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STUDENT ESSAY

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THE U.S. ARMY CORPS OF ENGINEERS; THE SAUDI ARABIAN EXPERIENCE AND IMPLICATIONS FOR U.S. FOREIGN POLICY

BY

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USAWC MILITARY STUDIES PROGRAM PAPER

THE U.S. ARMY CORPS OF ENGINEERS: THE SAUDI ARABIAN EXPERIENCE AND IMPLICATIONS FOR U.S. FOREIGN POLICY

INDIVIDUAL ESSAY

by

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ABSTRACT

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The U.S. Army Corps of Engineers (USACE) has been involved in Saudi Arabia since the early 1950's. After World War II the interests of the U.S. in the entire Middle East region developed as a security focus, essentially in support of NATO. The Korean War fostered a great concern in the U.S. and Europe that the USSR might widen the conflict into Europe. This concern necessitated the construction of airfields in the Middle East to support possible actions against the USSR. The Corps expanded the airfield in Dhahran in the early 1950's and constructed an air terminal which was completed around 1958. In 1965 the Corps' presence was institutionalized by the Engineer Assistance Agreement whereby the USACE would provide Saudi Arabia with technical construction management support as required by the Saudi government for construction of facilities for defense needs.

It was in 1973, however, when revenues from skyrocketing oil prices started pouring into Saudi Arabia, that the work of the Corps began mushrooming. The purpose of this paper is to review, in brief, the accomplishments of the USACE in Saudi Arabia; to provide a review and personal perspective on the findings of the Engineer Studies Center report of 1984, THE USACE IN THE MIDDLE EAST: BENEFITS AND EXPERIENCES FOR FUTURE CONSTRUCTION CHALLENGES; to relate the lessons learned in Saudi Arabia to future overseas missions and to draw some conclusions as to whether the USACE is an effective use of

U.S. power in the foreign policy arena.

The annual USACE construction placement in Saudi Arabia substantially increased from $15 million in 1973 until it peaked at $1.8 billion in 1983. It declined to $1.3 billion in 1984 and to $825 million in 1985. The number of USACE employees in Saudi Arabia has fluctuated accordingly during these same years. There were 83 employees in 1973, 1275 in 1983, approximately 800 in 1984 and about 350 at present.

The large construction mission that the USACE has been managing in Saudi Arabia since 1973 has included planning, design and construction of two complete naval bases at a total cost of approximately $1.7 billion each; planning, design and construction of one complete military academy at a total cost of approximately $1.2 billion; construction management of three airbase enlargements to accommodate the support of F-15 aircraft at an approximate total cost of $800 million; planning, design and construction of a complete military city at Al Batin at an approximate cost of $6.5 billion, and numerous other construction projects in support of the Saudi Arabian government, mainly in the Riyadh area. These projects included headquarters buildings and underground command centers along with some housing. The total program, when complete, will approximate $15 billion worth of construction.

The Engineer Studies Center report lists twelve key lessons learned in the USACE mission in Saudi Arabia:

(1) Organize early for total program. (2) Establish planning team to set up program, organize procedures, policies, and to clarify country-to-country relationships and program scope. (3) Plan and staff early for financial management, project tracking and funding. (4) Keep at least an Engineering Division technical team near construction sites. (5) Split division as appropriate early on, but consolidation to rear should have been earlier. (6) Limit accompanied tours to top-level managers involved in long-term, harsh environment programs. (7) Provide adequate communications capability. (8) Thoroughly investigate geologic and environmental conditions. (9) Investigate availability and capability to deliver materials and parts--plan for contingencies. (10) Emphasize standardized design of component elements and entire units. (11) Use Cost Plus Award Fee (CPAF) contracts only where project is not well defined, where a staff is available to monitor them closely, and where someone is familiar with them. (12) Put enough construction management people in the field to oversee the job and make sure they are capable. 1

The Engineer Study Center report is very complex and detailed with many points made to support the twelve key lessons learned listed above. Many of the study findings are obvious and positive in nature. I will, therefore, address only those points that seem either incorrect or somewhat misleading in relation to their application to the USACE mission and accomplishments in Saudi Arabia and their applicability to other overseas missions.

In regard to limiting accompanied tours, it appears that the respondents to the study have economy and ease of administering personnel as a foremost consideration in this finding. However, the Saudi Arabian mission was large and included over 1200 personnel in country at one time and

several thousand over the course of the mission. Based on these facts, it is obvious that the Saudi Arabian mission could not even have gotten started, much less finished, without allowing for a liberal number of accompanied tours. During an interview with Colonel James P. Oppenheim, a previous Riyadh District Commander, I suggested that there was a very small number of personnel within the USACE who were mobile and willing to take an unaccompanied tour at any one time, possibly as few as 100. Colonel Oppenheim responded that he felt the number was higher, possibly 200 or so. He agreed, however, that the Saudi Arabian program could never have been managed without the extensive use of accompanied tours. Colonel Oppenheim pointed out that the USACE is presently manning several small overseas offices with mostly unaccompanied personnel. He noted, however, that if a new mission opened up requiring unaccompanied status, such as in China, the new mission would attract the unaccompanied personnel from existing unaccompanied assignments. As a result, there could easily be a shortage of unaccompanied personnel worldwide. 2 When we open up new missions and recruitments we must therefore evaluate not only the new mission but our worldwide commitments as well. When we set policies for recruitment, that is, accompanied/unaccompanied tours, we must be certain that we do not exceed the number of available personnel willing to accept unaccompanied tours of duty overseas.

This issue seems to come up regularly within the USACE,

but we forget the facts of life until necessity dictates the reality of the situation. An example of this very issue is noted in the Oral History of Colonel G.T. Derby, East Atlantic District Engineer, 1951-1952, relative to the Moroccan airbase construction program. Colonel Derby stated, "We had found when we had started to recruit people to go over there, that nobody was going to go if they couldn't take their families with them." 3 Similar examples are noted in "Airfield Construction in North Africa," as can be seen from the following comments:

> Sufficient competent supervisory personnel could not be recruited unless wives and families could go to Morocco. Derby and General Hamilton decided it would be necessary to provide some family quarters and that this could be done by building housing at Nonasseur. 4
>
> Highly qualified civilians required for construction could not be gotten to Morocco unless the jobs were attractive enough. 5
>
> In order to attract top management people to Morocco, the engineers had to provide housing for families of the contractor's top executives. 6

This extensive example highlights the fact that this lesson was learned many years ago. Let's not unlearn it now and take on any large missions on the assumption that we will get by on mostly unaccompanied tours. The facts both present and past indicate that there is no way for the Corps to develop a large number of skilled, mobile unaccompanied personnel.

Colonel Oppenheim also stated that, in a general sense,

he felt that those people who came to Saudi Arabia accompanied and who demonstrated a caring feeling for their families performed better than those who left their families behind. 7 While this is a sweeping generality, and there are certainly many exceptions to it, the basic observation appears sound. There were many instances where unaccompanied personnel were somewhat less careful and effective in their work than those who had their families with them. Also, the majority of unaccompanied personnel who did outstanding work chose to leave after one tour if they were unable to bring their families over with them. Before we can demonstrate caring in our work, we must develop the capacity of truly caring about our families.

In Saudi Arabia, there were one-year unaccompanied tours and two-year accompanied tours for military managers. One conclusion of the study is that tours of top military managers should be no less than two years in duration. 8 At first glance, this conclusion is appealing. It did take too long to get managers up to speed and make them effective in their new positions. One-year tours did not allow the managers enough time to do any strategic planning for the future of the organization prior to their rotation out of Saudi Arabia. In a broader sense, however, the opportunity to participate in a large overseas military construction program is very valuable to the developmental process of military engineer officers. Limiting such career development opportunities to only those officers who can accept two-year

tours is short sighted. For the senior military managers, senior captain through lieutenant colonel ranks, we should try for two-year tours but accept one-year tours when circumstances dictate it. The one-year tours should be used to develop high-potential officers so that the Army could expect to gain later on in the officer's career. One-year tours should not be used just to fill a position. It is necessary to utilize the one-year tours effectively as developmental assignments; otherwise the expected loss of efficiency and inherent expense with no future benefit cannot be justified. One-year tours are, of course, very appropriate for lieutenants and junior captains in non-managerial positions to obtain the exposure and experience that a USACE assignment in a foreign construction program affords. We should obtain the best available talent both from a developmental and operational point of view and go with which ever tour length can be most effectively utilized to attain that goal.

Another conclusion of the study is that TDY should be used extensively early on and throughout the program as needed to keep forward staffing down. 9 This idea is appealing but not feasible. The number of personnel who possess the needed expertise and who will leave their families for extended TDY assignments is also small and quickly exhausted and, therefore, not practical over the long run. Moreover, when people are willing to go TDY, many times their supervisors will not allow them to do so. The standard

response is that command emphasis will overcome that problem. It will not. An example of this occurred when the Taif Area Office had a contract administration person willing to go TDY to Saudi Arabia in the summer of 1984. The supervisor had agreed but the next higher supervisor disapproved the TDY. 10 It was assumed that there was a fear that allowing someone to go TDY at the height of the work season would open the division up to lose the position that would be left vacant over the summer. This was the reaction of the civilian side of the USACE at the time that the MED commander had requested TDY assistance Corps wide. This request had been endorsed by the Chief of Engineers to all division commanders. Until managers Corps wide can look at the big picture and support the overall Corps mission, reliance on TDY will not work effectively for the short run. With the lack of a large mobile pool of personnel, it naturally will not work over the long run either.

The issue regarding TDY does foster a practical consideration. Prior to taking someone on PCS to a foreign assignment, a person should be selected subject to sixty days of satisfactory TDY service in the position for which he is slated. This would help supervisors and managers immensely in recruiting compentent, well-adjusted personnel and it would give the employee a chance to see if he and his family would like the assignment.

Another consideration in the study is the concern

expressed regarding the length of time an employee should be allowed to remain overseas. Some number of employees in Saudi Arabia remained there many years past the established 5-year limit. The study points out that an employee can get rusty and somewhat less effective if he stays away from the CONUS district environmemt for an extended length of time. 11 The established 5-year limit for remaining overseas appears to be one year too long, but, in any case, the existing 5-year limit should be enforced. There is always the case where an employee comes back to the States for 1 or 2 years, then returns overseas. That is fine. There is fresh perspective gained by the rotation and change in environment. This very concern was expressed by the Chief of Engineers as early as 1965 and it is valid even today. We in the Corps should make an effort to adhere to the 5-year limit for continuous service overseas.

The study stated that the Saudi experience teaches us that there is a definite need for staffing of financial management, project tracking and funding management early on in a new program. 12 These are, in actuality, old problems that we should have been better prepared to manage. A property-disposal problem and project-funding problems were clearly highlighted in Chapter III of the History of the Mediterranean in relation to purchasing and disposal of surplus construction materials in Morocco in the mid 1950's. 13 These same problems were documented in the memoirs of LTG

Walter Wilson, Division Engineer for the Mediterranean Division from April 1953 to June 1955. 14

Another point in the study underscores cultural awareness. When working in foreign countries, we must consider not only the physical plant needs but also the cultural aspects of our mission. 15 We must realize that we are going to be on display as U.S. representatives, as well as USACE representatives, and that the peoples of the host country have their own customs, needs and desires. As guests we should respect these. We will be better representatives of U.S. foreign policy interests and the Corps of Engineers long-term interests if we learn this lesson well.

During an interview with Colonel James R. Whitley, a previous Riyadh District Commander, we discussed how our actions, which would be natural actions in the U.S., may be counter to the accepted cultural norm in the host country and thus offensive to our host country personnel. This obviously impacts on our ability to maintain good working relationships and is detrimental to our overall mission. Colonel Whitley suggested that in Saudi Arabia we should have had a one-week orientation, including spouses, to acquaint our new employees with the customs of the country and to impress upon these employees the importance of our behavior and how it reflects upon our own country as well as upon the Corps of Engineers. 16 His experience indicated that some program of intensive orientation should be provided to all employees new to a

particular overseas assignment.

An additional point mentioned in the Engineer Study Center report is that Engineering and Construction Divisions should not be separated unless absolutely necessary. If they are split, then it is critical to keep an engineering support staff or someone knowledgeable about the project design at or near the construction site during construction. The study mentions that the support may even be by a member of the architect-engineer design firm that designed the project. 17 Although its legality may be questioned, this is an excellent thought that should be explored. Certainly the design contract can be written in such a way that the designer would be required to provide design engineers of various disciplines at various times for various durations to monitor the construction. These engineers would attest that the design intent is being met during all stages and phases of construction and advise the Contracting Officer as to the appropriateness of proposed changes when considering the design intent. This would be somewhat similar to requiring a manufacturer of specialized equipment to provide an installation engineer on site to assist the construction contractor in installation and testing of some government-furnished equipment such as pumps or engines.

One of the problems with a large program with grades perceived to be higher than those available to the non-mobile workforce here in the U.S. occurs when the people who served

in Saudi Arabia return to their previous districts and positions. They return earning higher salaries than those who chose not to be mobile. There may be some resentment and even some hostility toward the employees exhibited by the management of the district to which they are returning. The attitude of "you left and we don't need you back now" seems to exist in many cases to the detriment of the Corps. These well-qualified people should be welcomed back to the stateside districts where their experience can be utilized rather than buried.

Throughout the study on things to do better and to look out for in future missions, we have but to read Corps history and note that the items discussed remind us that history repeats itself. Many of the problems in the Saudi mission had been encountered previously. If we do not learn from history, we will certainly suffer accordingly. We should learn from the relevant points made in the study and apply what we have learned to any new missions. We should additionally require that anyone who is to head up a new mission undertaking overseas do some reading of Corps of Engineers history and Division Engineers memoirs. There is much that can be learned or relearned to prevent old problems from occuring in future missions.

The Saudi Arabian program is almost concluded and the question arises as to whether the Corps has learned anything

from its Saudi experience that can be applied to other missions throughout the world. To answer this question it is necessary to examine what the USACE has learned or relearned in Saudi Arabia. Even though some points have not been developed in this paper due to acceptance of them at face value, the following list is relative to the key lessons learned: (1) The USACE has gained experience with extremely large and complex projects and demonstrated the ability to accomplish the mission. (2) The Corps has established the fact that it can mobilize a large technical workforce overseas very quickly to get the job done. (3) Corps employees who served in Saudi Arabia developed valuable expertise that can be utilized quickly elsewhere. (4) Proper incentives including consideration of accompanied tours must be tailored appropriately to the size, complexity, location, and duration of the mission. (5) It is important to organize early with minumum staff, minimum support personnel and maximum construction field personnel consistent with economical execution of the mission. However, we must also staff Procurement and Supply, Finance and Accounting and Government Furnished Materials areas with adequate, competent personnel. An imbalance in any area can cause severe problems and waste resources. (6) It is critical for the District Engineer to have engineering division or designer technical resources available to support the field offices and the Contracting Officer once construction is under way. (7) It is critical to have proper communication and computer

support for effective management. (8) You must recruit good people and then pile the work on them and let them go. Each Construction Representative in Saudi Arabia provided Quality Assurance inspection on from 3 to 10 times the amount of work one would cover in CONUS. This is a lot of work but motivated people flourish and their skills are enhanced. These people are then available to tackle almost any new mission and certainly maintain the high standards of readiness of the civilian Corps employees to support the Army's wartime missions. (10) It is important to be aware of the host country's policies on security in order to design and execute construction projects accordingly. (11) It is essential to define your relationship with the customer at the beginning. (12) Be aware that the host nation may oppose certain kinds of communication due to security or cultural concerns. (13) At the beginning of an overseas program, a planning team should be established to set up procedures and policies and to establish contact with the client nation to define the scope of the program and to clarify country-to-country relationships. (14) It is important to avoid designing structures whose maintenance will be difficult for the host country to manage.

The above issues were all addressed at various points early on in the program; however, they all changed throughout the life of the program and were certainly areas of high frustration for the USACE personnel. The ability to deal with these frustrations and continue to get the job done has

contributed immensely to the growth and maturity of persons who served in the program in Saudi Arabia. These frustrations, however, are nothing new to the USACE personnel. The same frustrations are evident in readings about the Moroccan program in 1951. "When administrative complications arose they were most often the result of varying interpretations or the failure of host governments to enforce the agreements within their bureaucracies." 18 Examples of the changes that occured in the Saudi program are abundantly evident in the number of change orders required and the changing rules of the Saudi bureaucracies. For example, at the Taif airbase in Saudi Arabia, the requirements for base passes changed three times in a period of eight months. Our planning and agreements will never overcome the host countries' desire to manage their bases or agencies as they see fit without USACE interferences. We have to remain flexible, as we have been, to the changing needs of the customer. As the program evolves and the degree of sophistication of our host increases, so his requirements will change. We need simply to understand this, accept it and adjust to it.

During the discussion with Colonel Whitley, he mentioned that some of the problems we encountered later on in the Saudi Arabian program related to our lack of sensitivity to our customers' desires. Early on in the program, rumor has it that we generally displayed the attitude that we were the engineers and we knew best what the customer needed. We

could have and should have been more attuned to the customer and his desires. 19 While Colonel Whitley is not sure to what degree this attitude really did exist, it was perceived to be the case by some number of the Saudi personnel we dealt with later on in the program.

In a recent article in the Engineer Update, LTG E. R. Heiberg III stated, "Caring is something that comes from within each of us and flows outward to the people in our lives. It is my judgement that we cannot effectively care for our customers unless we first earn the trust and confidence of the people in our customer's office. Your success has demonstrated to me that getting close to the customer is a must." 20 This was certainly true in Saudi Arabia and will remain true for any future overseas mission. No matter how well we plan a mission or project, we must remember that the customer has the right to change his mind and, thus, the mission often changes. We must remain flexible and have competent personnel to manage the changes in mission or project that occur for whatever reason. We cannot eliminate the possibility of change. This very fact was emphasized in regard to the Moroccan construction program: "Changes in plans were often necessary to meet operational requirements and changed concepts for the mission of the bases, even after work was started. A flexible construction management organization was necessary to meet the changing needs of the program." 21

Having reviewed USACE accomplishments in Saudi Arabia and some of the lessons learned there, there remains the important question of the Corps' role as regards foreign policy. Is the USACE an effective use of power as an instrument of foreign policy? Recently a noted news person from the Washington D.C. area made an observation during a panel discussion at the USAWC. He observed that the U.S. Army seemed to take a low profile between the end of the Vietnam War and 1980. The only element of the Army that he remembered taking any kind of high visibility profile overseas (outside of Europe) was the USACE in its mission in the Middle East. 22 This underscored the fact that the USACE was the projection of the U.S. Army overseas. This visible presence in the Middle East is a projection of U.S. power in support of foreign policy interests in the region.

The USACE has taken on this high visibility mission and done a good job. However, even within the USACE ranks, there are many people who still feel that the issue of whether the Corps has furthered the foreign policy efforts of the United States is undecided and may remain that way for years to come. Although the Middle East is a volatile place and our friends there today may not be our friends tomorrow, the Corps' mission cannot be evaluated on the basis of whether the Saudi government supports U.S. policies or not. That would be a gross oversimplification of the complexity of international politics. The Corps has done an exceptionally good job for Saudi Arabia whether perceived so by all

concerned parties or not. We must evaluate the USACE's success in supporting U.S. foreign policy interests in the Middle East by looking at the Corps as a visible U.S. presence in the area. Because the Corps was present, there was never a vacuum for technical construction management expertise that could have been exploited by other countries.

During an interview with Colonel Ronald E. Schroder, Deputy Division Commander of the Middle East Division, I asked Colonel Schroder if he personally felt that the Corps' mission in Saudi Arabia had contributed to U.S. foreign policy interests. Colonel Shroder indicated that he was confident that the Corps mission had enhanced our foreign policy interests by providing quality defense installations to a very demanding customer. He also felt that the Corps' willingness to train young Saudi engineers in the Corps' methods and then to phase itself out, turning over the work without hanging on in Saudi Arabia, was very positive in the client's eyes. 23 In this regard it can be noted that many other organizations worked to perpetuate their existence in Saudi Arabia. The Corps, however, did not operate that way. The Corps, while perceived to be expensive by the Saudis, did, in fact, produce quality facilities without a profit motive. The work was done by a country-to-country commitment and by a U.S. government organization. The Corps recognized when problems existed and made efforts to protect the Saudis' interests and correct any problems encountered. While the Saudi representatives are demanding clients and at

times rigid in their beliefs, they now have quality facilities that they previously did not have. This is a direct result of the Corps mission. These facts must have a bearing on our impact as an instrument of U.S. foreign policy.

Could the Corps be more effectively used as an instrument of U.S. foreign policy? Certainly, but this would require a change in perceptions by U.S. policy makers and a reemphasis on high-visibility infrastructure construction projects in the developing nations. The Corps' efforts with infrastructure development would have to be coupled with human resource development and economic development to be fully effective as an instrument of foreign policy and Nation Building over the long term. With the current visibility of defense costs, this might not be a realistic policy at present.

Present policy within the government prefers to utilize foreign aid for human resource developmental aid such as education of teachers, medical technicians, and agriculture students. Current policy discourages capital improvement projects which, of course, constitutes the Corps of Engineers' area of expertise. 24 This is a short-sighted policy which fails to consider the goodwill generated among peoples of foreign countries receiving the aid and their need for immediate economic development as well as human development. Many more people are directly affected by

immediately visible projects such as dams, bridges, power generating, roads and port facilities. This is not to downplay the need for education-type aid. But the fact is that only a small number of the country's population directly affected on the immediate scene gains any knowledge of where the aid comes from. Therefore, the impact on foreign policy and good will generated among the citizens of the country is minimal. Additionally, the overall impact of educational aid may be negative without structural and economic changes to support the heightened expectations that education naturally fosters. In fact, in many cases those educated actually leave the country in search of a better life. We should give serious consideration to changing the emphasis of our aid to undertakings that are more visible and formulated into a package for overall change within the countries receiving aid.

An example of why more visible aid is required is exemplified in an incident related recently by a friend. He had traveled to Nepal a few years ago and everywhere he traveled throughout the country he encountered local people who told him how great they thought the Chinese people were. He later found out that the road that he had traveled from place to place on and that the Nepalese people used daily had been constructed by the Cninese. While it can be assumed that the U.S. had been giving aid to Nepal, it was probably in military equipment or low visibility forms of aid which the general populace never knew or cared about. This leaves

the question: How can the U.S. expect to compete in foreign countries if we cannot improve the lot of the working people by providing aid that is clearly visible and beneficial to the general populace? I do not think we can.

To the question of whether the USACE has contributed to U.S. foreign policy objectives in the Middle East, I say a resounding YES, and the USACE remains ready to serve wherever needed. As LTG Heiburg has stated, "The U.S. Army Corps of Engineers has always been an organization dedicated to improving the living standards of the people in the United States, and the Chief of Engineers fully supports sharing the Corps' expertise to assist friendly nations throughout the world." 25 Even with all the changes in applicable laws, regulations, and operating procedures that have taken place since World War II, the fundamantal purpose of Corps of Engineers military assistance in foreign countries remains to promote American security and support U.S. foreign policy through Nation Building.

The Corps has learned and relearned much during the Saudi Arabian mission. These lessons can be summed up as follows: recruit competent, caring people; support those recruited with adequate resources, authority, and responsibility; and provide good military leaders to oversee and manage the mission.

CONCLUSIONS

1. The Corps of Engineers has accomplished much in Saudi Arabia. While constructing over $15 billion of military projects it has contributed greatly to the Nation Building efforts of the Saudi Arabian government.

2. The Engineer Studies Center report is an interesting compilation of opinions of a few of the many personnel who served in Saudi Arabia. It summarizes many positions expressed by the personnel interviewed and will, no doubt, be a useful tool in reminding any Corps leaders of the details that must be considered before and during assumption of any new mission overseas. It reminds us that we should look to history to help us learn from previous experiences rather than repeat errors of earlier programs.

3. The Corps of Engineers has been an effective use of U.S. power as an instrument of U.S. foreign policy for many years and remains ready to serve when the nation needs it. The worth of the USACE has been recognized throughout its many years of service.

ENDNOTES

1. Engineer Studies Center, U.S. Army Corps of Engineers, The USACE in the Middle East--Benefits and Experiences for Future Construction Challenges, Report No. USAESC-R-84-11 (Fort Belvoir, VA: December 1984), p. 12.

2. Interview with James P. Oppenheim, COL, Director of Engineering and Housing, U.S. Military Academy, West Point, New York, 12 October 1985.

3. Oral History of G. T. Derby, COL, Overseas Military Operations of the Corps of Engineers, 1945-1970 (Unpublished Report).

4. Karl C. Dod, "Airfield Construction in North Africa," Overseas Military Operations of the Corps of Engineers, 1945-1970, p. 13.

5. Ibid., p. 32.

6. Ibid., p. 31.

7. Oppenheim.

8. Engineer Study Center, pp. C-2, 3.

9. Ibid., p. 18.

10. Personal Recollections of Gordon M. Butler, Jr., Area Engineer, Taif, Saudi Arabia, November 1982-March 1984.

11. Engineer Studies Center, p. C-5.

12. Ibid., p. C-17.

13. "Military Construction," Overseas Military Operations of the Corps of Engineers, 1945-1970, p. 48.

14. US Army Corps of Engineers, Engineer Memoirs: Lieutenant General Walter K. Wilson, Jr., EP 870-1-8 (Washington, D.C. 1984), p. 148.

15. Engineer Studies Center, p. C-17.

16. Interview with James R. Whitley, COL, Executive Director, Directorate of Engineering and Construction, Office of Chief of Engineers, Washington, D.C., 7 November 1985.

17. Engineer Studies Center, p. C-17.

18. Dod, p. 37.

19. Whitley.

20. E. R. Heiburg III, LTG, "Corps Workforce Adds Muscle to New Theme," Engineer Update, October 1985, p. 1.

21. Dod, p.61.

22. Panel Discussion, U.S. Army War College, Carlisle Barracks, Pennsylvania, 12 September 1985.

23. Interview with Ronald E. Schroder, COL, Deputy Division Commander, Middle East Division, USACE, Winchester, Virginia, 21 October 1985.

24. Interview with Ronald E. Newman, Deputy Director, Office of Arabian Peninsula Affairs, Department of State, Washington, D.C., 11 December 1985.

25. E. R. Heiburg III, LTG, "Foreword," International Capabilities: The U.S. Army Corps of Engineers, EP 360-1-12 (Washington, D.C.: August 1985).