DOES THE ARMY NEED TO BETTER DEFINE MISSIONS IN
TERMS OF RESOURCES TO MORE EFFECTIVELY MANAGE
IN A RESOURCE-CONSTRAINED ENVIRONMENT?

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A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

by

THOMAS E. ROBERTS, MAJ, USA
B.S., University of Alabama, 1976
M.B.A., University of Puget Sound, 1978
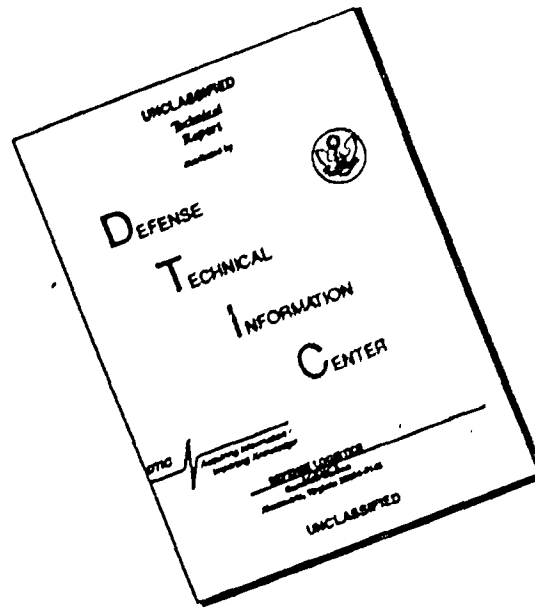
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This thesis asserts the Army does not define missions in terms of resources consumed, in sufficient detail to assist decision-making. This is primarily the result of the current budget structure which restricts resource classification to broad functional catagories. These broad catagories have little or no meaning at the lower echelons of the Army where tough resource decisions are usually made. Reaching decisions, without relevant information being presented in an understandable and usable format, almost insures suboptimal results. Unless the Army can better discipline the resource management process, it runs the risk of compromising the modernization and readiness gains made possible by the liberal appropriations of the Reagan era.

The thesis investigates the rational and traditional schools of budgeting in order to examine how the practice of budgeting evolved and some of the realities of the budget process. The study gains valuable insight by comparing the two schools and attempting to determine which school has the greatest application for today's Army. A useful by-product of of this examination and comparison is that it tends to explain how the Army's present resource management philosophy and supporting systems developed. The results of the examination and comparison then lay the foundation for a resource information model which defines missions in sufficient detail to facilitate resource decision-making. Lastly, the thesis proposes a procedural framework at the installation level on how the model might be employed to improve resource decision-making.

The study concludes with some pre-conditions which must be met in order for the model to be implememnted and used successfully. These pre-conditions describe the mind-set which senior leaders must have to insure the full power of the model is brought to bear on the problem of resource allocation.

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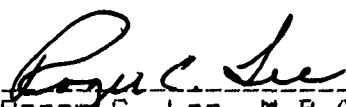Approved for public release; distribution is unlimited.

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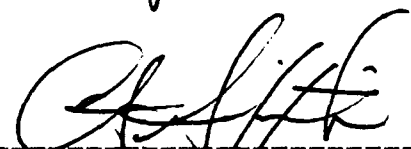
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of the U. S. Army Command and General Staff College or any
other governmental agency. (References to this study should
include the foregoing statement.)

ABSTRACT

DOES THE ARMY NEED TO BETTER DEFINE MISSIONS IN TERMS OF RESOURCES TO MORE EFFECTIVELY MANAGE IN A RESOURCE CONSTRAINED ENVIRONMENT?

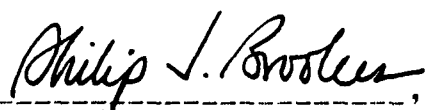This thesis asserts the Army does not define missions in terms of resources consumed, in sufficient detail to assist decision-making. This is primarily the result of the current budget structure which restricts resource classification to broad functional catagories. These broad catagories have little or no meaning at the lower echelons of the Army where tough resource decisions are usually made. Reaching decisions, without relevant information being presented in an understandable and usable format, almost insures suboptimal results. Unless the Army can better discipline the resource management process, it runs the risk of compromising the modernization and readiness gains made possible by the liberal appropriations of the Reagan era.

The thesis investigates the rational and traditional schools of budgeting in order to examine how the practice of budgeting evolved and some of the realities of the budget process. The study gains valuable insight by comparing the two schools and attempting to determine which school has the greatest application for today's Army. A useful by-product of of this examination and comparison is that it tends to explain how the Army's present resource management philosophy and supporting systems developed. The results of the examination and comparison then lay the foundation for a resource information model which defines missions in sufficient detail to facilitate resource decision-making. Lastly, the thesis proposes a procedural framework at the installation level on how the model might be employed to improve resource decision-making.

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CHAPTER 1

INTRODUCTION

I.   Introduction - The Environment.

Today's Army has enjoyed the fruits of a sustained
military buildup, yet, this same Army faces an uncertain
future.   During the first term of President Reagan's
Administration, we have witnessed unprecedented peacetime
military expenditures.   Between fiscal years (FY) 1981 and
1982, defense budget authority increased at an annual rate of
over 7.5 percent in constant dollars.   Although the rate of
increase was not quite so torrid in FYs 83 through 85, the
rate of increase still averaged in excess of 5 percent per
year.   The U. S. military had not seen increases of this
magnitude since the late 1960s during the Vietnam buildup.[1]

The increases came to a halt in FY 86.   For the first
time since 1978, defense spending fell in real terms.   This
decline was in response to the Balanced Budget Act (Gramm-
Rudman) which set targets for the national budget deficit.
Due to the failure of the President and Congress to reach
agreement over the budget, across-the-board cuts were
triggered to meet these targets in the fall of 1985.   The
Army had to absorb a cut in current dollars of approximately
$1.8 billion over the remaining nine months of FY 86.   This

was demanding for an Army which had not known resource constraints since the late 1970s.

FY 87 brought a brief respite due to a Congress and Administration determined to find enough "wires and mirrors" to come in under the Gramm-Rudman targets. This they accomplished and the result was the Army achieved minimal real growth in FY 87 and the deficit, meanwhile, ballooned. The biennial budget of FYs 88 and 89 was submitted to Congress in January 1987 calling again for a spending increase in real terms. Although this budget was hailed by Congresional leaders as "dead on arrival," a small increase in terms of real spending was expected.

This budget, as in times past, ground it's way through the Congressional process with the expectation the Department of Defense (DOD) would operate under a continuing resolution until an appropriations act could be passed. Then came October 19, 1987, when the Dow-Jones Industrial Average fell in excess of 500 points in a single day. This one-day drop amounted to a loss of value of over 20 percent for all stocks traded on the New York Stock Exchange- the loses were measured in the hundreds of billions of dollars. This event sent shock waves through the financial markets, the business community, and government.

One of the immediate causes cited for this catastrophic loss on Wall Street was a U. S. budget deficit

out of control. This immediatley led to a Presidential-
Congressional summit in which leaders hammered out an
agreement to reduce the budget deficit. The eventual
agreement announced November 20, 1987, outlined reductions in
the FY 88 budget of $30.0 billion and $46.0 billion in the FY
89 budget. For DOD, this agreement called for reductions of
$5.0 billion in FY 88 and $23.5 billion in FY 89. Percentage
wise, these amount to respective cuts of 1.6 percent and 7.3
percent in FYs 88 and 89.[2]

II.   The Problem.

    Based on this scenario, the Army was told to cut $9
billion from it's FY 89 request. This amounts to a 10.9
percent reduction from the anticipated FY 89 budget of $82.6
billion.[3]   A cut of this magnitude will require more than
"trimming the fat" or "belt tightening." It will require
cancelling missions and controlling the Army's ever present
appetite to do more. The follow-on question then becomes,
can the Army decide which missions must be performed and
which can be deferred or cancelled? I believe the Army will
have a difficult time with such a decision. For one thing,
today's Army does not have a philosophy or methodology for
dealing with deep cuts to it's budget. I base this on the
fact the Army does not have the capability to inform
decision-makers on mission priority or mission cost except in
the very broadest sense. For example, The Army knows how

much it costs to operate the Training and Doctrine Command (TRADOC). Within TRADOC, the Army can determine how much it costs to operate Fort McClellan, Alabama. It can even tell how much Fort McClellan spends on base operations and how much the post spends on mission operations. However, this level is about as low as the Army can look without running into fundamental problems which prevent further examination. Serious budget cutting will require examining the Army's programs in more detail than is currently possible.

I maintain the Army is not capable of determining how much, in terms of resources, the individual missions at it's posts, camps, and stations consume. The Army Management Structure (AMS), as well as, the Management Decision Package (MDEP) are both too broad to lend any assistance in defining missions at the MACOM or installation level.[4] For example, TRADOC sends Fort Bliss $12 million in an AMS account known as General Skills Training. This account is also an MDEP, meaning the AMS account and MDEP are the same in this case. Pertinent questions in a resource constrained environment might include: "Do we know what missions Fort Bliss performs with the funding from this account?" or "If cuts must be spread among the TRADOC installations how much do you take in this account from one installation relative to another?" Unfortunately, we have no answers to these questions at the present time because the Army's resource management systems are not managerially oriented.

III.   Possible Options.

Without visability of mission priority and cost at a
more detailed level than now available, the Army will have to
respond to budget cuts in a supoptimal manner.   This
"suboptimal manner" could manifest itself in a variety of
ways. Below are highlighted what I believe would be the most
likely ways the Army's leadership would respond to budget
cuts if an established methodology is not present.

1.   Headquarters, Department of the Army (HQDA) could
just pass an across-the-board cut (better known as the
"salami slice") to the Major Commands (MACOM).   There are
several advantages to this method.   For one thing, the MACOM
commanders have to determine what missions not to do (or not
do well) instead of the DA staff.   Since the cut had no
associated workload reduction, the DA staff puts itself in
the position of passing judgement on the MACOM reductions
without having to do the work.

2.   Because HQDA does have visibility of "newstarts,"
which were brought on-line in recent years, they could cut
the MACOMs for the amount of newstarts and tell the MACOMs to
cancel the mission.   When this type of cut is used, the
automatic assumption is the newstart which gets cut has a
lower priority than some mission which is buried in the
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"core" and has no visibility.

3.   The Army may decide to deactivate a division or

installation and take the cut in one fell swoop. This is analagous to the fat man who, in order to lose weight, cuts his arm off.

IV.   The Thesis.

It is inevitable the Army will use one of these techniques or combinations thereof, if it cannot look at missions more discretely than it can now. Some will argue that the above methods are the best under the circumstances and even desirable.

It's easy to see that most of the decisions derived from the above options will be political in nature. Some rationality may enter in but the crux of the decision will be political. Political decisions do not need a lot of analytical information and in fact are facilitated by it's absence as it decreases conflict. Rational decisions on the other hand need analysis. If the Army decides to pursue a rational approach to budget cuts, it must have more information on the resources it's missions consume.

The question then becomes: In light of the current budget environment, does the Army need to define it's missions more precisely in terms of resources? Under political decision-making the answer to this question would be no. Advocates of this school may also point out that dismantling the organization we now have would make mission definition more broad, thus easing decision-making even more.

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Conversely, under a rational decision-making approach, the answer would be yes. The central purpose of this thesis is to answer this basic question and then, depending on the answer, present a plan the Army can use to facilitate it's decision-making.

V.   Budget Basics.

In order to answer the thesis question and then present a plan for implementation, I believe it necessary to first lay a foundation in the reader's mind. This foundation will enable the reader to understand the terms used throughout the thesis and more fully comprehend the later chapters. In this regard, I will present a series of questions, answers and topics, which will give the reader an appreciation for the basics of the budget business.

The first question we might look at is what is a budget? The answer to this question is not simple and has many ramifications. In a very basic sense, a budget is a document which refers to an organization's sources of funds, expenditures, activities, and goals. It is prospective in nature, meaning it looks to the future.[6] In the governmental setting a budget will contain an estimate of expenditures to be made by the agency during the upcoming fiscal year.[7] However, the budget is more than a document. It is a sequential process. The process starts with an objective followed by a plan, an authorization of means, and actual

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operations. Each step requires prediction and foresight, based upon intelligence and experience about things planned for. The entire process is based on objective perception of information.[8]

Of particular interest, is the close relationship budgeting has with planning. Budgeting is the application of "double-entry bookeeping," if you will, to the planning process. Budgeting represents the other side of the ledger, in that, what is to be done must be compared to what it costs. Budgeting forces reality on the programming process by comparing alternatives with resources available.

It follows then, that a budget process is also a decision-making process. Decisions are made throughout the organization as to what should or should not be included in the budget. The ideal budget process insures the decisions are made at the appropriate level in the organization. If this admonition is followed, then the budget tends to take on a certain character all of it's own. As the budget information moves up the organization, it becomes less specific and more comprehensive in nature. This in turn supports the more "strategic" or generalized decisions which must be made at these higher levels- the reverse is also true. As you go down in the organization, the information becomes more specific in order to support "operational"[9] decisions.

Over time, as budgets became more sophisticated and important, they tended to exert greater influence on management. This influence has been accorded the status of "doctrine" and some well defined principles have been established. Knowledge of these principles is necessary for a complete definition of budgeting. The principles presented below represent a synthesis of the most prominent budget doctrines.

1. Officials must be held responsible for the performance of their organization and the resouces utilized in that performance.

2. Authority and responsibility must be delegated to the operating echelon where activities are performed and resources are consumed.

3. Officials held responsible for organizational performance should have a say in the planning and resource estimation of their organizations.

4. Operating officials should derive their responsibility and authority from one and only one higher unit.

5. Budget responsibility should be merged with program responsibility at every echelon and not follow seperate unrelated channels.
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6. Methods and criteria should be established and utilized to hold operating officials accountable for results in relation to costs.

7.   Each official exercising responsibility should
be made to have a stake in and an incentive for exercising
his responsibilities in an effective and efficient manner.[11]

A second question needing to be answered is what is a
budget's purpose.   The purpose of a budget is to finance an
existing organization in order that it may carry out it's
assigned mission.   In order to accomplish it's purpose the
budget presents the financial facts to the decision-makers.
The decision-makers,   in turn,   insure the policy they
prescribe by means of the budget is within established
parameters.[12]

The purpose of a budget is also to communicate
information throughout the organization.   This communication
should insure decisions are made at the apprpriate level and
that those decisions are properly carried out.[13]

We have skirted the issue previously, but we need to
elaborate on the functions of a budget. At the most basic
level, budgets can be said to perform three functions.

1.   Budgets are descriptions of the status of the
organization.   The budget document may describe what the
organization consumes,   what it does,   and what it
accomplishes.

2.   Budgets explain causal relationships.   The
expediture of a sum of money for labor and materials, which
will be combined to form work,   gives rise to expected

accomplishment of some results.

3. Budgets are statements of preference. Whether
intended or not, the eventual distribution of resources has
much to say about the preferences of those doing the
distributing.[14]

Finally, I believe we need to look at the dynamics of
the budgeting process. Every budgeting system will be
different but the two areas I wish to discuss seem to be
universal.

First, current budget practices seem to be more
oriented on "bookeeping" rather than on the planning and
programming process. "Budgeteers" spend most of their time
on projecting the current into the future. Although past
budgets certainly provide a base to build on, the automatic
assumption that last year's budget is the start-point for
this year's budget seems a bit unsophisticated.

How does this dynamic appear in the Army setting? One
way is the automatic assumption that the current number of
authorized civilians in the work force this year becomes the
budget requirement for next year. Another example is the way
the budget is formulated every year at Headquarters, TRADOC.
Each year the "recurring base" is rolled forward in
preparation for the next year's budget formulation. In times
past, this "recurring base" has amounted to as much as 87
percent of the previous year's final budget. Once certain
known requirements were added in (eg. dollars provided to

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train a certain number of soldiers), this "base" amounted to 95 percent of the final budget. The argument could be made that TRADOC employs a large number of professional civilians and military to manage 5 percent of the budget each year.

Another dynamic, which was hinted at earlier is the issue that the budget is a statement of preference. The bottom line here is the most "advantageous use of funds" is usually resolved as a matter of value preferences between competing entities --- none of which have a common base.[15] This is no easy task. For example, how do you decide whether to buy more M-1 tanks or plus-up your base operations support throughout the Army?

One final dynamic is that you rarely have the opportunity to start over in the budget process. The time pressures are too great. More often, actions are taken to accelerate, decelerate, or change the direction of programs and movements. We will find later that this type of behavior leads to a distorted budget document over time, that may in fact, bear no resemblance to actual operations.[16]

My purpose in these past paragraphs has been to shed light on some of the aspects of budgeting and the budget process. The stated thesis of this paper is to determine whether the Army needs to do a better job in defining it's missions in terms of resources. If you hold to what has come to be known as the traditional school you will answer no.

If, on the other hand, you hold to the school of rationality, you will answer yes.

The next chapter will examine the literature in more detail and expose you to these schools of thought in greater depth. I believe examining these two schools will be of great value in answering the thesis question. Of particular importance is the fact that the rational school was born out of a reform movement, while the traditional school observed the actual budget process and then formulated strategies based on these observations. You are sure to recognize elements of both schools in our budget process today.

The problems I have tried to highlight in this introductory chapter are not new. They are not new to the Army and they are not new to other organizations. The Army's primary problem is the vastness of it's organization. A budget in excess of $80 billion presents problems not found in organizations of smaller scope.

The consequences of not managing our resources efficiently and effectively directly impacts on the readiness and combat capability of the Army. Of primary note regarding today's Army, has been the great strides made in the study of leadership, operational level of war, and strategy. We have developed the Airland Battle Doctrine to be used as the blueprint for fighting our next war. These developments are dynamic and extremely important to the vitality of our Army. Today's Army has momentum and spirit which keep it on the

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cutting edge of preparedness. In spite of all this, if we fail to have a method for seperating "the wheat from the chaff" in the coming budget cuts we may not be able to capitalize on all this hard work.

The review of the literature in Chapter 2 is straight forward and the follow-on chapters will present the actual "nuts and bolts" of answering the thesis question. If implemented, I believe the solution offered will help in setting the priorities of the Army, which will allow it to maintain the greatest level of readiness and combat capability with the resources provided.

CHAPTER 1

ENDNOTES

1
    U. S. Department of Commerce, Statistical Abstract of the United States 1987:   332.

2
    Editorial, The Army Times, (December 14, 1987):   20; U. S. Army, The Army Budget: Fiscal Year 1988-89:   3.

3
    The Army Budget: 3.

4
    The AMS and MDEP will both be explained in more depth in later chapters. For purposes of this chapter, the AMS and MDEP are ways of classifying dollars and manpower according to function.

5
    The "core" is that part of an organization's budget which is considered to be "protected." Programs in the "core" have usually been around for quite some time and represent funding for the base missions of the organization. However, over time, the "core" may come to be undefined, meaning no one is sure what missions make up the core. A prime example of this phenomenon is the recurring base of TRADOC.

6
    Robert D. Lee and Ronald W. Johnson, Public Budgeting Systems (1977):   7.

7
    Taft Commission, "The Need for a National Budget," Governmental Budgeting: Theory, Process, Politics (1978): 3.

8
    Frederick C. Mosher, Program Budgeting: Theory and Practice (1954):   4, 133.

9
    Mosher, Program Budgeting: 133.

10
    Programming translates planning decisions into a balanced allocation of forces, manpower, materiel, and funds. Budgeting takes this balanced allocation and translates it into a form which will gain the needed appropriation of funds and manpower.

11
    Mosher, Program Budgeting: 6-7.

12

  Taft Commission, _Governmental Budgeting_: 9.

13

  Mosher, _Program Budgeting_: 5.

14

  Lee and Johnson, _Public Budgeting Systems_: 12-13.

15

  V. O. Key, 'The Lack of Budgetary Theory,"
Governmental Budgeting: Theory, Process, Politics (1978):
23.

16

  Mosher, _Public Budgeting_: 8.

CHAPTER 2

REVIEW OF THE LITERATURE

A.   Introduction.

A review of the literature reveals two major schools
of thought in regards to budgeting. The first school of
thought is normative in nature and proposes ideals by which a
budget may be developed. Most of these ideals revolve around
establishing some method by which you articulate what you
want to do and then attach resources to these wants. The
other school of thought maintains that budgeting is a process
of making comparisons of different programs, which have
differing values for different people.[1] Because of this,
budgeting is held to be a political process. Thus, changes
cannot be made to the budget process without affecting the
political process --- something not likely to happen. The
follow-on corollary to this position is normative or
prescriptive models and methods are useless because they fail
to take into account the political nature of budgeting.

This chapter will concentrate on investigating the
basics of of these two schools of thought. (For ease of

writing, one will be refered to as the rational school and the other the traditional school.) Although the traditional school focuses attention at the national level, those familiar with Army budgeting will recognize many of these same characteristics as being present in the Army budget process. This being the case, the traditional school, with it's preference for line-item budgeting, will be considered in this paper as having merit for consideration by the Army as a possible budget strategy.

At the end of the chapter, conclusions will be presented concerning the applicability of both schools of thought to the Army budget process. Based on these conclusions, a determination will be made as to which school of thought (or combination) has the most application to future Army budgets. This choice will then become the foundation for successive chapters whi' will take this choice and formulate solutions to current Army budgetary problems.

B.   Budget evolution.

Budgeting, as we know it today, is a fairly recent phenomenon peculiar to this century. Prior to the 1900s the national budget was little more than a compilation of piece-meal appropriations which went before Congress. The complete lack of information on the municipal side of the house leads to the conclusion that the city governments acted in much the same fashion. The most probable reason for this "non-

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emphasis" was the fact the budget expenditures of the federal, state, and local governments were so small they failed to spur any real development in budget innovation.[2]

In the early years of the American Republic, the national budget reflected the issue of the day, which was raising enough revenue to pay interest on the federal debt incurred as a result of the Revolution and the assumption of state debt. The early presidencies saw no need for the federal government to become involved in "public works" and as a matter of fact saw governmental involvement, such as road and canal construction, as unconstitutional. Repaying the debt was paramount and maintaining a surplus in the accounts was deemed appropriate and healthy.[3] This being the case, it is easy to understand why the budget document itself was fairly simple and given to line items.

This mentality of repaying the debt and running surpluses almost reached the heights of religion during the 19th century. Classical economists of the day felt that a nation which matched revenues with expenditures, and thus assumed no debt, would be more frugal and thrifty than a nation which relied on deficit financing.[4] This lead to governmental officials and lawmakers viewing the nation's budget in strict financial terms. By this I mean, they looked only at money costs. No emphasis was placed on program or organizational effectiveness. This meant all

federal expenditures were treated as financial costs and
should thus be held to a minimum.[5] This type of emphasis
dictated a consistent line item type budget document where
increases over the previous year and "efficiency" could be
clearly seen in sterile financial terms.

Deficit financing was most prominent during periods of
war. Periods directly after the war were then spent on
repaying the debt. The $2 billion deficit caused by the
Civil War and the corruption in Secretary Cameron's War
Department did prompt Lincoln to question whether the
budgetary methods they were then employing were effective and
whether a better budgeting system was needed. However,[6]
nothing much came of his concerns.

In the early 1900s, muncipalities experimented with
budgetary reform. Most of this occurred in New York City and
concerned functionalizing the City budget. The City found
however, that in their zeal to functionalize the budget, they
lost control over expenditures and thus, had to revert back
to an object class type budget with primary emphasis being on[7]
control and prevention of malfeasance.

The previous discussions are not meant to paint a
picture of complete complacence on the part of those involved
in the budgetary process. The Industrial Revolution had come
to America in the late 18th century and by the late 19th
century modern management practices, such as the scientific
management movement, were beginning to be seen in American

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business enterprises. Over time this industrial revolution also brought forth new social forces which made their impact on the American government by demanding more diverse and specialized governmental programs. The experimentation conducted by the state and local levels provided the laboratory for federal initiatives.[8] In the early 1900s these new forces reached a state which demanded attention and in 1912 President Taft appointed a Commission on Economy and Efficiency to examine the Federal government. This commission determined the current budgetary system needed to be revamped. In 1914 the estimates were presented in a format to show Congress what the new budget might look like. Congress resented the move and the Appropriations Committee of the House of Representatives failed to consider the report.[9] This episode where Congress discouraged budgetary innovation would occur again and again in later years and even continues today.

World War I and the resulting $25 billion deficit finally brought about the need for action and on June 10, 1921 President Harding signed into law the Budget and Accounting Act. This new Act required the President on an annual basis to prepare and submit to Congress a budget. This budget was to provide:

      1. a statement on the condition of the Treasury,

      2. revenues and expenditures of the previous

fiscal year,

    3. estimates for the current fiscal year,

    4. the President's program for the upcoming year,

and the establishment of the Bureau of the Budget. For the

first time since the founding of the Republic, budget

preparation and presentation rested in the hands of the

executive.[10]

    The budgets of the 1920's and 30's still reflected the

"line item mentality" even though the forces for budget

reform were beginning to heat up.   The Great Depression,

President Roosevelt's public works projects, and Keynesian

economic reforms combined to form a new economic rationale

which stated deficits were appropriate even in peacetime.

The actual expenditures for the federal government in 1939

and 1940 were both about $9 billion and the deficit in both

years was approximately $4 billion.[11]   These and later large

national budgets combined with large deficits provided the

emphasis in later years for performance budgeting.   The

premise was held that somehow the national government needed

to maintain control over the huge increases in revenues and

expenditures that had come into being in the recent past.[12]

    In 1940, V. O. Key wrote a searching article about the

state of the art of budgeting, "The Lack of a Budgetary

Theory."   This article summed up the central question of

budgeting, "On what basis shall it be decided to allocate X

dollars to activity A instead of activity B?" This article

helped shape the impetus of the late 1940's and 50's on
performance budgeting.[13]

Uncharacteristic of major wars, World War II, in and
of itself, failed to bring about any real impact on budget
reform. However, the war effort did cause theories and
certain applications to be developed which had an impact in
later years, especially on the planning, programming, and
budgeting system (PPBS) of the 1960's. The primary reason
for continued apathy toward budget reform was the fact
dollars were treated by the federal government as an
unconstrained resource for the duration of the war. Manpower
and materiel were the resources needing intensive managment.
More specifically:

1. After Pearl Harbor, The budget was a fairly
mechanical process of translating a fixed military size and
organizational structure into a dollar estimate.

2. The appropriation structure demanded by
Congress continued to reflect object classifications[14], thus
causing the budget process to focus on breaking down
functions into the object classes. These object class
budgets were then passed by the Congress in a perfunctory
manner. As no one was challenging their estimates, no one
really felt reform was needed.

3. Certain personalities of the time discouraged
innovation. General Somerville, Chief of the Army Service

Forces, asked his budget office to explore the idea of an
Army Service Force budget estimate which could be used for
both internal management, as well as, appropriation
purposes. His budget office was informed by the War
Department budget office that the House Appropriations
Committee would be hostile to the idea and it should thus be
dropped. [15]

Thus, the war with it's huge increase in spending failed to
provide any real catalyst for budget reform.

In the late 1940's the Commission on Organization of
the Executive Branch was established and chaired by former
President Hoover. The Commission soon became known thoughout
the federal government as the Hoover Commission. Probably no
other recommendation of this commission had more far-reaching
effect than the one concerning performance budgeting. [16] This
was the number one recomendation in the "Budgeting and
Accounting" subsection of the report. In addition, the
performance budgeting theme was found throughout the report
where recommendations were made for individual departments.
The Commission's report led the Congress to make performance
budgeting mandatory for the Department of Defense in 1949. [17]
Throughout the 1950's performance budgeting was the
touchstone for the budget reform movement.

In the late 1950's and early 60's, Aaron Wildavsky
took issue with V. O. Key's normative theory of budgeting and

with the budget reform movement. Wildavsky maintained that Key's theory of making the optimal allocation between activities A and B was impossible to fulfill. Wildavsky based his conclusion on the fact that the budget process was a political process and in order to change the budget process you would, in effect, have to change the political process --- something not likely to happen. This theory has had a substantial impact on the budget arena and continues to cause those in the reform movement to question their actions when achievements are less than expected.[18]

Along with Wildavsky's theory, the early 1960's saw the emergence and combination of several quantitative and analytical applications which would form the core of the planning, programming, and budgeting system (PPBS). Then Secretary of Defense McNamara, a former executive of Ford Motor Company, saw the possibilities for such a system in the large, bureaucratic, and in his opinion, archaic Department of Defense. Secretary McNamara felt PPBS would allow the department to get a firmer grasp on weapon acquisition as well as gain a better perspective on alternative strategies. The result of his efforts was that in the summer of 1965 President Johnson ordered all departments and most agencies of the U. S. Government to submit their upcoming plans according to PPBS.

PPBS brought nothing revolutionary into the budget arena, but rather, formalized and integrated several

procedures and applications which had been around for quite
some time. Some even argued that PPBS was nothing more than
common sense. Basically, PPBS sought:

    1. to define clearly the major objectives
(programs) an agency sought to pursue,

    2. to apply systematic analysis to alternative
ways in which these objectives were being – or might be –
sought, and

    3. to plan their spending in the short as well as
[19]
long term.

    PPBS taught the bureaucracies to think in terms of
programs rather than line items. This, in turn, tended to
eliminate two useless "budget art-forms" of the period known
as "absolutes." More specifically, these "absolutes" were

    1. what fixed amount of money to spend no matter
what the goals, and

    2. what fixed objectives to achieve no matter what
the cost.

In addition, PPBS caused the bureaucracies to be aware of the
objectives they sought. By applying systems and cost-benefit
analysis, the agencies were able to increase the
possibilities of making rational choices between alternative
[20]
means. Finally, if PPBS could not prevent the irrational
or politically expedient decision from being made, it could
at least raise the decision making to more responsible

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levels. It achieved this by focusing on key elements of the problem and by increasing the awareness of all concerned regarding the conditions and the possible consequences of their choices. In essence, PPBS made the cost of poor decision making more expensive; those with the most to lose would be afraid to allow subordinates to act and would make the irrational or politically expedient decisions themselves.

Although the totality of PPBS did not remain in the federal government, many of it's vestiges are still with us. In addition, PPBS is still used by the Department of Defense in formulating it's budgets. PPBS, by far, has had the most impact on the application of rationality to the budget process.

President Carter's election in 1976 brought into the federal government a new budget reform known as zero-based budgeting (ZBB). Like PPBS, ZBB was not a startling discovery but rather a new way of packaging a set of rational criteria for formulating a budget. It was developed in private industry and later implemented in the public sector by the State of Georgia under the admistration of then Governor Carter.

ZBB implies constructing a budget without any reference to the past, meaning the base is not considered. ZBB is grounded on a fundamental reappraisal of the organization, activity, or program purpose, methods and

resources. ZBB was discontinued in the federal government in 1981 as it was not felt to be appropriate for the federal process.

Budget reform continues today. The most notable reform being carried out today is the Department of Defense bi-ennial budget for fiscal years 1988 and 1989. This shift to a two year budget will permit:

1. greater stability in providing resources for defense efforts,

2. more effective ordering and production of military equipment, and

3. better program planning and execution.
Bi-ennial budgeting will also provide more stability at the operational level where installation and activity commanders and program managers turn budget decisions into action. It will allow more time to evaluate the results of current and prior year execution. In sum, a bi-ennial budget will free program managers to spend more time and effort ensuring that
21
funds are spent effectively and efficiently.

This short discussion on the evolution of the current budgetary process is not meant to be an exhaustive compilation of budgetary history but rather to give those concerned with budget reform some orientation on how the budget environment of today came about. The next two sections of this chapter will examine in detail the rational and traditional schools and what they propose in the way of

budgetary efficiency.

C.   Rational School.

As it's name implies, this school of thought attempts
to prescribe methods and models which allow logical thought
and well-reasoned deductions to be an integral part of the
budgetary process.   In most cases, rational methods and
models when applied to the budget process, integrate with
other planning and management systems in order to:

1. diagnose a specific need,

2. determine the most promising solution to that
need,

3. translate the solution into a specific program
by applying needed resources, and

4. prioritize the program in relation to other
programs if resources are constrained.

The budget process does not generate or create needs
but rather provides a way whereby those issues can be brought
to the attention of those who have a stake in the outcome.
In theory, the rational budget should be fully resourced
because it has presented an optimal solution to the needs of
the organization. The problem, of course, is that resources
are rarely unconstrained and programs must be prioritized
with some falling below the "cut line."   All of the
different models and methods of the rational school attempt,
in one form or another, to objectively quantify the utility

29

of different programs in order to ease the burden of choice.

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1. Performance and Program Budgeting.

Performance budgeting is the foundation of budget reform. All of the past and presumably the future reforms will incorporate the tenets of performance budgeting in one way or another.

For the reform community, performance budgeting promotes better management and enhanced efficiency. It accomplishes these goals by establishing management's right and responsibility to ascertain how much work is being accomplished, at what cost, and for what results - as measured against specified performance standards. These ideas came to the forefront in the Report of the Hoover

23

Commission in the late 1940's.

In essence, performance budgeting incorporates proposals of things to be done and their associated costs,

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not of things to be bought and their costs. Thus, the main theme of performance budgeting is centered on accomplishment of purpose rather than the classification of proposed expenditures. By purpose we mean a function, eg. city fire protection as c posed to a group of separately identified object classifications, such as, pay, travel, supplies,

25

etc. However, performance budgeting is more than just grouping object classes by functions. Performance budgeting also

a.   associates objectives with purposes for which
funds are being allocated,

           b.   examines   costs   of   programs   and   activities
established to meet those objectives, and

           c.   identifies   and   analyzes   quantitative   data
measuring work performed and accomplishments.
All   of   these   characteristics are   directed   toward   better
                              26
decision making.

       As with most any system, problems are associated with
performance budgeting.   The primary problem is delineating
functions, activities, or projects within an agency and
defining them by assigning applicable resources.   Although
this   appears   quite simple and straight forward,   some
functions   will   cross organization boundaries and   some
organizations will be involved in more than one function.
How   then   do   you   design your performance   budget: by
organization   (cost   center)   or   function?   Unless   an
organization has a sophisticated cost accounting and fund
control system, it may be forced to budget for functions,
activities, or projects which are not "clean breaks."   This
problem   of definition is difficult and very prevalent
throughout organizations which employ performance budgeting.
One approach to solving this problem is   to apply the
following criteria:

           a.   does the definition improve the review and
decision process, and

b.   does   the   definition   facilitate   effective
                    27
internal administration.

        Finally,   performance   budgeting   requires   the

identification of performance indicators. These performance

indicators usually take the form of unit of work costs.   Now

for some agencies, unit of work costs are hard, if not

impossible to identify.   For example,   the performance

indicator for a nation's Army may be developing new ways to

fight   rather   than   some   statistical   unit   of   work   cost.

Nonetheless, measuring output does have to be addressed in
                                          28
any performance budgeting application.

        This problem of work measurement and it's solution is

not just peculiar to governmental agencies.   A solution many

organizations have tried is to define the work measurement

criteria before they take on a new mission or activity.   For

example, Pillsbury developed a method for enhancing strategic

investment decision making.   Before any "strategic investing"

is conducted they perform a detailed analysis, which, in

addition   to   many   other   things,   develops   an   "absolute

yardstick" for measuring the success of the project.   This

"yardstick" allows them to know what success looks like when

they get there and how they are going to measure it.   The

crucial point here is the company requires all this to be

spelled   out BEFORE they commit the resources to   the
          29
project.

        Performance budgeting has many attributes which cause

the organization to focus it's attention on the issues at hand. It does not reduce conflict in an organization but rather exacerbates it by bringing programs to the forefront and causing policy decisions to be made. Performance budgeting is widely practiced today and is highly praised by many but it will not reduce governmental expenditures nor will it guarantee funds will be spent effectively or efficiently. Performance budgeting is only a tool and does not replace responsible administration.

2. Planning, Programming, and Budgeting System. (PPBS)

PPBS was a natural outgrowth of the performance and program budgets and their associated techniques. In a real sense PPBS was another evolutionary stage in budgetary development. PPBS is not a new system per se, but rather an amalgamation of analytical techniques - some of which have been around for quite some time and others which are new and in their embryonic stages.

PPBS can probably best be described as a methodology which attempts to bring order to chaos in large organizations. It's application to government was recognized and formally adopted by President Lyndon Johnson in 1965 as the federal government's budgeting system. President Johnson saw PPBS as the steering mechanism for his Great Society

Programs. He saw the success of PPBS in the DOD as evidence

of it's effectiveness and felt it could be applied to the
30
rest of the federal government. However, PPBS came to be

seen as nothing more than a series of burdensome routines and

criticism from various quarters began to mount. Except for

DOD, PPBS was abandoned by the federal government when the
31
Nixon Administration discontinued it's use in 1971. The

following paragraphs attempt to delve into the specifics a

bit more on PPBS and provide the reader with a greater

appreciation of it's reform value.

PPBS was introduced into the Department of Defense by

Secretary Robert McNamara in 1961. When McNamara arrived as

Secretary in 1961, he was not impressed with the way the

organization was then handling it's stewardship

responsibilities. Plans were being formulated without

considering costs, alternatives were not being considered,

and each of the four services was submitting separate budgets

delineating individual priorities. McNamara responded by

initiating an integrated DOD-wide, planning program budget

which allowed him to exercise control over the entire process

and make some budgetary choices of real consequence. This
32
effort became known as PPBS.

The real essence of PPBS is it's marriage between the

program planning and budget processes. Without this union,

planners can easily lose touch with reality by not

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considering the scarcity of resources and budgeteers can lose
sight of organizational objectives by failing to consider the
contents of plans and programs. PPBS is not a strictly
quantitative process for replacing human judgement but rather
a spirit of looking at things in an analytical manner for the
express purpose of making a better decision.[33]

PPBS is based on the introduction of three major
concepts into governemntal operations:

     a.   The development of an analytical capability to
examine, in depth, both agency objectives and various
programs to meet those objectives.

     b.   The formation of a five-year planning and
program process coupled with a sophisticated management
information system.

     c.   The creation of an improved budget mechanism
which can take broad program decisions, translate them into
more refined decisions in a budgetary context, and present
the results for Presidential and congressional action.

Perhaps more than any other, the analytical capability
introduced by PPBS became the conerstone for it's future
development and eventual demise. This analytical capability
was embodied in what came to be known as cost-utility
analysis or it's more common expression cost-benefit
analysis. Cost-utility analysis had several characteristics
which lent itself well to DOD's needs and integrated well
with the other aspects of PPBS. These characteristics are:

a.   The systematic examination and comparison of
alternative courses of action that might be taken to achieve
specified objectives for some future time period.   This
critical   examination   of alternatives   involves   two
considerations:

        (1) assessment of cost, and

        (2) the utility (benefit or gain) pertaining
to each alternative being examined.

        b.   The time context is the future and because of
the time horizon, the environment is uncertain.

        c.   The context in which analysis takes place is
usually very broad and complex, meaning there are no simple
solutions.

        d.   Although quantitative methods should be used if
applicable, the overall analysis should be supplemented with
qualitative studies as well.

        e.   The usual focus is on research and development
and/or investment-type decisions.

        f.   Timeliness is important as analysis after the
                            34
decision point is worthless.

     The purpose of cost-utility analysis is not to dictate
a decision.   Most long-range planning decision problems must
ultimately be resolved primarily on the basis of intuition
and judgement.   The main role of cost-utility analysis is to
sharpen this intuition and judgement - in practically no case

is it considered that cost-utility analysis will make the decision.[35]

The overiding value of cost-utility analysis to PPBS was in demonstrating the importance of making objective analyses of actions which were, in essence, political decisions. It tended to narrow the area in which political forces could operate.[36]

In summary, the main product of PPBS is designed to be a comprehensive multiyear program and financial plan for a governmental agency, which can be updated periodically and systematically. PPBS allows decision-makers to consider choices which would maximize the benefits for a given cost or conversely, minimize the cost for a stated benefit. Although it's pre-eminence has faded, PPBS is still found throughout the budgetary environment. In many cases it retains it's original structure but mostly you see it as a hybrid between PPBS and other budgetary methods.

3. Zero-Based Budgeting (ZBB).

The ZBB which came about in the mid 1970's was first designed by Peter Pyhrr in the late 1960's for Texas Instruments, Inc. His discription of the system appeared in a 1970 issue of the Harvard Business Review and subsequent to publication, Pyhrr was hired by then Governor Carter to design and and implement a ZBB system for the State of Georgia.

After his inauguration in 1977, President Carter

instituted ZBB as the standard budgeting system for the federal government. His campaign contentions were that he could reduce governmental expenditures by 10 to 15 percent due to more efficient and effective management brought about by ZBB.[37] In fact, expenditures rose every year of the Carter administration in both current and constant dollars.[38]

ZBB implies constructing a budget without any reference to previous budget cycles. This premise further implies the reappraisal of organizational purpose, methods, and resources every fiscal year. This concept was alien to the federal government whose budget was mainly an incremental affair up to that time. By incremental we mean, a "recurring base" is "rolled" forward each year and serious analysis is only conducted on the changes from the past budget document. These changes are usually labeled as "new starts" and specifically relate to new programs which are coming on-line in the new fiscal year.[39]

Some reflection will show that this "tweaking" on the margin has some serious consequences. The most severe of these consequences is that all the programs in the base are automatically considered more important than any of the new programs coming on-line. This means that any downward adjustments to the budget will be at the expense of the new programs as they are the only ones which have any visibility. Although other budget reforms spoke of analysis bringing

about rational choices, they always seemed to concentrate on the new programs. ZBB was the first reform to attack the budget as a whole and examine missions and functions across the entire spectrum of government.

The rational school of thought has impacted on the budget environment to a great degree since about the turn of the century. The school is idealistic in nature and seeks to do the "right" thing. It facilitates the decision-making process by bringing pertinent points to the forefront so decison-makers will be aware of the impact of their decisions. By facilitating decision-making it should not be inferred that the rational school decreases the level of conflict in the budgetary process; to the contrary it may increase conflict in the name of better decision-making. We will find in the next section, when we examine the traditional school, that conflict in the budgetary process is seen as harmful and any action which contributes to conflict should be avoided.

D.   Traditional School.

This school of thought takes a different view of the budget process than does the rational school. The rational school seeks to develop an ideal budget by applying criteria to what ought to be in the budget. This school, on the other hand, holds that the budget process is political in nature and the words "ideal," "ought" and "criteria" do not

have a place in the budget lexicon. This view was best expressed by Aaron Wildavsky, the acknowledged father of this school, in his article, "Political Implications of Budget Reform."

> "The budget is the life-blood of the government, the financial reflection of what the government does or intends to do. A theory which contains criteria for determining what ought to be in the budget is nothing less than a theory stating what the government ought to do."40

Here rests the premise of the school: Deciding what a government ought to do is a political process and if rational budget reform wants to declare what ought to be in the budget, then it is attacking the wrong object; it should be seeking to change the political process not the budget process. Reflection on the part of those of you deeply enmeshed in the budget process will reveal that this statement has application at many levels of the budget process and not just at the Congressional level.

The subcomponents of the traditional school are rather simple in comparison with those of the rational school. Unlike the rational school, the traditional school has not gone through a long evolutionary process. It came into being in the mid 1950's and early 1960's primarily as a result of observations and perceptions on how the governmental budgetary process operated. As such, the school and it's theory are discriptive in nature and concentrate on human relations and behavior more than anything else.

The primary aspect of the school describes how decision-makers make choices in the budgetary environment. All other aspects are, in one way or another, tied in with this premise. Wildavsky makes the point that the biggest problem with choices is making comparisons of different programs, which have differing values for different people. This means those operating in the budget environment do not have common denominators---they each see things in a different light. A crucial question then, becomes whose preferences prevail in disputes about which programs are to be carried on, especially in light of limited resources.[41]

In the political environment this is not really that hard to figure out, the most powerful Congressman will obviously have his preferences prevail over other less powerful Congressman. For instance, the decision to station the newly formed 10th Mountain Division at Fort Drum, NY as opposed to a more rational choice of perhaps Fort Benning, GA was probably a political decision. The decision might have been aimed at influencing a powerful Congressman or group of Congressmen about the need for an additional division as well as gaining additional funds for it's equipping and manning. The "litmus test" of most political decisions is to see whether a rational and prudent man would have made the decision. If not, it was probably political in nature.

Of course, not all budgetary decisions are this

sensational. Many are your "run of the mill" decisions. important to some, but certainly not like the Fort Drum issue. These "run of the mill" decisions are also very numerous, perhaps in the hundreds of thousands. Recognizing that many different value systems operate in this environment and the need to assimilate huge masses of data, decision-makers attempt to do whatever is necessary to limit the human activities necessary to make choices. Wildavsky labels these human activities as "calculations." The question then becomes, what do budget officials do to limit their calculations? Wildavsky outlines four ways:

1. Officials make rough guesses on issues and gain experience in the process over time. They make modifications to their decisions later if they can.

2. Officials simplify the process by checking items, issues, and programs they are familiar with to see if they appear correct. If they are, they assume the rest of the request is correct. Likewise, if they find problems in the programs familiar to them, they assume there are problems elsewhere in the request as well.

3. Officials may "satisfice" by not attempting to do their best, "just trying to get by," or attempting to avoid trouble with others at all costs.

4. Officials view budgeting as an incremental process. This means the largest determining factor of this year's budget is last year's budget. Another way to view

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this is most of the budget is a product of past decisions.

Thus, officials only concentrate on those incremental changes
43
from the previous year.

Just as the officials who will make eventual decisions
on which program gets what amount of money, lower echelon
officials attempt to do whatever they can to influence the
decision-maker to see things their way. These attempts are
generally called strategies.

Budget strategies are actions taken by agencies, which
are intended to maintain or increase the amount of money
available to either their organization or program. These
strategies are the links between budget officials and their
44
next higher level in the organization.

What form do some of these strategies take? One
primary strategy is for the budget official to become a good
"politician." Becoming a good "politician" involves at least
three actions. These are:

1. Cultivate an active clientele.

2. Develop confidence among other budget
officials.

3. Develop skill in following those other
45
strategies which exploit one's opportunities.

Another strategy is to practice the art of determining
"what will go?" To state this strategy a little differently,
determining what will go, often times drives the question,

"how much to ask for?" Determining "what will go?" involves

seeking signals from the environment. These signals may be

in the form of what do supporting interests think, what do

your own personnel think, and what happened last year. Of
46
course the list can go on and on.

It is apparent the traditional school deals in the

realm of here and now. It is not normative, other than

stating, if you wish to change the budget process you must

first change the political process. The school goes a long

way toward explaining how we get some of the decisions we do.

As mentioned before this school has application at all levels

of government. Personally, we may not like the behavior and

process this school describes but we ignore it to our peril.

E.   Analysis.

The question is then, which of these schools has the

most application for the United States Army? Before

answering the question, I will make a few observations.

First, the Army is already heavily into the rational

school of budgeting and saying the Army now needs a rational

approach to it's budgeting is rather underwhelming. Attempts

at putting rationality in Army budgeting are many - some of

them very recent. The most recent development is a new

resource management system known as the Output Oriented

Resource Management System (OORMS). As the name implies, it

attempts to capture a level of output associated with a given

input.   To do this, it had to first define missions
(programs) and then couple it with an output measure.

In   the beginning,   great hopes were attached   to   the
system   as   it was felt for the first time the Army would   be
able   to   firmly establish what it did for a given   level   of
input.   As time went on,   compromises were made in terms   of
mission   definition and how much support could be provided by
the   accounting   system.   The result is that we   now   have   a
system   which   does   not   do much more than   the   systems   we
already had.   This was a prime example of certain individuals
in the Army hierchy trying to implement a new system   without
considering   some of the precepts of the traditional   school.
Clearly any new proposal for Army budgeting will have to take
the   traditional school seriously and gain the support of all
echelons.

Second,   The   traditional   school   certainly   has
application   at the higher echelons of the Army.   By   higher
echelons   I   mean the MACOM headquarters and HQDA.   At   this
level   many   decisions   are   based   on   other   than   rational
criteria.   For example, one has to wonder how the decision to
build three new light divisions came about when it was not   a
product   of   the Concept Based Requirements System   (CBRS).[47]
As   the   decision   was made not to ask   for   an   increase   in
military   endstrength,   something had to be done to   resource
these divisions.   The result appears to be something known as
the   "Army   of Excellence" program which stripped out   combat

support and combat service support manpower and redesignated these manpower spaces as combat arms. These manpower spaces were replaced in some cases with civilians, in other cases the missions were moved to the guard and reserve, and in still other cases they were simply lost as it was felt units had become more efficient due to technological change. All of this now costs more than before and serious questions are being asked as to whether the "tail" is adequate to support the "tooth." It will be interesting to see what happens when budget cuts have to be made. Most probably the civilian workforce will suck up most of the "salami-slice" cuts and installations will be left with no one to perform the mission.

The objective here is not to denigrate the individuals who made the decision to field the new light divisions, but to stress the point the decision was probably made without all the relevant information being present. In addition, not enough "what if?" questions were asked. This example clearly illustrates one of the more unfortunate side affects of the traditional school--decisions being made by "the few" without input on the consequences known by "the many."

Finally, it appears to me that within the Army, the rational school and the traditional school are actually two ends of the same spectrum. As you go higher in the Army structure the more evidence you see of the traditional school

at work. Conversely, the lower you go in the Army structure, the more you see the rational school at work.

In conclusion, I must state I am not a champion of the traditional school as it advocates doing nothing or "tilt at windmills" in the form of changing the political process. I believe the results of the traditional school are in many cases suboptimal decisions which have no place in the world of good management. They cause lower echelon commanders endless problems as they have to find ways to "fix" the consequences of the politically inspired decision.

At the same time, strict adherence to the normative precepts of the rational school will guarantee defeat as it fails to adequately consider human nature. One has to realize that political decisions will occur and in some instances are necessary to keep the Army on an even keel.

What I do believe, is decision-makers must be informed. They must be aware of the effects of their decisions. What they choose to do after that is based on their experiences and good judgement. Further, I believe that higher echelons of the Army are incapable of generating meaningful analysis except at the most summarized levels. It is the responsibility of the lower echelon commander to define his missions in terms of resources as precisely as possible. This will allow him to present meaningful analysis to higher echelon commanders when resource decisions are about to be made which will impact on his mission

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accomplishment.

Discipline in the system will only come from the grass roots level of the Army. When lower echelon commanders present meaningful, hardcore analysis to higher echelon decision-makers they force those decision-makers to acknowledge the consequences of their actions. Conversely, if the lower echelon commander cannot define his missions in terms of resources and is thus, not capable of informing his commander of the consequences of resource decisions, then he is doomed to "fixing" those same consequences.

The following chapters of this thesis prescribe a way for the commander to define his missions, which will allow good analysis to take place. This method will also help the commander set mission priorities for resources which will be necessary in the upcoming resource constrained envirionment.

CHAPTER 2

ENDNOTES

1
Aaron Wildavsky, The Politics of the Budget
Process (1974): 10.

2
Introduction, Governmental Budgeting: Theory, Process,
Politics (1978): 2.

3
Lewis H. Kimmel, Federal Policy and Fiscal Policy 1789-1958
(1959): 6-37.

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Kimmel, Federal Budget: 38-39.

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Allen Schick, "The Road to PPB: The Stages of Budget
Reform," Governmental Budgeting: Theory, Process, Politics
(1978): 52.

8
Introduction, Governmental Budgeting: 2.

9
Kimmel, Federal Budget: 4.

10
Kimmel, Federal Budget: 5.

11
Kimmel, Federal Budget: 175-228.

12
Kimmel, Federal Budget: 313.

13
Introduction, Governmental Budgeting: 3.

14
Object Classifications summarize budget estimates or
expenditures by type, such as, civilian pay, travel, medical
expenses, etc. The other major way to summarize estimates and/or
expenditures is by function, such as, training, strategic
deployment, etc. Sophisticated budgeting systems classify
estimates and expenditures horizontally by function and
vertically by object class.

15
John D. Millett, The Army Service Forces (1954): 383.

16
Performance Budgeting is discussed in greater detail later

in this chapter.

[17]

   Mosher, _Program Budgeting_: 79-80.

[18]

   Aaron Wildavsky, "Political Implications of Budget
Reform," _Governmental Budgeting: Theory, Process, Politics_
(1978):   39-47.
[19]

   Virginia Held, "PPBS Comes to Washington," _Planning,
Programming, Budgeting - A Systems Approach to Management_ (1968):
11-12.
[20]

   Held, "PPBS," _Systems Approach to Management_: 16-17.
[21]

   U. S. Department of Defense, _Report of the Secretary of
Defense, Caspar W. Weinberger, to the Congress on the FY 1988/FY
1989 Budget and FY 1988 - 1992 Defense Programs_ (1987):   86.
[22]

   In performance budgeting programs are generally linked to
the various higher levels of an organization and serve as labels
that encompass and structure the subordinate performance units.
These units - the central element of performance budgeting are
geared to an organization's operational levels, and information
about them is concrete and meaningful to managers at all levels.
Program budgeting, on the other hand, may or may not incorporate
performance   measurement,   yet   it   may   still   be   useful   for
delineating broad functional catagories of expenditure for review
at higher levels.   Overall,   performance budgeting,   tends to be
retrospective   -   focusing   on   previous   performance   and   work
accomplishment   -   while   program budgeting tends   to   be   forward
looking involving policy planning and forecasts.   The Army tends
to be program budgeting oriented,   although performance budgeting
can be found at many levels.

[23]

   Introduction, _Governmental Budgeting_: 79.
[24]

   Mosher, _Program Budgeting_: 238.
[25]

   Mosher, _Program Budgeting_: 90.
[26]

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[27]

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[28]

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    Introduction, Governmental Budgeting: 120-122.
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    Allen Schick, "A Death in the Bureaucracy: The Demise of
Federal PPB," Governmental Budgeting: Theory, Process, Politics
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    Bertram M. Gross, "The New Systems Budgeting,"
Governmental Budgeting: Theory, Process, Politics (1978): 145.
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Programming, Budgeting: 167.
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    Murray L. Weidenbaum, "Program Budgeting - Applying
Economic Analysis to Governmental Expenditure Decisions,"
Planning, Programming, Budgeting - A Systems Approach to
Management (1968): 167.
37

    Introduction, Governmental Budgeting: 219-220.
38

    Statistical Abstract: 308.
39

    Graeme M. Taylor, "Introduction to Zero-Based Budgeting,"
Governmental Budgeting: Theory, Process, Politics (1978): 271.
40

    Wildavsky, "Political Implications," Governmental
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41

    Wildavsky, Budget Process: 10.
42

    This explains why getting a program included in the "base"
is so important. Once a program is included in the base it is
not reviewed again and funding is assured.
43

    Wildavsky, Budget Process: 10-16.
44

    Wildavsky, Budget Process: 63.
45

    Wildavsky, Budget Process: 64-65.
46

    Wildavsky, "Political Implications," Governmental
Budgeting: 43.
47

    A concept is a general idea that describes the performance
of one or more combat, combat support, or combat service support

functions. The Concept Based Requirements System (CBRS) is a
formal process designed to introduce the proper order of
decisions into how the Army will fight on future battlefields.
The CBRS is based upon four pillars: Army missions, historical
perspectives, threat analysis, and technological forecasts.

CHAPTER 3

THE MODEL

A.   Introduction

In Chapter 2, The Review of the Literature, the
traditional and rational schools of budgeting were examined
in detail.   The chapter pointed out the traditional school
(because of it's political nature) tended to produce
suboptimal decisions, which in most cases,   resulted in
short-term solutions to long-term problems. Admittedly, at
times,   political   realities will necessitate political
decisions   at the upper echelons of the Army hierchy.
However, in order to insure we achieve long-term goals and
objectives, we must attempt to make as many rational resource
management decisions as possible.

In many cases the traditional school holds sway at the
upper echelons of the Army because high-level decision-makers
are making low-level resource decisions (micro-management).
This means the in-depth analyses required to support those
decisions are not available.   Without this necessary
information   rational   decisions   cannot   be   reached.

Consequently, the decision-maker has no option but to make a "gut" choice.

In many instances Army leaders relish making intuitive resource decisions. Usually this mentality is a result of misdirected ideas on leadership and the associated disdain for anything which smacks of "McNamaraism." The Comptroller, being a technician of sorts, is labeled a "beancounter" and becomes a moving target for more "progressive, enlightened, and intuitive practitioners of leadership" on the commander's staff.

My experience indicates the Army, along with other federal agencies, places a low level of emphasis on the financial function. Somehow the idea of financial and fiduciary responsibility is not viewed as terribly important. Indeed, for many it is seen as getting in the way of mission accomplishment. A common phrase often heard is "if only the 'beancounters' would get out of the way," something or other could get done. With this type of mentality in vogue, some of the recent horror stories in the press concerning procurement and other SNAFUs don't seem so far-fetched.

Regardless of the situation facing the "beancounter," every resource manager should insure that decision-makers at his level have the information necessary to make intelligent resource management decisions. Similarly, every decision-maker should insure the resource management decisions he is making are appropriate for his level. In this way the

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necessary information at the proper level of detail will be available to support rational decisions.

This chapter will develop a model which will summarize needed information at the installation level so the commander is capable of making intelligent resource management decisions.[1] His decisions, based on hard analysis, will then prompt the MACOM to be more rational in their decision-making, especially as it relates to that particular installation. The MACOM can then confront HQDA with program and budget cuts based on a rational and prioritized basis. This should lead to HQDA assuming responsibility for making their own rational and programmatic decrements as opposed to across-the- board cuts with no associated workload reduction. If HQDA refuses to discipline itself, then the MACOM's rational procedures should at least force HQDA to accept the MACOM commanders' resource decisions.

B. The Current System

Before getting into the particulars of the model we need to examine the current systems and how they will support the model. The bedrock of the Army resource management system is the Army Management Structure (AMS). Basically, the AMS is the chart of accounts for the Army accounting system. It tracks both dollars and manpower. It accounts for current obligations and expenditures, as well as, giving structure to the programming function.

The accounts are functional in nature, meaning they attempt to inform the user what the resource being considered was, is, or will be used for. The accounts themselves are usually six digit codes which are formulated to describe the function concerned. For example, the account 814731 refers to general skills training, an account found at many TRADOC schools. The first digit refers to the major program. In this case it's program 8, referring to the training, medical, and other general personnel activities subaccount of the Army Operations and Maintenance Appropriation. The next digit, 1, refers to training, thus when you see the first two digits of the account you are able to determine the account refers to the training mission of the Army. The following digits further refine the mission or function. All AMS accounts can be looked up in a dictionary (AR 37-100-XX). These accounts are usually called codes and when combined with AMS, the familiar acronym, AMSCO, is formed.

The Output Oriented Resource Management System (OORMS) is the fund management system tied in with the AMS. OORMS employs management decision packages (MDEP) as a handy way to package resources attached with a particular mission. The MDEP includes prior, current, budget and program year data. OORMS is the first system to tie in the different year data. A resource manager can now examine a mission's resourcing across an eight year spectrum. Decisions made today, which

affect future years, can be entered into the system giving the resource manager an up to date picture of mission resourcing. OORMS is supported by the AMS and the Army Standard Financial System (STANFINS). The AMS provides the account structure and STANFINS is the actual accounting system.

C. Faults with the Current System.

The primary fault with the current system is that data is too summarized to be of much value to resource managers at the lower levels of the Army. The AMSCO level of detail may be fine if you are HQDA and need to view the big resource picture. AMSCO level of detail is not adequate at either the MACOM or installation level where program and budget decisions tend to be more mission specific.

When OORMS was introduced with the MDEP, it appeared the resource management systems would finally become more mission specific at all levels in the command structure. The extensive use of personal computers and off-the-shelf software allowed OORMS to "roll-up" subordinate level detail. meaning the lower level commander would gain valuable managerial information while the higher echelons would be able to examine information at a more summarized level.

As the development of OORMS progressed the concept of the MDEP changed to accomodate the Army accounting system. It was felt the MDEP needed to capture information

discretely, meaning no information could be "factored" in order to create managerially significant MDEPs. In addition, no attempt was made to add new AMSCOs, which were more functionally aligned with present missions, in order to support more managerially useful MDEPs.[2] The result was the MDEP tracked a few and in some cases one AMSCO. This did nothing to help the installation.

Keeping the resources summarized at such a high level also prevents the system from distributing decrements (increases) in an effective and efficient manner. Consider, for a moment, how you distribute a cut from the MACOM when the majority of funding at six different installations is made up of ten MDEPs? Is it possible to determine the effect of cutting $700,000 from the Fort Bliss General Skills Training MDEP when this one MDEP accounts for $10 million in Fort Bliss funding. Such large amalgamations tend to cause one to ask, "so what?"

If on the other hand, the MACOM asked Fort Bliss the effect of a $100,000 decrement and Fort Bliss responded in an honest, supportable fashion by saying it would have to shut down training on the Patriot Conduct of Fire Trainer, things might be different. The MACOM may still go ahead and pass on the decrement but it would be aware of the consequences at Fort Bliss.

In the final analysis, OORMS has failed to provide any assistance to the lower level commander in helping him to

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better define his missions or more effectively communicate his needs up the chain of command. Something is still needed to articulate the commander's concerns, as well as, help him deal with the sure to come program and budget decrements.

The model described in this chapter is meant to supplement the other systems already in place. No modifications to existing systems are needed and off-the-shelf software (dBase III) is the heart of the model. In addition, the PCs already in place to support OORMS are perfectly capable of running this proposed system.

D. What is needed?

What attributes must a model have to help the commander to better manage his resources? In this regard, I believe the following attributes must be present.

1. The model should use off-the-shelf software as the data base manager. There is no need to do any type of development work as the model's needs can be met by any of the most recently released data base packages. Dbase III seems the most logical choice as most installations now have the package and the associated hardware to run it.

2. The model should not require any modifications to existing systems. Too many modifications have already been made to the Army accounting systems and anything needing to be entered into the model can be found in existing reports. Manual entry of data into the model should not be

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too much of a workload. In addition, no changes to any of the systems means no long, drawn-out approval process. The model can be developed at either the installation or MACOM level without a lot of "red-tape."

3. The model should allow for defining missions and functions at a level of detail which will assist managerial decision-making. In deciding the level of detail, the resource manager should look at the type of decisions to be made. These decisions include whether to cancel, continue, or maintain at a lower level of effort, missions and functions. Missions then, should be defined at a level which makes the previously mentioned decisions possible. The driving force behind implementing the model must be what it can do for management. In no way should the model ever be used for reporting or accountability purposes.

4. The model must assist the commander in prioritizing his installation's missions and functions. It is not enough to just define missions in terms of resources---the missions must be prioritized in order to be of any benefit for the commander or other resource manager. Once missions are prioritized, the commander can accomodate decrements in an optimal fashion. The hard work was in determining the priority of one mission relative to another, not in deciding what cannot be done.

5. The model must track past resource decisions.

By tracking and displaying past resourcing decisions, the resource manager gains continuity and consistency in his decision-making. For example, if a particular mission or function was decremented in each of the past two fiscal years, this fact may have some bearing on the decision to decrement it again this fiscal year. Likewise, if a mission had received increases in each of the past three fiscal years, this may impact on whether to grant another increase this fiscal year. However, if no procedure is present to track past decisions, each year's resourcing decisions are made in a vacuum.

6. The model should concentrate on the budget function. This statement is not meant to be an absolute but the resource manager should realize the commander's primary need in years to come will be in managing dollars. Requirements and authorizations for manpower may well be present but the question will be whether the dollars and workyears are available to support authorizations. Thus, the model's main contribution should be in assisting the commander manage dollars and workyears. In addition, we often design systems to accomodate everyone's needs and this often results in a system which satisfies no one's needs very well. The model's contribution should be specific and as powerful as the software and workload constraints will allow.

7. The model should be simple and flexible. The model should pose no great programming problems to anyone

familiar with dBase III. Because of this, the model's
program should pose no great "mystery" to anyone involved
with it and resolving program "bugs" should not be a problem.
Changes and local installation needs should be easily
accomodated. If one installation does a particular good job
in programming the model, it can easily be exported to other
installations which might not have the expertise available.
If a modification appears especially useful, it can be shared
with other installations by one of the many bulletin boards
now available, such as, COAHOST.

E. Defining the Mission

The key component of the model is how the missions and
functions of the installation are defined. As mentioned in
the previous section, missions and functions should be
defined at a level where they will facilitate managerial
decision-making. This means missions and functions will need
to be defined in sufficient detail for management to evaluate
the mission or function, and rank it against other missions
or functions competing for the same limited resources. This
definition then becomes known as a decision package.[3]

The key determinant in this process is whether the
decision package is defined by actual mission/function or by
organization. For example, at Fort Bliss you may choose to
define the responsibility the installation has toward the
Patriot weapon system as a decision package called Patriot

Systems. This decision package may cross several AMSCOs and organizations and may include combat development functions as well as training functions and may even include some procurement. When decrements need to be made, the Patriot mission can be looked at as an integrated whole and decisions can be made accordingly.

On the other hand, you may choose to arrange an installation's missions and functions by defining the lowest level organizations on the post as decision packages. These subelements of the large installation organizations are analagous with what the business community refer to as cost centers. These cost centers may conduct a variety of missions and functions but for the most part they will tend to be specialized. For example, all the subelements of the installation Directorate of Combat Developments will probably be oriented on combat development work. The problem with defining by cost center is you tend to lose the ability to integrate those missions and functions which cross organizational boundaries. In using the Patriot example again, defining cost centers would mean you have no overall umbrella for Patriot because the Patriot mission is divided up in bits and pieces all over the installation. If the command decided to decrement Patriot, you could not view the mission as a whole and your decrements may be suboptimal under these conditions. In addition, decrements would be

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organizational as opposed to mission specific. For example, nothing much is communicated if the Requirements Branch of the Combat Developments Department is cut.

Dbase III can merge decision packages from different organizations for similar missions or functions. However, the reverse will not help our integration efforts, that is, we gain nothing by merging diverse missions or functions by organization. [4]

Clearly, the installation or MACOM will gain more by performing the difficult analysis to define decision packages by mission or function. Factoring and estimating are certainly acceptable in those circumstances where tracing the resouces by discrete AMSCO is not possible. Balancing to some accounting figure is not a prerequisite for the model as long as the model totals are not too far out of line with the MACOM budget manpower guidance (BMG).

F. The Model

An example of what the data base record would look like for a decision package is found at Figure 3-1. All necessary information to conduct detailed analysis and support rational resource management decisions is present. My intent in this section is to go through the model represented by Figure 3-1 and highlight the areas you will need to understand in order to see how the model will facilitate decision-making.

```
**************************************************************
*              *EXAMPLE OF MODEL'S DBASE RECORD*            *
**************************************************************


MISSION TITLE:  _____
MISSION STATEMENT:  _____
_____
_____
ORGANIZATION:  _____  DATE MISSION ASSIGNED: __/__/__

MISSION CODE:  _____
ORGANIZATION CODE:  _____
MISSION PRIORITY:  _____
LAST AUDIT:  _____
**************************************************************
RESOURCE LEVELS    FY85    FY86    FY87    FY88    FY89  FY90
**************************************************************
DOLLAR GUIDANCE    $$$$    $$$$    $$$$    $$$$    $$$$  $$$$

    814731          $$$     $$$     $$$     $$$     $$$   $$$
    ------          $$$     $$$     $$$     $$$     $$$   $$$
    ------          $$$     $$$     $$$     $$$     $$$   $$$
    814772          $$$     $$$     $$$     $$$     $$$   $$$

  ADJUSTMENTS    $$$     $$$     $$$     $$$     $$$    $$$

    REPROGRAMMING:
      MACOM DIR     $$$     $$$     $$$     $$$
      INSTALLATION  $$$     $$$     $$$     $$$
    AUDIT ADJUST    $$$     $$$     $$$     $$$     $$$   $$$
    MACOM DECRE     $$$     $$$     $$$     $$$     $$$   $$$
    MACOM INCRE     $$$     $$$     $$$     $$$     $$$   $$$

  FINAL POSITION  $$$$    $$$$    $$$$    $$$$    $$$$   $$$$

  BASOPS APPLIED  $$$     $$$     $$$     $$$     $$$    $$$
**************************************************************
WORKYEAR GUIDANCE  XXX     XXX     XXX     XXX     XXX   XXX

    814731          XX      XX      XX      XX      XX    XX
    ------          XX      XX      XX      XX      XX    XX
    ------          XX      XX      XX      XX      XX    XX
    814772          XX      XX      XX      XX      XX    XX

  ADJUSTMENTS    XX      XX      XX      XX      XX     XX

  FINAL POSITION   XX      XX      XX      XX      XX    XX
**************************************************************
PERFORMANCE FACTOR ZZZ     ZZZ     ZZZ     ZZZ     ZZZ   ZZZ
**************************************************************
```

FIGURE 3-1

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Before getting into particulars I need to point out the model only defines mission funding as decision packages. By this I mean, base operations (BASOPS) funding is not subject to definition or decision packaging. I do this for several reasons.

1. The installation exists in order to perform specified missions. For example, one of the reasons Fort Leavenworth exists, is to support the Command and General Staff College. The BASOPS funding can then be viewed as overhead and the installation's missions ought to be subject to the accountant's allocation of the overhead on a fair and equitable basis. By allocating BASOPS in an overhead fashion, the resource manager would be getting a better picture of what it costs to perform a certain mission at a specific installation. This type of information may lead the MACOM to be able to better determine where to assign a mission in order to get the most efficiency, ie., the "most bang for the buck."

2. Dbase III allows for the allocation of overhead in a very easy fashion once the allocation formula has been established. You can see in the model where the BASOPS applied amount figures into the decision package. It is also easy to see that once a mission or function is decremented on the mission side, it should also be decremented on the BASOPS side as well. For the MACOM the BASOPS decrement would appear as a withdrawal from the installation .R account. For

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the installation the BASOPS decrement would be withdrawn from whatever program director has the BASOPS funding and placed in the commander's "flex" account for eventual reprogramming. A more complete discussion on the BASOPS allocation problem can be found in Appendix 1 to this thesis.

    3. By eliminating the BASOPS funding from the decision package requirement, the ranking committee does not have the added responsibility to rank BASOPS missions and functions in addition to those on the mission side of the house.[5]

The model can be manipulated when the operator specifies a particular key field. The model incorporates four key fields (keys) and, in using the dBase language, these keys are said to be indexed. As we discuss the keys in more detail, I believe you will begin to see how they operate and give power to the model.

The first key is the mission code and is labeled A in Figure 3-1. All mission codes should be assigned by the installation DRM. The DRM insures the coding of all missions is done so that the dBase program can compile like missions and functions which cross organizational boundaries. The lowest echelon organizations are responsible for defining the decision package itself. The DRM just incorporates the code.

The mission code is constructed in such a way as to allow missions to be summarized at higher levels. Summarized

missions may or may not track the organizational chain. Presented below are two illustrative examples.

EXAMPLE A: A mission code of 1A371C is assigned to the Operations Research Instruction mission of the Command and General Staff College at Fort Leavenworth, KS. If the dBase III program was instructed to sort (or index) on just the first three characters of the code, 1A3, all the missions of the Department of Sustainment and Resourcing Operations would be summarized. If, on the other hand, the dBase III program was instructed to sort on just the first two characters of the code, then all the missions of the Command and General Staff College would be summarized. Finally, if only the first character is specified, dBase III will summarize all the missions at Fort Leavenworth, KS.

EXAMPLE B: A mission code of 9B856D is assigned to the Patriot Conduct of Fire Trainer at the Air Defense Artillery School at Fort Bliss, TX. If the dBase III program was instructed to sort on the first three characters, 9B8, all the Patriot training related missions of the Training Department of the ADA School would be summarized. If the dBase III program was instructed to sort on the first two characters of the code, then all Patriot related missions and functions found in the ADA school would be summarized. This would probably include all training, combat development, and doctrine development activity associated with Patriot. If instructed to sort on the first character only, then dBase

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III would summarize all missions and functions associated with Patriot found at Fort Bliss, TX.

A couple of points need to be made concerning these two examples. First, if all missions in an organization are peculiar to that organization, then as the mission summary takes place, it will equal the organization summary. In other words, the total resources of all the missions in organization X equal the total resources of all the suborganizations of organization X.

Second, if an installation defines the decision packages by mission or function rather than by cost center, the above condition will rarely hold. Most "big-money" missions will cross organization lines. Because of this, the model incorporates a second key code known as the organization code. This code is labeled B on Figure 3-1. Thus, each decision package (record in the data base) has a particular organization key code, which allows summary of an organization's resources irrespective of whether particular missions cross organizational lines or not. Dbase III's summary capability in regard to the organization code is similar in manner to the mission code.

The organization key code also facilitates managerial fund control. Fund control in this instance refers to controlling the budgets of subordinate organizations. The commander may decide to restrict the budget submissions of

subordinant organizations in order to focus attention on the real issues facing the command. In this regard the DRM at the installation level would issue guidance to the program directors and enter this guidance into the data base. Once the organization's submission is made, the organization decision packages would be summed in order to see if they compare favorably with the guidance. The organization key code in the data base makes this possible.

The third key is the mission priority code (lebeled C) which is the mission or function priority established by the ranking committee. The ranking process and how this code is used will be discussed in more detail in Chapter 4. The main purpose of the mission priority key is to rank-order the missions and functions of the installation. Dbase III does this by sorting the rankings in numerical sequence.

The last key code (labeled D) is the date of the last audit performed on the mission or function. When sorted by date, the resource manager can tell which missions and functions are due their periodic review.

The model incorporates other aspects which allow it to achieve managerial objectives. Resource levels are split out by dollars and manpower. Manpower resources are in terms of workyears, civilian pay target, or whatever manpower budget control is in vogue at the time. Dollar and manpower levels are broken out by AMSCO over three prior years, the current year, budget year(s), and as many program years as deemed

needed.

In this part of the model "worksheet," all adjustments across all years are cataloged for future reference. By just calling the record (decision package) up on the screen the resource manager can take a look at the past decisions which have already impacted on this mission or function. The resource manager can also conduct "what-if" drills by seeing what impact a proposed action may have on future years, etc. This ability to tie-in past resource decisions with those of the present is perhaps the model's most powerful capability. To my knowledge, this "audit trail" is something no other current resource management system contains.

The adjustments are broken down into MACOM directed reprogramming, installation reprogramming, audit adjustments, MACOM decrements, and MACOM increments. This breakdown sheds more light on why an adjustment was made. Knowing why program resource levels are the way they are insures consistent program director behavior over the life of the program. An example may better illustrate the point I am trying to make here.

Consider the situation where the MACOM has called up the installation and is questioning the need to continue funding a program or MDEP which has suffered decrements over the past few years. The clear indication is the MACOM

believes the installation has in effect "looted" the program in order to put sky-blue carpet with in-laid crossed rifles in the commander's office. A quick look at the screen may indicate the program suffered from MACOM directed dollar and workyear reprogramming in prior year 3 along with an installation spread of a MACOM dollar decrement in prior year 2, etc. This kind of analysis should cause the MACOM analyst to "call back later."

The performance factor can be used for those missions which have a definable output which can be quantified. This allows the resource manager to see if the program is achieving it's goals and objectives. If the resources supplied continue to grow and the output remains the same or fails to grow proportionate with the resources applied, then the effectiveness of the program needs to be examined. Most program managers will not want to quantify workload or insist their workload cannot be measured. This attitude must be resisted. The most effective defense (or offense for that matter) in the resource management business is to have a quantifiable output associated with resources expended.

G. Implementation.

I believe at this point it is important to look at what will be required initially to get the system up and running. Many of these requirements have been addressed previously but are reemphasized here to show their proper

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sequence. This section refers to those mechanical and procedural tasks rather than the needed "frame of mind." The needed "frame of mind" will be the subject of Chapter 5.

First, organizations will have to determine the missions they now perform without regard for resources. This will require the activity to go back to their original charter and review the reason for their establishment. From this charter, the activity should then start delineating seperate and distinct missions they are responsible for performing. Other correspondence over the years should show where other missions, functions, and responsibilities were added. Reviewing the MACOM BMG from past years should also be a good source for determining those recurring missions assigned to the activity.

The installation DRM would be well advised to put out some well defined instructions on how this task should be accomplished. Important at this juncture is what organization level will be tasked to define missions. This decision will then drive what organization levels will participate in the prioritization process. Also important is the support the DRM believes will be necessary to help his staff determine those missions common to more than one organization. These missions will then be similarly coded.

Second, resources by AMSCO in terms of dollars and manpower must be applied to each mission determined in step one above. This, of course, is the hard part, but it only

needs to be done one time, if the system is properly maintained thereafter. For proper fund control (balance to BMG), the controlling AMSCO will need to be "crosswalked" to all the missions it supports and an appropriate dictionary will need to be established. Dbase III can be used to build the dictionary and this task should be performed by the DRM.

Third, the DRM must code all missions in a way which allows missions crossing organizational boundaries to be merged. As this requires a horizontal perspective, the DRM appears to be the only organization capable of performing this task. Similarly, the DRM should establish codes for the different organizations which will ultimately participate in the prioritization process. These two tasks establish the two most important key fields of the database.

Fourth, the installation must insure procedures are in place to insure any new missions assigned by the MACOM are subjected to the above process. Only by doing this will the database remain current and capable of supporting the commander in his resource management responsibilities. The next section in this chapter will build on the tasks presented here and show how the actual process works.

H. The System in Operation.

In this section the operation of the system will be explained. The interrelationship of the different parts and how the system contributes to better resource management will

then be discussed. This explanation will be done in a step-by-step process. The total system is graphically portrayed in Figure 3-2.

1. The mission database is established. This step entails the actual loading of the missions into the database structure. Most of this manual effort will be one-time. Additional input will have to be made when the installation commander or MACOM directs a new mission. Recurring, one-time, and unfinanced missions will need to be loaded.

a. Missions directed to be performed by the MACOM with a source of recurring funds are loaded first. This constitutes the "core" funding of the installation. Initially, these missions were determined and resources applied (zero-basing) in the steps outlined in the previous section. Subsequent recurring missions assigned by the MACOM will be input in a like manner.

b. One-time missions are loaded next. These are missions assigned by the MACOM in which resources have been provided but not on a recurring basis. These missions are temporary in nature and care must be exercised to insure they are purged when the mission is completed and the funding stream dries up.

c. Unfinanced missions are loaded last. These are missions which the MACOM or commander has directed to be accomplished but, for which, no resources have been

```
*********************     ***********
*       MACOM       *     *COMMANDER*
*      DIRECTED     *     *DIRECTED *
*      MISSIONS     *     *MISSIONS *
*********************     ***********
```

```
                         *********************
  MISSIONS               *  R  *  O  *  U  *
 IDENTIFIED              *  E  *  N  *  F  *
 BY ZERO-                *  C  *  E  *  R  *
  BASING                 *  U  *  !  *     *
                         *  R  *  T  *     *     BASOPS APPLIED
                         *  R  *  I  *     *
                         *  i  *  M  *     *     Total BASOPS
                         *  N  *  E  *     *     less Fixed Costs
                         *  G  *     *     *     Variable BASOPS
                         *********************   to be Applied.
   BMG
 CONTROL                 *********************
                         * MISSION DATABASE *
 5 YEAR                  *********************
 PERIODIC
  AUDIT
                         *********************     ****************
                         * MISSIONS PRIORI- *◄─── *   MISSIONS    *
                         *  TIZED BY PRAC   *     * 1. ---------- *
                         *********************     * 2. ---------- *
                                                   ****************

                         *********************
                         *COMMANDER APPROVED*
                         * PRIORITY LISTING *
                         *********************

  NEW BMG
  CONTROLS
  APPLIED                *********************
                         *PRAC DELIBERATIONS*
                         *********************

                         *********************
                         *DECREMENTS APPLIED*
                         *  ACCORDING TO    *
                         * PRIORITIZED LIST *
                         *********************

                         *********************
                         *COMMANDER APPROVED*
                         *  MISSION LIST    *
                         *********************
```
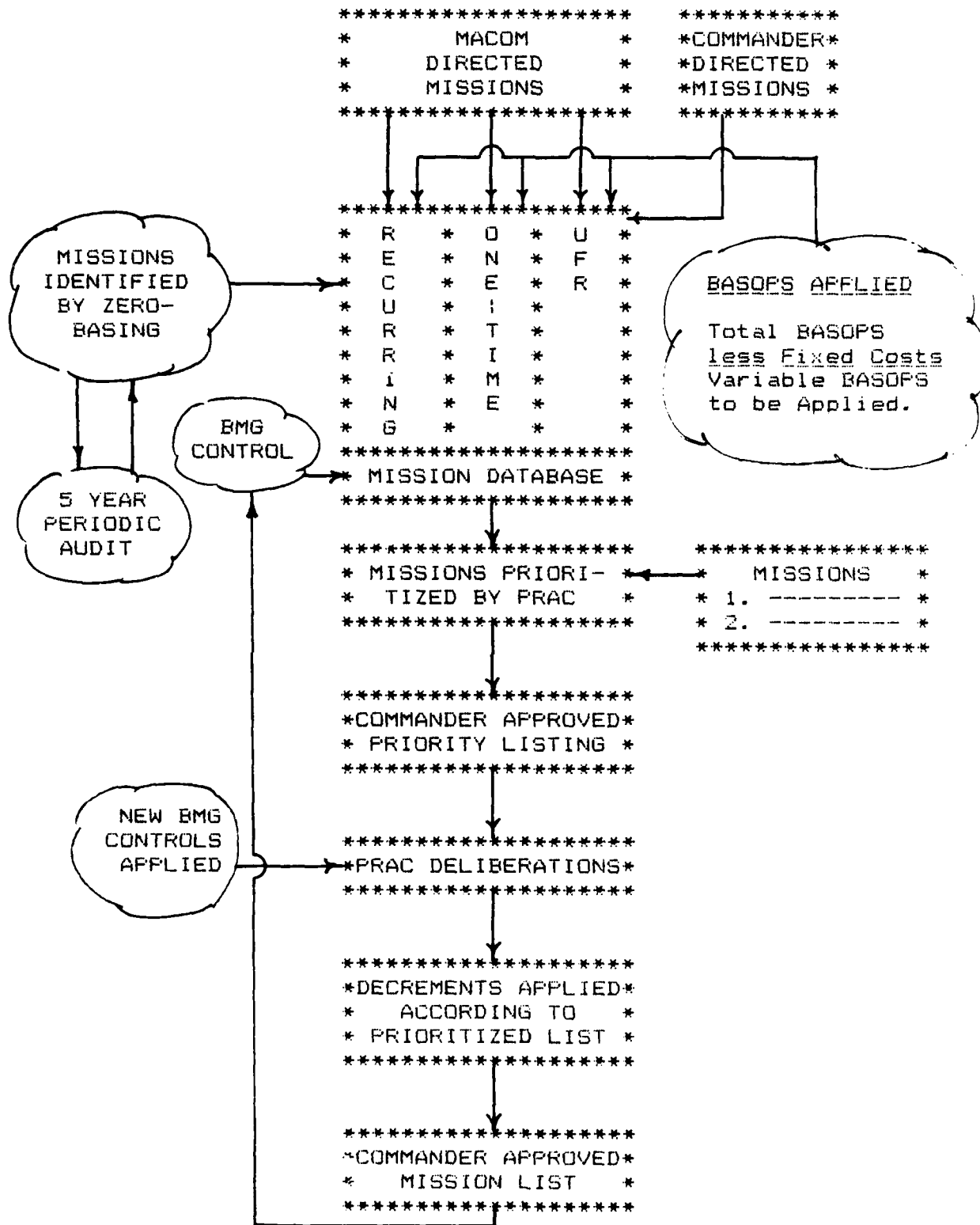
FIGURE 3-2

provided. Although the worksheet may show resources applied
to the mission, the mission code will indicate that the
mission has not been resourced from the MACOM and funding is
currently coming "out of hide." It is important to note
"unfinanced missions" are not the same as "unfinanced
requirements." An unfinanced (unresourced for some)
requirement can only be an unfinanced mission if it is
currently being performed "out of hide." Nothing goes into
the database which does not have resources applied against
it.

2. After the database has been loaded, the mission
resources are tallied and compared with the BMG control
figure contained in the MACOM guidance. Comparison should
probably be made at the AMSCO level of detail. This step is
repeated at every BMG milestone to insure the database is in
balance prior to the process going any further. "In balance"
can be interpreted to mean "reasonably close." The DRM should
establish what he considers "reasonably close" so the staff
knows what level of tolerance will be accepted. A +/- 0.1
percent tolerance at a $100 million installation seems to me
to be "reasonable close." If the "crosswalk" between AMSCOs
and missions, which was recorded in the dictionary, was done
correctly, error resolution should be fairly easy.

3. After the database has been loaded and balanced
to the BMG, the database is instructed to produce a mission
listing by organization. At this point the missions become

decision packages and the lowest echelon organizations work
according to the method presented in Chapter 4 to prioritize
the decision packages. For those large, resource intensive
missions, dummy decision packages may be set up to allow
"levels of effort" to be considered in the prioritization
process. For example, a 95 percent level of effort for the
CAS[3] mission at Fort Leavenworth, could be set up as a dummy
decision package in order to prioritize the 100 percent level
of effort lower in the overall prioritization.

4. The prioritized decision packages are then
briefed to the commander who makes any changes he deems
necessary. Once the commander concurs in the effort, the
priorities are entered into the database and the priority
field is indexed.

5. Once new BMG controls are received from the
MACOM, a FRAC is convened and the BMG bottom-line is compared
with that of the database. If decrements need to be made
they are made in accordance with the priority established in
steps 3 and 4 above. The FRAC may entertain any last minute
changes in in the overall priority or other issues.

6. After the new BMG controls are applied, the
final package is sent to the commander for final approval.
Once this approval is obtained the new figures are entered
into the database along with any reprogramming actions and/or
other resource adjustments. The database is again tallied to

insure it balances with the BMG and the stage is set for the rest of the fiscal year.

7. Adjustments are made to the database throughout the rest of the year as needed. Simple procedures can be developed where lower echlon resource management offices submit diskettes to the DRM for periodic update of the master database. In all these transactions care is used to insure the audit trail is maintained.

I. Conclusion.

This section has descibed the proposed model in sufficient detail to allow a person or group familiar with the particulars of dBase III to convert the concept to a program. Obviously, the model can be modified to meet most any desires on the part of local resource managers. The key aspect of the model is that it allows the resource manager to evaluate and prioritize a mission relative to others with as many pertinent facts available as possible. Hopefully the model will provide the necessary support for more rational decision-making. Chapter 4 will examine the prioritization process and how the model facilitates that process.

CHAPTER 3

ENDNOTES

1

The paper from here out is directed mainly at the
installation, however, most of the model's capabilities are also
available at the MACOM.

2

This type of problem is most commonly found in TDA
organizations, such as, TRADOC. For example, a managerially
useful MDEP for TRADOC would be Officer Training. This is a
mission with a measurable output which TRADOC would like to
associate with a level of resource input. However, no discreet
AMSCO exists to fund officer training. Funding for the officer
training mission is included in the AMSCO for General Skills
Training which also includes NCO training and AIT. Models can be
developed to factor the officer training portion out of the
General Skills Training account. Not allowing MDEPs to be
designed in this manner limits the usefulness of OORMS at any
level lower than HQDA.

3

Peter A. Pyhrr, Zero-Based Budgeting (1973): 6.

4

Later in this chapter another key field will be introduced
which will allow an intermediate level organization to sum
mission resources.

5

BASOPS priorities will still have to be determined. The
point here is they should not be determined in conjunction with
mission priorities.

CHAPTER 4

USING THE MODEL

I. Introduction.

Chapter 3 described a model which displayed pertinent
information about a particular mission in a readable format.
This information was arrayed in such a way as to satisfy the
manager's need for resource information and facilitate his
decision-making.

In this regard, the most important resource decision
an Army manager will be required to make is the priority of
one mission relative to another.   This type of decision-
making will always be required in a resource constrained
environment.   The real utility of the model described in
Chapter 3 depends on the extent it provides the information a
manager finds necessary to prioritize missions.

The purpose of this chapter is to propose a method
whereby the model's decision packages can be prioritized.
The method shown is not the only one which can be used but it
does seem to address the problem of priortizing large numbers
of decision packages relative to one other.

Prioritizing large numbers of decision packages requires a certain mind-set on the part of management. First, management must concentrate on the review of lower priority or discretionary missions around which the funding level will most likely be determined. Second, management must limit the number of consolidation levels to which missions must be merged. Translating these two principles into a workable process is the subject of the remainder of this chapter.[1]

II. How to Deal with Volume.

The primary problem in any large prioritization process is coming to grips with the large number of decision packages. Management cannot focus detailed attention on each and every decision package and try to compare it with every other decision package. The number of mental calculations required is humanly impossible. Fortunately, a process does exist whereby the prioritization task can be split among the organizational levels at the installation. The end result of this process is that upper level management only focuses on those decision packages which are at risk of not being funded. This means the number of mental calculations required of upper level management can be kept at an acceptable level.

The following sequential steps set forth the procedures for prioritizing installation missions while

simultaneously keeping upper level management's attention focused on those missions at risk.

1. The DRM, in consonance with the commander's desires, establishes and distributes funding guidance for each major activity on the installation. The term "major activity" refers to those organizations led by a program director. Program directors are usually full colonels.

2. The program directors then establish funding guidance for all sub-activity levels within their purview which have budgeting responsibilities.

3. Cutlines are then determined for each consolidation level of the installation organization.[2] These cutlines can be a percentage of the funding guidance or an absolute dollar amount. The cutline, in effect, differentiates those missions which are "protected" from those "at risk." Where these cutlines are drawn will have a significant impact on the number of decision packages which the upper level management will have to review. Because of this fact, where the cutlines are drawn should be decided by the PRAC.

4. All missions at the lowest echelon of the installation organization will be prioritized, displayed, and fowarded to the next level for review. This level of the installation organization has no cutline.

5. The next level will consolidate all the missions of their subordinate organizations. Once these

missions have been tallied in terms of dollar cost, the established cutline is drawn. This level of the organization will then perform a cursory review of the decision packages above the cutline but will only prioritize those missions which fall below the cutline. The purpose of the higher organization reviewing the decision packages above the cutline is to satisfy itself that it agrees with the lower organizations' ranking criteria.

6. Similarly, this consolidated mission list will be forwarded to the next consolidation level. In this case, missions above the cutline will be displayed and missions below the cutline will be ranked. This new consolidation level will again tally all subordinate organization missions in terms of dollar cost and draw a new cutline. This new cutline will be higher, meaning the number of missions at risk will remain relatively constant. For example, the cutline at the lower echelon may have been 70 percent, meaning that level of the organization needed to prioritize the missions at risk in the upper 30 percent of their ranking. The next higher level then consolidates all lower level organizations and draws a new cutline at 80 percent. The higher level organization then, only needs to prioritize the top 20 percent of missions at risk. This process of consolidation continues until the highest level of the organization is reached.

7. Because the number of missions to be ranked increases as the number of consolidations takes place, the cutline must be incrementally increased at each consolidation level. This process keeps the number of missions to prioritize manageable. This procedure is graphically illustrated in Figures 4-1 and 4-2.

III. Who Prioritizes?

Under this type system, the primary question in most minds will be "who does the prioritizing?" This is a touchy issue and should be handled carefully as the "prioritizer" will be the person or persons who will probably decide the fate of a mission at risk. The question of "who?" further breaks down to the issue of an individual or a committee.

There are no hard and fast rules to follow in resolving this issue. While an individual can certainly do things faster and more decisively, he loses perspective when an issue falls outside his narrow area of expertise. Similarly, a committee brings a great deal of expertise to bear on the issues but gaining agreement among the committee members can be a time-consuming and, in some cases, frustrating experience.

Generally, an individual would be more appropriate for the initial prioritization at the lowest echelons in the organization. Here the missions will tend to be narrowly focused and pertain to one general area. At this point time

RANKING THE MISSIONS

Lowest Level with Budget Function

> All Missions Ranked Together

Lower Consolidation Level

> CRITICAL REVIEW
>
> List and Display missions ranked above 60% cutline. | Review and rank together all missions below 60% cutline.

Upper Consolidation Level

> CRITICAL REVIEW
>
> List and display missions ranked above 70% cutline. | Review and rank together all missions below 70% cutline.

Final Consolidation Level

> CRITICAL REVIEW
>
> List and display missions ranked above 80% cutline. | Review and rank together all missions below 80% cutline.

FIGURE 4-1

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THE RANKING PROCESS

ACTIVITY A	
MISSIONS	A1
	A2
———————————————	A3
	A4
	A5

ACTIVITY B	
MISSIONS	B1
———————————————	B2
	B3
	B4

ACTIVITY C	
MISSIONS	C1
	C2
———————————————	C3
	C4
	C5
	C6
	C7

CONSOLIDATED RANKING

MISSIONS	A1
	A2
———————————————	A3
MISSIONS	B1
———————————————	B2
MISSIONS	C1
	C2
———————————————	C3
MISSIONS	C4
	C5
———————————————	A4
	B3
	A5
	B4
	C6
	C7

60% cutoff
reviewed

Missions below
60% cutline
ranked in order
of precedence.

---60%

70%

Missions ranked
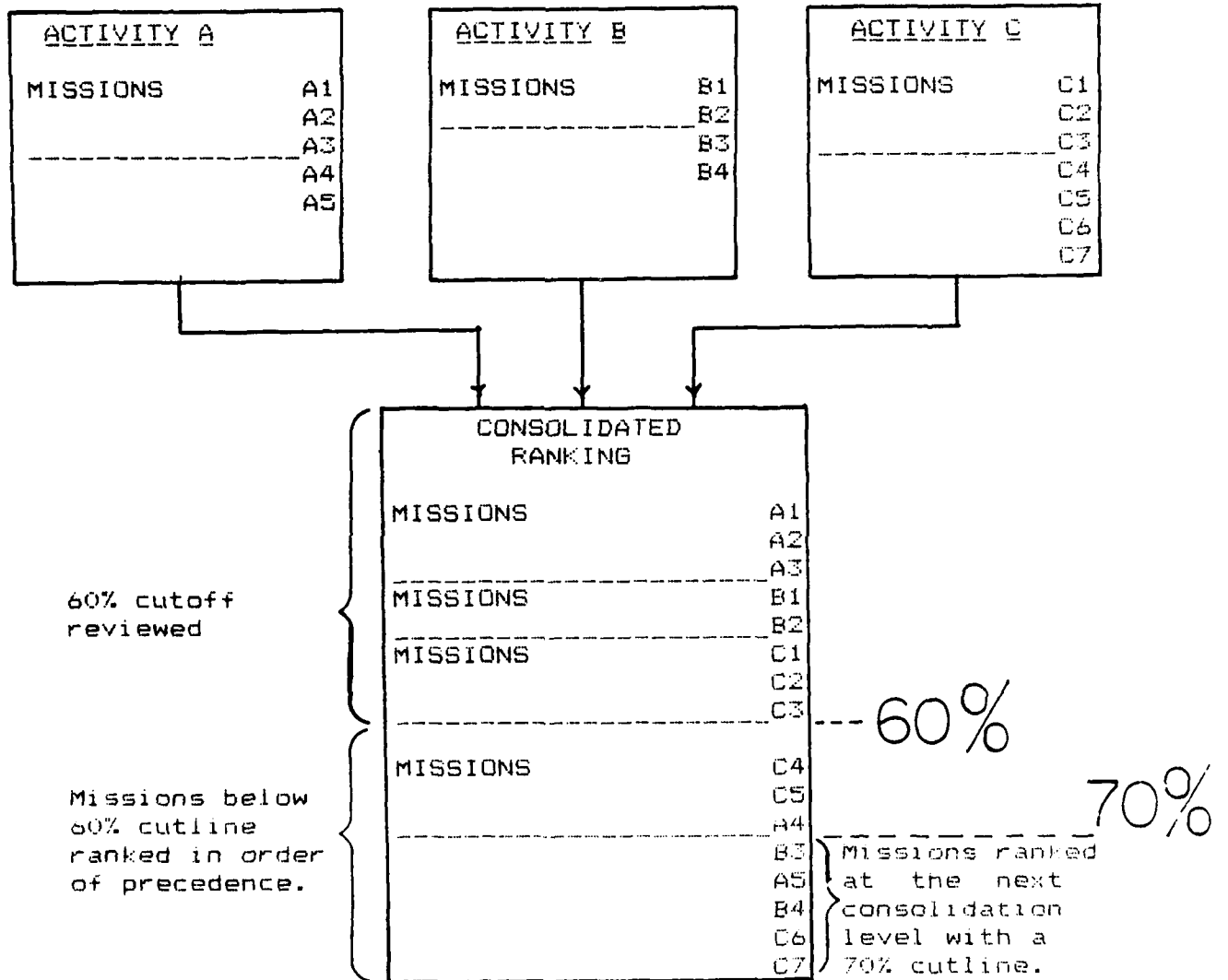at the next
consolidation
level with a
70% cutline.

FIGURE 4-2

considerations and decisiveness probably outweigh the need for the marginal addition of expertise a committee could add to the process.

However, as one climbs up the consolidation levels, the missions tend to get more dissimilar and the expertise of the individual is not sufficient to intelligently prioritize the missions at risk. At these levels, the committee seems to be the best approach. The broad base of experience is of greater marginal utility than the agility and decisiveness of the individual.

At the highest consolidation level, the PRAC seems the most appropriate forum for addressing the final prioritization. At this level the most senior leaders of the installation come together to map out the overall resource strategy of the command. They bring together a broad base of experience and expertise as well as some knowledge of the Army resource management system. The senior leaders at this level tend to know the commander's intent and are not as parochial in their decisions. The result is a prioritization of missions the commander can live with.

IV. Mechanics of the Process.

Up to this point we have described the process and the end result but have no idea how to actually go about prioritizing one mission relative to another. This may not be a real problem with an individual charged with

prioritizing a few lower echelon missions, but the problem becomes acute with committees charged with ranking hundreds of missions. Although we may come up with a few individual schemes, when the number of missions exceeds fifty or so, things become too complicated and a voting system needs to be set up. In this regard, three alternatives may be considered.

1. Each committee member gets one vote on some sort of fixed scale with the average or total points used to determine the ranking. For example, a vote of 6 may mean the mission should be funded, whereas, a vote of 3 may mean the mission has some good points and will be funded first if more funds become available. This procedure may cause some missions to have the same number of total points but this will not be a problem except for those missions clustered around the cutline. These missions can then be scrutinized in more detail.

2. Each member votes on several criteria, which are given equal or weighted values. The total number of points is then used to determine the ranking. The criteria to be considered could be such things as:

a. This mission integrates with the overall school mission.

b. This mission supports commanders intent.

c. This mission does not generate excessive outyear requirements.

Again, this method may cause some missions to have the same

number of total points but this will not be a problem except for those missions clustered around the cutline. This clustering will not be as much of a problem as in alternative 1 as the total number of points will be higher.

3. A combination of alternatives 1 and 2 could be formulated , with alternative 1 used for preliminary ranking and alternative 2 used for the detailed ranking for those missions clustered around the cutline.

The actual committee procedures to be used in this process would be fairly straight forward. The committee would only consider those missions which are at risk. The committee would have a secretary who would be responsible for administrative needs, tabulating votes, and producing the actual prioritized listings. The biggest administrative decision the committe would have to make is how to have the missions presented for their consideration.
Some options in this regard might be:

1. Individual paper copies of the decision package.

2. Use an opaque or overhead projector to display the decision package.

3. Have mission points of contact provide short oral presentations.

4. Any combination of the above.

After all votes have been tabulated and the decision

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packages rank ordered, the final mission prioritization is given to the committee for final review. After the committee completes it's review, the listing is forwarded to the commander for his approval. Once the commander's approval has been obtained, the prioritization is put "put on the shelf" until the final MACOM guidance is provided. At this time the listing is "taken off the shelf" and the final cutline drawn. Those missions falling below this line are those which are not performed in the upcoming fiscal year.

V. Senior-Level Leadership Action.

When the commander receives the prioritized mission listing from the PRAC, he must satisfy himself the missions displayed above the cutline are of greater importance than those below the cutline. This action on his part establishes his faith in the PRAC's procedures. If final MACOM guidance is in hand and the commander decides to make adjustments in the priority of missions, he must realize it is now a zero-sum game.

Finally, the commander must insist these priorities be kept throughout the year. By doing this, the commander provides a great deal of certainty in the resource management arena. In addition, if further decrements or increases are made by the MACOM, the installation has a priority "road map" to follow. Following the prioritized mission listing means all the "pain, heartache, and headbashing," goes on one time

during the initial ranking process. Having a prioritized mission listing will not make taking a MACOM decrement later in the fiscal year any less painful, but it will mean the installation staff will not have to go through a "convulsion" trying to "defend" their missions against another cut.

This chapter along with Chapter 3 have layed out a process which will allow rational and intelligent decisions to be made concerning resource management. However, this effort will mean nothing if the leaders in the organization fail to embrace the concept and march to it's drumbeat. The final chapter of this thesis looks at what will be required of the leaders to implement this system.

CHAPTER 4

ENDNOTES

1

Pyhrr, _Zero-Based Budgeting_: 82.

2

A consolidation level is an intermediate level in the
organizational chain of command that will have several
suborganizations reporting to it.

3

Pyhrr, _Zero-Based Budgeting_: 88.

CHAPTER 5

IMPLEMENTATION

I. Introduction

       As with any system, the most difficult part of the

program is implementation.   The old saying, "the first 95

percent is the easy part, the other 5 percent is what gives

you ulcers," is especially applicable to computer based

systems.   This chapter will attempt to outline a few of the

managerial and "frame of mind" prerequsites which must be met

in order for the system to be accepted and useful.   If senior

level leadership cannot or will not meet these prerequisites,

then   the system should not be implemented.   Partial

implementation will only cause additional workload for all

concerned with no apparent benefit.

II. The "Right Frame of Mind."

       Below are listed some of the more pertinent questions

and issues the senior level leadership must examine before

implementing   this system.   They primarily involve the

leadership   as opposed to managerial abilities of   the

commander.   Many of the issues here will require the

commander to take a stand and demand consistent behavior of himself and his staff. Other issues will require him to have faith in the abilities of his staff and subordinate leaders.

These issues and questions are not meant to be a checklist but rather a way for the commander and leadership to perceive the environment they are buying into. I believe if the commander and his senior leaders buy into this program the benefits will be well worth the "risks." For perhaps the first time in Army history we will begin to get a handle on this thing we call resource management because we will truly know what we are doing!

Issues and questions for the Leadership.

1. Can the mission definition developed by the subordinate organizations be believed, ie. does the amount of resources described closely correlate with the amount of resources expected to be consumed. The implication here is rather clear, some organizations may try to disguise funding for "pet rocks" by including the "pet rock" funding with that of a major mission they know will not be questioned or ranked as discretionary by the higher organization.

Developing safeguards for insuring "disguised" missions are not funded will be tough and probably not even feasible. The commander will just have to tell lower level organizations that he expects them to document what they do and do only what they get resourced for. The value of the

periodic audit is that on a routine basis, the individual decision package will be thoroughly scrubbed. A lower level organization may think twice about "disguising" funding if it realizes the mission is subject to audit.

2. Commanders will have to become familiar with what their programs consist of. I'm not talking about the nuts and bolts but the commander must be aware of what will occur if a reduced level of funding is forthcoming and what the priorities of his installation are. He must be involved in the process to some extent.

3. Higher level commanders must be able to hear and accept the word, "no." The "can do" attitude of some in higher level leadership will be the single greatest impediment to the implementation of this system. The greatest criticism of this project, so far, is the higher level commander will not accept the fact that some of his missions cannot be accomplished at his level of expectancy. The feeling of the lower echelon is that the higher commander expects whatever he says to be done and that resources are a secondary factor that the lower level commander will just have to find. This fosters an arrangement where all missions are attempted at a lower level of effort and none are accomplished very well. It also fosters the lower commander second guessing the higher commander and shifting resources from missions the higher level commander directed a few months ago but may have "forgotten" in the interim.

If the higher headquarters expects honesty, they must listen to what the lower echelons have to say and either accept mission cancellation or agree to a lower level of effort. The commander certainly has the right to change priorities but he must accept the fact that at some point the game becomes zero-sum.

The lower level command also has some responsibility in this area. The lower level command must seriously prioritize their missions at risk. Submitting a prioritized listing of missions at risk with the closure of the service school at the head of the list invites a refusal by the higher commander. Submitting a listing of all missions to include those not at risk, should go a long way toward preventing this type of abuse by the lower level commands. If the lower level command decides to do something stupid, the higher commander can just examine the remainder of the list and choose a mission(s) that is more to his liking for elimination. Lower echelons must do everything possible to engender the trust and confidence of their higher headquarters.

4. Linkages between different program catagories for the same mission must be observed. For example, if program 8 funds are scarce but program 2 funds are relatively plentiful, the higher level command cannot expect the mission to be accomplished at the same level of effort just because

the level of P2 is adequate. Similarly, the higher level command cannot expect to remedy the problem by applying more P2 funds. Lower level commanders can help the situation by applying P2 funds to those P8 requirements, which due to the "haziness" of the missions, could possibly be funded by either P8 or P2 but this effort is certain to be limited. If missions are decremented in one program but not the other, the higher level organization must accept one of two possibilities:

   a.   The lower level organization will continue to perform the mission as best it can. Excess funds, due to the imbalance caused by the decrement, will be reprogrammed to satisfy local requirements.

   b.   The higher command will withdraw a proportionate amount of funding from each program and apply the excess program funds to other requirements across the command.

   5.   BMG numbers produced by the MACOM and control levels provided by the installation DRM must be believable and based on the best information available at the time. It organizations throughout the command are going to do a serious job of prioritizing and allocating resources they must have information that is reasonably accurate and close to the final outcome.

   6.   For TRADOC the mission listing and the prioritized listing of discretionary missions with the cutline drawn

should be part of the installation contract. This would also facilitate the signing of the contract early in the fiscal year. As a matter of fact, the contract could be signed before the beginning of the fiscal year if the ranking of discretionary missions had been agreed upon by the installation and TRADOC commander as the only remaining variable in where to draw the cutline. This would be accomplished when the appropiations act or continuing resolution authority (CRA) was eventually passed. Action on discretionary missions would await the passage of either act so that the installation would not find itself in the middle of executing a mission which eventually found itself below the cutline.

III. Conclusion.

Over the past several years the U. S. Defense community has enjoyed one of the largest peacetime buildups in history. For the most part this buildup occurred because of a perceived weakness of U. S. military forces vis-a-vis the Soviet Union's. The expected ratification of the Intermediate Nuclear Forces (INF) Treaty with the Soviet Union portends better relations with our most dangerous adversary. This Treaty along with other actual and perceived improvements in the international environment appears to have taken the American focus away from Defense issues. These indications clearly point to the United States

taking a more ambivalent view of defense needs. In this environment the United States' primary concern will shift to deficit reduction and improving the economy. As you can well imagine, this change in the national attitude will have a serious impact on the U. S. Army. In sum, the days of "easy money" are over.

The coming budget cuts are sure to cause major problems for the U. S. Army. Many of the Army reorganizations and equipment buys made during the 1980's were not made with resource constraints in mind and thus contain significant outyear requirements. Unless we are very smart in the way we perform our resource management chores, we may do irrevocable harm to the Army's ability to fight the next war. We must be prudent and above all be rational.

The first two chapters of this thesis layed out the way budgeting and, resource managment in general, is viewed by those involved in the process. The traditional school holds that budget decisions are made intuitively and conform to the dictates of the situation. Intuitive decisions are often made when needed information is not available or the ability to process information is not present. Conversely, the rational school holds that decisions must be based on fact and the decision-maker should insure he has needed information. Both of these schools can be seen in operation at different levels of the Army. In general, it appears the

traditional school holds sway at the Department of the Army level and the decisions made at the lower echelons appear to be more rational.

We cannot ignore the political realities which must be faced at the Department of Army and to some extent the MACOM level but we must insure any decision affecting resources at least has the information available which will allow a rational decision to be made.

The model presented in Chapter 3 is a way for the lower echelons of the Army to define their missions so intelligent resourcing decisions can be made. The model capitalizes on the current accounting structure and covers some the important "gaps" in the present resource management system. Chapter 4 proposed a way whereby the commander can prioritize the large number of missions performed by his installation. Being able to define individual missions and prioritize them in a rational and logical manner is the basis for prudent and effective Army resource management.

If the "grassroots" of the Army can define and prioritize individual missions, within the broad framework of the AMS and MDEP, it will be the first step in assisting the MACOM and HQDA make rational and intelligent resource decisions. In a decrement oriented environment, the decision-maker must be aware of and accountable for the consequences of his decision. Decision-makers in the upper echelons of the Army will only be aware of these consequences

if the "grassroots" tell them. Current systems will not give them the level of resolution needed in a decrement oriented environment. If the model presented in this thesis can accomplish this task, it will go along way toward insuring the Army preserves the great strides made in force improvement and modernization during the 1980's.

APPENDIX 1

BASE OPERATIONS (BASOPS) ALLOCATION

BASOPS is that portion of an installation's funds
which are used to support the operation of the physical
plant. In a commercial enterprise these costs would be
allocated as overhead to the operating divisions to insure
all costs were reflected in the product pricing decision.
Currently, the Army does not allocate BASOPS as overhead to
any of the missions now performed at the installation level.

This position is grounded on the premise that BASOPS
cannot be allocated to missions as no way exists to
distinguish between the fixed and variable portions of BASOPS
funding. In a commercial enterprise this would not pose much
of a problem as all overhead costs are allocated. However,
in the Army's case, the fixed portion of BASOPS relates to
those funds which would have to be provided regardless of
whether or not missions were performed. These funds would be
used to maintain the installation's physical plant. Because
of the political realities in dealing with base closures,
most resource managers believe this fixed portion of BASOPS
cannot be properly allocated to installation missions as the
funds would have to be spent anyway. In a real sense this

fixed portion of BASOPS is "sunk" in the near to intermediate term. On the other hand, the variable portion of BASOPS should vary depending on the missions assigned to the installation. This variable portion of BASOPS equates to those <u>additional</u> installation support needs generated by increased activity.

Clearly, if a way could be developed to seperate the fixed from the variable in BASOPS funding, the variable portion could be applied to a mission in order to determine a more true cost. Combining the variable portion of BASOPS funding with mission funding would be very beneficial for several reasons.

1. HQDA and the MACOM's would be forced to acknowledge that BASOPS funding is related to mission funding and both must be considered together.

2. An installation which received a new mission from the MACOM, would also know how much to expect in additional BASOPS funding.

3. Likewise, an installation which has a mission terminated will know how much to expect in BASOPS funding withdrawals.

4. The MACOM could better determine where to assign a new mission. Other things being equal, the MACOM would assign the mission to the installation which would generate the least total cost (mission + BASOPS).

Clearly, being able to distinguish the fixed and variable portions of BASOPS would be beneficial to the Army. The proposal presented in this Annex is only one of many. It's methodology is very simple but the underlying relationships are found to be statistically sound.

Over the past years an installation's BASOPS funding has been built through constant negotiation with the MACOM. This negotiation usually occurs through the Command Operating Budget and the installation's accompanying list of unfinanced requirements. At the MACOM level these negotiations go on with many other installations and a "market" appears to develop in which a relatively efficient (not necessarily effective) method is developed in a "give and take" atmosphere to distribute resources. In this "market" environment, all elements of information concerning the peculiarities of installations, the major personalities involved, the current political environment, etc., are assimilated into the BASOPS distribution decision.

If one accepts the above theory and further holds that an installation exists in order to support present and future missions, then a hypothesis can be proposed in which the past relationship between missions and BASOPS funding can be used to assist in future decisions. The actual mechanics behind the hypothesis is to conduct a regression analysis of an installation's total funding over the past several years. On the x-axis is the installation's mission funding and on the

y-axis is plotted the installation's BASOPS funding. Each data point is a particular fiscal year. This setup necessarily implies the installation's BASOPS funding is dependent on the installation's mission funding. The y-intercept is then defined as the BASOPS cost if mission funding is zero, ie., the fixed portion of an installation's BASOPS funding. The slope of the regression line then becomes the relationship between mission funding and variable BASOPS funding.

Figures A-1 and A-2 display this type of an analysis for Fort Leavenworth, KS. Notice that the dollar figures in Figure A-2 have been made constant in 1988 dollars by use of the implicit GNP price deflator. This is done so the affects of inflation are removed and only the real change in funding levels is displayed. The regression reveals the following information.

1. The fixed BASOPS cost (y-intercept) at Fort Leavenworth is approximately $27.7 million. For all intents and purposes, this funding is "sunk" and should not be considered further in the analysis.

2. The slope of the regression line is 0.26. This means that for every $1.00 in mission funding there is $0.26 in associated variable BASOPS funding.

3. The coefficient of determination (r-squared) in this regression is 0.87 meaning the variation in mission

BASOPS FUNDING VS. MISSION FUNDING
FORT LEAVENWORTH, KS

BASOPS FUNDING (y-axis)

MISSION FUNDING (x-axis)
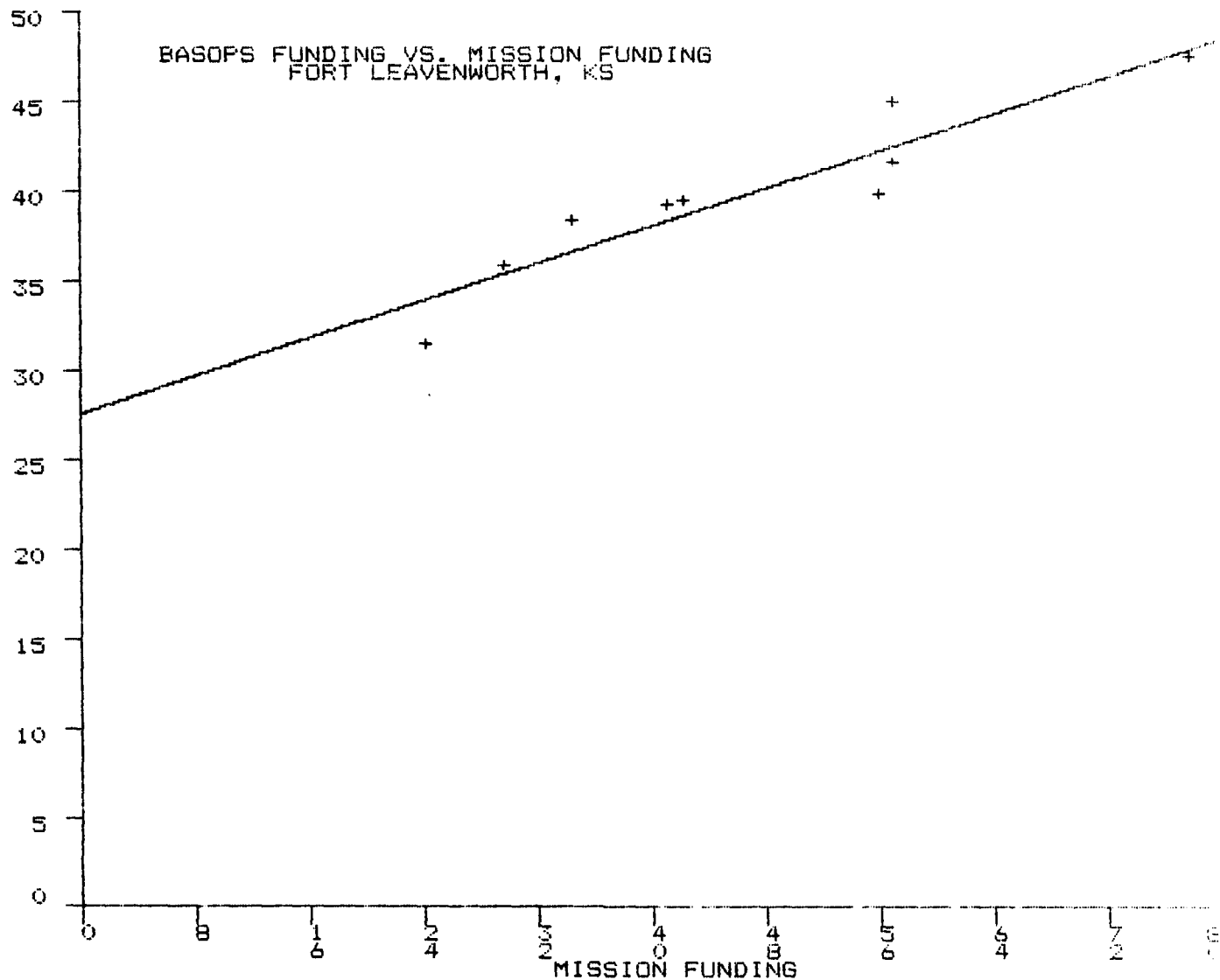
SLOPE	.26
Y-INTER	27667
COEF CO	.93
COEF DET	.87

FIGURE A-1

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A Regression Analysis which Compares BASOPS and Mission Funding

FY	BASOPS(-)	RPMA	Total BASOPS	MISSION	OMA Total	GNP Def Base 1982	GNP Def Base 1988	MISSION 1988 $	BASOPS 1988 $
1980	11667.50	10395.40	22062.90	16967.20	39030.10	.86	.70	24292.60	31588.31
1981	13681.80	13846.80	27528.60	22825.70	50354.30	.94	.77	29794.82	35933.61
1982	14762.80	16497.30	31260.10	28094.10	59354.20	1.00	.81	34471.46	38356.14
1983	16146.90	17297.10	33444.00	35935.10	69379.10	1.04	.85	42437.31	39495.46
1984	17713.70	16858.10	34571.80	36261.30	70833.10	1.08	.88	41235.05	39313.81
1985	20283.70	20728.00	41011.70	51804.10	92815.80	1.12	.91	57007.74	45131.26
1986	19570.60	17823.50	37394.10	52570.70	89964.80	1.15	.94	56139.47	39932.60
1987	24135.60	21945.60	46081.20	75235.00	121316.20	1.19	.97	77770.30	47634.06
1988(P)	24233.30	17466.80	41700.10	57036.90	98737.00	1.23	1.00	57036.90	41700.10

	A		B		C		D		E		F		G	
1	A Regression Analysis which Compares BASOPS with Mission Funding													
2	after the GNP Deflator has been applied. FY 87 Constant Dollars.													
3	--													
4	FY		MISSION		BASOPS		X-SQ		X*Y		Y-SQ			
5														
6	--													
7	1980		24293		31588		590149849		767367284		997801744			
8	1981		29795		35933		887742025		1070623735		1291180489			
9	1982		34471		38356		1188249841		1322169676		1471182736			
10	1983		42437		39495		1800898969		1676049315		1559855025			
11	1984		41235		39313		1700325225		1621071555		1545511969			
12	1985		57007		45131		3249798049		2572782917		2036807161			
13	1986		56139		39932		3151587321		2241742548		1594564624			
14	1987		77770		47634		6048172900		3704496180		2268997956			
15	1988		57037		41700		3253219369		2378442900		1738890000			
16	TOTALS		420184		359082		21870143548		17354746110		14504791704			
17	MEANS		46687		39898									
18														
19	SLOPE		.26											
20	Y-INTER		27667											
21	COEF CO		.93											
22	COEF DET		.87											
23														

FIGURE A-2

funding explains 87 percent of the variation in BASOPS funding. This means we have a very strong relationship between the two variables.

The practical application of this analysis for Fort Leavenworth should be fairly apparent. For one thing any new mission Fort Leavenworth receives from TRADOC should be accompanied with $0.26 in BASOPS funding for every $1.00 in mission funding. If TRADOC fails to do this, then Fort Leavenworth should reprogram mission dollars into BASOPS at the rate of $0.26 on the dollar and reduce the level of mission effort to match the reduced mission funding level. Likewise, if Fort Leavenworth loses mission dollars, they should expect to lose BASOPS at the rate of $0.26 for every $1.00 in mission funding.

Every year a new data point (actual obligations) is added to the regression analysis and the dollars are made constant in current year dollars through use of the implicit GNP price deflator. The use of this allocation model does not preclude specific BASOPS funding for specific projects but those decisions will be reflected in the next year's data point which will then impact the slope of the regression line and the y-intercept. As mentioned before, this is only one way to allocate BASOPS. This method is simple and the results appear believable. However, the real point is BASOPS must be included in determining a mission's total cost. Only by examining a mission's true cost can decision-making become

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more rational and objective.

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