations? Disposition is even more questionable when there is no revenue to be gained from the disposition and similar annual savings can be achieved by mothballing.

With the passing of the Cold War, the prospect of large mobilizations appears to have waned. The nation is willing to pursue complete facility disposition in the hope of garnering future budget savings. History dictates caution in such a pursuit. It was Plato of ancient Greece who said "Only the dead have seen the end of war."[36] Perhaps the

dead are also the only ones who have seen the end of large mobilizations and their necessary installation requirements.

APPENDIX 1.

1988 BRAC Commission Criteria[a]

Military Value	1. The current and future mission requirements and the impact on operational readiness of the military departments concerned.
	2. The availability and condition of land and facilities at both the existing and potential receiving locations.
	3. The potential to accommodate contingency, mobilization, and future force requirements at receiving locations.
	4. The cost and manpower implications.
Return on Investment	5. The extent and timing of potential cost savings, including whether the total cost savings realized from the closure or realignment of the base exceed the amount expended to close or realign the base.
Impact	6. The economic impact on the community in which the base to be closed or realigned is located.
	7. The community support at the receiving locations.
	8. The environmental impact.
	9. The implementation process involved

[a]U.S. General Accounting Office, Military Bases: An Analysis of the Commission's Realignment and Closure Recommendations (90-42). (Washington: U.S. General Accounting Office, 1990), 58.

APPENDIX 2.

1990 BRAC Commission Criteria[a]

Military Value	1. The current and future mission requirements and the impact on operational readiness of the DOD's total force.
	2. The availability and condition of land, facilities, and associated airspace at both the existing and potential receiving locations.
	3. The ability to accommodate contingency, mobilization, and future total force requirements at both the existing and potential receiving locations.
	4. The cost and manpower implications.
Return on Investment	5. The extent and timing of potential costs and savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed costs.
Impact	6. The economic impact on communities.
	7. The ability of both the existing and potential receiving communities infrastructure to support forces, missions, and personnel.
	8. The environmental impact.

[a]U.S. General Accounting Office, Military Bases: An Analysis of DOD's Recommendations and Selection Process for Closure and Realignments (93-173). (Washington: U.S. General Accounting Office, 1993),12.

END NOTES

[1] U.S. Department of Defense, Report of the Secretary of Defense to the President and Congress (Washington: U.S. Government Printing Office, 1996), 128.

[2] Ibid., xv.

[3] David F. Trask, ed., Historical Survey of U.S. Mobilization: Eight Topical Studies of the Twentieth Century. (Washington: Center for Military History, 1983), 8.

[4] Ibid., 11.

[5] Ibid., 17.

[6] Department of the Navy, The Naval Establishment, Its Growth and Necessity for Expansion 1930-1950 (Washington: Department of the Navy, 1951), i.

[7] Trask, 21.

[8] Jack S. Ballard, The Shock of Peace: Military and Economic Demobilization After World War II (Washington: University of America, 1983), 160.

[9] Trask, 23.

[10] U.S. House of Representatives Committee on Armed Services, Report of Subcommittee No.4 on Base Closures and Reductions (Washington: U.S. Government Printing Office, 1966), 5711.

[11] U.S. Department of Defense, Department of Defense Base Closure and Realignment Report (Washington: U.S. Government Printing Office, 1991), 168.

[12] Ibid., 169.

[13] U.S. General Accounting Office, Military Bases: An Analysis of the Commission's Realignment and Closure Recommendations (90-42) (Washington: U.S. General Accounting Office, 1989), 32.

[14] U.S. General Accounting Office, Military Bases: Update on the Status of Bases Closed in 1988, 1991, and 1993 (96-149) (Washington: U.S. General Accounting Office, 1996), 4.

[15] U.S. General Accounting Office, Military Bases: Environmental Impact at Closing Installations (95-70) (Washington: U.S. General Accounting Office, 1995), 6.

[16] Ibid., 7.

[17] U.S. General Accounting Office, Military Base Closures: Reducing High Costs of Environmental Cleanup Requires Difficult Choices (96-172) <http://www.access.gpo.gov/filename=ns96172> 7 April 1997.

[18] GAO 96-149, 33.

[19] U.S. General Accounting Office, Military Bases: Closure and Realignment Savings Are Significant, but Not Easily Quantified (96-67) (Washington: U.S. General Accounting Office, 1996), 8.

[20] Ibid., 10.

[21] U.S. General Accounting Office, Military Bases: Case Studies on Selected Bases Closed in 1988 and 1991 (95-139) (Washington: U.S. General Accounting Office, 1995), 12.

[22] Department of the Army Information Paper (DAIM-BO), Base Realignment and Closure(BRAC) Implementation (Washington: Department of Army, 1997), 1.

[23] GAO 96-172.

[24] GAO 95-133, 3.

[25] GAO 95-133, 132.

[26] U.S. Department of Defense Budget 1996, C-1.

[27] Reserve Forces Policy Board, Reserve Component Programs Fiscal Year 1991 (Washington: U.S. Government Printing Office,1992), 124.

[28] U.S. Department of Defense Budget 1996, 251.

[29] Vicki McCusker, NEPA Coordinator, Ft. Carson Directorate of Environmental Compliance and Management, telephone interview by author, 22 March 1997.

[30] GAO 95-133, 129.

[31] GAO 95-133, 21.

[32] Speaker Identity Protected, "The Budget Process" A speech presented to the War College 97 PPBS Advance Course, Carlisle, PA in February 1997.

[33] GAO 96-149, 12.

[34] Peter Scott, United Defense-LP, Paladin presentation, 27 February 1997.

[35] U.S. General Accounting Office, Military Bases: Cost to Maintain Inactive Ammunition Plants and Closed Bases Could be Reduced (97-56) (Washington: U.S. General Accounting Office, 1997), 4.

[36] Robert Debs Heinl, Jr., Dictionary of Military and Naval Quotations (Annapolis, Maryland: United States Naval Institute, 1966), 340.

BIBLIOGRAPHY

Andrulis Research Corporation, Defense Business Operations Fund (DBOF), An Army Primer. Washington: U.S. Army Program Management Systems Development Agency, 1992.

Ballard, Jack S., The Shock of Peace: Military and Economic Demobilization After World War II. Washington: University of America, 1983.

Department of the Navy. The Naval Establishment, Its Growth and Necessity for Expansion 1930-1950. Washington: Department of the Navy, July 1951.

Heinl, Robert Debs, Jr., Dictionary of Military and Naval Quotations. Annapolis, Maryland: United States Naval Institute, 1966.

McCusker, Vicki. NEPA Coordinator, Ft Carson Directorate of Environmental Compliance and Management. Telephone interview by author, 22 March 1997.

Miglionico, Dominic. Assistant Director for Base Closure Implementation, Office for Industrial Affairs and Installations (DUSD-IA-I). Telephone interview by author, 21 March 1997.

Pappas, George S. Prudens Futuri. Missouri: Walsworth Publishing Company, 1967.

Reserve Forces Policy Board. Reserve Component Programs Fiscal Year 1991. Washington: U.S. Government Printing Office, 1992.

Scott, Peter. Defense Systems-LP, Presentation on Paladin, 27 February 1997.

Sparrow, John C. History of Personnel Demobilization in the United States Army. Washington: Center for Military History, 1951.

Trask, David F., ed. Historical Survey of U.S. Mobilization: Eight Topical Studies of the Twentieth Century. Washington: Center for Military History, 1983.

U.S. Congress. House. Committee on Armed Services. Subcommittee Number 4. Base Closures and Reductions. 89th Cong., 2d sess., 1966.

U.S. Department of Defense, Report of the Secretary of Defense to the President and Congress. Washington: U.S. Government Printing Office, 1996.

U.S. General Accounting Office, Military Bases: An Analysis of the Commission's Realignment and Closure Recommendations(90-42). Washington: U.S. General Accounting Office, 1989.

U.S. General Accounting Office, Military Bases: Analysis of DOD's Recommendations and Selection Process for Closures and Realignments (93-173). Washington: U.S. General Accounting Office, 1993.

U.S. General Accounting Office, Military Bases: Revised Cost and Savings Estimates for 1988 and 1991 Closures and Realignments (93-161). Washington: U.S. General Accounting Office, 1993.

U.S. General Accounting Office, Military Bases: Analysis of DOD's 1995 Process and Recommendations for Closure and Realignment (95-133). Washington: U.S. General Accounting Office, 1995.

U.S. General Accounting Office, Military Bases: Case Studies on Selected Bases Closed in 1988 and 1991 (95-139). Washington: U.S. General Accounting Office, 1995.

U.S. General Accounting Office, Military Bases: Environmental Impact at Closing Installations (95-70). Washington: U.S. General Accounting Office, 1995.

U.S. General Accounting Office, Military Bases: Closure and Realignment Savings Are Significant, but Not Easily Quantified (96-67). Washington: U.S. General Accounting Office, 1996.

U.S. General Accounting Office, Military Bases: Potential Reductions to the Fiscal Year 1997 Base Closure Budget (96-158). Washington: U.S. General Accounting Office, 1996.

U.S. General Accounting Office, Military Bases: Update on the Status of Bases Closed in 1988, 1991, and 1993 (96-149). Washington: U.S. General Accounting Office, 1996.

U.S. General Accounting Office, Military Base Closures: Reducing High Costs of Environmental Cleanup Requires Difficult Choices (96-172). Washington: U.S. General Accounting Office, 1996.

U.S. General Accounting Office, Military Bases: Cost to Maintain Inactive Ammunition Plants and Closed Bases Could be Reduced (97-56). Washington: U.S. General Accounting Office, 1997.

Speaker Identity Protected, "The Budget Process," A Speech presented to the War College '97 PPBS Advance Course, Carlisle, PA in February 1997.