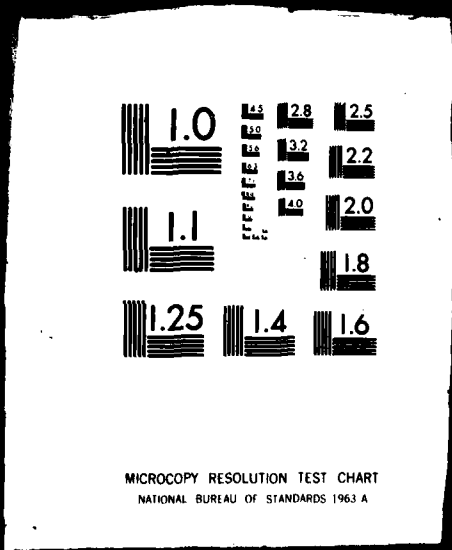


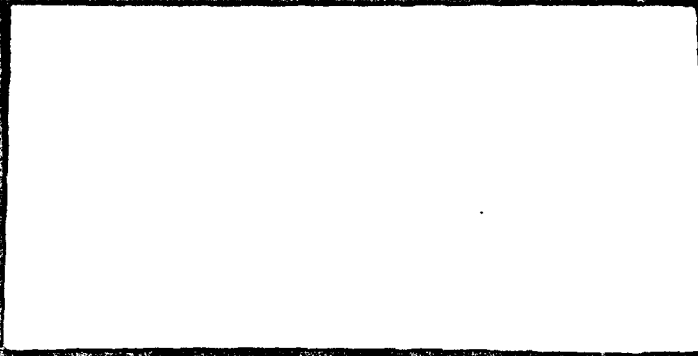


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LEVEL II

AN ASSESSMENT OF THE  
UNIFORM FUNDING POLICY OF  
DOD DIRECTIVE 3200.11

Randall L. Soileau, Captain, USAF  
Phillip A. Swanson, Captain, USAF

LSSR 70-80

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In 1974, Department of Defense Directive 3200.11, "Use, Management and Operation of Department of Defense Major Ranges and Test Facilities" implemented a uniform funding policy for certain members of the Major Range and Test Facilities Base. Under this policy, Department of Defense and other federal users reimburse test facilities for the direct costs (excluding military labor) of test and evaluation support. Non-federal users reimburse the full costs of test support. Because of the wide diversity of activities at the various ranges and test facilities, the possibility exists that widely varying interpretation and implementation of the uniform funding policy could have occurred. The definition of direct cost, in particular, seems open to wide interpretation. After sampling the way the facilities classify costs, the authors conclude that for many costs uniformity does exist. However, there appears to be some confusion between the classification of costs at the facility, the assessment of costs to a user and the reimbursement of costs by a user.

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This thesis, written by

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and


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and approved in an oral examination, has been accepted by the undersigned on behalf of the faculty of the School of Systems and Logistics in partial fulfillment of the requirements for the degree of

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TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS . . . . .	iii
LIST OF TABLES . . . . .	viii
Chapter	
I. BACKGROUND . . . . .	1
Introduction . . . . .	1
DODD 3200.11, 18 June 1974 . . . . .	1
The MRTFB . . . . .	2
MRTFB Management . . . . .	2
The Uniform Funding Policy . . . . .	3
Background . . . . .	4
Evolution of the Policy . . . . .	5
Post Implementation Studies . . . . .	9
The First Report . . . . .	9
The Follow-on Study . . . . .	10
The Problem . . . . .	11
Treatment of Costs . . . . .	11
CASB and DAR Definitions . . . . .	12
Problem Addressed . . . . .	13
II. METHODOLOGY . . . . .	14
Research Objective . . . . .	14
Scope . . . . .	14
Scope of the Policy Effort . . . . .	14
Scope of the Practices Investigation . . . . .	15

Chapter	Page
Research Approach . . . . .	16
General . . . . .	16
Policy Capturing . . . . .	17
The Facility Practices . . . . .	17
Limitations . . . . .	26
Assumptions . . . . .	27
III. POLICY GUIDANCE ANALYSIS . . . . .	29
DOD Guidance . . . . .	29
Objective . . . . .	29
Policy . . . . .	29
Authorities and Responsibilities . . . . .	30
Financial . . . . .	30
Definitions . . . . .	31
DOD Summary . . . . .	32
Service Guidance . . . . .	32
Army . . . . .	33
Navy . . . . .	33
Air Force . . . . .	35
Service Analysis . . . . .	36
Major Command Implementation . . . . .	37
Test and Evaluation Command . . . . .	37
Naval Air Systems Command . . . . .	38
Air Force Systems Command . . . . .	38
Major Command Analysis . . . . .	39
Findings . . . . .	39

Chapter	Page
IV. ANALYSIS OF FACILITY PRACTICES . . . . .	41
User Support . . . . .	41
Discussion . . . . .	42
Findings . . . . .	42
Cost Classification . . . . .	42
Analysis of Cost Factors . . . . .	44
MRTFB As A Whole . . . . .	45
Major Command Cost Factor Responses . . . . .	53
Discussion . . . . .	53
Findings . . . . .	53
Termination Charges . . . . .	54
Discussion . . . . .	55
Findings . . . . .	56
V. CONCLUSIONS AND RECOMMENDATIONS . . . . .	57
General Conclusion . . . . .	57
Policy Guidance Conclusions . . . . .	57
Conclusions About DOD Level Guidance . . . . .	57
Conclusions About Service Level Guidance . . . . .	58
Conclusions About Major Command Guidance . . . . .	59
Facility Practices Conclusions . . . . .	59
Conclusions About the MRTFB as a Whole . . . . .	59
Conclusions About Major Command Uniformity . . . . .	60

Chapter	Page
Conclusions About Assessments and Reimbursements . . . . .	60
Conclusions About Reimbursement Management . . . . .	62
Cost Classification Recommendations . . . . .	63
Recommendations About Cost Definitions . . . . .	64
Recommendations About Assessment and Reimbursement . . . . .	64
Recommendation for Further Study . . . . .	65
APPENDIXES . . . . .	66
A. MRTFB FACILITIES . . . . .	67
B. FACILITIES PRACTICES RESEARCH INSTRUMENT . . . . .	70
C. RESEARCH INSTRUMENT RESPONSES . . . . .	98
D. RESPONSE PERCENTAGE CALCULATIONS . . . . .	173
SELECTED BIBLIOGRAPHY . . . . .	186
BIOGRAPHICAL SKETCHES . . . . .	191



LIST OF TABLES

Table	Page
1. USERS SUPPORTED . . . . .	43
2. COST CLASSIFICATION SYSTEM . . . . .	44
3. MRTFB COST FACTOR GROUPS . . . . .	46
4. SECONDARY ANALYSIS: GROUP II . . . . .	48
5. SECONDARY ANALYSIS: GROUP III . . . . .	50
6. SECONDARY ANALYSIS: GROUP IV . . . . .	51
7. COMMAND PRACTICES UNIFORMITY . . . . .	54
8. TERMINATION CHARGES . . . . .	55

## CHAPTER I

### BACKGROUND

#### Introduction

In 1974 user costs for test and evaluation programs underwent a major change. This change was brought about by a revision of Department of Defense Directive 3200.11, "Use, Management and Operation of Department of Defense Major Ranges and Test Facilities." Since 1 July 1974, users of Department of Defense (DOD) major ranges and test facilities have had to pay a portion of the costs of the support provided. Prior to this time users had paid very little for support received from some of these facilities, but the full cost of support received from others. This dichotomy in test support costs existed because there was no central administration of the facilities.

#### DODD 3200.11, 18 June 1974

Department of Defense Directive 3200.11 (DODD 3200.11), dated 18 June 1974, prescribes the use, management, operation and funding for those ranges and test facilities subject to its provisions. It requires users (program offices, operating commands, etc.) to reimburse the facility for the costs of the support provided.

Department of Defense components and other federal users are required to reimburse for the direct costs of support (excluding military labor). All other users are required to reimburse for the full costs of the support provided.

This reimbursement policy is called the "uniform funding policy" (UFP) and presently applies to eighteen of the twenty-six members of the major ranges and test facilities base (MRTFB)<sup>1</sup>. This policy is also referred to as "T&E funding" and "direct cost funding" because most users are DOD components conducting test and evaluation (T&E) programs who must reimburse direct costs only.

#### The MRTFB

The major range and test facilities base

. . . is a national asset, sized, operated and maintained primarily for DOD test and evaluation support missions, but available to all customers having a need for its unique support capabilities. The MRTFB consists of a broad base of range and test facilities . . . [20:2].

designed to support development test and evaluation and operational test and evaluation programs for material and weapons systems.

#### MRTFB Management

Management of the MRTFB is assigned to three levels within the Department of Defense: DOD, the military departments and the facilities.

---

<sup>1</sup>Appendix A lists the members of the MRTFB.

DOD management of the MRTFB is the responsibility of the Deputy Under Secretary of Defense for Research and Engineering (Test and Evaluation) [DD(T&E)]. DD(T&E) is responsible for overall policy direction and planning guidance, facility adequacy assessment and test program assignments.

At the military department level, the management of the MRTFB is accomplished by the test and evaluation office at each service headquarters and major command headquarters. These offices are responsible for defining specific missions; guiding facility development and operation; budgeting for all costs, and funding for costs other than direct.

Within the facility, it is the facility commander who has management responsibility. He is to develop and maintain a master plan for the facility, operate and maintain the facility, and coordinate facility support with prospective users.

#### The Uniform Funding Policy

DOD Directive 3200.11 states that the MRTFB "will be funded in a uniform manner" and will be reimbursed by the user (unless the facility is specifically exempt).

All DOD Components and other Federal Government agencies . . . will reimburse the ranges and test facilities for direct costs . . . excluding military labor [20:9].

All non-Federal Government agencies, commercial users or foreign governments . . . will reimburse for full costs [20:9].

### Background

Prior to the revision of 3200.11 and its mandating the uniform funding policy, the facilities that comprise the MRTFB practiced widely different funding policies. Some were user funded, wherein the reimbursements from the users provided the funds to operate and maintain the facility. Because the user had to pay the full costs of the support provided, the use of these facilities was very expensive for T&E programs. Other facilities were institutionally funded, wherein the parent command and service provided the funds required to operate and maintain the facility. The use of these facilities was essentially free to the using T&E programs.

In theory a user-funded facility would obtain all of its funding from users' reimbursements and an institutionally funded facility would obtain all of its funding from the parent command and service. In actual practice, however, both types of funding existed at the same facility. The user-funded facilities were institutionally funded for some costs and institutionally funded facilities were reimbursed for some costs.

### Evolution of the Policy

DODD 3200.11 and its uniform funding policy can be directly traced through two studies and three memoranda to the Blue Ribbon Defense Panel appointed by President Richard M. Nixon and Secretary of Defense Melvin R. Laird.

The Blue Ribbon Defense Panel. The Blue Ribbon Defense Panel was the first wide-scale study of the Department of Defense since the Hoover Commission studies on the "Organization of the Executive Department of the Government" in the early 1950s. Appointed in July 1969, the panel was given the following broad charter:

The general scope of the Panel is to study, report and make recommendations on:  
. . . (2) The Defense research and development efforts from the standpoints of mission fulfillments, costs, organization, time and interrelation with the scientific and industrial community [4:v].

In its Report to the President and the Secretary of Defense on the Department of Defense, dated 1 July 1970, the Blue Ribbon Defense Panel was highly critical of the productivity, organization and progress of defense laboratories and test centers. The panel recommended that there be:

. . . a joint review to determine which in-house defense laboratories and test and evaluation centers are essential to research and development needs of the department with the goal of eliminating the non-essential ones, and consolidating (across services) the remainder [4:87].

Facility Base Review. To implement the recommendation of the panel, the Deputy Secretary of Defense, David Packard, on 16 January 1971 sent a memorandum to the Director of Defense Research and Engineering (DDR&E), the service secretaries, and others. The subject of this memo was "Review of RDT&E Base." Secretary Packard requested that the defense research, development, test and evaluation (RDT&E) base be reviewed to identify what, if any, actions should be taken in relation to the Blue Ribbon Defense Panel's recommendation (8). Also, he requested that the overall quality and essentiality of the facilities be determined.

In response to this request, DDR&E established a working group to conduct the review. In its report, DOD Test and Evaluation Facility Base Review, dated August 1971, the working group identified twenty-six facilities that should be established as the DOD facilities for test and evaluation programs. These facilities were chosen based on their "significant test resource assets, multipurpose or multiuser capability and/or unique characteristics or mission [7:61]."

There are two other aspects of the report which are of interest. First, the report recommended that DODD 3200.11, "Use, Management and Operation of Department of Defense National Ranges and Space Ground Support Facilities," dated 25 July 1970, be revised to include

facilities other than national ranges. Second, the working group identified funding as a major problem area for these twenty-six facilities. While the working group did not investigate funding policy, per se, it did identify that variances in funding policy had inhibited the use of the best facility for some test and evaluation programs (9).

The Bergquist Study. Secretary Packard implemented the recommendations of the working group's report in a memorandum dated 29 October 1971. This memorandum established the MRTFB as the essential complement of DOD test and evaluation facilities and set a target date of 1 April 1972 for the revision of DODD 3200.11. The memo, "Review of T&E Base," stated:

Funding of the major ranges and test and evaluation centers lacks uniformity. . . . I desire that the ASD (Comptroller) in conjunction with the Military Departments, DDR&E, and the ASD(I&L) examine the application of current funding policy and propose changes or reaffirm existing ones that apply to the test and evaluation centers . . . to assure the most effective development and testing of material [9:3].

Responding to the request, Robert C. Moot, the Assistant Secretary of Defense (Comptroller), ASD(C), appointed George Bergquist to head a task group to examine the funding policies of the twenty-six facilities that comprise the MRTFB.

The task group's report, A Study of Funding Policy for Major Test and Evaluation Support Activities, was



submitted to Secretary Moot on 15 April 1972 and is informally known as the Bergquist Study. The report addressed all aspects of the then current funding policy as practiced at the twenty-six facilities and the question (1:2): "Should there be a uniform funding policy for the major T&E support activities?"

The Bergquist study group examined the funding practices of all the facilities designated as major DOD test and evaluation centers. The group found that: (1) there were funding policy differences between and within the military departments, (2) each facility had unique organization, management, geographical and mission features, (3) the advantages of a uniform policy outweighed the disadvantages and (4) some compromise of existing funding policies was necessary. These findings led the study group to the conclusion that a uniform funding policy was needed and was feasible.

The report proposed funding all MRTFB facilities in a uniform manner starting in fiscal year 1975. The study group analyzed four alternative funding policies. They recommended that users fund for the direct cost of the support provided.

The recommendation of the study group was implemented by Deputy Secretary of Defense, Kenneth Rush, in a memorandum dated 19 January 1973. The uniform funding policy was to be used at nineteen (later adjusted to

eighteen) of the MRTFB facilities effective at the beginning of fiscal year 1975 (that is, on 1 July 1974) (2:16).

#### Post Implementation Studies

In October 1974, three months after the initiation of the policy, the Joint Logistics Commanders<sup>2</sup> (JLC) chartered a panel to monitor the implementation of the directive. Part of the panel's purpose was to:

. . . insure a coordinated approach to the implementation of the uniform test and evaluation funding policy . . . and to identify major inter-service issues and/or problems related thereto [6:Tab 3].

#### The First Report

The panel was composed of Army, Navy and Air Force personnel. In conducting their investigation members of the panel visited their respective T&E facilities to conduct fact finding. Then, as a group, they visited one facility of each service. Finally, they surveyed users of the facilities. From its research the panel concluded that funding policy guidance of DODD 3200.11 was adequate, facility flexibility in implementation was necessary, and

---

<sup>2</sup>The JLC is composed of the Commanders of the U.S. Army Materiel and Readiness Command, Naval Material Command, Air Force Systems Command and Air Force Logistics Command.

there were no major interservice issues and/or problems. However, the panel did find some problems common to all facilities. Among these were a lack of depth in the cost information reported to users, an absence of common formats for documentation, and a lack of guidance with respect to the definitions of direct and indirect cost.

The conclusions and findings of the panel were briefed to the JLC with two recommendations: (1) the panel be disestablished, and (2) the offices of primary responsibility (OPR) for service T&E reassess the common problems after the second year under the policy.

#### The Follow-on Study

The JLC, rather than turn implementation studies over to the service OPRs, directed that the panel remain established for another year and examine the implementation during the second year under the policy. This second study was accomplished by panel visits to selected T&E activities and by survey letters sent to the facilities and their users.

The second report of the panel was published in October 1976. The panel concluded that the services were aggressively taking action to alleviate the common problems; the adoption of a joint service budgeting, funding and accounting regulation would enhance uniformity; and no harmful impact was being felt from the

implementation of the uniform funding policy. Two recommendations were made: (1) the panel be disestablished and (2) a proposed budgeting, funding and accounting regulation be adopted by all three services. The panel was disestablished but the tri-service regulation was never adopted.

#### The Problem

In accordance with DODD 3200.11, a user obtaining test support from an MRTFB facility is to be assessed the costs incurred to provide this support. This assessment may not be of the same magnitude at each facility, but the same cost elements should be used by each facility. Once these costs are assessed, their reimbursement is dependent on two factors: (1) the type of user (i.e., DOD, other federal, or non-federal) and (2) whether the costs are classified as direct or indirect. The problem addressed by this study is: How are the costs incurred for test and evaluation classified?

#### Treatment of Costs

DODD 3200.11 is very prescriptive about the reimbursements to be made by the users to the facility. DOD components and other federal government agencies are to reimburse all direct costs incurred (except military labor) for user support and all other users are to reimburse for the full costs of the support provided. This

reimbursement policy is very concise and straightforward. However, the terms "direct cost," "indirect cost" and "full cost" (full cost = direct cost + indirect cost) are not absolutely defined within generally accepted accounting principles.

For many years, direct costs have been segregated from overhead as a cost accounting device in both Government and industry. Historically, this distinction has merely aided distribution of total costs to products and services. Since distinction between direct and indirect costs normally has little impact on certified financial statements, the accounting profession has not developed and enforced rigid cost accounting standards covering the definition of direct costs. The distinction between direct and indirect costs, therefore, is not a normal basis for segregation of funding. Separation of "direct costs" from overhead has not been required to withstand pressures that will apply when the differentiation under the new policy affects fund availability [2:19].

#### CASB and DAR Definitions

Since generally accepted accounting principles do not rigidly define direct costs, the government has issued two documents that define costs for government contractors. Both the Cost Accounting Standards Board's (CASB) Standards, Rules and Regulations, and the Defense Acquisition Regulation contain a definition of direct cost (3:111,19:15-202) that is binding on those companies that do business with the government. The essence of both definitions is that a direct cost has to be specifically identifiable to a particular final cost objective. All other costs are considered to be indirect.

These definitions are subject to interpretation by the individual contractors with respect to specific costs. Therefore, the CASB has developed a Disclosure Statement (3:40-109A) wherein the contractor discloses his cost accounting practices.

Problem Addressed

No major DOD studies have been undertaken to determine the status of the directive's implementation since the October 1976 report to the JLC. Between October 1976 and June 1980, what has transpired in the implementation of DODD 3200.11? What guidance has been issued concerning the classification of costs? What is being practiced by the individual facilities in terms of costs assessed by the facilities against user programs? What distinction between direct and indirect costs has evolved since the institution of the uniform funding policy and how are these costs measured?

The answer to these questions would seem to be of interest to four groups: (1) users, because they pay for the direct costs or full costs of support, (2) services and major commands, because they fund for the costs that are not direct, (3) DOD, because the facilities are supposed to be uniformly funded, and (4) the facilities, because they compete with one another for users.

## CHAPTER II

### METHODOLOGY

#### Research Objective

The primary objective of the study was to determine whether like costs incurred in like circumstances at different facilities received a similar accounting treatment in terms of the classification of costs. A secondary objective was to determine the extent to which the services and major commands have shaped and guided the practices of their test facilities and ranges.

By accomplishing the objectives set forth, the degree of uniformity in the cost classification practices of MRTFB facilities can be assessed.

#### Scope

##### Scope of the Policy Effort

DOD Directive 3200.11 and its implementing directives were analyzed in terms of reimbursement policy and accounting treatment of costs. The implementing directives were obtained from the services and major commands with MRTFB management responsibilities, with two exceptions. Included in the policy analysis were the Army and its Test and Evaluation Command (TECOM), the Navy and

its Naval Air Systems Command (NAVAIRSYSCOM), and the Air Force and its Air Force Systems Command (AFSC).

Excluded from the policy effort were the Tactical Air Command (Air Force) and the Ballistic Missile Defense Systems Command (Army). Each of these commands had management responsibility for only one MRTFB facility. It was felt that the unique relationship between these two facilities and their commands would preclude a need for policy capturing.

#### Scope of the Practices Investigation

All eighteen MRTFB facilities operating under the uniform funding policy as of 20 May 1980 were included in the effort. Analysis was conducted with respect to the classification of costs and the uniformity of practices among commands.

Research instruments were sent to each of the eighteen facilities. Fourteen responses were returned by 7 July 1980. The responses received were from all three services and four of the five major commands. They represent four of five TECOM facilities, four of five NAVAIRSYSCOM facilities, five of six AFSC facilities and the one Ballistic Missile Defense Systems Command facility.

Neither all situations nor all possible costs could be covered in this effort. Therefore, the method



used for data collection was intended to sample those costs which are generally applicable to most MRTFB facilities and users regardless of service affiliation. The set of cost factors used to sample the practices of all the different and unique facilities represented by the MRTFB must of necessity be very general. For the MRTFB as a whole, the analysis of the responses was to determine what types of costs were classified as "direct" by the majority of the facilities. The influence of the major commands on the practices of their facilities was analyzed based on the uniformity of cost classification used by each command's facilities.

### Research Approach

#### General

Several methods of data gathering were initially considered including personal interviews, costing of hypothetical tests and discussion questions. The need for an instrument that could be quickly completed and analyzed with no personal contact dictated the use of the approach described below.

The investigation was divided into two distinct efforts. The first part consisted of policy capturing at DOD, service, and major command levels. The results are presented in Chapter III. The second part of the study consisted of sampling the actual practices of the test

facilities and ranges. The results of the practices analysis are presented in Chapter IV.

### Policy Capturing

Guidance on the uniform funding policy was analyzed by focusing on the reimbursement policy and on the accounting classification of costs provided by published directives.

DOD Directive 3200.11 was summarized with respect to reimbursement policy and the accounting classification of costs. This established the baseline for comparing service and major command policy guidance.

### The Facility Practices

The intent of the investigation into the practices of the MRTFB facilities was twofold. First, the types of cost that were classified as direct were to be determined. Second, the uniformity of facility practices between commands was to be determined.

The basis for the research instrument used to investigate the facility practices was the Cost Accounting Standards Disclosure Statement (3: Part 351). That document serves as a record of the cost accounting procedures used by certain defense contractors. Among other functions, the disclosure statement indicates how the contractor measures direct costs (Part II) and classifies costs as direct or indirect (Part III). The depth and

breadth of a full disclosure statement was beyond the scope of this effort. However, the idea of allowing the individual facilities to disclose how they treat individual costs was adopted.

Development of the Facility Practices Research Instrument. Documentation acquired during preliminary contacts with several of the MRTFB facilities provided the research team with a substantial body of cost accounting data. These data were examined to identify cost factors (i.e., expenses incurred by the facility). These cost factors were then screened to incorporate into the instrument only those that were of general applicability to most facilities and users, regardless of service affiliation. A set of seventy cost factors was identified and incorporated into the research instrument.

Data Gathering Technique. Once the cost factors were identified, the technique to gather the data concerning their treatment and measurement was addressed. The 18 June 1974 version of DODD 3200.11, a draft revision of the directive dated 27 April 1979, the Bergquist study and several accounting texts were reviewed in the development of the technique. Two elements were considered essential to gathering the necessary data, cost classification and cost measurement.

Treatment Considerations. In deriving the treatments to be used in the research instrument for the classification of the cost factors, three different considerations were addressed: accounting classification of costs, reimbursement of costs and funding of the facility.

Accounting costs may be classified as either direct or overhead. A direct cost is any cost that is specifically identifiable to a final cost objective. An overhead cost is any cost not considered to be a direct cost. Overhead costs are often further classified as indirect and general and administrative costs. Indirect costs are those costs associated with the production of the final cost objectives but not specifically identifiable to them. G&A costs are those costs associated with the operation and administration of the activity.

Cost reimbursement is a separate issue from classifying the costs as either direct or overhead. The incurrence of a cost may or may not result in the reimbursement of that cost.

The funding of the MRTFB facilities derives from two sources, institutional funds from the parent command and service and reimbursed funds from the users of the facility. Institutional funding covers those costs not reimbursable by users of the facility.

Cost Treatments. The above considerations led to the establishment of six different treatments (hereinafter called "cost classifications") to be used in the research instrument. These "cost classifications" and their definitions are as follows:

(1) Not Relevant. A cost factor that has no relevance to the facility.

(2) No Charge. The cost factor is relevant to the facility but no user of the facility is charged for the costs incurred.

(3) Direct Charge. A direct charge is associated with a cost factor that can be consistently and uniformly identified to a single user.

(4) Indirect Charge. An indirect charge is associated with a cost factor that produces a service or a product to accomplish the mission, but which cannot be directly identified to a single user.

(5) General and Administrative Charge. A G&A charge is associated with a cost factor that is not considered to be either a direct or an indirect charge.

(6) Other Charge. An "other" charge is associated with a cost factor that is treated in some manner other than those cited.

It must be recognized that "no charge" is not a true classification of cost. Rather, it relates to

whether or not the cost factor is reimbursable. The inclusion of "no charge" as a cost classification resulted from a perception of the research team that facilities were classifying costs based on their being reimbursable or not reimbursable rather than the costs being direct or overhead. Thus, the "no charge" cost classification was included to accommodate this perception.

Five measurement types were provided in the instructions of the research instrument for use in defining the measurement technique used by the facility for the cost factors. These measurement types were defined as:

- (1) A - To indicate the charge is based on the actual rate for the actual quantity.
- (2) S - To indicate the charge is based on a standard rate for a standard quantity.
- (3) AS - To indicate the charge is based on the actual rate for a standard quantity.
- (4) SA - To indicate the charge is based on a standard rate for the actual quantity.
- (5) O - To indicate the charge is measured in some other manner or a combination of the above.

Other Requests. The facility practices research instrument included a request for a point of contact at the facility to enable the clarification of any questions the

research team might have concerning the facility's responses to the instrument. The amount of support for the three user types was requested so an indication for the amount of support generated for each of the user types could be gained. Information about the cost classification system used by the facility was requested to determine if the cost factor analysis would be conducted based on direct, indirect, and G&A costs or direct and overhead (an undifferentiated combination of indirect and G&A) costs.

Termination charge scenarios were added to the research instrument because the draft revision to DODD 3200.11 dated 27 April 1979 allowed the assessment of termination charges on the user if he cancelled scheduled support. It was a point of interest to the research team to see if this change in the directive would impact the facilities. The 18 June 1974 version of the directive does not address this subject.

Once all the component parts of the research instrument were identified and the instructions for its completion were written, the Programs and Budget Office at the 4950th Test Wing was asked to examine the instrument and comment on it. The complete instrument was then reviewed with William A. Richardson, DDR&E, Deputy Director for Test Facilities and Resources, as well as the service and major command T&E offices. A cover letter

requesting assistance in the research effort was signed by Mr. Richardson and included with the research instruments sent to the facilities. A copy of the package sent to the facilities can be found in Appendix B.

Analysis Methodology for the Facility Practices.

Each research instrument was reviewed as it was received to ensure the responses would fit the analysis format. Any questions concerning the responses were directed to the designated point of contact at the facility.

After being reviewed, each response from every facility was consolidated into the Research Instrument Responses (Appendix C). This set of tables was the data base used for the facility practices analysis. The comments included on the research instrument were edited for space reasons during the consolidation, however, their essence was maintained.

Methodology for User Support Analysis. Analysis of the types of users supported was based on the portion of the facilities support provided to each user type.

Methodology for Cost Accounting Analysis. The cost accounting system analysis was performed by totaling the number of responses for each of the three cost accounting systems defined in the research instrument.



These totals were then compared to determine the cost accounting system most used by the responding facilities.

Methodology for Termination Charge Analysis. For each scenario presented in the research instrument, the number of responses for each allowable response (yes, no, not applicable) was tallied.

Methodology for Cost Factor Analysis. In analyzing the cost factor responses three preliminary operations were performed on each returned research instrument.

First, any instrument with a cost factor classified as "other" had that response interpreted into one of the other five cost classifications (not relevant, no charge, direct charge, indirect charge and G&A charge) based on the comments included with such a response. Any such interpretation is noted in Appendix C.

Second, all responses classifying a cost factor as indirect or G&A had that response translated into a classification called "overhead." Overhead was substituted for indirect and G&A because several of the facilities did not use G&A in their cost accounting system. As a result of these first two operations the cost factor analysis was accomplished using only four cost classifications: not relevant, no charge, direct charge and overhead charge.

Third, only one cost classification was allowed for each cost factor. If a research instrument response included more than one cost classification per cost factor, that response was adjusted to yield only one cost classification. This adjustment was made on the basis of comments provided in the research instrument with the response and discussions with facility personnel. Any such adjustments are noted in Appendix C.

For each of the seventy cost factors of the research instrument the number of responses in each of the cost classifications were counted. This count was accomplished for TECOM respondents only, for NAVAIRSYSCOM respondents only, for AFSC respondents only and for the MRTFB as a whole. These counts were then used to generate the percentage calculations of Appendix D.

The percentages of Appendix D were calculated in the following manner.

$$\text{No Charge} = \frac{\text{Number of No Charge Responses}}{\text{Number of Responding Facilities} - \text{Number of Not Relevant Responses}} \times 100$$

$$\text{Direct Charge} = \frac{\text{Number of Direct Charge Responses}}{\text{Number of Responding Facilities} - \text{Number of Not Relevant Responses}} \times 100$$

$$\text{Overhead Charge} = \frac{\text{Number of Indirect Charge Responses} + \text{Number of G\&A Charge Responses}}{\text{Number of Responding Facilities} - \text{Number of Not Relevant Responses}} \times 100$$

All calculations were rounded to the closest whole number. Therefore, some round off error may be present (i.e., the rows of Appendix D may not total to 100 percent.)

For the MRTFB as a whole, the cost factors were arranged in descending order from 100 percent to 0 percent, based on the percentage of respondents classifying the cost factor as a direct charge. The logical groups that emerged from this arrangement were analyzed for the common element or elements among the cost factors of the group.

Additional analysis was performed for each group based on the most prevalent cost classification of the cost factor when the direct charge classification was ignored.

The major command uniformity was assessed based on the number of cost factors with 100 percent classification agreement among the facilities within the command.

#### Limitations

The depth of the study that could be accomplished in the approximately six months of thesis effort required simplification and some reduction in scope. Data on cost

measurement was collected, but analysis of the data could not be accomplished within the available time.

Limited travel funds prevented visiting the test facilities. It would have been desirable to spend some time examining how different facilities went about distributing costs to various tests. One trip to Washington D.C. was made to coordinate the research effort and research instrument with the various headquarters and to obtain the requisite implementing directives for the policy analysis.

#### Assumptions

First, for facility practices, reimbursements were assumed to be consistent with DODD 3200.11. Therefore, the classification of the cost (direct, indirect, G&A) determines the reimbursement made by a given user. For the policy effort reimbursement consistency was a part of the investigation and was not assumed.

Second, it was assumed that the facility responses on the research instrument would be candid even where variance with service and command policies did exist. Anonymity was promised to the facilities in order to ensure complete and candid replies.

Consistency in the classification and measurement of costs independent of the type of user was assumed. For

example, a direct cost for a DOD user would be a direct cost for a Department of Transportation user.

## CHAPTER III

### POLICY GUIDANCE ANALYSIS

#### DOD Guidance

The major DOD guidance on reimbursement policy and on the classification of costs for the MRTFB is DOD Directive 3200.11. Five sections of the directive were applicable to the analysis: Objective, Policy, Authorities and Responsibilities, Financial, and Definitions.

#### Objective

The objective of this Directive is to insure provision of effective test and operational support by facilitating joint use of the MRTFB, by consolidating and standardizing management responsibilities at appropriate levels, and by setting forth uniform operating procedures [20:2].

Funding is a function of each element of the directive's objective (use, management, and operation). Uniform funding can result from standardized management and uniform operating procedures. Although funding is not mentioned directly, the basis for the uniform funding policy thus is established in the objective.

#### Policy

No part of the policy section requires uniform funding. The thrust of this section is to establish who

may use the MRTFB, what the management structure is, and how coordinated use of facilities is to be accomplished.

### Authorities and Responsibilities

Within the Authorities and Responsibilities Section, the uniform funding policy is affected by three levels (service, facility, and user).

First, the service secretaries are expected to "...plan and budget for all costs and fund for other than direct costs..." (20:4). Further, they are to replace or repair general purpose equipment and real property damaged or lost during T&E programs, except in high risk testing where the user is liable.

Second, facility commanders are responsible for their local budgets and for committing resources to programs, based in part on financial considerations.

Finally, facility users are expected to plan, budget, and fund for the costs of support as stated in the financial section of the directive.

### Financial

Funding of the Major Ranges and Test Facilities is designed to assure the most effective development and testing of materiel. It should provide for inter-service capability, efficiency and equity, without influencing technical decisions on testing, nor inhibiting legitimate and valid testing [20:8].

Thus, the intent of the funding policy appears to be the establishment of a market structure for test and

evaluation to obtain goals of efficiency and equity. As in a market, there is an attempt to establish a pseudo-price system, the uniform funding policy, for resource allocation. It is not a true price system, however, because the policy concentrates on reimbursement policy and not on costs. As discussed in Chapter I, the directive prescribes that DOD and other federal agencies reimburse direct costs, excluding military labor, while non-federal agencies, commercial users and foreign governments reimburse full costs.

Full costs are determined under DOD Instruction 7230.7, "User Charges." That instruction provides policy for charging parties that receive special benefit from a governmental activity, establishes guidelines for the determination of charges, and sets fees for certain services. Charges include labor accelerated for fringe benefits, an asset use charge for depreciation and interest on investment and an administrative surcharge.

#### Definitions

The DOD guidance on cost classification is limited to the following definition:

**K. Direct Costs.** Those expenses which can be immediately and directly identified with a specific User program (usually documented by a job order). These costs include direct labor, direct material, minor construction, special purpose equipment and other like costs. They include all such expenses that can with reasonable effort be identified consistently and uniformly to specific User programs. The direct cost



for labor includes a load factor covering items such as leave and contributions to the retirement program [20:Encl.3].

No further explanation is provided.

#### DOD Summary

DOD Directive 3200.11 is the baseline document for this research. The services' and major commands' implementation should be consistent with the directive. There are two aspects to the uniform funding policy, reimbursement policy and the accounting treatment of costs, that are to be investigated.

Reimbursement policy is defined to be the decision as to which classes of costs will be paid by the various types of users. For the purpose of this research, the accounting treatment of costs is defined to be the classification of costs as direct, indirect, or general and administrative. The combination of reimbursement policy and accounting treatment of costs determines how much of the costs of operating the facility will be user funded.

#### Service Guidance

Each service's formal implementation of the uniform funding policy is described below. Analysis is then performed on the services as a group. The analysis covers the consistency of reimbursement policy and cost classification with DOD guidance.

### Army

Prior to 1975, Army T&E facilities used an automated cost accounting system for distributing expenses in accordance with DOD Instruction 7220.24, "Accounting for Research and Development." (6:7). As a result, the effort required to implement DODD 3200.11 was largely limited to compliance with the reimbursement policy.

Because this minor change was all that was required to operationalize the uniform funding policy, the Department of the Army's formal implementation of DODD 3200.11 is a letter from the Office of the Adjutant General that transmits the directive. The letter does not expand on the directive, but does establish a Headquarters Army point of contact for the interpretation of guidance and resolution of conflicts with existing directives.

### Navy

According to the Joint Logistics Commanders' panel, prior to the uniform funding policy three Navy facilities were industrially funded and two were institutionally funded. The institutionally funded activities used fiscal year 1974 as a mock implementation period to develop a job order cost accounting system based on the methods used at the industrially funded facilities.

The Department of the Navy guidance on user costs derives from three sources: OPNAV Instruction 3900.25A,

The Navy Comptroller Manual, and the Navy Industrial Fund Handbook.

OPNAV Instruction 3900.25A. OPNAV Instruction 3900.25A, "Use, Management and Operation of Department of Defense Major Ranges and Test Facilities," explains the DOD directive and directs coordination between potential users and the individual facilities. The Navy instruction aligns the reimbursement policy of the Navy's MRTFB members with that directed by DOD. No mention of cost accounting is made in the OPNAV Instruction.

Navy Comptroller Manual P-1000. The "Navy Comptroller Manual" reiterates the reimbursement requirements of DOD Directive 3200.11 and provides a definition of direct costs that has no substantive differences from that of DODD 3200.11. For nonfederal users, the manual specifically implements the requirements of DOD Instruction 7230.7, "User Charges."

NAVSO P-3045. The "Navy Industrial Fund Handbook for Research, Development, Test and Evaluation Activities," NAVSO P-3045, devotes a chapter to the MRTFB. That chapter repeats the reimbursement policy of the DOD directive and provides for the accounting treatment of T&E events. Policy about which costs are direct and which are indirect is not included, except for aircraft operations and labor acceleration (accrued liabilities for leave and fringe

benefits) of direct labor, which are stated to be direct costs. The "Navy Industrial Fund Handbook" glossary provides a definition of direct cost that is essentially identical to the definition provided by DODD 3200.11.

#### Air Force

All of the Air Force's T&E facilities were institutionally funded prior to the uniform funding policy. Implementation of the policy was accomplished by the facility comptrollers. Steering committees at each facility assisted in cost classification (6:8).

The Department of the Air Force policy on MRTFB funding is contained in three directives: AFM 172-1, "USAF Budget Manual;" AFR 80-19, "Support of Nongovernmental Test and Evaluation;" and AFR 177-8, "User Charges."

AFM 172-1. Air Force Manual 172-1, "USAF Budget Manual," restates the reimbursement policy of the DOD directive and includes a near-identical definition of direct costs. In terms of cost classification, depot level maintenance and actually procured repair parts are specifically excluded from direct costs. No further expansion of the directive is provided.

A change to AFM 172-1 to be effective in fiscal year 1981 expands the definition of direct costs by including examples. One change from the existing directive

is that a pro-rata share of depot level maintenance will normally be included as a direct cost to users (11).

AFR 80-19. Air Force Regulation 80-19, "Support of Nongovernmental Test and Evaluation," specifically addresses the requirements of DODD 3200.11. It primarily addresses reimbursement policy and is consistent with the DOD directive. For cost classification, AFR 177-8, "User Charges," is referenced.

AFR 177-8. Air Force Regulation 177-8, "User Charges," applies to non-governmental activities. Like the Navy Comptroller Manual, it specifically implements DOD Instruction 7230.7, "User Charges."

#### Service Analysis

The Army is consistent with the DOD directive in regard to reimbursement policy and cost classification, but does not provide clarification since the implementation is a letter of transmittal. The Navy's guidance is consistent with DOD on reimbursement policy and on cost classification. No expansion or explanation of the accounting treatment of costs is provided, however. Air Force policy is consistent with DOD on reimbursement policy and cost classification. Some expansion on classification of costs is provided, although that expansion is limited to a few specific items.

### Major Command Implementation

Each major command's formal implementation of DODD 3200.11 is described below. Analysis is then performed on the commands as a group. The analysis covers the consistency of reimbursement policy and cost classification with DOD guidance.

### Test and Evaluation Command

Army Test and Evaluation Command Regulation 37-5, "Installations' Concepts, Principles, and Responsibilities," establishes policy for uniform funding at Army MRTFB facilities. The regulation reiterates the reimbursement policy of DODD 3200.11.

The definition of direct costs used by TECOM differs from the Navy and Air Force versions that derive from DOD Instruction 7230.7. The Air Force and Navy versions require immediate identification to a job order, while TECOM requires only reasonable identification. The practical difference between the definitions is negligible. Cost accounting literature does not normally require immediate identification for direct costs.

For purposes of cost classification, improvement and modernization, idle or under-utilized capacity (except as caused by user actions), and base operations are identified as indirect costs. Full costs for non-federal users are based on DOD Instruction 7230.7.

### Naval Air Systems Command

The Naval Air Systems Command has not published formal guidance on DODD 3200.11. Implementation of the directive is based on the guidance provided by OPNAV Instruction 3900.25A and the Navy Comptroller Manual. Policy guidance from the major command level is expressed through direct communication with the T&E facilities.

### Air Force Systems Command

Air Force Systems Command (AFSC) has issued two regulations that establish policy and procedures for funding test and evaluation: AFSC Regulation 172-8, "Budgeting and Funding for Test and Evaluation," and AFSC Regulation 177-4, "User Charges."

AFSC Regulation 172-8, "Budgeting and Funding for Test and Evaluation," restates the DODD 3200.11 reimbursement policy. In terms of cost classification, the regulation defines direct and indirect costs and lists items that fall under each classification. The list is more extensive than the Army or Navy activities have provided.

AFSCR 177-8, "User Charges" applies to non-federal users. It expands AFR 177-8, "User Charges," for Air Force Systems Command and is consistent with DOD Instruction 7230.7.

### Major Command Analysis

Army Test and Evaluation Command's guidance is consistent with DOD on reimbursement policy and classification of costs. Although a few costs are specifically identified as direct or indirect, that list is limited in scope. Naval Air Systems Command's guidance is on an informal level and hence cannot be considered here. Air Force Systems Command is consistent with DOD on reimbursement policy and cost classification. A fairly extensive accounting treatment is provided in AFSC Regulation 172-8. That treatment provides examples of direct and indirect costs. Air Force Systems Command appears to be more prescriptive about how costs are to be classified than the other major commands.

### Findings

Within the military departments, the level and depth of formal policy guidance varies. Within the Army, the major command has issued the guidance. Navy guidance is largely controlled at the service level. The Air Force has issued guidance at both the service and major command levels.

With respect to reimbursement policy, the policy guidance provided to the facilities by the services and major commands is consistent with DOD Directive 3200.11.



The guidance for the classification of costs provided by DODD 3200.11 is limited to definitions. When applied to specific test situations, it appears that numerous interpretations of how to classify costs are possible. The services and commands have also provided little guidance on how to classify costs, with the possible exception of Air Force Systems Command. For non-federal users, DOD Instruction 7230.7, "User Charges," is referenced by all three military departments for the determination of full costs.

## CHAPTER IV

### ANALYSIS OF FACILITY PRACTICES

DOD, service and major command directives, regulations and manuals guide the facilities in the establishment of their cost accounting system. The facility, however, is responsible for implementing its own system to handle the unique requirements of its testing support activities. This chapter investigates the actual practices of the individual facilities as indicated by the responses to the facility practices research instrument.

The sequence for presentation of the analysis is: user support, cost classification system, cost factor responses and termination charges.

#### User Support

The facilities were requested to estimate the amount of support they provide for each of three user types; DOD, other federal and non-federal. DOD users were defined as members of the military establishment. Other federal users were defined as any element of the federal government other than DOD. Non-federal users were defined as any agency or activity outside the federal government.

### Discussion

Table 1 presents the data received from the fourteen responding facilities concerning the amount of support provided to DOD, other federal and non-federal users. The table shows the portion of support (expressed as a percentage) given to each user type by each facility.

### Findings

For twelve of the fourteen facilities more than 90 percent of the effort is to support DOD users. If the DOD and Other Federal columns are combined, more than 94 percent of the effort of all fourteen facilities is to support users that reimburse only direct costs (under the 18 June 1974 version of DODD 3200.11).

Because the support provided by MRTFB facilities is predominately to direct-cost-reimbursing customers, the cost factor analysis concentrated on direct costs.

### Cost Classification

Three types of cost classification systems were defined in the research instrument. The facilities were asked to indicate which type of classification system was used: (1) direct and indirect costs only, (2) direct, indirect and G&A costs, or (3) direct and overhead (an undifferentiated combination of indirect and G&A) costs.

Table 1  
USERS SUPPORTED

	DOD (%)	Other Federal (%)	Nonfederal (%)
<u>Army</u>			
1	99	- <sup>b</sup>	- <sup>b</sup>
2	95	3	2
3	95	4	1
4	95	5	0
5	92	7	1
<u>Navy</u>			
6	99.5 <sup>a</sup>	0.2	0.3
7	95	1	4
8	95	0	5
9	96	3	1
<u>Air Force</u>			
10	57	38.5	4.5
11	97	3	0
12	82	12	6
13	98	1 <sup>b</sup>	1
14	95	- <sup>b</sup>	4-5

<sup>a</sup>99 percent Navy; 0.5 percent other DOD.

<sup>b</sup>Less than 1 percent.

SOURCE: Appendix C, page 100.

Shown in Table 2 are the responses received concerning the cost classifications used in the facilities' cost accounting system. It is apparent that the majority of the facilities classify costs as direct, indirect and general and administrative.

Table 2  
COST CLASSIFICATION SYSTEM

Type	Number	Percentage
Direct and Indirect only	2	14%
Direct, Indirect and G&A	11	79%
Direct and Overhead	1	7%

SOURCE: Appendix C, page 101.

#### Analysis of Cost Factors

The facilities were provided seventy cost factors in the research instrument. For each cost factor the facility was to indicate how the cost factor was charged. Six cost classifications were allowed: not relevant, no charge, direct charge, indirect charge, G&A charge and other. In the analysis a classification of "Not Relevant" was used to reduce the denominator when making the percentage calculations. A classification of "Other" was

interpreted as no charge, direct charge, indirect charge, or G&A charge based on the comments included with such a response. Since three of the facilities did not use G&A in their cost accounting system, classifications of indirect and G&A were combined into a single classification, "Overhead." Therefore, the cost factor analysis was accomplished with three charge classifications, no charge, direct charge and overhead charge.

As noted in Chapter II, Methodology, "No Charge" is not a true cost classification. However, because its inclusion was based on perceived facility practices and since responses were received using that classification, "No Charge" was used in the analysis.

#### MRTFB As A Whole

The first analysis conducted was the examination of all fourteen facilities as whole. The objective was to detect any similarity in the classification of the cost factors. Similarity was measured with respect to direct charge classification. Once groups of cost factors classified similarly were identified, each group was scrutinized for the common element among the cost factors. Table 3 presents the logical groupings that emerged as the cost factors were analyzed and the commonality that was found. The following sections discuss each group in detail.

Table 3

MRTFB COST FACTOR GROUPS  
 Cost Factor Groupings Based on the Level of Agreement  
 (Percentage) Among the Facilities About Classifying  
 the Cost Factor as A Direct Charge

Group	Agreement	Cost Factors <sup>a</sup>	Commonality
I	100%	4.2, 4.3, 7.2, 9.2 9.4, 11.3, 12.3, 14.2, 20.4, 21.3, 23.2, 24.5	User test require- ments
II	80 - 99%	5.1, 5.2, 6.1, 6.2, 10.2, 10.3, 10.4, 13.3 14.5, 15.3, 16.2, 16.3 16.4, 17.2, 18.3, 19.2 21.4	User primary support
III	40 - 79%	3.2, 3.3, 4.1, 7.1, 8.2, 8.3, 9.3, 10.1, 11.2, 12.2, 13.1, 14.1, 14.3, 14.4, 15.2, 15.4, 15.5, 16.1, 20.3, 21.2, 22.1	User secondary support
IV	0 - 39%	3.1, 8.1, 9.1, 11.1 12.1, 13.2, 15.1, 17.1, 18.1, 18.2, 19.1, 20.1, 20.2, 21.1, 22.2, 23.1, 24.1, 24.2, 24.3, 24.4	Facility maintenance

<sup>a</sup>Cost factor numbering is: Research Instrument  
 page number.Cost factor number.

SOURCE: Appendix D1.

User Test Requirements (Group I). All facilities to which the cost factors were relevant agreed that these twelve cost factors should be assessed as a direct charge to the user of the facility. None of the facilities classified these cost factors as either "No Charge" or "Overhead Charge."

Examination of the cost factor wording reveals that each of the cost factors in this group had reference to the user's test requirements. For example, cost factor 14.2, "Programmer effort to code programs to meet a user's requirements" and cost factor 23.2, "Materials/supplies, including POL, consumed by the facility in supporting a specific user" are typical of the cost factors of this group. Therefore, the group commonality was termed to be "User Test Requirements."

User Primary Support (Group II). The facilities to which the seventeen cost factors of this group were relevant had 80 to 99 percent agreement about the classification of these cost factors as direct. This represents, at most, two facilities disagreeing with the assessment of a direct charge.

For those one or two facilities that did not agree with the majority about classifying these cost factors as direct, Table 4 presents the second most preferred classification. The majority of these seventeen cost factors



Table 4

SECONDARY ANALYSIS: GROUP II  
The Second Most Preferred Classification of the  
Seventeen Cost Factors of Group II (Table 3)

No Charge	No Preference	Overhead Charge
3 of 17	2 of 17	12 of 17
18%	12%	70%

SOURCE: Table 3 and Appendix D1.

(12 of 17 or 70 percent) were classified as overhead charges by those facilities not classifying them as direct charges. Three of the cost factors (18 percent) were classified as no charge. Two of the cost factors (10.3 and 14.5) had the facilities evenly divided about how to classify them, that is, no preference for either no charge or overhead charge was evident.

The cost factor statements of this group all dealt with normal facility support that would be readily identifiable to a single user of the facility. For example, cost factor 14.5, "ADPE expendibles either provided to the user or consumed in his behalf" and cost factor 6.1, "Ordinance handling" are typical of this group of cost factors. Therefore, the group was termed "User Primary Support."

User Secondary Support (Group III). Twenty-one of the cost factors fall into Group III. For the facilities to which these cost factors were relevant, 40 to 79 percent classified the cost as a direct charge to the user. This 40 to 79 percent means that at least three, and as many as eight, of the facilities did not classify these costs as direct charges. Despite the low level of agreement, direct charge was still the predominant charge used by the facilities for this group of cost factors.

Table 5 presents the second most preferred classification for the twenty-one cost factors of this group. Although there is no clear majority of the costs being classified "No Charge," there are more classified "No Charge" than classified "Overhead Charge."

Typical of the cost factors of this group are 7.1 "Normal pre-mission and/or post-mission calibration/checkout of instrumentation system(s)" and 13.1, "Geodetic Surveys." Other cost factors of this group dealt with frequency management, ground safety, personnel transportation, communication systems, utility consumption, supervisory personnel and contract administration. All of these costs are required to accomplish the user's test, however, they indirectly or secondarily support the test. Therefore, this group was labeled "User Secondary Support."

Table 5

SECONDARY ANALYSIS: GROUP III  
 The Second Most Preferred Classification of the  
 Twenty-One Cost Factors of Group III (Table 3)

No Charge	No Preference	Overhead Charge
10 of 21	5 of 21	6 of 21
48%	24%	28%

SOURCE: Table 3 and Appendix D1.

Facility Maintenance (Group IV). Direct charge was clearly not the preferred classification for the twenty cost factors of this group. Only 0 to 39 percent of the relevant facilities classified these cost factors as a direct charge. This represents between zero and four of the facilities classifying these cost factors as a direct charge.

Table 6 presents the results of the secondary analysis performed on this cost factor group. This secondary analysis consisted of sorting the cost factors based on the most preferred cost classification. As can be seen, the clear majority (80 percent) of the cost factors in the group were classified as "No Charge."

The cost factor statements of this group often included reference to "level-of-capability" and "normal operation." Typical are 8.1, "Normal testing of real

Table 6

SECONDARY ANALYSIS: GROUP IV  
 The Second Most Preferred Classification of the  
 Twenty Cost Factors of Group IV (Table 3)

No Charge	No Preference	Overhead Charge
16 of 20	3 of 20	1 of 20
80%	15%	5%

SOURCE: Table 3 and Appendix D1.

property and equipment to maintain the level-of-capability and 13.2, "Observations and/or measurements of weather conditions made as a part of normal facility operation." Therefore, the group was labeled "Facility Maintenance."

MRTFB Findings. Based on the preceding discussions, the following findings are stated for each of the groups.

Group I. If a user levies requirements onto the facility for test support, there will be a direct charge assessed for the support generated. There was no disagreement among the facilities about charging direct for user test requirements.

Group II. The majority of the facilities charge direct for the primary support of a user. These are normal support costs that can readily be identified to a single user. It appears that primary support is normally

charged to a user although some facilities use an overhead charge rather than a direct charge.

Group III. Secondary, or indirect, support is charged as a direct charge by many of the facilities. Conversely, there are many that feel the cost factors of this group are "No Charge" to the user. Secondary support is more difficult than primary support to trace to a specific user.

Group IV. Maintaining the normal functions of the facility is classified "No Charge" by most of the facilities. The cost of operating and maintaining the facility at a level-of-capability is not passed on to the user by most of the facilities.

Summary of MRTFB Cost Factor Responses. As a whole, the MRTFB facilities indicate that costs are treated as direct charges when they relate to the direct support of a user's test. This includes both the user's requirements and primary support of the test mission. As the costs get less traceable to a specific user, (i.e., secondary test support), the classification of the charges as direct is less prevalent. Costs associated with maintaining the facility are generally classified as "No Charge."

### Major Command Cost Factor Responses

Cost factors were analyzed for the three major commands that have more than one MRTFB facility. This analysis was to determine the level of uniformity within each command and to determine if any command had a higher degree of uniformity than any other.

### Discussion

Every cost factor that had 100 percent agreement concerning the charge classification (within each major command) is included in Table 7. The table shows that each command had 40 to 44 percent agreement among its facilities charge classification practices for the research instrument's seventy cost factors. There is no apparent difference between the commands in the uniformity of their facilities charge classification practices.

### Findings

The major commands all exhibit about the same level of uniformity in the practices of their facilities. There is insufficient evidence to show that any major command has higher uniformity of facility cost classification practices than any other command.

Table 7

COMMAND PRACTICES UNIFORMITY  
 Number of Cost Factors Treated Identically by all  
 Facilities within the Command by Cost Classification  
 and Total

Classification	TECOM	NAVAIR	AFSC
No Charge	1	1	5
Direct Charge	25	27	26
Overhead Charge	3	0	0
Total	29 (41%)	28 (40%)	31 (44%)

SOURCE: Appendixes D2, D3, and D4.

Termination Charges

Draft revisions to DODD 3200.11 have included a provision to allow the facilities to charge the user for cancellation of support. As a point of interest, four termination charge scenarios were included in the research instrument. The scenarios varied in the amount of user support provided by the facility and the amount of user involvement with the facility. Scenario A had the least support and involvement. Termination was assumed to occur after project order acceptance but before support started. Progressively more support and involvement were included in scenarios B and C. Scenario D had the most support and involvement of the four. It involved the user not showing

up for the scheduled support. Responses were based on existing facility practices.

Discussion

Table 8 presents the responses to the termination charge scenarios. Both numerical and percentage figures are shown for each response-scenario combination. Most of the facilities (71 percent) do not charge for termination of requested support if the cancellation is prior to the commencement of support (Scenario A). Almost half (43 percent) of the facilities do charge for termination of scheduled support activities if cancellation is prior to some predetermined deadline (Scenario B). The majority (79 percent) charge for cancellation after the deadline and for not showing up (Scenarios C and D, respectively).

Table 8  
TERMINATION CHARGES

Response	Scenario A	Scenario B	Scenario C	Scenario D
Yes	4 (29%)	6 (43%)	11 (79%)	11 (79%)
No	10 (71%)	8 (57%)	2 (14%)	1 (7%)
N/A	0 (0%)	0 (0%)	1 (7%)	2 (14%)

SOURCE: Appendix C, page 102.



The comments included with the responses (Appendix C, page 102) indicate that the facility assesses the actual costs incurred on the user's behalf as the termination charge.

### Findings

Based on the responses received from fourteen of the eighteen facilities, there will not be a major impact upon the facilities if a termination charge provision is included in the revised DODD 3200.11. Presently, the majority of the facilities do assess a termination charge to the user (in the amount of the actual costs incurred) for the cancellation or non-use of scheduled support. The user may be relieved of some pecuniary liability if the facility is able to substitute another test program for the terminating user.

## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

In Chapter III it was determined that the services' and major commands' policy guidance is consistent with DOD Directive 3200.11 for both reimbursement policy and the classification of costs. In Chapter IV it was found that the classification of costs by the facilities appears to depend on the traceability of the cost factor.

#### General Conclusion

Based on the information derived during this investigation, the following conclusion can be reached for user test requirements, user primary support and facility maintenance: The uniform funding policy of DOD Directive 3200.11 is fairly uniform; that is, like costs incurred in similar circumstances at different facilities usually result in a similar classification of those costs.

#### Policy Guidance Conclusions

##### Conclusions About DOD Level Guidance

At the Department of Defense level, guidance is contained in DODD 3200.11. This directive is the source for

guidance concerning reimbursement policy and classification of costs as it pertains to the MRTFB facilities.

Reimbursement policy is very explicit. Users will reimburse for the costs incurred by facilities in providing support for the user. The costs to be reimbursed are based on the classification of the user. DOD and other federal government users reimburse for the direct costs of the support provided, while non-federal government users and all others pay for the full cost of the support provided.

DOD Directive 3200.11 uses a single paragraph to define direct costs and refers to DODI 7230.7 for the definition of full cost. No criteria is given in either the directive or the instruction for differentiating a direct cost from an overhead cost.

#### Conclusions About Service Level Guidance

For the most part, the services have simply repeated or transmitted the DOD uniform funding policy on to their major commands.

Little, if any, clarification about cost classification has been provided by the services. The services are not inconsistent with DOD in this regard. What guidance that has been provided is found in the service comptroller manuals. The definitions of direct cost found in the comptroller manuals are essentially the same as those provided by DOD.

### Conclusions About Major Command Guidance

At the major command level some additional guidance is provided concerning the cost definitions. TECOM has expressly defined some costs as indirect. NAVAIRSYSCOM, through a continuous dialogue with the facilities has established an informal method of providing definitions. AFSC has issued the most detailed formal guidance about what is a direct cost.

All three major commands follow and reiterate the DOD reimbursement policy to their facilities.

### Facility Practices Conclusions

#### Conclusions About the MRTFB as a Whole

The practices of the facilities are fairly consistent in what costs are classified as direct charges to the user of the facility and what costs are not direct charges. Costs associated with user testing requirements and user primary support are usually classified as a direct charge to the user. Based on the definitions provided by the major commands, the services and DOD, this is a logical result. The definitions provided define a direct cost as being identifiable to a specific user, which these costs usually are. The costs associated with a user's test requirements and a user's primary support are readily identifiable to that user.

Almost as consistent was the classification of facility maintenance costs as other than direct. The costs of maintaining the facility's level-of-capability cannot be identified to a single user, therefore, most of the facilities considered these costs to be "No Charge."

The gray area in the practices of the facilities was in the classification of costs associated with user secondary support. These were the costs incurred by the facility that benefit the various users, but are not readily identifiable to a specific user. Some facilities considered these costs to be "No Charge" while others considered these costs to be a "Direct Charge." Still others considered the costs to be an "Overhead Charge."

#### Conclusions About Major Command Uniformity

No one command had a greater uniformity in its facilities cost classification practices than any other command. The level of consistency within each command is 40 to 44 percent. Therefore, the extent to which each command has affected its facilities cost classification practices appears to be is about equal.

#### Conclusions About Assessments and Reimbursements

Assessment and reimbursement are distinct but related activities. Reimbursement is made only for those

costs assessed to the user for which the user is liable. Assessment of costs is made without regard to the user's liability to reimburse the costs. For example, no labor reimbursement will be made for any of the labor costs incurred unless these costs are assessed. The assessment of labor costs may be made in the form of cost for direct military labor and direct civilian labor. A DOD or other federal government user would then reimburse only for the direct civilian labor costs while a non-federal government user would reimburse for both labor costs.

There seems to be some confusion concerning this distinction between classifying costs and reimbursing the costs judging by some of the comments included in the returned research instruments. Two examples serve to illustrate this point.

1. The classification of some cost factors as an indirect charge was accompanied by the comment: "Charged to non-federal government users only." By definition an indirect cost can be assessed to every user. Its reimbursement by non-federal users only, however, is a financing requirement which is separate from (but dependent on) the accounting classification of costs.

2. The classification of a cost factor as a direct charge was followed by the comment: "DOD users are not charged for the support provided by military personnel." By definition, a user only reimburses those costs

for which he is liable, DOD users are not liable for military labor. Military labor may, however, be a direct cost of T&E support provided to DOD users.

The explicit nature of the reimbursement policy and the general nature of cost classification guidance has resulted in the use (by some facilities) of reimbursement liability of a cost as the basis for determining whether or not an incurred cost is to be assessed. Such facilities appear to be concerned with whether a cost is to be reimbursed rather than being concerned with the proper classification of costs as direct or overhead and the resultant assessment of charges. The use of "No Charge" as a cost classification, as discussed in Chapter IV, lends additional evidence to this conclusion.

#### Conclusions About Reimbursement Management

The reimbursement policy for the MRTFB facilities is very explicit, but the definition of direct cost is not. This dichotomy could lead to management of the level of reimbursement to be achieved by the facility and thereby, management of the accounting classification of cost. If a target reimbursement level were established for a facility, the facility would have to adjust the accounting system to obtain the target reimbursement level.

Since at least 94 percent of the support provided by the facilities is to direct-cost-reimbursing users

(i.e., DOD and other federal users), the reimbursement level could be increased only by the expansion of the definition of direct cost. One approach to this expansion could be by the use of standard rates.

An excellent example of this would be aircraft depot level maintenance. This expense, when incurred, is for the benefit of numerous users; therefore, it would normally be considered an indirect or overhead expense. However, if the cost of the maintenance were spread over the anticipated number of flying hours until the next depot level overhaul, a flying hour rate could be established which includes this indirect cost. Then, any time the aircraft is flown for user support a direct charge to the user for the depot level maintenance could be made. In this manner a typically indirect cost can be converted into a direct cost.

This use of standard rates could explain the lack of uniformity found in the "User Secondary Support" group of Table 3. Some facilities may have used the standard rate mechanism to assess a direct charge; others may have assessed a true overhead cost and still others may not have made any assessment at all.

#### Cost Classification Recommendations

The conclusions cited above point out that there is uniformity of a sort among the MRTFB facilities and that



this uniformity was achieved through differing implementation methods. There is, however, room for improvement in the uniformity of the cost classification practices of the MRTFB. Greater uniformity can be achieved with more clarity in the guidance issued by DOD, the services and the major commands. The following recommendations are made with this point in mind and with the assumption that uniformity is a goal of the uniform funding policy of DOD Directive 3200.11.

#### Recommendations About Cost Definitions

The definitions of direct, indirect, and G&A costs should be expanded to include criteria for determining which classification to use for the expenses incurred by the facility. These criteria could be based upon those cited by the Cost Accounting Standards or the Defense Acquisition Regulation.

#### Recommendations About Assessment and Reimbursement

The differentiation between assessing a cost and reimbursing for that cost should be made more explicit. All users incur similar costs in the use of the facility in similar circumstances. The assessment of these costs to the user should be made without regard to the type of user incurring the cost. Reimbursement will be made by

the user to the facility for those cost assessments for which the user is liable. This differentiation is not explained in DODD 3200.11 and there appears to be some confusion concerning the difference.

#### Recommendation for Further Study

One way to avoid potential cost classification problems associated with reimbursement level management is to change the reimbursement policy. Therefore, it is recommended that the reimbursement policy of DOD Directive 3200.11 be reexamined. The reexamination could start with a review of the Bergquist Study, especially Alternative II of that study. Alternative II, "User Funding of Direct and Some Indirect Costs at All 26 T&E Activities," proposed that all users reimburse for the direct costs of testing and some indirect costs.

Federal government users (both DOD and non-DOD) represent at least 94 percent of the MRTFB support. Allowing direct costs and some indirect costs to be reimbursed by this group of users will enable the facilities to achieve higher reimbursement levels without having to artificially expand the definition of direct cost.

APPENDIXES

APPENDIX A  
MRTFB FACILITIES

A-1 MRTFB FACILITIES OPERATING UNDER THE  
UNIFORM FUNDING POLICY (JUNE 1980)

US Army--Test and Evaluation Command

Aberdeen Proving Ground	(APG)
Dugway Proving Ground	(DPG)
Electronics Proving Ground	(EPG)
White Sands Missile Range	(WSMR)
Yuma Proving Ground	(YPG)

US Army--Ballistic Missile  
Defense Systems Command

Kwajalein Missile Range	(KMR)
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US Navy--Naval Air Systems Command

Naval Air Propulsion Center	(NAPC)
Naval Air Test Center	(NATC)
Naval Weapons Center	(NWC)
Naval Underwater Systems Center	(NUSC)
Pacific Missile Test Center	(PMTC)

US Air Force--Air Force Systems Command

Air Force Flight Test Center	(AFFTC)
Armament Division	(AD)
Arnold Engineering & Development Center	(AEDC)
Space and Missile Test Organization	(SAMTO)
Including:	
Eastern Space & Missile Center	(ESMC)
Western Space & Missile Center	(WSMC)
4950th Test Wing	(4950 TW)

USAF--Tactical Air Command

554th Range Group	(554 RG)
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A-2 ORIGINAL MRTFB FACILITIES  
(FROM DODD3200.11, ENCL 1, 18 JUNE 1974)

<u>National Ranges</u>	<u>Management Agency</u>
White Sands Missile Range (WSMR)	Army
Kwajalein Missile Range (KMR)	Army
Pacific Missile Range (PMR)	Navy
National Parachute Test Range (NPTR)	Navy
Eastern Test Range (ETR)	Air Force
Space & Missile Test Center (SAMTEC)	Air Force
*Satellite Control Facility (SCF)	Air Force
Arnold Engineering Development Center (AEDC)	Air Force
<u>Major DOD Test Facilities</u>	<u>Management Agency</u>
Dugway Proving Ground (DPG)	Army
*Arctic Test Center (ATC)	Army
*Tropic Test Center (TTC)	Army
Yuma Proving Ground (YPG)	Army
*Jefferson Proving Ground (JPG)	Army
Electronic Proving Ground (EPG)	Army
Aberdeen Proving Ground (APG)	Army
(Material Test Directorate Only)	
*Atlantic Underwater Test & Evaluation Center (AUTECE)	Navy
*Naval Air Test Center (NATC)	Navy
Naval Air Propulsion Test Center (NAPTC)	Navy
Naval Air Test Facility (NATF)	Navy
Naval Weapons Center (NWC)	Navy
(T&E Portion Only)	
*Atlantic Fleet Weapons Range (AFWR)	Navy
Air Force Special Weapons Center (AFSWC)	Air Force
(Includes 6585th Test Group)	
Tactical Fighter Weapons Center (TFWC)	Air Force
(Continental Operations Range Only)	
Air Force Flight Test Center (AFFTC)	Air Force
Armament Development and Test Center (ADTC)	Air Force
*Air Defense Weapons Center	Air Force

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\*Exempt from uniform funding policy

APPENDIX B  
FACILITIES PRACTICES RESEARCH INSTRUMENT



RESEARCH AND  
ENGINEERING

OFFICE OF THE UNDER SECRETARY OF DEFENSE

WASHINGTON D.C. 20301

13 MAY 1980

MEMORANDUM FOR NAVAL AIR SYSTEMS COMMAND/AIR 06  
AFSC/TE  
TECOM/DRSTE-CP

SUBJECT: DoD Directive 3200.11 Uniform Funding Policy

DoD Directive 3200.11, "Use, Management and Operation of the Department of Defense Major Ranges and Test Facilities," requires that certain ranges and test facilities ". . . will be funded in a uniform manner." Captains Phillip Swanson and Randall Soileau, students at the Air Force Institute of Technology, have undertaken a study to determine whether like costs incurred in like circumstances are charged in a uniform manner. The approach is twofold:

- a. Trace the policy guidance that each service and command has provided to its ranges and test facilities, and
- b. Obtain information from the individual MRTFB facilities as to what cost factors are charged and how they are charged.

The attached research instrument was developed to implement the second approach. It is requested that each test facility under the uniform funding policy complete the instrument by June 13, 1980, and return to:

Captain Phillip A. Swanson  
AFIT/LSOG  
Wright-Patterson AFB, Ohio 45433

Please answer all the questions accurately and candidly. The responses are intended solely for research purposes and will be held in complete confidence. Response is voluntary; however, the completeness of the study depends on your cooperation.

If there are any questions about this effort, contact Captain Swanson or Captain Soileau at Autovon 785-4707 or Commercial (513) 225-4707.

W.A. RICHARDSON  
Deputy Director for Test Facilities  
and Resources

Attachment

cc: CNO/OP 983  
AF/RDPT  
DCS/RDA



## INSTRUCTIONS FOR THE INSTRUMENT

### GENERAL COMMENTS

1. For the purposes of this instrument the following definitions are given.

a. Facility: A member of the MRTFB.

b. Cost factor: An expense (either in aggregate or element form) incurred by the facility to provide a level-of-capability or to provide specific user support.

c. User: An agency or activity that utilizes the capabilities of the facility. Three classes of users are recognized.

(1) DoD: A member of the military establishment.

(2) Other federal: Any element of the federal government other than DoD.

(3) Non-federal: Any agency or activity outside the federal government.

2. The cost factors of this instrument are not designed to cover all costs nor every situation. Rather, they are intended to sample costs that are applicable to most MRTFB facilities.

3. The concern of this instrument is the costs that are charged to the user, not what is reimbursed by the user to the facility. It is possible for a cost to be charged to a user but not reimbursed by said user. For example, all direct labor is a direct charge to a user even though DoD users do not reimburse for any military labor.

4. Costs may be classified as direct, indirect and general and administrative (G&A). For the purposes of this instrument assume:

a. A direct charge is a cost that can be consistently and uniformly identified to a single user. Direct costs are incurred by all users, are charged to all users and are reimbursed by all users subject to the exception cited in paragraph 3 above.

b. An indirect charge is an operating cost incurred to produce a service or product to accomplish the mission, but which cannot be directly identified to a single user. Indirect costs are incurred by all users, may be charged to all users, but are reimbursed only by other federal users and non-federal users.

c. A general and administrative charge is a cost that is not considered to be either direct or indirect. Included are such costs as depreciation on property and equipment, interest on investment, the unfunded portion of civilian retirement, etc. G&A costs are incurred to support all users, may be charged to all users, but are reimbursed only by non-federal users.

4

SPECIFIC INSTRUCTIONS

1. The first two pages of the instrument are self explanatory.
2. For pages 3 through 24, indicate your usual practice using the following procedure.
  - a. Read the cost factor entry.
  - b. If the cost factor is not relevant to your facility, place an "X" in the not relevant (NOT REL) column.
  - c. If the cost factor is relevant but no facility user is charged, place an "X" in the no charge (NO CHG) column.
  - d. If the cost factor is charged to the user, indicate the usual measurement of the cost by using the codes listed below in the appropriate column. (DIR CHG = direct charge; IND CHG = indirect charge; G&A CHG = gen and admin charge). Use the IND CHG column if indirect and G&A are not differentiated as costs.
    - (1) A - To indicate the charge is based on the actual rate for the actual quantity.
    - (2) S - To indicate the charge is based on a standard rate for a standard quantity.
    - (3) AS - To indicate the charge is based on the actual rate for a standard quantity.
    - (4) SA - To indicate the charge is based on a standard rate for the actual quantity.
    - (5) Q - To indicate the charge is measured in some other manner or a combination of the above. Explain in the comments section.
  - e. If the cost factor is charged in some manner other than direct, indirect or G&A, indicate with an "X" in the OTHER column and explain in the comments section.
  - f. Also, use the comments section for:
    - (1) Significant exceptions to the usual practice.
    - (2) Explaining what "other" means.
    - (3) Other comments.

If additional space is necessary, please use the back of the page.

GENERAL INFORMATION

FACILITY: \_\_\_\_\_

Point of contact at the facility.

NAME: \_\_\_\_\_

OFFICE: \_\_\_\_\_

AUTOVON: \_\_\_\_\_

1. What portion (approximate percentage) of your support is for:

a. DoD users: \_\_\_\_\_

b. Other federal users: \_\_\_\_\_

c. Non-federal users: \_\_\_\_\_

2. How does your facility classify costs for user support?

\_\_\_ Direct and indirect costs only.

\_\_\_ Direct, indirect and G&A costs.

\_\_\_ Direct and overhead (an undifferentiated combination of indirect and G&A) costs.

#### TERMINATION CHARGES

For the following question and associated scenarios a yes, no or not applicable answer is all that is required, however, your comments are welcome.

Is the user charged for the planned/scheduled support costs in the following situations?

a. The user's test program is terminated after a project order has been accepted but before any planned support is provided.

b. The user cancels a scheduled support period prior to some deadline (e.g., a range period is cancelled 48 hours in advance).

c. The user cancels a scheduled support period after the cancellation deadline but before the scheduled start time.

d. The user does not cancel a scheduled support period, but fails to show up.

CATEGORY: Pretest Activities		CLASS: General							
COST FACTOR	NOT REL	NO CHG	DIR CHG	IND CHG	GSA SHG	DT-IER	COMMENTS		
	1. Statement of Capability. Costs associated with preparing and publishing the SOC to support a user.								
2. Frequency Management. Costs of planning, preparing, coordinating frequency management for a user's test.									
3. Other Costs. Costs of user support incurred before project order acceptance (exclusive of SOC).									



CATEGORY: Testing Activities	CLASS: Test Monitoring						
	NOT REL	NO CHG	DIR CHG	IND CHG	S&A CHG	DT-HER	COMMENTS
COST FACTOR							
1. Operation of the facility Test Control Center (e.g., operations center).							
2. Operation of the facility data acquisition system.							

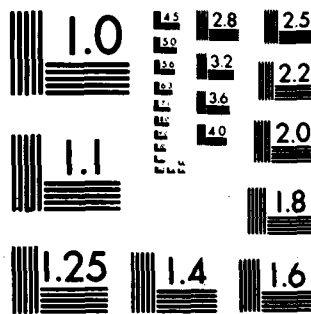
CATEGORY: Testing Activities		CLASS: Target/Ordnance Services					
COST FACTOR	NOT REL	NO CHG	DIR CHG	IND CHG	ISA CHG	DT-HIER	COMMENTS
1. Ordnance handling. Including: receipt, storage, up-loading, down-loading and disposal.							
2. Targets. Use of existing facility targets.							





CATEGORY: Testing Activities	CLASS: Miscellaneous Services													
COST FACTOR	NOT	NO	DIR	IND	B&A	DT-	COMMENTS							
	REL	CHG	CHG	CHG	CHG	IER								
1. Normal testing of real property and equipment to maintain the level-of-capability.														
2. Surveillance of the electromagnetic spectrum for extraneous signals (e.g., frequency monitoring during the conduct of the mission).														
3. Ground safety monitoring to assure the safety of personnel, equipment and real property during the conduct of the mission.														





MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

CATEGORY: Support Activities		CLASS: Ships					
COST FACTOR	NOT REL	NO CHG	DIR CHG	IND CHG	G&A CHG	DT-HIER	COMMENTS
1. Maintenance of the maritime capability of the ships utilized by the facility for user support.							
2. "Steaming time" to get into position to support a single user.							
3. "Steaming time" to get into position to support several users.							
4. Operation of the ship while in position for user support (i.e., the costs of the crew required to operate the ship itself).							

CATEGORY: Support Activities		CLASS: Aircraft					
COST FACTOR	NOT REL	NO CHG	DIR CHG	IND CHG	S&A GIG	OT- HER	COMMENTS
1. Maintenance of the airworthiness of the aircraft used by the facility to provide user support.							
2. "Positioning time." Time to get into the required position for user support.							
3. Aircrew costs.							
4. Operation costs. The costs, exclusive of aircrew costs, to operate the aircraft.							

CATEGORY: Support Activities			CLASS: Transportation				
COST FACTOR	NOT REL	NO CHG	DIR CHG	IND CHG	ESA FIG	DT-HER	COMMENTS
1. Operation of vehicles required to maintain the facility's level-of-capability.							
2. Transportation of user personnel to, from and around the testing area.							
3. Transportation of personnel and/or equipment beyond the scope of normal activities to meet a user's requirements.							

CATEGORY: Support Activities	CLASS: Communications					
COST FACTOR	NOT NO	DIR	IND	CS&A	DT-	COMMENTS
	REL	CHG	CHG	CHG	HIER	
1. Communications systems that provide the facility with a level-of-capability to support users.						
2. Communication systems installed to support a user that may be of future use to the facility and/or other subsequent users.						
3. Communication systems installed to support a user with no foreseeable use by the facility or other users.						



CATEGORY: Support Activities		CLASS: Geophysical					
COST FACTOR	NOT REL	NO CHG	DIR CHG	IND CHG	SEA CHG	DT-IER	COMMENTS
1. Geodetic Surveys.							
2. Observations and/or measurements of weather conditions made as a part of normal facility operation.							
3. Observations and/or measurements of weather conditions made to meet a user's requirements.							

CATEGORY: Support Activities					CLASS: Computer Support			
COST FACTOR	NOT REL	NO CHG	DIR CHG	IND CHG	S&A CHG	DT-IER	COMMENTS	
1. Prepackaged data reduction programs.								
2. Programmer effort to code programs to meet a user's requirements.								
3. Rental/lease costs of the facility's computer.								
4. Computer operating costs (e.g., operator labor, maintenance contracts, etc.).								
5. ADPE expendibles (e.g., paper, tapes, discs, etc.) either provided to the user or consumed in his behalf.								

CATEGORY: Support Activities		CLASS: Civil Engineering					
COST FACTOR	NOT REL	NO JHG	DIR CHG	IND CHG	ESA SHG	DT-IER	COMMENTS
1. Use of real property belonging to the facility (e.g., hanger space, office space, warehousing, etc.).							
2. Minor construction and/or alteration required by the user that has a subsequent use by the facility or other users.							
3. Minor construction and/or alteration required by the user of no subsequent use to the facility or other users.							
4. Utilities consumed by the user identified by metering or other means.							
5. Utilities consumed by the user identified on a pro rata basis by engineering estimate or other means.							

CATEGORY: Support Activities		CLASS: Data Services						
COST FACTOR	NOT REL	NO CHG	DIR CHG	IND CHG	S&A CHG	OT-PIER	COMMENTS	
								1. Photographic data acquisition (e.g., cinescopic, still camera, etc.).
2. Expendibles consumed in the production of photographic data (e.g. film, chemicals, etc.).								
3. Reduction and analysis of photographic data.								
4. Documentary photography (i.e., not for data purposes, but for documentation of the test effort).								



CATEGORY: Miscellaneous Activities		CLASS: Reproduction/Printing						
COST FACTOR	NOT REL	NO CHG	DIR CHG	FND CHG	F&A FING	DT-MER	COMMENTS	
1. Reproduction/printing of a general nature to support the normal activities of the facility (e.g., administrative forms).								
2. Reproduction/printing of a general nature to support most users (e.g., data collection forms).								
3. Reproduction/printing to support a user's requirements.								

CATEGORY: Miscellaneous Activities		CLASS: Travel and Per Diem					
COST FACTOR	NOT REL	NO	DIR	IND	G&A	OT-	COMMENTS
		CHG	CHG	CHG	CHG	HER	
1. Travel and per diem of administrative, staff and/or supervisory personnel to monitor the conduct of user support (e.g., the commander travels to the test area to check on the support being given a user).							
2. Travel and per diem of facility personnel to meet a user's requirements (e.g., to attend a user called meeting).							

CATEGORY: Miscellaneous Activities			CLASS: Equipment				
COST FACTOR	NOT REL	NO CHG	DIR CHG	IND CHG	SEA CHG	DT-IER	COMMENTS
2. Purchase costs of equipment used by the facility to provide a level-of-capability.							
3. Equipment purchased by the facility to support the requirements of a specific user which may be used to support subsequent users.							
4. Equipment purchased by the facility to support the requirements of a specific user with no foreseeable use by the facility or subsequent users.							



CATEGORY: Miscellaneous Activities			CLASS: DoD Civilian Labor			
COST FACTOR	NOT NO REL	DIR CHG	IND CHG	SA CHG	OT-PIER	COMMENTS
1. Civilians performing administrative duties.						
2. Civilians performing supervisory duties over personnel directly providing user support (e.g., first level supervisors).						
3. Civilians providing primary user support (e.g., equipment operators).						
4. Civilians providing secondary user support (e.g., design engineers)						

CATEGORY: Miscellaneous Activities				CLASS: Contracts			
COST FACTOR	NOT REL	NO CHG	DIR CHG	IND CHG	S&A CHG	DT- MER	COMMENTS
1. Costs of administering contracts for required support for a specific user.							
2. Operations and Maintenance. Costs of O&M contractor(s) that provides a level-of-capability for the facility.							

CATEGORY: Miscellaneous Activities		CLASS: Materials/Supplies					
COST FACTOR	NOT REL	NO CHG	DIR CHG	IND CHG	LEA CHG	DT-MER	COMMENTS
1. Materials/supplies, including POL, consumed by the facility in providing general support to all users and not identifiable to a single specific user.							
2. Material/supplies, including POL, consumed by the facility in supporting a specific user.							

CATEGORY: Miscellaneous Activities				CLASS: Other			
COST FACTOR	NOT REL	NO CHG	DIR CHG	IND CHG	SEA CHG	OT-IER	COMMENTS
	1. Depreciation on real property used by the facility to accomplish its mission (e.g., climatic hanger, wind tunnel, etc.).						
2. Depreciation on equipment used by the facility to accomplish its mission (e.g., radars, ships, aircraft, etc.).							
3. Real property leases for level-of-capability support.							
4. Support reimbursed by the facility to other activities/agencies for general level-of-capability requirements (e.g., host-tenant agreements)							
5. Support reimbursed by the facility to other activities/agencies for specific user required support (e.g., equipment from another MRTFB facility).							

APPENDIX C  
RESEARCH INSTRUMENT RESPONSES

#### GENERAL NOTES\*

The following notes are referenced throughout this Appendix. They are consolidated here to avoid unnecessary duplication in the comments section.

1. O under IND CHG. This means "Support Cost." Support cost charges are based on the number of civilian/military hours worked for the user times the overhead expense rate.
2. O under G&A CHG. This applies to unfunded military labor and asset use charges. Unfunded military labor charges are based on the military expense rate times the number of hours worked for the user. Asset use charge is added based on percentage of total costs for non-federal users in lieu of depreciation, attrition or imputed interest on investment.
3. A SA SA or SA SA SA. A or SA under DIR CHG details the measurement of the cost charged. SA under IND CHG implies cost center overhead allocation. SA under G&A CHG implies facility overhead allocation.
4. A SA or SA SA. SA under IND CHG relates to fringe benefits and other contractor cost elements.
5. A+SA. This notation means that the actual labor rate incurred is charged and a standard rate is charged for equipment usage.
6. A/SA. This notation means that the actual labor rate incurred is charged to non-federal users and a stabilized labor rate is charged to federal users.
7. Response was interpreted as "no charge" for the analysis effort based on the respondent's comments.
8. Response was interpreted as "direct charge" for the analysis effort based on the respondent's comments.
9. Response was interpreted as "overhead charge" for the analysis effort based on the respondent's comments.

\*General Notes is abbreviated as "GN" in the comments section of the tables.

1. Approximate Percentage of Support

	DOD (%)	Other Federal (%)	Nonfederal (%)
<u>Army</u>			
1	99	- <sup>b</sup>	- <sup>b</sup>
2	95	3	2
3	95	4	1
4	95	5	0
5	92	7	1
<u>Navy</u>			
6	99.5 <sup>a</sup>	0.2	0.3
7	95	1	4
8	95	0	5
9	96	3	1
<u>Air Force</u>			
10	57	38.5	4.5
11	97	3	0
12	82	12	6
13	98	1 <sup>b</sup>	1
14	95	- <sup>b</sup>	4-5

<sup>a</sup>99 percent Navy; 0.5 percent other DOD.

<sup>b</sup>Less than 1 percent.

## 2. Cost Classification System Used

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	Direct & Indirect Only	Direct, Indirect & G&A	Direct & Overhead
<u>Army</u>			
1	X		
2			X
3		X	
4		X	
5		X	
<u>Navy</u>			
6		X	
7	X		
8		X	
9		X	
<u>Air Force</u>			
10		X	
11		X	
12		X	
13		X	
14		X	

---



### Termination Charges

	Scenario A	Scenario B	Scenario C	Scenario D
<u>Army</u>				
1	No	No	Yes <sup>a</sup>	Yes <sup>a</sup>
2	No	Yes <sup>b</sup>	Yes <sup>b</sup>	Yes <sup>b</sup>
3	No	No	Yes <sup>a</sup>	Yes <sup>a</sup>
4	No	No <sup>c</sup>	No <sup>c</sup>	No <sup>c</sup>
5	Yes <sup>a</sup>	Yes <sup>a</sup>	Yes <sup>a</sup>	Yes <sup>d</sup>
<u>Navy</u>				
6	No	No	Yes <sup>f</sup>	Yes <sup>g</sup>
7	No	No	Yes <sup>a</sup>	Yes <sup>a</sup>
8	Yes <sup>a</sup>	Yes <sup>a</sup>	Yes <sup>a</sup>	Yes <sup>a</sup>
9	No	No <sup>e</sup>	Yes	Yes
<u>Air Force</u>				
10	No	Yes <sup>a</sup>	Yes <sup>a</sup>	Yes <sup>a</sup>
11	No	No	No <sup>e</sup>	N/A
12	Yes <sup>b</sup>	Yes	N/A	N/A
13	Yes <sup>a</sup>	No	Yes <sup>b</sup>	Yes <sup>a</sup>
14	No	Yes <sup>a</sup>	Yes <sup>a</sup>	Yes <sup>a</sup>

- NOTES:
- a. User is charged for actual costs incurred.
  - b. Unless another program can be substituted.
  - c. Plan to start charging in the future.
  - d. User pays 100 percent of pre and in-test labor.
  - e. User is subject to termination charges under varying conditions.
  - f. Sliding scale charges of 20-100 percent.
  - g. Charges to customer order of 100 percent.

CATEGORY      Pretest Activities      CLASS:      General

COST FACTOR:      3.1 Statement of Capability. Costs associated with preparing and publishing the  
SOC to support a user.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
ARMY							
1	X						
2			A				
3	X						
4	X						
5						X	SOC preparation is institutionally funded (see GN 7).
Navy							
6				O	O		See GNS 1, 2, and 9.
7	X			A			See GN 9.
8	X						
9	X						
Air Force							
10	X						
11			A				
12					SA		
13			A		SA		See GN 3 and 8.
14			A				

CATEGORY: Pretest Activities CLASS: General

COST FACTOR: 3.2 Frequency Management. Costs of planning, preparing, coordinating, frequency management for a user's test.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1			A	SA			See GN 4 and 8.
2			A	A			
3	X		A				User charged if formal test plan initiated. GN 8.
4			X				If ordered by customer, he is charged.
5						X	Communication support integrated into std rates. GN 8.
Navy							
6				O			See GNs 1, 2 and 9.
7		X		A			See GN 9.
8		X					
9			A				
Air Force							
10		X					
11			A+SA				See GN 5.
12	X						
13			A	SA	SA		See GN 3 and 8.
14			A				

CATEGORY: Pretest Activities CLASS: General

COST FACTOR: 3.3 Other Costs. Costs of user support incurred before project order acceptance (exclusive of SOC).

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army 1	X						
2				A			Normally no work prior to project order. Policy is: No effort until financing received.
3		X					
4			X				
5				SA			Anything other than SOC or project order processing chrgd.
Navy 6					O	O	See GNS 1, 2 and 9.
7				A			This is for planning functions only.
8				A	SA		See GN 8.
9				A			
Air Force 10							
11				A	A+SA		See GN 5. Exception basis with commanders approval only.
12					A		
13						X	
14						A	

CATEGORY: Testing Activities CLASS: Telemetry

COST FACTOR: 4.1 Use of Facility owned transponders.

Facility	Not Rel	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army						
1	X					
2		SA				
3				A		Purchased with RDT&E funds earmarked for tst facility instrumentation (see GN 7)
4	X					Charged if expended. If recovered and reusable, no charge.
5		SA				
Navy						
6			0	0		See GNs 1, 2 and 9.
7						
8			X			
9			X			
Air Force						
10						
11				A		
12				A+SA		See GN 5.
13	X				S	
14					A	

CATEGORY: Testing Activities CLASS: Telemetry

COST FACTOR: 4.2 Installation kits for user equipment to be able to use facility owned transponders.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1	X						
2			SA				
3			A			A	Direct only if a user unique requirement exists. GN 8.
4	X						
5			SA				
Navy							
6			A		O		See GN 2 and 8.
7			SA				
8			A	SA			Spec'l instal. kits only, +installation costs. See GN 8.
9			A				Also applies to installation efforts.
Air Force							
10			A				
11			A+SA				See GN 5.
12	X						
13			SA	SA	SA		See GN 3 and 8.
14			A				

CATEGORY: Testing Activities CLASS: Telemetry

COST FACTOR: 4.3 Calibration/checkout of transponders installed in user equipment.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1	X						
2			SA				
3			A	A			
4	X						
5			SA				
Navy							
6			A/SA		O		
7			SA				See GNs 2, 6 and 8.
8			A	SA			
9			SA				See GN 8.
Air Force							
10			A				
11			A+SA				
12		X					See GN 5.
13			SA	SA	SA		
14			A				See GNs 3 and 8.

Indirect if multiple tets conducted simultaneously. GN 8.

CATEGORY: Testing Activities CLASS: Test Monitoring

COST FACTOR: 5.1 Operation of the facility Test Control Center (e.g., operations center).

Not No Dir Ind G&A Ot-  
Facility Rel Chg Chg Chg Chg her Comments

ARMY											
1	A	SA									See GNs 4 and 8.
2	SA										
3	A	A									Dir for range preparation. Indir for scheduling. GN 8.
4	X										
5	SA										
Navy											
6											
7	SA										
8	A	SA									
9	SA										
Air Force											
10	A										
11	A+SA										
12	A										
13	SA	SA	SA	SA							
14	A										



CATEGORY: Testing Activities CLASS: Test Monitoring

COST FACTOR: 5.2 Operation of the facility data acquisition system.

Not No Dir Ind G&A Ot-  
Facility Rel Chg Chg Chg her Comments

Army										
1	SA	SA							See GNS 4 and 8.	
2	SA									
3	A									
4	X									
5	SA									
Navy										
6			0	0					See GNS 1, 2 and 9.	
7	SA									
8	A	SA							See GN 8.	
9	SA									
Air										
Force										
10	A									
11	A+SA								See GN 5.	
12	A									
13	SA	SA	SA	SA					See GNS 3 and 8.	
14	A									

CATEGORY: Testing Activities CLASS: Target/Ordnance Services

COST FACTOR: 6.1 Ordnance handling. Including: receipt, storage, up-loading, down-loading, and disposal.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1			A	SA			See GNs 4 and 8.
2	X						
3			A	A			Indirect charges for receipt and storage. GN 8.
4			X				
5			A				Excludes storage costs.
Navy							
6				O	O		See GNs 1, 2 and 9.
7		X	SA				No user charge for portion handled by military. See GN 8.
8			A	SA			See GN 8.
9			A				
Air Force							
10			A				
11	X						
12	X						
13			A	SA	SA		See GNs 3 and 8.
14	X						

CATEGORY: Testing Activities CLASS: Target/Ordnance Services

COST FACTOR: 6.2 Targets. Use of existing facility targets.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1			A	SA			See GNs 4 and 8.
2	X						
3			A				
4			X				Clean up of area to remove munitions charged to user.
5			A				Ground targets only, other targets aquired elsewhere.
Navy							
6				O	O		See GNs 1, 2 and 9.
7			S/A				Standard for existing. Actual for special target arrays.
8			A	SA			See GN 8.
9			SA				
Air Force							
10		X					
11		X					
12		X					
13			SA	SA	SA		See GNs 3 and 8.
14		X					

CATEGORY: Testing Activities

CLASS: Instrumentation

COST FACTOR: 7.1 Normal premission and/or postmission calibration/checkout of instrumentation system(s).

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1			A		SA		See GNs 4 and 8.
2			SA				
3			A				
4			X				Inst checks are charged user. Inst. use at std rate.
5			SA				
Navy							
6				O		O	See GNs 1, 2 and 9.
7			SA				
8		X					
9			SA				
Air Force							
10			A				
11			A+SA				See GN 5.
12					SA		
13			A	SA	SA		See GNs 3 and 8.
14			A				

CATEGORY: Testing Activities CLASS: Instrumentation

COST FACTOR: 7.2 Additional (extraordinary) calibration/checkout requirements levied by the user.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg Chg her Comments

ARMY											
1	A	SA								See GNS 4 and 8.	
2	SA										
3	A										
4	X										
5	A										
Navy											
6	A/SA									See GNS 2, 6 and 9.	
7	A										
8	A	SA								See GN 8.	
9	A										
Air											
Force											
10	A										
11	AtSA									See GN 5.	
12	A										
13	A	SA								See GNS 3 and 8.	
14	A										

CATEGORY: Testing Activities CLASS: Miscellaneous Services

COST FACTOR: 8.1 Normal testing of real property and equipment to maintain the level-of-capability.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	GsA Chg	Ot-her	Comments
----------	---------	--------	---------	---------	---------	--------	----------

Army							
1		X					
2				SA			
3				A			
4						X	If nor'l means routine, custs chrg'd rental rate (see GN8).
5		X					
Navy							
6				O	O		See GNs 1, 2 and 9.
7				A			
8		X					
9		X					
Air							
Force							
10		X					
11				SA			
12					SA		
13					S	S	
14		X					See GN 9.

CATEGORY: Testing Activities CLASS: Miscellaneous Services

COST FACTOR: 8.2 Surveillance of the electromagnetic spectrum for extraneous signals (e.g., frequency monitoring during the conduct of the mission).

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
ARMY							
1			A	SA			See GNs 4 and 8.
2				SA			
3				A			
4			X				When responding to a customer's testing requirements.
5			SA				
Navy							
6				O	O		See GNs 1, 2 and 9.
7				SA			
8		X					
9			S				
Air Force							
10			A				
11			A+SA				See GN 5.
12			A				
13			SA	SA	SA		See GNs 3 and 8.
14			A				

CATEGORY: Testing Activities CLASS: Miscellaneous Services

COST FACTOR: 8.3 Ground safety monitoring to assure the safety of personnel, equipment and real property during the conduct of the mission.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1			A	SA			See GNs 4 and 8.
2			SA				
3			A	A			Direct if other than regular operations. GN 9.
4			X				
5			A				
Navy							
6				O	O		See GNs 1, 2 and 9.
7			SA				
8			A	SA			See GN 8.
9			O				Included in standard charge.
Air Force							
10			A				
11			A+SA				See GN 5.
12			A				
13						S	
14			A				



CATEGORY: Support Activities

CLASS: Ships

COST FACTOR: 9.1 Maintenance of the maritime capability of the ships utilized by the facility for user support.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
----------	---------	--------	---------	---------	---------	--------	----------

Army							
1							
2	X						Smallcraft not ocean going ships.
3							
4	X						
5	X						
Navy							
6	X						
7	X						
8							
9							
Air Force							
10							
11	X					SA	Ship not in use. Reflects prior practices.
12	X						
13	X						
14	X						

Effective FY 81

CATEGORY: Support Activities CLASS: Ships

COST FACTOR: 9.2 "Steaming time" to get into position to support a single user.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg her Comments

Army  
1 X SA SA Small craft, not ocean going ships. See GNS 4 and 8.  
2 X  
3 A  
4 X  
5 X  
Navy  
6 X  
7 X

8 A SA See GN 8.  
9 S Ship not in use, reflects prior practices. Std rate/day.  
Air  
Force  
10 SA  
11 X  
12 X  
13 X  
14 X

CATEGORY: Support Activities CLASS: Ships

COST FACTOR: 9.3 "Steaming time" to get into position to support several users.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1	X						
2	X						
3				A			
4	X						
5	X						
Navy							
6	X						
7	X						
8				A	SA		Small craft, not ocean going ships.
9				S			See GN 8. Reflects prior pract. (ship not in use). Users share cost.
Air Force							
10						X	
11						X	
12						X	
13						X	
14						X	

CATEGORY: Support Activities CLASS: Ships

COST FACTOR: 9.4 Operation of the ship while in position for user support (i.e., the cost of the crew required to operate the ship itself).

Facility	Not Rel	NO Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army				SA	SA		Small craft, not ocean going ships. See GNs 4 and 8.
1							
2	X						
3				A			
4	X						
5	X						
Navy							
6	X						
7	X						
8				A	SA		Incl. POL at std rate based on actual time used. GN 8.
9				O			Ship not in use, reflects prior pract. Incl. std/day.
Air Force							
10				SA			Effective FY 81
11						X	
12						X	
13						X	
14						X	

CATEGORY: Support Activities CLASS: Aircraft

COST FACTOR: 10.1 Maintenance of the airworthiness of the aircraft used by the facility to provide support.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1		X					
2			SA				
3					SA		
4		X					
5			SA				Standard rates for Army aircraft.
Navy							
6			SA		O		See GNs 2 and 8.
7			SA	SA			Calculated into flying hour rate. See GN 8.
8		X					
9			O				Included in operations costs.
Air Force							
10						X	
11						X	
12						X	
13			SA	SA	SA		See GNs 3 and 8.
14			SA				

CATEGORY: Support Activities CLASS: Aircraft

COST FACTOR: 10.2 "Positioning time." Time to get into the required position for user support.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg Chg her Comments

ARMY											
1	SA										See GNS 4 and 8.
2	SA										
3					SA						
4	X										Army standard flying hour rates used. This is considered an operational cost.
5	SA										
Navy											
6	SA					O					See GNS 2 and 8.
7	SA										
8	SA					SA					See GN 8.
9	SA										Std rate for a/c type per actual flying hour.
Air											
Force											
10									X		
11									X		
12									X		
13	SA					SA					See GNS 3 and 8.
14	SA										

CATEGORY: Support Activities CLASS: Aircraft

COST FACTOR: 10.3 Aircrew costs.

Facility	Not Rel	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army						
1			SA	SA		See GNS 4 and 8.
2			SA			
3				SA		
4		X				Army standard flying hour rates.
5			SA			No charge for military crew to DOD users.
Navy						
6			SA	O		See GNS 2 and 8.
7		X			A	No charge for military. See GN 8.
8			SA	SA		
9		X				
Air Force						
10	X					
11	X					
12	X					
13			A	SA	SA	See GNS 3 and 8.
14		X				See GN 8.

CATEGORY: Support Activities CLASS: Aircraft

COST FACTOR: 10.4 Operation costs. The costs, exclusive of aircrew costs, to operate the aircraft.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg Chg her Comments

Army										
1		SA	SA							See GNS 4 and 8.
2		SA								
3				SA						
4	X									Army standard flying hour rates used.
5		SA								
Navy										
6		SA		0						See GNS 2 and 8.
7		SA								
8		SA	SA							See GN 8.
9		SA								Std rate for a/c type per actual flying hours.
Air Force										
10	X									
11	X									
12	X									
13		SA	SA	SA						See GNS 3 and 8.
14		SA								



CATEGORY: Support Activities CLASS: Transportation

COST FACTOR: 11.1 Operation of vehicles required to maintain the facilities level-of-capability.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg Chg her Comments

ARMY										
1	X									
2			A							
3			A							
4	X									
5	X	SA								Included in std rate for each support system. See GN 8.
Navy										
6			O	O						See GNs 1, 2 and 9.
7	X		A							See GN 9.
8	X									
9	X									
Air Force										
10	X									
11		SA								Effective FY 81 for O & M contactor vehicles.
12			SA							
13					S					
14	X									

CATEGORY: Support Activities

CLASS: Transportation

COST FACTOR: 11.2 Transportation of user personnel to, from and around the testing area.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
----------	---------	--------	---------	---------	---------	--------	----------

ARMY							
1	X						
2			A				
3			A				
4	X						Unless specifically for a user test. Shuttle bus would be no cost.
5			A				

127

Navy							
6				O		O	See GNs 1,2 and 9.
7					A		See GN 9.
8	X						Ground: no charge. Air: std rate for actual use. GN 8.
9	X						

Air Force							
10	X						
11							
12					SA	SA	
13			SA		SA	SA	See GNs 3 and 8.
14					A		

CATEGORY: Support Activities CLASS: Transportation

COST FACTOR: 11.3 Transportation of personnel and/or equipment beyond the scope of normal activities to meet a user's requirements.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg her Comments

Army											
1			SA	SA					See GNs 4 and 8.		
2			A								
3			A								
4			X								
5			A								
Navy											
6			SA		O				See GNs 2 and 8.		
7			SA								
8			A	SA					See GN 8.		
9			A								
Air											
Force											
10			A								
11			A								
12			A								
13			SA	SA	SA				See GNs 3 and 8.		
14			A								

CATEGORY: Support Activities CLASS: Communications

COST FACTOR: 12.1 Communications systems that provide the facility with a level-of-capability to support users.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg Chg her Comments

Army										
1	X									
2			A							
3			A							
4	X									
5			SA							Included as part of standard rate usually.
Navy										
6				O	O					See GNs 1, 2 and 9.
7	X			A						See GN 9.
8	X									
9	X			S						No charge for base comm. std cost for opns comm. See GN 8.
Air Force										
10	X									
11				SA						
12										
13	X									
14	X									

CATEGORY: Support Activities CLASS: Communications

COST FACTOR: 12.2 Communications systems installed to support a user that may be of future use to the facility and/or other subsequent users.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army 1			A	SA			See GNs 4 and 8.
2			A	A		A	Common user equip is bought with RDT&E instr funds. GN 8.
3			X				Out of pocket costs. Equip costs only if one time use.
4			A				Subsequent user pays only his unique needs.
5							
Navy 6				O		O	See GNs 1, 2 and 9.
7			A				
8			A	SA			See GN 8.
9			A				
Air Force 10							
11	X		SA				No charge to install. Subsequent use at a std rate. GN 8.
12	X						
13			A				Negotiable.
14	X						

CATEGORY: Support Activities

CLASS: Communications

COST FACTOR: 12.3 Communications systems installed to support a user with no foreseeable use by the facility or other users.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg her Comments

ARMY  
1 A SA See GNs 4 and 8.  
2 A  
3 A  
4 X  
5 A

Out of pocket costs. Equip costs only if one time use.

Navy  
6 A 0 See GNs 2 and 8.  
7 A  
8 A SA See GN 8.  
9 A

Air  
Force  
10 A  
11 A  
12 A  
13 A  
14 A

CATEGORY: Support Activities CLASS: Geophysical

COST FACTOR: 13.1 Geodetic Surveys.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg Chg her Comments

Army									
1	X								
2			SA						
3				A					
4		X							
5			SA						
Navy									
6		X							
7			SA						
8		X							
9			A						
Air									
Force									
10						X			
11		X							
12		X							
13		X							
14							X		

CATEGORY: Support Activities CLASS: Geophysical

COST FACTOR: 13.2 Observations and/or measurements of weather conditions made as a part of normal facility operation.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg her Comments

Army							
1	X						
2		X					
3			A				
4	X						
5	X						
Navy							
6	X						
7	X		A				See GN 9.
8	X						
9				S			
Air Force							
10					X		
11					X		
12		X					
13						X	
14						X	



CATEGORY: Support Activities CLASS: Geophysical

COST FACTOR: 13.3 Observations and/or measurements of weather conditions made to meet a user's requirements.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1			A		SA		See GNs 4 and 8.
2			A				
3			A				
4			X				
5		X	SA				Range effort for weather data is charged. GN 8.
Navy							
6		X					
7			SA				
8			A		SA		See GN 8.
9			A				
Air Force							
10						A	
11						A	
12		X					
13			SA		SA		See GNs 3 and 8.
14						X	

CATEGORY: Support Activities CLASS: Computer Support

COST FACTOR: 14.1 Prepackaged data reduction programs.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1	X						
2			SA				
3				A		A	Some pgms are purchased with RDT&E methodology funds.GN 9.
4	X						
5			SA				
Navy							
6				O	O		See GNs 1, 2 and 9.
7	X						
8			A	SA			See GN 8.
9			S				
Air Force							
10			SA				
11	X						Basic software, no charge.
12			A				
13	X						
14			A				

CATEGORY: Support Activities CLASS: Computer Support

COST FACTOR: 14.2 Programmer effort to code programs to meet a user's requirements.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg her Comments

Army									
1	A	SA							See GNs 4 and 8.
2	SA								
3	A								
4	X								
5	A								
Navy									
6	A/SA	O							See GNs 2, 6 and 8.
7	SA								
8	A	SA							See GN 8.
9	A								
Air Force									
10	A								
11	A+SA								See GN 5.
12	A								
13	A	SA	SA						See GNs 3 and 8.
14	A								

CATEGORY: Support Activities CLASS: Computer Support

COST FACTOR: 14.3 Rental/lease costs of the facility's computer.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1	X						Rental charged to non-federal users.
2				A			
3				A	A		
4			X				Ind for lease costs. G&A for instaln cmptr facility. GN 8.
5			SA				Part of standard rate.
Navy							
6			SA		O		See GNs 2 and 8.
7			SA				
8				X			
9			O				Included in standard rate of cost factor 14.1.
Air Force							
10					SA		
11					SA		
12					SA		
13					SA	SA	See GNs 3 and 8.
14						X	

CATEGORY: Support Activities CLASS: Computer Support

COST FACTOR: 14.4 Computer operating costs (e.g., operator labor, maintenance contracts, etc.).

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army				SA	SA		See GNS 4 and 8.
1					A		
2					A		Ind for leased equip. G&A for instln computer. GN 8.
3					A		Part of standard rate.
4		X					
5				SA			
Navy				SA		O	See GNS 2 and 8.
6				SA			
7				A	SA		Maint not incl. Data acquisition & reduction chrgd. GN 8.
8				O			Included in standard rate of cost factor 14.1.
9							
Air Force				SA			See GN 5.
10				A+SA			
11				SA			See GNS 3 and 8.
12					SA		
13							
14						X	

CATEGORY: Support Activities CLASS: Computer Support

COST FACTOR: 14.5 ADPE expendibles (e.g., paper, tapes, discs, etc.) either provided to the user or consumed in his behalf.

Facility	Not Rel	NO Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
ARMY							
1			A		SA		See GNS 4 and 8.
2				A	A		
3			A		A		Dir: user unique. Ind: leased equip, G&A: instln cmpr. GN 8.
4			X				Part of standard rate.
5					SA		
Navy							
6			SA			O	See GNS 2 and 8.
7			SA				
8			A		SA		See GN 8.
9			O				Included in standard rate of cost factor 14.1.
Air							
Force							
10					SA		
11					SA		
12					SA		
13					SA	SA	See GNS 3 and 8.
14							

CATEGORY: Support Activities CLASS: Civil Engineering

COST FACTOR: 15.1 Use of real property belonging to the facility (e.g., hanger space, office space, warehousing etc.).

Facility	Not Rel	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army						
1	X					
2			SA			
3			A			
4	X					
5					0	Case by case determination. User may be charged. GN 7.
Navy						
6				0	0	See GNs 1, 2 and 9.
7		X				
8		X				
9		X				
Air Force						
10				SA		
11	X					Facility is a tennant unit.
12		X				
13				SA		
14	X					Only to reimbursable users (commercial and FMS)

CATEGORY: Support Activities CLASS: Civil Engineering

COST FACTOR: 15.2 Minor construction and/or alteration required by the user that has a subsequent use by the facility or other users.

Facility	Not Rel	NO Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
ARMY							
1			A	SA			See GNS 4 and 8.
2			A				
3			A	A			Some were user unique and funded by user program. GN 8.
4			X				Usually difficult to ascertain subsequent use.
5			A				
Navy							
6				O	O		See GNS 1, 2 and 9.
7			A				
8			A	SA			See GN 8.
9		X					Dir charge if user requested const. See GN 8.
Air Force							
10			A				
11		X					Facility is a tennant unit.
12		X					
13			A				Negotiable
14		X					



CATEGORY: Support Activities CLASS: Civil Engineering

COST FACTOR: 15.3 Minor construction and/or alteration required by the user of no subsequent use to the facility or other users.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1			A	SA			See GNS 4 and 8.
2			A				
3			A				
4			X				
5			A				
Navy							
6			A		O		See GNS 2 and 8.
7			A				
8			A	SA			See GN 8.
9			A				
Air Force							
10			A				
11			A				
12			A				
13			A				
14						X	Facility is a tenant unit.

CATEGORY: Support Activities CLASS: Civil Engineering

COST FACTOR: 15.4 Utilities consumed by the user identified by metering or other means.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg Chg her  
Comments

Army													
1	X												
2			A										
3	X												
4			X										
5	X												
Navy													
6			SA		O								See GNs 2 and 8.
7				A									See GN 9.
8		X											
9		X											
Air													
Force													
10			A										
11	X												
12			SA										
13			A										
14		X											Facility is a tenant unit.

CATEGORY: Support Activities CLASS: Civil Engineering

COST FACTOR: 15.5 Utilities consumed by the user identified on a pro rata basis by engineering estimate or other means.

Facility	Not Rel	No Dir	Ind	G&A	Ot-	Chg	Chg	Chg	her	Comments
	Chg	Chg	Chg	Chg	Chg					
Army										
1				SA	SA					See GNS 4 and 8.
2	X									
3	X									
4				X						When not metered.
5				SA						Part of support instrumentation standard rate.
Navy										
6				S	O					See GNS 2 and 8.
7					A					See GN 9.
8				X						
9				X						
Air Force										
10					A					
11	X									Facility is a tennant unit.
12					SA					
13					SA					
14										

CATEGORY: Support Activities CLASS: Data Services

COST FACTOR: 16.1 Photographic data acquisition (e.g., cinesextant, still camera, etc.).

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
----------	---------	--------	---------	---------	---------	--------	----------

Army							
1			A	SA			See GNs 4 and 8.
2				SA			Direct if other than normal equipment required by user.
3			A		A		Direct for user unique requirements. GN 8.
4		X					Usage fee for operations and annual average repair costs.
5			SA				
Navy							
6				O	O		See GNs 1, 2 and 9.
7			SA				
8			A	SA			
9			A				
Air Force							
10			A				
11	X						Most photographic support provided by AFAVS.
12			A				
13			SA	SA	SA		See GNs 3 and 8.
14		X					

CATEGORY: Support Activities CLASS: Data Services

COST FACTOR: 16.2 Expendibles consumed in the production of photographic data (e.g., film, chemicals, etc.).

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1			A	SA			See GNs 4 and 8.
2				SA			Direct if other than normal equipment required by user.
3			A		A		Direct charging for user unique requirements. See GN 8.
4			X				
5			SA				
Navy							
6				O	O		See GNs 1, 2 and 9.
7			SA				
8			A	SA			See GN 8.
9			A				
Air Force							
10							
11	X		A				Most photographic support provided by AFAVS.
12			A				
13			SA	SA	SA		See GNs 3 and 8.
14			A				

CATEGORY: Support Activities CLASS: Data Services

COST FACTOR: 16.3 Reduction and analysis of photographic data.

Not No Dir Ind G&A Ot-  
Facility Rel Chg Chg Chg Chg her Comments

Army									
1	A	SA						See GNS 4 and 8.	
2		SA							
3	A								
4	X								
5	SA								
Navy									
6	A/SA			O				See GNS 2, 6 and 8.	
7	SA								
8	A	SA						See GN 8.	
9	A								
Air									
Force									
10	A								
11	X								
12	A								
13	SA	SA		SA					
14	A								

Most photographic support provided by AFAVS.

See GNS 3 and 8.

CATEGORY: Support Activities CLASS: Data Services

COST FACTOR: 16.4 Documentary photography (i.e., not for data purposes, but for documentation of the test effort).

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
ARMY							
1			A	SA			See GNs 4 and 8.
2				SA			
3			A	A			Direct if user requested. GN 8.
4			X				
5				SA			
Navy							
6			A/SA		0		See GNs 2, 6, and 8.
7			SA				
8			A	SA			See GN 8.
9			A				
Air Force							
10							
11	X						Most photographic support provided by AFAVS.
12					SA		
13			SA	SA	SA		See GNs 3 and 8.
14			A				

CATEGORY: Miscellaneous Activities CLASS: Education/Training

COST FACTOR: 17.1 Education/training of facility personnel required to maintain the level-of-capability of the facility (e.g., pilot proficiency).

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg Chg her Comments

Army											
1	X										
2			A								
3			A								
4	X										
5	X										
Navy											
6						O					See GNs 1, 2 and 9.
7	X					A					Some pilot profcy may occur in concur/w testing. See GN 9.
8	X										
9	X										
Air Force											
10	X										
11	X										
12									SA		
13									S		
14	X										See GN 9.



CATEGORY: Miscellaneous Activities CLASS: Education/Training

COST FACTOR: 17.2 Education/training of facility of personnel required to support a specific user.

Facility	Not Rel	NO Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1			A		SA		See GNs 4 and 8.
2			A				
3			A				
4			X				
5							
		X					
Navy							
6			A/SA		0		See GNs 2, 6 and 8.
7			A				
8			A		SA		For spl 1 time regmt. No chrg for LOC increase. GN 8.
9			A				
Air Force							
10			A				
11			A				
12					SA		
13			A		SA	SA	See GNs 3 and 8.
14			A				

CATEGORY: Miscellaneous Activities CLASS: Reproduction/Printing

COST FACTOR: 18.1 Reproduction/printing of a general nature to support the normal activities of the facility (e.g., administrative forms).

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg Chg her Comments

Army										
1	X									
2			A							
3			A		A					Some test directorate unique regmts are charged Ind. GN 9.
4	X									
5	X									
Navy										
6					O		O			See GNs 1, 2 and 9.
7	X				A					See GN 9.
8	X									
9	X									
Air										
Force										
10	X									
11	X									
12										
13					SA					
14	X				S		S			See GN 9.

CATEGORY: Miscellaneous Activities CLASS: Reproduction/Printing

COST FACTOR: 18.2 Reproduction/printing of a general nature to support most users (e.g., data collection forms).

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot- her	Comments
Army							
1		X					
2				A			
3				A	A		
4		X					
5		X					
Navy							
6				O	O		
7		X		A			See GNs 1, 2 and 9.
8		X					See GN 9.
9		X					
Air Force							
10		X					
11				A+SA			See GN 5.
12					SA		
13					S	S	See GN 9.
14		X					

CATEGORY: Miscellaneous Activities CLASS: Reproduction/Printing

COST FACTOR: 18.3 Reproduction/printing to support a user's requirements.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
----------	---------	--------	---------	---------	---------	--------	----------

Army							
1			SA	SA			See GNs 4 and 8.
2				A			
3			A				
4			X				
5			SA				Ops documents only. Report costs are part of std rate.
Navy							
6			A		0		See GNs 2 and 8.
7			A				
8			A	SA			See GN 8.
9			A				
Air Force							
10			A				See GN 5.
11			A+SA				
12			A				
13			A				
14			A				

CATEGORY: Miscellaneous Activities CLASS: Travel and Per Diem

COST FACTOR: 19.1 Travel and per diem of administrative staff and/or supervisory personnel to monitor the conduct of user support (e.g., the commander travels to the test area to check on the support being given a user).

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1		X					
2			A				
3				A			
4		X					
5			A				
Navy							
6					O		Project engineers will charge. All others do not. GN 7.
7					A		See GNs 1, 2 and 9.
8		X					See GN 9.
9		X					
Air Force							
10		X					
11				A			
12					SA		
13					S	S	
14		X					See GN 9.

CATEGORY: Miscellaneous Activities CLASS: Travel and Per Diem

COST FACTOR: 19.2 Travel and per diem of facility personnel to meet a user's requirements (e.g., to attend a user called meeting).

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
ARMY							
1			X				Exceptions, usually "joint planning" each paying own way.
2				A			
3				A			
4				X			
5				A			Charged directly to user funds on direct fund cite basis.
Navy							
6				A		O	See GNS 2 and 8.
7				A			
8				A	SA		See GN 8.
9				A			
Air Force							
10				A			
11				A			
12				A			
13				A	SA	SA	See GNS 3 and 8.
14				A			

CATEGORY: Miscellaneous Activities CLASS: Equipment

COST FACTOR: 20.1 Lease/rental costs of equipment used by the facility to provide a level-of-capability.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
----------	---------	--------	---------	---------	---------	--------	----------

Army							
1	X						
2			A				
3			A				
4	X						Customer chrgd when directly identifiable to test proj.
5			SA				Computer leases chrgd, other leases are not. See GN 7.
Navy							
6				O	O		See GNs 1, 2 and 9.
7	X						
8		X					
9		X					
Air Force							
10	X						
11			SA				
12				SA			
13				S	S		
14	X						See GN 9.

CATEGORY: Miscellaneous Activities CLASS: Equipment

COST FACTOR: 20.2 Purchase costs of equipment used by the facility to provide a level-of-capability.

Facility	Not Rel	NO Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1	X						
2				A			
3				A		A	Some purchased with Production Base Support funding. GN 9.
4		X					
5		X					Funded frm Instrumentation Modernization Budget line item.
Navy							
6				O	O		See GNs 1, 2 and 9.
7		X		A			See GN 9.
8		X					
9		X					
Air Force							
10		X					
11		X					
12		X					
13		X					
14		X					



CATEGORY: Miscellaneous Activities CLASS: Equipment

COST FACTOR: 20.3 Equipment purchased by the facility to support the requirements of a specific user which may be used to support subsequent users.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
ARMY							
1			A	SA			See GNS 4 and 8.
2			A				
3			A	A	A		Dir: user reqmt. Ind: Production base spt funds. GN 8.
4	X						Special equip funds. If not programmed, user pays.
5			A				
Navy							
6				O	O		See GNS 1, 2 and 9.
7			A				
8			A	SA			See GN 8.
9			X				
Air Force							
10							
11	X						
12	X						
13			A				Negotiable.
14	X						

CATEGORY: Miscellaneous Activities CLASS: Equipment

COST FACTOR: 20.4 Equipment purchased by the facility to support the requirements of a specific user with no foreseeable use by the facility or subsequent users.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg Chg her Comments

Army											
1	A			SA							See GNS 4 and 8.
2	A										
3	A										
4	X										
5	A										
Navy											
6	A				O						See GNS 2 and 8.
7	A										
8	A			SA							See GN 8.
9	X										
Air Force											
10	A										
11	A										
12	A										
13	A										
14	A										

CATEGORY: Miscellaneous Activities CLASS: DOD Civilian Labor

COST FACTOR: 21.1 Civilians performing administrative duties.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
Army							
1	X						
2				A			
3				A			See GN 9.
4	X						
5	X						
Navy							
6			A/SA			O	See GNs 2, 6 and 8.
7	X			A			Project engineers are charged direct. See GN 9.
8	X						
9	X						
Air Force							
10	X						
11	X						
12					SA		
13					S	S	
14	X						See GN 9.

CATEGORY: Miscellaneous Activities CLASS: DOD Civilian Labor

COST FACTOR: 21.2 Civilians performing supervisory duties over personnel directly providing user support (e.g., first level supervisors).

Facility Not NO Dir Ind G&A Ot-  
Rel Chg Chg Chg her Comments

Army																					
1	A																				
2																					
3	A																				
4	X																				
5																					
Navy																					
6	A/SA																				
7	X																				
8	X																				
9	X																				
Air Force																					
10	X																				
11																					
12	A																				
13																					
14	X																				

"Civilians" are contractor personnel. See GNs 4 and 8.

GN 8.

Unless supervisor is directly engaged in user support. Foremen in std rates, rest prorated as Ind cost. GN 8.

See GNs 2, 6 and 8. See GN 9.

User chrgd if dir involvmt,e.g.,mtgs or study etc.See GN 8.

CATEGORY: Miscellaneous Activities CLASS: DOD Civilian Labor  
 COST FACTOR: 21.3 Civilians providing primary user support (e.g., equipment operator).

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
ARMY							
1			A	SA			"Civilians" are contractor personnel. See GNs 4 and 8.
2			A				
3			A				
4			X				
5			SA				Majority are included in std rate, others are at actual.
Navy							
6			A/SA		0		See GNs 2, 6 and 8.
7			SA				
8			A	SA			See GN 8.
9			A	SA			"A" other support. "SA" when std rate established.
Air							
Force							
10			A				
11			A				
12			A				
13			A	SA	SA		See GNs 3 and 8. (SA may be used for direct)
14			A				

CATEGORY: Miscellaneous Activities CLASS: DOD Civilian Labor

COST FACTOR: 21.4 Civilians providing secondary user support (e.g., design engineer).

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
----------	---------	--------	---------	---------	---------	--------	----------

Army							
1			A	SA			"Civilians" are contractor personnel. See GNs 4 and 8.
2			A				
3			A	A			See GN 8.
4			X				If support is for user's program, user is charged.
5			A				Any engineering effort is costed for actual effort
basis. Navy							
6			A/SA		0		See GNs 2, 6 and 8.
7			SA				
8			A	SA			See GN 8.
9			A				
Air Force							
10			A				
11			A				
12							
13			A	SA	SA		See GNs 3 and 8.
14			A				

CATEGORY: Miscellaneous Activities CLASS: Contracts

COST FACTOR: 22.1 Costs of administering contracts for required support for a specific user.

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg Chg her Comments

Army									
1	X								
2	X								
3			A						
4		X							
5	X								
Navy									
6			SA	O					See GNS 2 and 8.
7			A						
8		X							
9			A						
Air									
Force									
10		X							
11		X							
12					SA				Except NASA, which is per DOD-NASA agreement.
13			A	SA	SA				See GNS 3 and 8.
14		X							

CATEGORY: Miscellaneous Activities CLASS: Contracts

COST FACTOR: 22.2 Operations and Maintenance. Cost of O&M contractor(s) that provides a level-of-capability for the facility.

Facility	Not Rel	NO Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
ARMY							
1		X					
2					SA		
3					A		
4		X					
5					A SA		
Navy							
6					O	O	See GNS 1, 2 and 8.
7		X			A		See GN 9.
8					A SA		Dir: user support. Ind: maint and housekeeping. GN 8.
9					SA		
Air							
Force							
10		X					
11					SA		
12						SA	
13						S	
14		X					A proportionate share of O&M is charged to users.



CATEGORY: Miscellaneous Activities

CLASS: Materials/Supplies

COST FACTOR: 23.1 Materials/supplies, including POL, consumed by the facility in providing general support to all users and not identifiable to a single specific user.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
----------	---------	--------	---------	---------	---------	--------	----------

Army							
1	X						
2				A			
3				A			
4	X						
5				A			
Navy							
6				O	O		See GNs 1, 2 and 9.
7			SA	A			POL Part of flying hour rate. See GN 8.
8	X						
9	X						
Air Force							
10	X						
11				SA			
12				SA			
13				SA	SA		See GN 9.
14	X						

CATEGORY: Miscellaneous Activities CLASS: Materials/Supplies

COST FACTOR: 23.2 Materials/supplies, including POL, consumed by the facility in supporting a specific user.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
----------	---------	--------	---------	---------	---------	--------	----------

Army							
1			A	SA			See GNS 4 and 8.
2			A				
3			A				
4			X				
5			SA				

167

Navy							
6			A		0		See GNS 2 and 8.
7			SA				
8			A	A			Boat POL chrgd at act rate for actl underway time. GN 8. Included in charges for system being used.
9			O				

Air Force							
10			A				
11			A				
12			A				
13			A	SA	SA		See GNS 3 and 8. (SA may be used for direct.)
14			A				

CATEGORY: Miscellaneous Activities CLASS: Other

COST FACTOR: 24.1 Depreciation on real property used by the facility to accomplish its mission (e.g, climatic hanger, wind tunnel, etc.).

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg her Comments

Facility	Not	No	Dir	Ind	G&A	Ot-	Comments
	Rel	Chg	Chg	Chg	Chg	her	
ARMY							
1		X					Non-federal users are charged.
2	X						
3		X					
4		X					
5		X					
Navy							
6					0		See GN 2.
7		X					
8		X					
9		X					
Air							
Force							
10		X					Host unit records used to determine charges.
11	X						
12					SA		
13						S	Charged to Non-fed as "asset use" charge. (See GN 9.)
14		X					

CATEGORY: Miscellaneous Activites CLASS: Other

COST FACTOR: 24.2 Depreciation on equipment used by the facility to accomplish its mission (e.g., radars, ships, aircraft, etc.).

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg Chg her Comments

ARMY													
1		X											
2		X											
3			X										
4			X										
5			X										
Navy													
6									0				See GN 2.
7													
8			X										
9			X										
Air													
Force													
10		X											
11		X											
12										SA			Except for Non-federal users.
13													
14		X											Charged to Non-fed users as "asset use" charge. See GN 9.

CATEGORY: Miscellaneous Activities CLASS: Other

COST FACTOR: 24.3 Real property leases for level-of-capability support.

Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
ARMY							
1		X					
2				A			
3	X						
4		X					
5						O	Leases to provide test area (for safety) are not chrgd. GN 7.
Navy							
6					O	O	See GNs 1, 2 and 9.
7	X						
8			X				
9			X				
Air Force							
10						X	
11	X						
12	X						
13	X						
14						X	

Actual charges for leases for a specific single user.

CATEGORY: Miscellaneous Activities CLASS: Other

COST FACTOR: 24.4 Support reimbursed by the facility to other activities/agencies for general level-of-capability requirements (e.g., host-tenant agreements).

Facility Not No Dir Ind G&A Ot-  
Rel Chg Chg Chg her Comments

ARMY									
1	X								
2			A						
3	X								
4	X								
5					0				Depends on tenant and agrmnt; some are not. GN 7.
Navy									
6			0						See GNs 1, 2 and 9.
7	X								
8	X								
9	X								
Air Force									
10	X								
11	X								
12			A						
13						SA	SA		See GN 9.
14	X								

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CATEGORY: Miscellaneous Activities CLASS: Other

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COST FACTOR: 24.5 Support reimbursed by the facility to other activities/agencies for specific user required support (e.g., equipment from another MRTFB facility).

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Facility	Not Rel	No Chg	Dir Chg	Ind Chg	G&A Chg	Ot-her	Comments
ARMY							
1			A	A			See GN 8.
2			A				
3			A				
4			X				
5			A				User pays all costs.
Navy							
6			A		O		See GNs 2 and 8.
7			A				
8			S				
9			A				
Air Force							
10			A				
11			A				
12			A				
13			A				
14			A				

APPENDIX D  
RESPONSE PERCENTAGE CALCULATIONS



APPENDIX D1

MRTFB AS A WHOLE  
Response Percentage<sup>a</sup> Calculations

Cost Factor <sup>b</sup>	No Charge	Direct Charge	Overhead Charge
3.1	50	29	21
3.2	8	67	25
3.3	15	70	15
4.1	36	45	18
4.2	0	100	0
4.3	0	100	0
5.1	0	93	7
5.2	0	93	7
6.1	0	90	10
6.2	0	89	11
7.1	7	79	14
7.2	0	100	0
8.1	43	14	43
8.2	0	77	23
8.3	0	79	21
9.1	60	20	20
9.2	0	100	0
9.3	25	50	25
9.4	0	100	0
10.1	27	64	9
10.2	0	91	9
10.3	9	82	9
10.4	0	91	9

<sup>a</sup>Some round-off error may be present.

<sup>b</sup>Cost factor numbering is: Research Instrument page number. Cost factor number.

APPENDIX D1-Continued

Cost Factor <sup>b</sup>	No Charge	Direct Charge	Overhead Charge
11.1	43	14	43
11.2	29	50	21
11.3	0	100	0
12.1	43	21	36
12.2	14	71	14
12.3	0	100	0
13.1	38	50	12
13.2	75	8	17
13.3	15	85	0
14.1	36	50	14
14.2	0	100	0
14.3	15	70	15
14.4	7	79	14
14.5	7	86	7
15.1	62	15	23
15.2	21	71	7
15.3	7	93	0
15.4	22	67	11
15.5	27	64	9
16.1	8	77	15
16.2	0	85	15
16.3	0	92	8
16.4	0	85	15
17.1	57	0	43
17.2	0	92	8
18.1	57	0	43
18.2	50	7	43
18.3	0	93	7
19.1	50	14	36
19.2	7	93	0

APPENDIX D1-Continued

Cost Factor <sup>b</sup>	No Charge	Direct Charge	Overhead Charge
20.1	54	8	38
20.2	71	0	29
20.3	29	64	7
20.4	0	100	0
21.1	57	7	36
21.2	29	43	29
21.3	0	100	0
21.4	0	93	7
22.1	45	45	10
22.2	29	29	43
23.1	43	14	43
23.2	0	100	0
24.1	75	0	25
24.2	77	0	23
24.3	78	0	22
24.4	60	10	30
24.5	0	100	0

APPENDIX D2

TEST AND EVALUATION COMMAND  
Response Percentage<sup>a</sup> Calculations

Cost Factor <sup>b</sup>	No Charge	Direct Charge	Overhead Charge
3.1	75	25	0
3.2	0	75	25
3.3	25	50	25
4.1	33	67	0
4.2	0	100	0
4.3	0	100	0
5.1	0	100	0
5.2	0	100	0
6.1	0	100	0
6.2	0	100	0
7.1	0	100	0
7.2	0	100	0
8.1	25	25	50
8.2	0	50	50
8.3	0	75	25
9.1	0	0	100
9.2	0	100	0
9.3	0	0	100
9.4	0	100	0
10.1	25	50	25
10.2	0	75	25
10.3	0	75	25
10.4	0	75	25

<sup>a</sup>Some round-off error may be present.

<sup>b</sup>Cost factor numbering is: Research Instrument page number. Cost factor number.

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AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OH SCHOOL--ETC F/G 5/1  
AN ASSESSMENT OF THE UNIFORM FUNDING POLICY OF DOD DIRECTIVE 32--ETC(U)  
SEP 80 R L SOILEAU, P A SWANSON

UNCLASSIFIED

AFIT-LSSR-70-80

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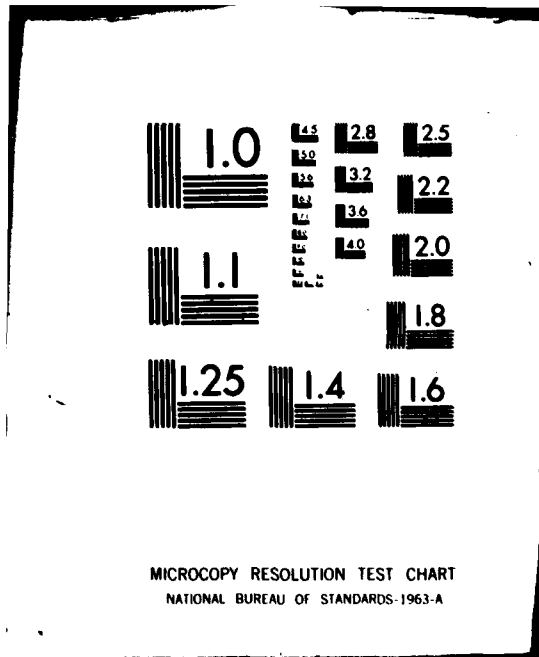
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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

**APPENDIX D2-Continued**

<b>Cost Factor<sup>b</sup></b>	<b>No Charge</b>	<b>Direct Charge</b>	<b>Overhead Charge</b>
11.1	25	25	50
11.2	25	75	0
11.3	0	100	0
12.1	25	25	50
12.2	0	75	25
12.3	0	100	0
13.1	0	67	33
13.2	67	0	33
13.3	0	100	0
14.1	25	50	25
14.2	0	100	0
14.3	0	50	50
14.4	0	50	50
14.5	0	75	25
15.1	50	0	50
15.2	0	100	0
15.3	0	100	0
15.4	0	100	0
15.5	0	100	0
16.1	0	75	25
16.2	0	75	25
16.3	0	75	25
16.4	0	75	25
17.1	50	0	50
17.2	0	100	0
18.1	50	0	50
18.2	50	0	50
18.3	0	75	25
19.1	50	25	25
19.2	0	100	0

**APPENDIX D2-Continued**

<b>Cost Factor<sup>b</sup></b>	<b>No Charge</b>	<b>Direct Charge</b>	<b>Overhead Charge</b>
20.1	50	0	50
20.2	50	0	50
20.3	25	75	0
20.4	0	100	0
21.1	50	0	50
21.2	25	50	25
21.3	0	100	0
21.4	0	100	0
22.1	50	50	0
22.2	25	25	50
23.1	25	0	75
23.2	0	100	0
24.1	100	0	0
24.2	100	0	0
24.3	67	0	33
24.4	67	0	33
24.5	0	100	0



APPENDIX D3  
 NAVAL AIR SYSTEMS COMMAND  
 Response Percentage<sup>a</sup> Calculations

Cost Factor <sup>b</sup>	No Charge	Direct Charge	Overhead Charge
3.1	50	0	50
3.2	0	33	67
3.3	0	75	25
4.1	75	0	25
4.2	0	100	0
4.3	0	100	0
5.1	0	75	25
5.2	0	75	25
6.1	0	75	25
6.2	0	75	25
7.1	25	50	25
7.2	0	100	0
8.1	50	0	50
8.2	0	67	33
8.3	0	75	25
9.1	100	0	0
9.2	0	100	0
9.3	0	100	0
9.4	0	100	0
10.1	25	75	0
10.2	0	100	0
10.3	25	75	0
10.4	0	100	0

<sup>a</sup>Some round-off error may be present.

<sup>b</sup>Cost factor numbering is: Research Instrument page number. Cost factor number.

APPENDIX D3-Continued

Cost Factor <sup>b</sup>	No Charge	Direct Charge	Overhead Charge
11.1	50	0	50
11.2	25	25	50
11.3	0	100	0
12.1	25	25	50
12.2	0	75	25
12.3	0	100	0
13.1	0	100	0
13.2	50	25	25
13.3	25	75	0
14.1	25	50	25
14.2	0	100	0
14.3	25	75	0
14.4	0	100	0
14.5	0	100	0
15.1	75	0	25
15.2	0	100	0
15.3	0	100	0
15.4	33	33	33
15.5	50	25	25
16.1	0	75	25
16.2	0	75	25
16.3	0	100	0
16.4	0	100	0
17.1	50	0	50
17.2	0	100	0
18.1	50	0	50
18.2	50	0	50
18.3	0	100	0
19.1	50	0	50
19.2	0	100	0

**APPENDIX D3-Continued**

<b>Cost Factor<sup>b</sup></b>	<b>No Charge</b>	<b>Direct Charge</b>	<b>Overhead Charge</b>
20.1	67	0	33
20.2	50	0	50
20.3	0	75	25
20.4	0	100	0
21.1	50	25	25
21.2	25	50	25
21.3	0	100	0
21.4	0	100	0
22.1	0	100	0
22.2	0	50	50
23.1	50	25	25
23.2	0	100	0
24.1	75	0	25
24.2	75	0	25
24.3	67	0	33
24.4	50	0	50
24.5	0	100	0

APPENDIX D4

AIR FORCE SYSTEMS COMMAND  
Response Percentage<sup>a</sup> Calculations

Cost Factor <sup>b</sup>	No Charge	Direct Charge	Overhead Charge
3.1	20	60	20
3.2	25	75	0
3.3	20	80	0
4.1	0	75	25
4.2	0	100	0
4.3	0	100	0
5.1	0	100	0
5.2	0	100	0
6.1	0	100	0
6.2	0	100	0
7.1	0	80	20
7.2	0	100	0
8.1	40	20	40
8.2	0	100	0
8.3	0	80	20
9.1	0	100	0
9.2	0	100	0
9.3	100	0	0
9.4	0	100	0
10.1	0	100	0
10.2	0	100	0
10.3	0	100	0
10.4	0	100	0

<sup>a</sup>Some round-off error may be present.

<sup>b</sup>Cost factor numbering is: Research Instrument page number. Cost factor number.

APPENDIX D4-Continued

Cost Factor <sup>b</sup>	No Charge	Direct Charge	Overhead Charge
11.1	40	20	40
11.2	20	60	20
11.3	0	100	0
12.1	60	20	20
12.2	40	60	0
12.3	0	100	0
13.1	100	0	0
13.2	100	0	0
13.3	25	75	0
14.1	40	60	0
14.2	0	100	0
14.3	20	80	0
14.4	20	80	0
14.5	20	80	0
15.1	50	50	0
15.2	60	40	0
15.3	20	80	0
15.4	25	75	0
15.5	25	75	0
16.1	25	75	0
16.2	0	100	0
16.3	0	100	0
16.4	0	75	25
17.1	60	0	40
17.2	0	80	20
18.1	60	0	40
18.2	40	20	40
18.3	0	100	0
19.1	40	20	40
19.2	0	100	0

**APPENDIX D4-Continued**

<b>Cost Factor<sup>b</sup></b>	<b>No Charge</b>	<b>Direct Charge</b>	<b>Overhead Charge</b>
20.1	40	20	40
20.2	100	0	0
20.3	60	40	0
20.4	0	100	0
21.1	60	0	40
21.2	40	20	40
21.3	0	100	0
21.4	0	80	20
22.1	60	20	20
22.2	40	20	40
23.1	40	20	40
23.2	0	100	0
24.1	50	0	50
24.2	60	0	40
24.3	100	0	0
24.4	50	25	25
24.5	0	100	0

41

**SELECTED BIBLIOGRAPHY**

A. REFERENCES CITED

1. Berquist, George W., and others. A Study of Funding Policy for Major Test and Evaluation Support Activities. U.S. Department of Defense: Office of the Assistant Secretary of Defense (Comptroller). Washington: Government Printing Office, 25 April 1972.
2. Cooley, John W. and James W. Saylor. "New Funding Policy Established for Test and Evaluation Activities," Defense Management Journal, April 1974, pp. 15-19.
3. Cost Accounting Standards Board. Standards, Rules, and Regulations. Washington: Government Printing Office, July 1976.
4. Fitzhugh, Gilbert W., and others. Report to the President and the Secretary of Defense on the Department of Defense. Blue Ribbon Defense Panel. Washington: Government Printing Office, 1 July 1970.
5. Joint Logistics Commanders. Follow-Up Report of the Joint AMC/NMC/AFLC/AFSC Commanders' Panel on Uniform Test and Evaluation Funding Policy. Washington, 13 October 1976.
6. \_\_\_\_\_. Report of the Joint AMC/NMC/AFLC/AFSC Commanders' Panel on Uniform Test and Evaluation. Washington, 18 June 1975.
7. McCord, John W. "Management of Major DOD Test Facilities," Defense Systems Management Review, Winter 1977, pp. 59-72.
8. Packard, David. Deputy Secretary of Defense. Memorandum, subject: Review of RDT&E Base, to: The Secretary of the Army, The Secretary of the Navy, The Secretary of the Air Force, Director of Defense Research and Engineering, Assistant Secretary of Defense (I&L), Assistant Secretary of Defense (Comptroller), 16 January 1971.



9. \_\_\_\_\_ . Deputy Secretary of Defense. Memorandum, subject: Review of T&E Facility Base, to: Secretaries of the Military Departments, Director of Defense Research and Engineering, Assistant Secretary of Defense (Comptroller), Assistant Secretary of Defense (I&L), 29 October 1971.
10. Pennington, Colonel J. C. Acting The Adjutant General HQ Army. Letter, subject: Use, Management and Operation of Department of Defense Major Ranges and Test Facilities, to: Multiple Addressees, 16 August 1974.
11. Popple, Joseph P. Assistant Director of Budget (Management), HQ Air Force/ACBM. Letter, subject: Funding Policy for AFSC Research and Test Facilities (Laboratories), to: ALMAJCOM-SOA/AC, 18 April 1979.
12. Rush, Kenneth. Deputy Secretary of Defense. Memorandum, subject: Funding Policy for Major Test and Evaluation (T&E) Support Activities, to: Secretaries of the Military Departments, 19 January 1973.
13. U.S. Department of the Air Force. Budgeting and Funding for Test and Evaluation. AFSC Regulation 172-8, 17 April 1978.
14. \_\_\_\_\_ . Support of Nongovernmental Test and Evaluation. AF Regulation 80-19, 28 July 1978.
15. \_\_\_\_\_ . USAF Budget Manual, Volume I (C3). AFM 172-1, 11 May 1977.
16. \_\_\_\_\_ . User Charges. AF Regulation 177-8, 23 March 1979.
17. \_\_\_\_\_ . User Charges. AFSC Regulation 177-4, 17 February 1978.
18. U.S. Department of the Army. Installations' Concepts, Principles, and Responsibilities. TECOM Regulation 37-5, 16 June 1978.
19. U.S. Department of Defense. Defense Acquisition Regulation. Washington: Government Printing Office, 1976.

20. \_\_\_\_\_ . Use, Management and Operation of Department of Defense Major Ranges and Test Facilities. DOD Directive 3200.11. Washington: Government Printing Office, 18 June 1974.
21. \_\_\_\_\_ . User Charges. DOD Instruction 7230.7. Washington: Government Printing Office, June 1979.
22. U.S. Department of the Navy. Navy Comptroller Manual. Volume 7, 27 November 1974.
23. \_\_\_\_\_ . Navy Industrial Fund Handbook. NAVSO P-3045, 11 January 1979.
24. \_\_\_\_\_ . Use Management and Operation of Department of Defense Major Ranges and Test Facilities. OPNAV Instruction 3900.25A, 14 April 1975.

#### B. RELATED SOURCES

- Davidson, Sidney, and others. Accounting: The Language of Business. 3rd ed. Glen Ridge NJ: Thomas Horton and Daughters, Inc., 1977.
- Garrett, Major Harley F., Jr., USAF. "Application of Service Funding in USAF Research and Development Support Facilities: A Chronology." Unpublished master's thesis. GSM/SM/73-10, AFIT/EN, Wright-Patterson AFB OH 45433, 7 January 1974.
- Horngren, Charles T. Cost Accounting: A Management Emphasis. 4th ed. Englewood Cliffs NJ: Prentice-Hall, Inc., 1977.
- Lotz, Walter E., Lieutenant General USA (Ret). "Test and Evaluation in the Department of Defense," Defense Systems Management Journal, Winter 1977, pp. 1-6.
- Peterson, Captain Walter G., Jr., USAF. "Impact of Direct Cost Funding on Test Center Management." Unpublished master's thesis. GSM/SM/74S-12, AFIT/EN, Wright-Patterson AFB OH 45433, 20 October 1974.
- Roberts, James A. "The Uniform Funding Policy at Navy Industrial Funding Activities." Unpublished Idea Paper Class 78-B, Professional Military Comptroller Course, Air University, Maxwell AFB AL, 1978.

Shepherd, William C. and Clair Wilcox. Public Polices  
Toward Business. 6th ed. Homewood IL: Richard D.  
Irwin, Inc., 1979.

Sherlock, Major Harry A., USAF. "The Impact of 'Direct  
Cost Funding on 4950th Test Wing." Unpublished  
master's thesis. GSM/SM/75D-21, AFIT/EN,  
Wright-Patterson AFB OH 45433, 22 June 1976.

Welsh, Glenn A. and Robert N. Anthony. Fundamentals of  
Financial Accounting. Rev. ed. Homewood IL:  
Richard D. Irwin, Inc., 1977.

**BIOGRAPHICAL SKETCHES**

## BIOGRAPHICAL SKETCHES

Captain Randall L. Soileau was born in Biloxi, Mississippi. He graduated from Evangeline Academy High School, Ville Platte, Louisiana in 1971. He attended the University of Southwestern Louisiana and graduated in 1975 with a Bachelor of Science degree and a commission through ROTC as second lieutenant in the USAF.

His previous military assignment was as an ICBM Launch Control Systems Program Manager, Deputy for ICBM, Space and Missile Systems Organization, Norton AFB, California. He was assigned to the Graduate School of Systems and Logistics, Air Force Institute of Technology, in June 1979.

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Phillip A. Swanson Graduated from Livingston High School, Livingston, California in 1966, and enlisted in the USAF in December 1967. In May 1974 SSgt Swanson was selected to attend the University of Illinois, Urbana. Illinois under AECF. Graduating in December 1974 with a BS in Computer Engineering, he completed OTS and was commissioned a Second Lieutenant. Assigned to the Tactical Fighter Weapons Center, Range Group he worked as a programmer and instrumentation engineer. Prior to his AFIT assignment, Captain Swanson was Chief of Engineering for the Electronic Warfare during Close Air Support (EW/CAS) Joint Test Force.

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