R&D - SMDC

U.S Army Space & Missile Defense Command

Space & Missile Defense Technical Center

Cost Management

27 June 00

Section I: Business Area Organization

1.01.1 Description

1.011 Business Area Name/Organization:
U.S. Army Space & Missile Defense Command
Space & Missile Defense Technical Center

1.012 Address:
U.S. Army Space & Missile Defense Command
Space & Missile Defense Technical Center
Attn: SMDC-TC-P
P.O. Box 1500
Huntsville, AL 35807

1.013 POCs:
SMDC, (256) 955-3612
SMDTC, (256) 955-4763

1.02 Mission Statement:
SMDTC:

The Space and Missile Defense Technical Center is part of the US Army Space and Missile Defense Command (SMDC). The mission of the SMDC Space and Missile Defense Technical Center (SMDTC) is to manage and advance missile defense and space technology research and development for organizations such as the Ballistic Missile Defense Organization (BMDO), Army, Navy and Air Force. The SMDTC also provides significant technical and program support to the Army Program Executive Office for Air and Missile Defense. The SMDTC develops opportunities for international cooperation, academia, industry and other government partnerships.

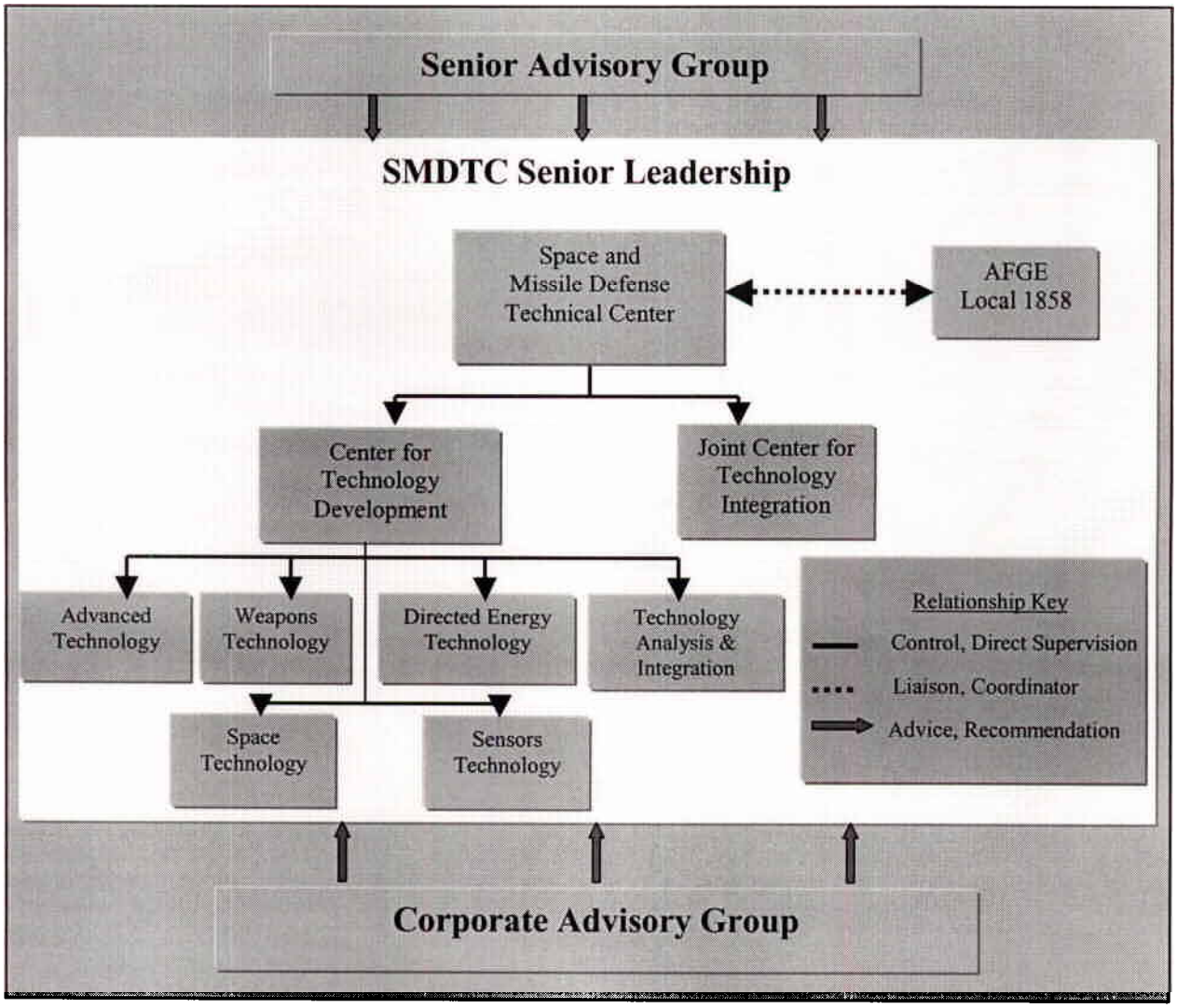
1.03 Organization Structure
SMDTC:

1.031 Number of Employees
Military - 11
Civilian - 389

1.032 Management Structure/Chain of Command

The Director of the SMDTC reports to the Commanding General of the SMDC. The SMDTC is located in Huntsville, Alabama and is currently organized into five directorates and one program office: Weapons Directorate (WD), Sensors Directorate (SD), Advanced Technology Directorate (ATD), Space Technology Directorate (STD), Technology Analysis and Integration Directorate (TAID), and Directed Energy Program Office. This organization is transitioning into the organization depicted in section 1.033.

1.033 Organization Chart



1.04 Business Area Funding sources:

SMDTC:

(M$)

	FY97	FY98	FY99	FY00
RDTE				
Army/OSD	142.36	155.05	33.44	75.78
BMDO	215.95	219.47	180.66	190.30
CUSTOMER	112.55	109.32	65.50	53.95

1.05 Major Products and Services:

SMDTC:

The SMDTC's parent organization, SMDC, has been in partnership with BMDO and its predecessor Strategic Defense Initiative Office (SDIO) for over 15 years.

Our Customers	Our Products or Services	Customer Requirements
Ballistic Missile Defense Organization	Technical management of Missile Defense technologies	Meet program requirements (PMA, cost, schedule, performance)
Ballistic Missile Defense Organization, Army, National Missile Defense Joint Program Office, Army PEO Air & Missile Defense, Navy PEO Theater Surface Combatant, Foreign Governments, NMD-LSI	Provide technical corporate memory	Experiential guidance, error avoidance
ARMY, Foreign Governments, NMD-LSI	Technical management of applied technologies for Space, Air and Missile Defense	Meet program requirements (PMA, cost, schedule, performance) Meet operational requirements
National Missile Defense Joint Program Office, Army PEO Air & Missile Defense, SMDC Acquisition Center	Matrix personnel	Competent technical personnel
National Missile Defense Joint Program Office, Army PEO Air & Missile Defense, Navy PEO Theater Surface Combatant, Foreign Governments, Special Operations Command	Provide technical support services	Cost, schedule, performance
Army PEO Air & Missile Defense, Navy PEO Theater Surface Combatant, National Reconnaissance Office, Special Operations Command, Defense Threat Reduction Agency, Intelligence Community, Dept of Energy, US Air Force	Management of applied technologies for Air and Missile Defense	Cost, schedule, performance, reliability, maintainability
Office of The Secretary of Defense	Technical coordination of Advanced Concept Technology Demonstration	Congressional Plus-up, cost, schedule, performance
Defense Advanced Research Projects Agency	Provide contract support services	Efficiency

1.06 Major Customers

SMDTC:

See table in section 1.05.

Section II: Baseline your Cost Management / ABC efforts – (explain your existing Cost Management program, ABC/M or otherwise)

2.01 Overview of your current Business Area Organization's Cost Management /ABC initiatives if any (*include location, size, purpose, software, and POC, etc.*)
The Army Cost Economic Analysis Center had one day of training for the Command that included the technology area. Activity Based Costing training materials have been distributed and individual training is being scheduled.

2.011 Current ABC efforts: SMDTC does not have an ABC effort.

THE ABC SITUATION. = NO ABC

2.012 Existing Management Information System (MIS) used to manage costs: Command Information Management System (CIMS), Standard Operation Maintenance Army Research Development System (SOMARDS), Mechanization of Contracts Administration Services (MOCAS) and Commodity Standard System (CCSS) per AR 37-100. Universal Document System (UDS) and Oracle-based Financial System.

2.013 Other Cost Measurement Methodology: Detailed Work Breakdown Structure (WBS) with further detail at lower levels, Cost Centers, and application of Earned Value Management techniques to manage cost, schedule & performance.

CSCSC & EVM

THE CM SITUATION = EVM

2.014 Software used. *DBase, Oracle.*

2.02 Assessment of Employee Cost Management Skills
2.021 Management Level Skills Trained to do ABC/M
2.0211 Number with ABC training. (*Certification*): None
2.0212 Number with On the Job training: None

2.22 Staff Level Cost Management Skills Trained to do other CM methodologies. Various CP-11, Acquisition and Earned Value Management courses. ABC training by Army Cost Economic Analysis Center.

2.03 Existing Cost Accounting Systems: CIMS, SOMARDS, MOCAS, CCSS, Oracle Based Financial System

HUH? ARE ANY OF THESE COST ACCOUNTING SYSTEMS?

2.031 Location: Huntsville, AL (CIMS); Defense Finance and Accounting System (DFAS) (SOMARDS); Columbus (MOCAS); DFAS (CCSS);

2.032 Type System: dBase, Oracle

2.033 Methodology: Manual and automated cost inputs are linked to performance measures to enable continual process improvement through informed decision making.

WHAT EXACTLY DO YOU MEAN BY THIS? PLS. SIMPLIFY

2.034 Do they feed a Cost Management or Decision Support System? Yes, they are linked to various systems including contractor partnering sessions and Budget Cost Variance Analysis (BCVA) reviews, monthly budget meetings, Quick Reaction Assessments (QRA's), Program Reviews, After-action Reviews, Program Planning Budgeting Execution System (PPBES), and Strategic/Business Planning sessions.

ALL BUDGET

2.04 Describe Current Performance Management System(s).

2.041 What performance metrics do you use? Various levels, trends and comparisons, including: cost/variance analysis of budget to actuals for direct and indirect labor and materials at WBS level of detail; actual obligation and disbursement rates in comparison to goals; Carryover/Forward Financing as a percent of budget; Cost of Goods/Services Sold over time; Income as a percent of sales; reinvestment rates/cycles for capital expenditures; product/service quality assessments; cycle times for products and services, and many other non-financial metrics used to manage training, personnel, and other functional areas. We are currently in the process of redefining, improving and institutionalizing our performance management systems.

CS² + BUDGET

TRNG PERSONNEL

MAYBE: BRILIANT IDEAS PER $ or ADVANCES PER $

CGS + CYCLE TIME DON'T MAKE SENSE IN R+D! COST OF SVCS SOLD? GOODS = IDEAS + ADVANCES + FINDINGS - PROOF OF PRINCIPLE

COST OF RD+E SOLD?

2.042 How do you use your performance metrics to manage? To define requirements, build accurate Program Objective Memorandum (POM), budget and expenditure plans, enhance execution, measure and analyze variation and make reallocation/reprogramming decisions accordingly, measure progress toward goals and identify required adjustment/actions, and to otherwise systematically evaluate our products and services to facilitate continuous process and product improvement, ensure accountability and credibility, streamline our processes, reduce costs, get more value/quality from existing resources, and leverage outside resources.

BUDGET

CM

2.043 How and what performance measurers support the Government Performance and Result Act (GPRA)? The above performance metrics allow us to: plan what we do; measure progress towards achieving our goals and objectives; tell our story of what the organization is accomplishing, while ensuring accountability of the resources entrusted to us; recognize and stop actions that don't work; and continuously improve our performance.

?

2.044 Are your performance measurers aligned with your cost management system? Yes, many of the performance metrics are drawn from our MIS and cost accounting systems, which in-turn feed our cost management and Decision Support Systems. Metrics are assessed, analyzed and acted upon at different levels and regularly reviewed by leadership to facilitate decision making. Some of the formal forums for leadership/management decision making include: regular staff and budget meetings; senior Program Budget Advisory Committee (PBACs); Program and Execution Reviews; QRAs; and Strategic and Business Planning Sessions. We are currently in the process of improving our alignment.

?

ALL BUDGET STUFF, NO CM. WHAT ALIGNMENT?

Section III: Describe Full Implementation of Cost Management / ABC

3.01 Describe your end-state vision for Cost Management/ABC *(From both Strategic and Operational Perspective).* SMDTC's CM/ABC End-State Vision is ABC fully deployed, maintained and used for continuous process improvement at all appropriate SMDTC areas as determined by the local commander. Commanders and managers will be able to clearly identify the expected impacts of resource reductions or increases and to compare funding alternatives and make informed trade-off decisions between explicit services and/or SMDTC and performance.

COMMANDERS TOOL. LOCAL MGRS?

3.011 Cost Management *(How will you use Cost Management to drive continuous cost and process improvement?* See 3.012 below. *How will you create a cost management culture?)* See 3.012 below. Through leadership emphasis, training, marketing, and customer/stakeholder/supplier/and total workforce involvement, we expect to achieve the buy-in and ownership necessary to foster an improved cost management culture.

BUNK. INCENTIVES, CM PROCESS HERE.

SHOULD DESCRIBE

3.012 ABC *(If ABC is cost measurement choice, how will it be used – cost / product improvement, A-76 support, Pricing, etc? And how will you report with it?)* Our existing activity based cost management systems, together with ongoing or currently planned enhancements from application of Earned Value Management techniques, integration of the Army Performance Improvement Criteria (APIC) philosophy, and implementation of our Strategic and Business Plans, are deemed appropriate. The systems will continue to be used to allow managers to define activities and measure costs that are relevant to their daily decision making needs. We expect to further optimize cost and quality, achieving best value in our products and services.

X EVM
✓ APIC
✓ STRAT + BUS PLANS

HOW?

3.013 Performance Measurement for Management *(Will you incorporate performance measures with the Balanced Scorecard?* Yes, we are currently developing and refining linkages of operational performance measures to Business Area Strategic Objectives using the Balanced Scorecard approach.

LIKE?

3.014 Quality Program *(Will your performance measures support your APIC program or other if you have one?)* Yes, they will support our APIC program.

NOW TO DO PROCESSES!

3.02 Describe how your Cost Measurement / ABC program will be integrated vertically and horizontally *(in your reporting / authority responsibility)*: See 3.011 above. Additionally, through intensive training of senior leaders, middle managers, assessment teams, and ultimately, the entire workforce, we are integrating our cost measurement program. Responsibility and accountability will also be fostered through insertion of program objectives into individual performance plans/support forms.

BUNK TOO.

3.03 Provide Statement of Cost Management Goals and Objectives: To continually deliver better quality products and services to customers while continually

improving cost –ensuring a best value balance. There are numerous objectives in our Strategic Plan (ref Goals 2 & 3) and under development in our Business Plan that revolve around and are in support of our cost management goals.

– Ref?

STRAT PLAN

Section IV: Describe Plan to Get from Baseline to Full Implementation *(Describe your procedures to achieve implementation at the strategic and operational level.)*

4.01 Describe your Strategic and Operational level Plans as follows:

4.011 Goals and Objectives for Implementation: (See 3.01 & 3.02 above)
Goal: The goal of the Space & Missile Defense Technical Center is to deliver better quality products and services to customers while continually improving cost.

NO NO. "FOR IMPL." DRESS & EVENTS & SCHEDULE

Objectives:

1. Create a Cost Management culture within Army Business Areas that support mission readiness. Fully integrate Cost Management into management processes of each Business Area to provide both performance and cost measurement information.
2. Implement Cost Management and assess if ABC is appropriate for cost measurement.
3. Where determined appropriate, develop and provide local operational managers and front line employees ABC models to permit true cost measurement of activities and business processes, and the costs of individual products and services.
4. Implement Cost Management / ABC in three years from the time the Strategic Plan is approved.
5. Establish a formal Cost Management / ABC course for Business Area Leaders, Operational Managers, and Action Officers. Continue to update and standardize current training material for Cost Management / ABC, integrate this material into Army Management training courses, and support Distance Learning with training CDs. Conduct Prototype(s) in each Business Area to provide on site learning and to assist in understanding full implementation requirements.
6. Link Cost Management / ABC implementation to Army Quality programs. Cost Management /ABC will support cost and benefit requirements associated with Business Process Improvement (BPI) and Business Process Reengineering (BPR) efforts.

LIFT

HOW? NEED SOME GENERAL DETAIL HERE. PROCESS DESCRIPTION FOR IMPL.

4.012 Concepts of Operations *(include methodologies for managing cost)*: See 2.01, 2.03, 2.04 and 3.0.

= EVM (2.013) + DATABASES + BUDGET

1. Upon Office of the Secretary of Defense (OSD) acceptance of the SMDTC plan, the SMDTC will submit a detailed Cost Management / ABC implementation plan through the HQDA functional proponent for approval by the Secretary of the Army and the Chief of Staff of the Army, or their designated approving official.
2. The U.S. Army Cost and Economic Analysis Center (USACEAC) is the Army proponent for Cost Management. It will provide Cost Management / ABC implementation policy and guidance, and coordinate training, software provision, after action review, and oversight at all levels of appropriate SMDTC areas.

NO NO NO. NICE TRY JOKER. THIS IS NOT SMDC'S.

LIFT

3. The SMDTC's Cost Management / ABC implementation plan will consist of two complementary components: a Strategic Component and an Operational Component. The Strategic component establishes the cyclical process for planning, setting business wide performance metrics, linking operational systems to the Headquarters and Business Area goals and objectives, and assessing SMDTC performance. The Operational Component operates a cost management system at the local (tactical) level using ABC or a reasonable alternative cost measurement technique. ABC provides operational managers and front line employees with cost information required to conduct a process of continuous improvement on cost and performance and to make informed decisions that result in efficiencies and improved operations. The Strategic component builds on the Operational component by creating an integrated (vertical) cost management process.

THIS ACTUALLY QUALIFIES AS A "CONCEPT OF OPERATION"!

4. Strategic Cost Management / ABC will be implemented vertically throughout the appropriate SMDTC Areas.

4.013 Size and Scope: The SMDTC Strategic Cost Management / ABC system will provide performance information for operational improvement and strategic learning, and accurate measurement of product / service costs. The Strategic Cost Management / ABC system will be an integral part of the SMDTC's management process in order to sustain continuous improvement and institutionalize a culture to reduce cost consumption. ? WHAT?

CM IS NOT JUST "PROVIDE INFORMATION"

4.014 Roles and Responsibilities: (See 4.015 below):

A. Assistant Secretary of the Army (Financial Management & Cost) ASA(FM&C) / USACEAC — HUH?

1. Develop Army-wide Cost Management / ABC policy and guidance, general practice methodologies, implementation oversight, and training material excluding Business Area specific training materials.
2. Resource the necessary common software (acquire and sustain), training, and tools to implement Cost Management / ABC.
3. Review, validate, and approve contractor support.
4. Coordinate ABC linkage requirement with DFAS to support automated input to the ABC systems.
5. Revise as necessary and administer the Managerial Costing Steering Committee.

BUT WHERE IS SMDTCS?

B. Headquarters Department of the Army

1. Review and coordinate on the Business Area Cost Management / ABC Implementation plans.
2. Coordinate and revise policy that inhibits implementation.
3. Participate on the Managerial Costing Steering Committee.

C. SMDTC

1. Develop a Cost Management implementation plan.
2. Resource the necessary Cost Management / ABC studies, and implementation efforts.
3. Integrate continuous process improvement, quality initiatives, i.e.
4. BPR / BPI.
5. Participate on the Managerial Costing Steering Committee.

RESOURCE? NO IMPL + CONT IMPROV?

D. Army Audit Agency (AAA)

1. Assist implementation of Cost Management / ABC through consulting services to include training, prototyping efforts and development of SMDTC's implementation plan.
2. Participate on the Managerial Costing Steering Committee.

4.015 Implementation schedule (a three-year timeline of major actions / events): Strategic and Operational Plans are under refinement at this time and schedule is not yet complete; however, we plan to completely integrate them throughout the appropriate areas within the Command within the next 2.5 years.

OK! TRUTH.

4.016 Identify and planned prototypes. None.

NO NO NO

4.017 Describe proposed initial training program – in outline format. *(How many to be trained? How will training resources be leveraged i.e. train-the-trainer, etc.?)* See 4.03 and 4.04 below.

NOT ADDRESSED

IT ISN'T THERE EITHER

The first year of CM/ABC implementation will focus on developing implementation plans and preparing SMDTC area staff and managers to employ CM/ABC methods. SMDTC areas will be reviewed to determine their current stages of ABC implementation. Therefore, the training and implementation plans may vary across SMDTC areas. ABC models have not been developed for most SMDTC area functions, so ABC models will be reviewed for implementation training.

BUT 2.011 SAYS THERE'S NO ABC. WHAT MODELS??

- **Initial CM/ABC training** tailored to the SMDTC business area to provide for conceptual understanding of CM/ABC, software capabilities, model development and utilization, and embedding the CM process in the Base Support business area. This training will consist of three courses:
- **Cost & Performance Management Team CM and ABC/M Training** (5 days) to provide Cost and Performance Management teams implementing Cost Management (CM) and Activity Based Costing (ABC) and Activity Based Management (ABM) with an understanding of CM principles and the roles CM will fulfill in the Army and in their specific business area. As one approach, discuss how ABC/M can be used to implement CM at the local level to improve the delivery of goods and services and how to identify useful performance measures for application in ABC/M. Provide initial hands-on instruction in building ABC models using Oros ABCPlus software.

- **Enterprise Building for Cost Management** (3 days) designed to provide key staff personnel with the basis for planning and monitoring implementation of a CM program to embed CM in developing performance measures to support leadership and management decisions throughout their organization. The course will approach ABC/M from an enterprise-wide perspective and will focus on performance measures and scorecarding to link cost, performance, and organization strategy.
- **Executive Level CM and ABC/M Orientation** (2 days) to provide General Officers/Colonels and Senior Executive Service/GS-15 civilians with an overview of how CM and ABC/M works. Presentations will discuss CM and ABC/M concepts, model building, ABC software, and prototyping.

4.018 Identify software requirements *(Software to be centrally procured)*. None at this time.

4.019 Define criteria for assessing ABC as cost measurement tool: SMDTC will seek to continually assess and improve our ABC systems by integrating cost and performance measurements/indicators and evaluating them to determine if they meet the criteria of being: useful; balanced; valid; practical; ~~and consistent~~ over time.

4.02 Performance Measurers

4.021 Describe how you will develop performance metrics. See 2.041 above. While metrics already exist, we are continuing to improve them through ongoing development of Strategic and Business Plans.

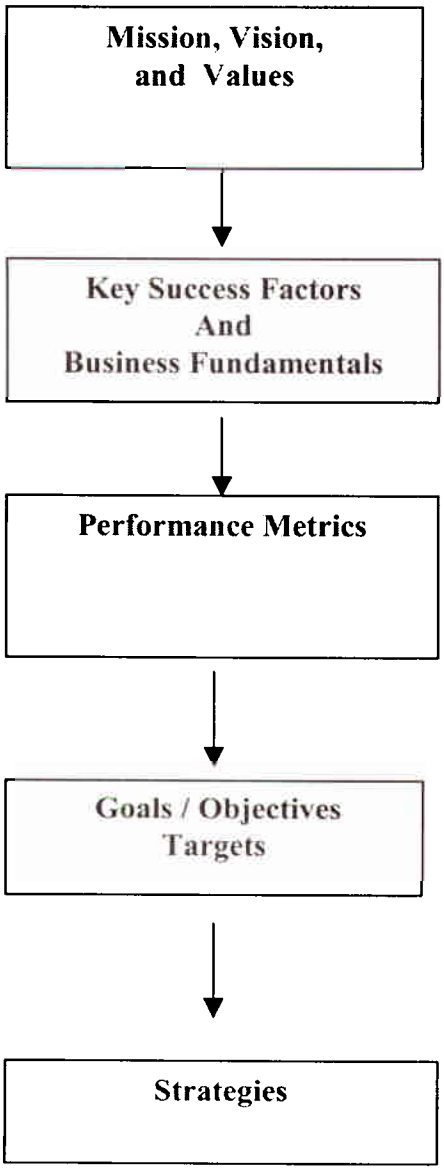
4.022 How will performance be measured and evaluated. See 2.042 above: Performance will be measured as a measurement of output or outcomes; outputs being products or services and outcomes as results or impact of program output against intended purpose. Assessment of indicators will include: Efficiency Indicators which measures the transaction on production cost, such as unit cost per output. Efficiency Indicators which is a measures the output or outcome quality, timeliness, and customer satisfaction. Financial Indicators which measure the fiduciary characteristics such as receipt, collection and credit obligation rates.

4.023 How will performance measures support continuous improvement i.e. cost, product/services, and process? See 2.04 and Sec III above. ABC &P provides both financial and non-financial information in the form of activity cost, product cost, and performance measurement. This information will serve as a baseline for comparing current process performance against expected results. Such comparisons will help SMDTC set improvement targets and justify investments.

4.024 How will the performance measures be linked to strategic goals and objectives (*i.e. Balanced Scorecard or other*)? The Balanced Scorecard approach will be used; see 3.013 above.

ONLY ALLUDES TO LINKAGE OF OPER. PERF-MGAS. TO STRATEGIC OBJECTIVES.

Strategic Measurement Model



•What the organization is.
•What you want the organization to be in the future.
•What the organization stands for.

•What the organization needs to focus on to beat its competitors and achieve its vision

•A balanced scorecard.
Past Present Future

•The desired annual and long-term levels for each metric. Based on research.

•Activities implemented to achieve the goals.

A CM IMPL

4.03 Indicate how your Cost Management / ABC program will be sustained and improved: Through implementation of APIC; see 4.04 below.
While this is an implementation plan, the operational goal includes having ABC actively used and updated by local commanders and managers to evaluate and make resourcing and process improvement decisions. The ABC models developed and built by the SMDTC should leverage current and future automated information systems and must be readily maintainable by SMDTC staff within current resources. If the level of detail is too great relative to the value of the information gained by local managers, the ABC models will not be properly maintained. Sustaining ABC data should become as routine and managerially important as preparing and submitting civilian timecards and evaluations. Managing costs to improve productivity is a basic responsibility for every SMDTC manager and must be performed on a continuing basis. Therefore, data in the ABC models will require updating on at least a quarterly basis to maintain information sufficiently current for local decisionmaking. Over time, as models and their use mature, the data in the models should be updated monthly to increase its real time value to managers actively using the information for process improvements.

? BUT ABC DOESN'T MAKE DECISIONS

OK

OK

OK ✓✓ /Q → /M

4.04 Explain how you will provide training support for, model building, implementation, and *sustainment (In-house, AAA, or contractor support, ect.)*.
We have hired an APIC coordinator and are currently recruiting a Change Management Specialist to continue facilitation of implementation and sustainment. USACEAC will provide or obtain training to support implementation of CM/ABC in the Base Support business area. The training will begin in the 4th Quarter of FY 2000 and extend through FY 2003.
USACEAC will fund the costs for sustaining the Oros ABCPlus software licenses and upgrades. Organizations that already own Oros ABCPlus software licenses may transfer these licenses to USACEAC who will then maintain them by paying the associated renewal fees.

? CONTRACT FOR BASOPS ONLY?

Section V: Special Considerations:

5.01 List Organizational unique requirements (*software/hardware/training*).

5.02 Identify any implementation constraints or obstacles specific to your Organization.

5.03 Specifically describe how your Cost Management / ABC or other Cost Management activities that will relate to and support Visibility and Management of Operations and Support Costs (VAMOSC). Our present Cost Management system allows for detailed billings to meet our missile system operational test customers' needs. Ongoing enhancements through application of Earned Value Management techniques and development of automated billing and estimating processes should improve our ability to meet changing VAMOSC requirements.