

Army Performance Improvement Criteria (APIC) 2000



Office of the Chief of Staff, Army
Management Directorate
Strategic Management and Innovations Division
1725 Jefferson Davis Highway
Crystal Square Two, Suite 1001
Arlington, VA 22202

www.hqda.army.mil/leadingchange/APIC

Leading Change

“Our commitment to meeting these challenges compels comprehensive transformation of *The Army*. To this end, we will begin immediately to transition the entire Army into a force that is strategically responsive and dominant at every point on the spectrum of operations.”

Excerpt from The Army Vision Statement, October 1999

Change is a reality for *The Army*. We maintain our dominance across the entire spectrum of operations by properly anticipating future requirements and transforming to meet those needs. Remaining an Army that is *persuasive in peace, invincible in war* requires that we stay ready for the future. The United States Army does not react to change... *The Army* leads change.

The *Army Performance Improvement Criteria (APIC)* is a valuable resource for leading change. It supports The Army Vision by providing a framework for in-depth organizational assessment and measurement of the continuous improvement efforts that are the hallmark of Total Army Quality (TAQ). Based on the Malcolm Baldrige Criteria for Performance Excellence, the APIC guides Army leaders through seven categories, which examine all aspects of their organization and determine how well it is meeting its goals. The categories are interrelated and based on a set of values and concepts that when fully applied result in a highly effective and efficient organization.

The APIC supports Total Army Quality in three specific ways. First, it serves as a working tool for strategic planning, organizational assessment, and training. Second, it raises the organization's performance expectations and standards. Finally, it establishes common performance criteria to facilitate communication and sharing of best business practices among Army organizations, business, and industry.

In 1988, Secretary of Defense issued the challenge to all of the services to become the most efficient organizations possible. The Army acted immediately on this directive and later codified it in AR 5-1, *Army Management Philosophy*, published by the Director of Management in 1992. This regulation introduced TAQ. It directs continuous performance improvement and efficiency across the board.

The APIC was first published in 1995 to support TAQ efforts by providing a standard method of measuring the results of continuous improvement efforts. It is updated and refined annually. The APIC 2000 includes actual examples of self-assessments for each category. These “real world” examples make the APIC a “How To” document and a means of sharing best management techniques, strategies, and performance practices. These examples are from the applications submitted for the 2000 President's Quality Award as reviewed by the Headquarters Department of the Army, Board of Examiners. Immediately following the example is the feedback comment for that item from the Examiner team.

In April of 1999, the Secretary of the Army recognized the great success Army organizations have achieved by “using the APIC as an assessment methodology and framework for continuous improvement.” Use the APIC to accelerate your own organization's successful transformation.

Acknowledgements

We thank the XVIII Airborne Corps and Fort Bragg, Rock Island Arsenal, US Army Armament Research, Development and Engineering Center and White Sands Missile Range for their permission to use their self-assessments/applications and feedback reports for the 2000 President's Quality Award (PQA) Program. These documents are the source for the examples used throughout the APIC. We also thank the U. S. Army Construction Engineering Laboratory (CERL) for developing the “Cliffnotes for Leaders” on the APIC for Performance Excellence, which we include on pages 125-131.

Strategic Management and Innovations Division
Management Directorate
Office of the Chief of Staff, Army

(This page intentionally left blank)

Contents

Leading Change.....	1
2000 Criteria: Core Values, Concepts, and Framework	6
Criteria for Performance Excellence Framework.....	13
Key Characteristics of the Criteria.....	15
Changes From the 1999 Criteria.....	17
<i>APIC 2000</i> – Item Listing.....	20
Army Performance Improvement Criteria 2000.....	21
1 Leadership (125 pts.).....	21
2 Strategic Planning (95 pts.).....	34
3 Customer Focus (95 pts.).....	47
4 Information and Analysis (95 pts.).....	58
5 Human Resource Focus (95 pts.)	66
6 Process Management (95 pts.)	80
7 Business Results (400 pts.)	96

Glossary of Key Terms	116
Scoring System	122
Scoring Guidelines.....	124
Preparing the Organization Overview.....	126
“CLIFFNOTES” for Leaders:.....	129

(This page intentionally left blank)

2000 Criteria: Core Values, Concepts, and Framework

APIC's relationship to the Malcolm Baldrige Criteria for Performance Excellence and the President's Quality Award (PQA) Program Criteria.

The Malcolm Baldrige Criteria for Performance Excellence is the basis for *the Army Performance Improvement Criteria (APIC)*. The *APIC* rewords these Criteria to fit the unique nature of the Army Mission. It uses the applicable business principles embedded in these Criteria to continuously improve the Army's ability to be persuasive in peace and invincible in war. Army organizations use the *APIC* self-assessment to view how well their current processes support their stated goals. It provides a systematic review that indicates the degree to which these processes are linked and aligned towards mission accomplishment. The *APIC* supports the strategic planning process. It applies with equal effectiveness to both TOE and TDA units. The *APIC* is a combat multiplier that enables an organization to become more than just the sum of its many parts.

These criteria can be used for award programs for performance excellence such as the President's Quality Award and the Army Communities of Excellence Awards.

Criteria Purpose

The *Army Performance Improvement Criteria* supports Total Army Quality in three ways:

- Provides a systematic, disciplined approach to deal with the dynamics of change by providing a working tool for strategic planning, conducting organizational assessments, analysis, training, and performance improvement planning.
- Raises the organization's performance expectations and standards by improving business practices and capabilities.
- Establishes common performance criteria to facilitate communication and sharing of the best management techniques, strategies, and performance practices among Army organizations, federal agencies, business, and industry.

APIC GOAL: To improve the overall effectiveness and efficiency of Army organizations in delivering continuous value to customers, resulting in mission success.

The Strategic Management and Innovations Division, Office of the Chief of Staff, provides the *APIC* to Army organizations to conduct organizational self-assessments and measure continuous improvement.

*The APIC is **not** an additional requirement for your organization.* It is an effective methodology to manage your organization. Those organizations that have adopted the *APIC* can demonstrate increased effectiveness and efficiencies.¹ Specifically, they have higher levels of customer satisfaction, greater employee morale, and increased cost efficiencies. This mirrors the improvement seen by private sector that conducts self-assessments based on the Baldrige Criteria for Performance Excellence. It is part of *doing business as usual*.

The *APIC* generates continuous improvement over time. When properly conducted, the self-assessment reveals the health of your organization, identifies strengths, and pinpoints opportunities to improve management practices and programs. Through continuous self-assessment, your organization can review, prioritize, and select the best approach for getting results.

Core Values and Concepts

The Criteria are built upon core values and concepts. They are the foundation for integrating key performance requirements within a results-oriented framework. The core values and concepts are:

Visionary Leadership – *senior leader’s capacity for setting key directions for the organization by action and example for both warfighting and change*

We are about leadership; it is our stock in trade and it is what makes us different. An organization’s senior leaders need to set directions and create a customer focus, clear and visible values, and high expectations. The directions, values, and expectations should balance the needs of all your stakeholders. Your leaders need to ensure the creation of strategies, systems, and methods for achieving excellence, stimulating innovation, and building knowledge and capabilities. The values and strategies should help guide all activities and decisions of your organization. Senior leaders should inspire and motivate your entire work force and should encourage involvement, development and learning, innovation, and creativity by all employees. We invest today, in the Nation’s leadership for tomorrow.

Through their ethical behavior and personal roles in planning, communications, coaching, developing future leaders, review of organization performance, and employee recognition, your senior leaders should serve as role models, reinforcing the values and building leadership, commitment, and initiative throughout your organization.

Customer-Driven – *the organization’s focus on its customers – ensuring its operations meet customer needs in the most efficient manner possible*

The customer judges quality and performance. All Army organizations have customers. The Army’s customers vary. They may include the warfighter Commander in Chiefs (CINC), other Army organizations, our supervisors, our soldiers and civilians, our family members and fellow citizens. High-performing organizations consider customer expectations. Thus, your organization must take into account all product and service features and characteristics that contribute value to your customers and lead to customer satisfaction, preference, referral, and loyalty. Being customer driven has both current and future components – understanding today’s customer expectations and anticipating their future expectations.

Many factors throughout your customer’s overall purchase, ownership, and service experiences may influence *value* and *satisfaction*. These factors include the organization’s relationship with customers that helps build trust, confidence, and loyalty.

Being customer driven means much more than defect and error reduction, merely meeting specifications, or reducing complaints. Nevertheless, defect and error reduction and elimination of causes of dissatisfaction contribute to your customer’s view of your organization. They are important parts of being customer driven. Your organization’s success in recovering from defects and mistakes (“making things right for your customer”) is crucial to retaining customers and building customer relationships.

Customer-driven organizations address not only the product and service characteristics that meet basic customer requirements, but also those features and characteristics that differentiate products and services from similar organizations. Such differentiation may be based upon new or modified offerings, combinations of product and service offerings, customization of offerings, rapid response, or special relationships.

Being customer-driven is a strategic concept. Customer-driven organizations recognize the inherent

differences in relationships with different categories of customers. They direct actions toward customer retention, market share gain, and growth. They demand constant sensitivity to changing and emerging customer and market requirements, and the factors that drive customer satisfaction and retention. They anticipate changes in the marketplace. Being customer driven demands awareness of developments in technology, and rapid and flexible response to customer and market requirements.

Customer requirements are key elements of the organization's strategic plan. These requirements influence the organization's goals and the processes to achieve performance results that lead to customer satisfaction. Customer-driven organizations develop processes to meet customer needs, develop measurement systems to collect information and track progress, improve work processes, and the products and services delivered to customers. In high-performing organizations, everyone in the organization shares the same vision, has a sense of community and commitment to a common purpose of meeting customer requirements, and works together to create an alignment of the goals of the organization.

Organizational and Personal Learning – *the ability of the organization to acquire, share, and use knowledge for continuous improvement*

Achieving the highest levels of performance requires a well-executed approach to organizational and personal learning. Organizational and personal learning is a goal of visionary leaders. The term refers to continuous improvement of existing approaches and processes and adaptation to change, leading to new goals and/or approaches. Learning needs to be 'embedded' in the way your organization operates. The term embedded means that learning: (1) is a regular part of the daily work; (2) is practiced at personal, work unit, and organizational levels; (3) results in solving problems at their source; (4) is focused on sharing knowledge throughout your organization and (5) is driven by opportunities to do better. Sources for learning include employee ideas, research and development, customer input, and benchmarking or other comparative performance information gathering.

Organizational learning can result in: (1) enhancing value to customers through new and improved products and services; (2) developing new business opportunities; (3) reducing errors, defects, waste, and related costs; (4) improving responsiveness and cycle-time performance; (5) increasing productivity and effectiveness in the use of all resources throughout your organization; and (6) enhancing your organization's performance in fulfilling its public responsibilities and service as a good citizen.

Employee success depends increasingly on having opportunities for personal learning and practicing new skills. Organizations invest in employee personal learning through education, training, and opportunities for continuing growth. Opportunities might include job rotation and increased pay for demonstrated knowledge and skills. On-the-job training offers a cost-effective way to train and to better link training to your organizational needs. Education and training programs may benefit from advanced technologies, such as computer-based learning and satellite broadcasts.

Personal learning can result in (1) more satisfied and versatile employees; (2) greater opportunity for organizational cross-functional learning; and (3) an improved environment for innovation.

Thus, learning is directed not only toward better products and services, but also toward being more responsive and efficient – giving the organization and your employees mission sustainability and performance advantages.

Valuing Employees and Partners – *Invest in people – help soldiers, employees and partners optimize opportunities for success in their work environment*

An organization's success in improving performance depends increasingly on the knowledge, skills, innovative creativity, and motivation of its soldiers, employees and partners.

Valuing soldiers and employees means committing to their satisfaction, development, and well being. Increasingly, this involves more flexible, high performance work practices tailored to employees with diverse workplace and home life needs. This also means aligning human resources management with business plans and strategic change processes. This approach improves the integration and alignment of human resources management with business directions.

Major challenges in the area of work force development include: (1) demonstrating your leaders' commitment to your soldiers and employees; (2) providing recognition opportunities that go beyond the normal compensation system; (3) providing opportunities for development and growth within your organization; (4) sharing your organization's knowledge so your employees can better serve your customers and contribute to achieving your strategic objectives; and (5) creating an environment that encourages risk taking.

Addressing these challenges requires acquisition and use of employee-related data on skills, satisfaction, motivation, safety, and well being. Such data need to be tied to indicators of organization or unit performance, such as program impact indicators, customer satisfaction, customer retention, and productivity.

Organizations need to build internal and external partnerships to better accomplish overall goals.

Internal partnerships might include labor-management cooperation, such as agreements with your unions. Partnerships with employees might entail employee development, cross-training, or new work organizations, such as high performance work teams. Internal partnerships also might involve creating network relationships among your work units to improve flexibility, responsiveness, and knowledge sharing.

External partnerships might be with customers, suppliers, and education organizations. Strategic partnerships or alliances are increasingly important kinds of external partnerships. Such partnerships might offer entry into new markets or a basis for new products and services. Also, partnerships might permit the blending of your organization's core competencies or leadership capabilities with the complementary strengths and capabilities of partners, thereby enhancing overall capability, including speed and flexibility.

Successful internal and external partnerships develop longer-term objectives, thereby creating a basis for mutual investments and respect. Partners should address the key requirements for success, means of regular communication, approaches to evaluating progress, and means for adapting to changing conditions. In some cases, joint education and training could offer a cost-effective method of developing employees.

Agility – *The ability to transition rapidly within or between operations, warfighting or business*

Success in meeting public expectations of the Army demands creating a capacity for rapid strategic response, change and flexibility. All aspects of the information age require fast, flexible, and customized responses. The Army faces ever-shorter cycles for introducing adaptive forces, formations, and materiel solutions to dominate at any point on the spectrum of operations. Faster and more flexible response to customers, whether the CINC or soldier, is a critical requirement. Major improvements in response time often require simplification of work units and processes and/or the ability for rapid changeover from one

process to another. Cross-trained employees are vital assets in such a demanding environment.

A major success factor in meeting challenges is the design-to-introduction (product generation) cycle time. To meet the demands of rapidly changing work environments, organizations need to carry out stage-to-stage integration (concurrent engineering) of activities from research to fielding.

All aspects of time performance are becoming increasingly important and should be among your key process measures. Other important benefits can be derived from this focus on time; time improvements often drive simultaneous improvements in organization, quality, cost, and productivity.

Focus on the Future – *remaining the world’s finest land force for the next crisis, next war, and an uncertain future requires operating strategically with a long-range orientation*

Successful pursuit of your organization’s goals and mission accomplishment requires a strong future orientation and a willingness to make long-term commitments to key stakeholders, your customers, employees, suppliers, the public, and your community. Your organization should anticipate many factors in your strategic planning efforts, such as customers' expectations; new business and partnering opportunities, technological developments; new changing expectations of Congress, the Executive Branch, the CINCs; changing customer and market segments; evolving regulatory requirements; community/societal expectations; and thrusts by alternative service and product providers. Short and long-term plans, strategic objectives, and resource allocations need to reflect these influences. Major components of a future focus include developing soldiers, employees and suppliers, seeking opportunities for innovation, and fulfilling public responsibilities.

Managing for Innovation – *the capacity to develop creative and effective products and solutions to increase strategic and tactical responsiveness*

Innovation is making meaningful change to improve an organization’s products, services, and processes and create new value for the organization’s stakeholders. Innovation should focus on leading your organization to new dimensions of performance. Innovation is no longer strictly the purview of research and development departments. Innovation is important for key product and service processes and for support processes. Organizations should be structured in such a way that innovation becomes part of the culture and daily work.

Management by Fact – *reliance on data and analysis in decision-making*

Organizations depend upon the measurement and analysis of performance. Such measurements must derive from your organization's strategy and provide critical data and information about key processes, outputs and results. Many types of data and information are needed for performance measurement, management, and improvement. Performance measurement includes the following key areas: customer, product, service, operations, market and benchmark comparison, supplier, employee, and budget.

Analysis of data provides a deeper understanding of your organization and supports evaluation, decision making, and operational improvement. Proper analysis assists business process improvement and the gaining of efficiencies. Analysis helps determine trends, make projections, and identify cause and effect. Collection of data and its analysis support a variety of purposes, such as planning, reviewing your overall performance, improving operations, and comparing your performance with others working in similar environments or with “best practices” benchmarks.

A major consideration in performance improvement involves the selection and use of performance measures or indicators. *The measures or indicators you select should best represent the factors that lead to improved mission accomplishment, customer satisfaction, and operational and financial performance. A comprehensive set of measures or indicators tied to customer and/or organization performance requirements represents a clear basis for aligning all activities with your organization's goals.* Through the analysis of data obtained from the tracking processes, the measures or indicators themselves may be evaluated and changed to better support such goals. For example, measures selected to track product and service quality may be judged by how well improvement in these measures correlates with improvement in customer satisfaction.

Public Responsibility and Citizenship – *proactive and responsive commitment to the needs and concerns of the community and the larger public*

An organization's leadership needs to stress its responsibilities to the public and needs to practice good citizenship. These responsibilities refer to basic expectations of your organization – business ethics and protection of public health, safety, and the environment. Health, safety, and the environment include your organization's operations as well as the life cycles of your products and services. Also, organizations need to emphasize resource conservation and waste reduction at their source. Planning should anticipate adverse impacts, from facilities management, production, distribution, transportation, use, and disposal of your products. Plans should seek to prevent problems, to provide a forthright response if problems occur, and to make available information and support needed to maintain public awareness, safety, and confidence.

For many organizations, the product design stage is critical from the point of view of public responsibility. Design decisions impact your production process and the content of municipal and industrial wastes. Effective design strategies should anticipate growing environmental demands and related factors.

Organizations should not only meet all local, state and Federal laws and regulatory requirements, they should treat these and related requirements as opportunities for continuous improvement “beyond mere compliance.” This requires the use of appropriate measures in managing performance.

Practicing good citizenship refers to leadership and support within limits of your organization's resources – of publicly important purposes. Such purposes might include providing education, health care in the community, environmental excellence, resource conservation, community service, industry and business practices, and sharing non-sensitive information. Leadership as an organization citizen also entails influencing other organizations, private and public, to partner for these purposes. For example, your organization could lead efforts to help define the obligations of other government entities to their communities.

Focus on Results and Creating Value – *the orientation to managing toward key outcomes for mission accomplishment and meeting customer needs*

An organization's performance measurements need to focus on key results. Results should be focused on creating and balancing value for all your stakeholders – customers, soldiers and employees, suppliers and partners, the CINCs, Congress, the White House, the public, and the community. By creating value for all your stakeholders, your organization builds loyalty and contributes to the defense of the Nation. To meet the sometimes conflicting and changing aims that balancing value implies, organization strategy needs to explicitly include all stakeholder requirements. This will help to ensure that actions and plans meet differing stakeholder needs and avoid adverse impacts on any stakeholders. The use of a balanced composite of leading and lagging performance measures offers an

effective means to communicate short and long-term priorities, to monitor actual performance, and to provide a focus for improving results. The senior leader has the basic responsibility of balancing the necessity of being (innovative) with directed missions and functions.

Systems Perspective – *the ability of the organization to view its operations holistically and understand how its parts interact; the ability to align activities effectively*

A systems approach considers the synchronization of all of their organizational components, systems, and activities to attain identified goals and objectives. Organizations with a systems perspective look at their organization as a whole and focus on what is important to the whole enterprise. They align their people, resources, processes and systems toward mission accomplishment. Alignment means concentrating on key organizational linkages found in the categories, particularly the cause-effect linkages between the approach-deployment categories and the results category.

Alignment is depicted by the Criteria for Performance Excellence Framework on page 12. Alignment means that your senior leaders are focused on both strategic directions and on your customers. It means that your senior leaders monitor, respond to, and build on your business results. *Alignment means linking your key strategies with your key processes and aligning your resources to improve overall performance and satisfy customers.*

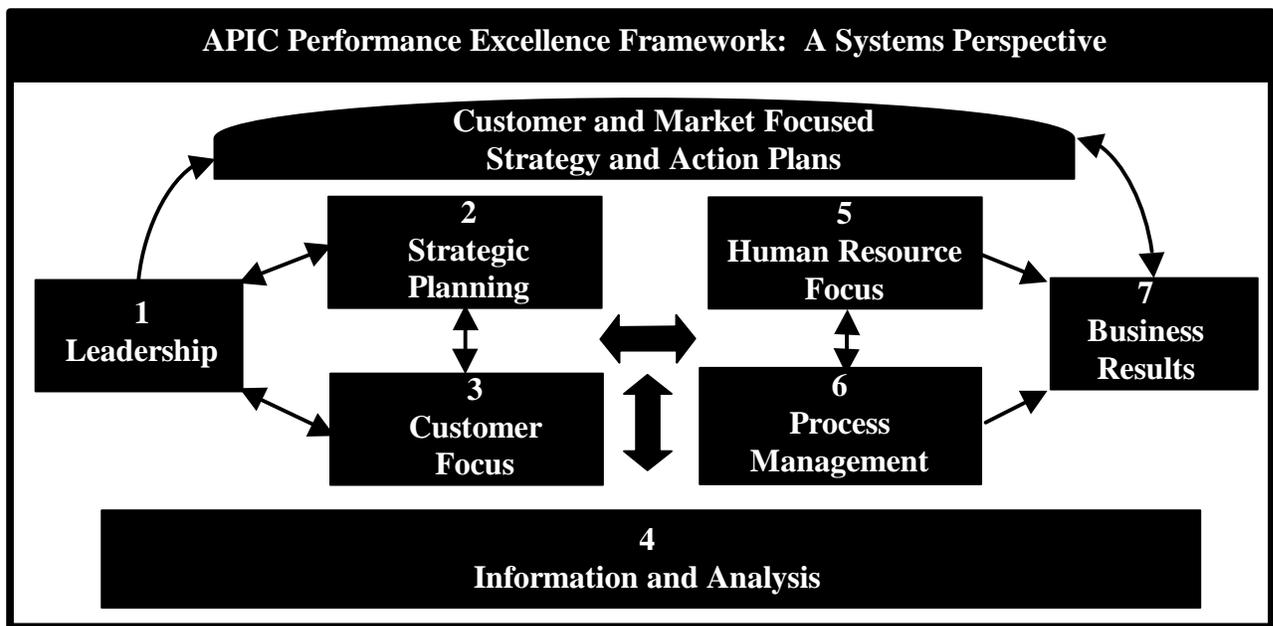
The Army Performance Improvement Criteria provide a *systems perspective* for managing your organization and improving performance excellence.

Criteria for Performance Excellence Framework

The core values and concepts are embodied in seven Categories, as follows:

- 1 Leadership
- 2 Strategic Planning
- 3 Customer and Market Focus
- 4 Information and Analysis
- 5 Human Resource Focus
- 6 Process Management
- 7 Business Results

The framework connecting and integrating the Categories is given in the figure below.



The framework has three basic elements, from top to bottom:

Strategy and Action Plans

First, Strategy and Action Plans (top of figure) yield the set of customer and mission focused performance requirements, derived from short- and long-term strategic planning, that must be met and exceeded for your organization's strategy to succeed. Strategy and Action Plans guide overall resource decisions and drive the alignment of measures for all work units to ensure customer satisfaction and mission success.

System

Second, the system is comprised of the six APIC Categories in the center of the figure that define the organization, its operations, and its results.

Leadership (Category 1), Strategic Planning (Category 2), and Customer Focus (Category 3) represent the leadership triad. These Categories are placed together to emphasize the importance of a leadership focus on strategy and customers. Senior leaders must set organizational direction and seek future opportunities for your organization. If your leadership is not focused on customers, your organization as a whole will lack that focus.

Human Resource Focus (Category 5), Process Management (Category 6), and Business Results (Category 7) represent the results triad. Your organization's employees and your key processes accomplish the work of the organization that yields your Business results.

All actions point toward Business Results – a composite of customer, financial, and operational performance results, including human resource results and public responsibility.

The horizontal arrow in the center of the framework links the leadership triad to the results triad, a linkage critical to organizational success. Furthermore, the arrow indicates the central relationship between Leadership (Category 1) and Business Results (Category 7). Leaders must keep their eyes on Business results and must learn from them to drive improvement.

Information and Analysis

Third, Information and Analysis (Category 4) is critical to the effective management of the organization and to a fact-based system for improving organizational performance and competitiveness. Information and analysis serve as a foundation for the performance management system.

Criteria Structure

The seven Criteria Categories shown in the figure are subdivided into Items and Areas to Address. Items and Areas to Address help focus your self-assessment of your organization.

Items

There are 19 Items, each focusing on a major requirement. Item titles and point values are given on page 19.

Areas to Address

Items consist of one or more Areas to Address (Areas). Organizations address their responses to the specific requirements of these Areas.

Key Characteristics of the Criteria

1. The Criteria focus on organization results.

The Criteria focus on the key areas of business performance, given below.

Organization performance areas:

- (1) customer focused results;
- (2) financial and market results;
- (3) human resource results;
- (4) supplier and partner results; and
- (5) organizational effectiveness results.

The use of this composite of indicators is intended to ensure that strategies are *balanced* – that they do not inappropriately trade off among important stakeholders, objectives, or short- and long-term goals.

2. The Criteria are non-prescriptive and adaptable.

The Criteria are made up of results-oriented requirements. However, the Criteria **do not** prescribe:

- specific tools, techniques, technologies, systems, measures, or starting points;
- that an organization should or should not have departments for quality, planning, or other functions;
- how the organization itself should be structured; or
- that different units in an organization should be managed in the same way.

These factors are important and are likely to change as needs and strategies evolve. Hence, the Criteria do emphasize that such factors be evaluated as part of the organization's performance reviews.

The Criteria are non-prescriptive because:

- (1) The focus is on results, not on procedures, tools, or organizational structure. Organizations are encouraged to develop and *demonstrate* creative, adaptive, and flexible approaches for meeting basic requirements. Non-prescriptive requirements are intended to foster incremental and major ("breakthrough") improvements as well as basic change.
- (2) Selection of tools, techniques, systems, and organizational structure usually depends upon factors such as organization type and size, your organization's stage of development, and employee capabilities and responsibilities.
- (3) Focus on common requirements, rather than on common procedures, fosters better understanding, communication, sharing, and alignment, while supporting innovation and diversity in approaches.

3. The Criteria support a systems perspective to maintaining organization-wide goal alignment.

The systems perspective to goal alignment is embedded in the integrated structure of the Core Values and Concepts, the Criteria, and the results-oriented, cause-effect linkages among the Criteria Items.

Alignment in the Criteria is built around connecting and reinforcing measures derived from your organization's strategy. These measures tie directly to customer value and to overall performance. The use of measures thus channels different activities in consistent directions with less need for detailed procedures, centralized decision-making, or process management. Measures thereby serve both as a communications tool and a basis for deploying consistent overall performance requirements. Such alignment ensures consistency of purpose while also supporting agility, innovation, and decentralized decision making.

A systems perspective to goal alignment, particularly when strategy and goals change over time, requires dynamic linkages among Criteria Items. In the Criteria, action-oriented cycles of learning take place via feedback between processes and results.

The learning cycles have four, clearly defined stages:

- (1) planning, including design of processes, selection of measures, and deployment of requirements;
- (2) execution of plans;
- (3) assessment of progress, taking into account internal and external results; and
- (4) revision of plans based upon assessment findings, learning, new inputs, and new requirements.

4. The Criteria support goal-based diagnosis.

The Criteria and the Scoring Guidelines make up a two-part diagnostic (assessment) system. The Criteria are a set of 19 performance-oriented requirements. The Scoring Guidelines spell out the assessment dimensions – Approach, Deployment, and Results – and the key factors used to assess against each dimension. An assessment thus provides a profile of strengths and opportunities for improvement relative to the 19 basic requirements. In this way, assessment leads to actions that contribute to performance improvement in the results composite described in the box above. This diagnostic assessment is a useful management tool that goes beyond most performance reviews and is applicable to a wide range of strategies and management systems.

The scoring guidelines enable an organization to objectively assess its performance. When used consistently, the scoring guidelines help an organization track its improvement from assessment to assessment.

Changes From the 1999 Criteria

The Army Performance Improvement Criteria have evolved significantly over the last several years toward comprehensive coverage of strategy-driven performance, addressing the needs of all stakeholders – customers, employees, stockholders, suppliers and partners, and the public. For 2000, there are only minor wording changes to clarify the Criteria Item requirements. Revisions have been made in other important sections of the Criteria booklet. The most significant changes in the Criteria booklet are summarized as follows:

- The Core Values and Concepts have been revised.
- The Glossary of Key Terms has been revised and expanded.
- The Category and Item Descriptions have been rewritten and reformatted.
- The Scoring Guidelines have been revised for Approach/Deployment Items.
- Example figures from an actual assessment are included in Item 7.1.

Changes have been made throughout the APIC. The next section explains the most significant changes.

Core Values and Concepts

- Many of the Core Values and Concepts have been changed to better align with the foundation for the current Criteria. The number of Core Values and Concepts remains constant at 11.
- The following Core Values and Concepts have replaced the indicated Core Values and Concepts: **Visionary Leadership** replaces Leadership, **Customer Driven** replaces Customer-Driven Quality, **Organizational and Personal Learning** replaces Continuous Improvement and Learning, **Valuing Employees and Partners** replaces Valuing Employees, **Agility** replaces Fast Response, **Focus on the Future** replaces Long-Range View of the Future, and **Focus on Results and Creating Value** replaces Results Focus. The new Core Values and Concepts are intended to provide a more holistic and current view of organizational performance excellence.
- Two of the 1999 Core Values and Concepts, Design Quality and Prevention and Partnership Development, have been incorporated into the new Core Values and Concepts.
- Two new Core Values and Concepts have been added to underpin the current Criteria: **Managing for Innovation** and **Systems Perspective**
- Two 1999 Core Values and Concepts remain: **Management by Fact** and **Public Responsibility and Citizenship**.

Glossary of Key Terms

The following key terms have been added to the Glossary: Analysis, Approach, Deployment, Empowerment, Leadership System, Results, Strategic Objectives, Strategic Planning, and Systematic. All of these terms have very specific meanings in the APIC context.

Category and Item Descriptions

The Category and Item Descriptions are no longer found as a section in the back of the APIC. They are now found after the appropriate Item for easy reference.

Each Item Description now has three parts: **Purpose, Requirements, and Comments**. This three-part presentation is intended to better aid the understanding of the Criteria Items. *Purpose* tells you what the Item is examining and why. *Requirements* summarizes the key Item requirements. *Comments* provides additional explanation and examples of how you might address the Item requirements.

Scoring Guidelines

The word *effective* replaces the word *sound* for Approach/Deployment Items in the Scoring Guidelines. *Effective* relates to producing the desired result and to appropriateness for intended use. *Effective* is a better term in the context of an APIC assessment.

(This page intentionally left blank)

APIC 2000 – Item Listing

Categories/Items	Point Values
1 Leadership	125
1.1 Organizational Leadership	90
1.2 Public Responsibility and Citizenship	35
2 Strategic Planning	95
2.1 Strategy Development	45
2.2 Strategy Deployment	50
3 Customer Focus	95
3.1 Customer and Market Knowledge	45
3.2 Customer Satisfaction and Relationships	50
4 Information and Analysis	95
4.1 Measurement of Organizational Performance	45
4.2 Analysis of Organizational Performance	50
5 Human Resource Focus	95
5.1 Work Systems	35
5.2 Employee Education, Training, and Development	30
5.3 Employee Well being and Satisfaction	30
6 Process Management	95
6.1 Product and Service Processes	50
6.2 Support Processes	20
6.3 Supplier and Partnering Processes	25
7 Business Results	400
7.1 Customer Focused Results	125
7.2 Financial Performance Results	50
7.3 Human Resource Results	75
7.4 Supplier and Partner Results	75
7.5 Organizational Effectiveness Results	75
TOTAL POINTS	1000

Note: The Scoring System and Guidelines used with the Criteria Items in an APIC assessment are on pages 118-121.

Army Performance Improvement Criteria 2000

The examples and feedback comments that follow each item clarify, illustrate, and act as starting points for discussion and thought concerning the use of the Army Performance Improvement Criteria (APIC). The examples may not respond to all aspects of the item. The examples may refer to charts, figures, or graphs that are not included in the APIC. Examples show only a technique for self-assessment and do not represent a 100% score. Refer to the Scoring section, the Description section, and the Glossary of Key Terms for further guidance. The uniqueness of Army organizations precludes the use of a “one-size-fits-all” response methodology. These criteria focus on answering the “how” and “what” questions, as they relate to organizational approach, deployment, and results.

1 Leadership (125 pts.)

The **Leadership Category** examines how your organization’s senior leaders address values and performance expectations, as well as focus on customers and other stakeholders, empowerment, innovation, learning and organizational directions. Also examined is how your organization addresses its societal responsibilities and community involvement.

Leadership addresses how your senior leaders guide the organization in setting directions and seeking future opportunities. Primary attention is given to how your senior leaders set and deploy clear values and high performance expectations that address the needs of all your stakeholders. The Category also includes your organization’s responsibilities to the public and how your organization practices good citizenship.

1.1 Organizational Leadership (90 pts.)

[Approach-Deployment]

Describe how senior leaders guide your organization and review organizational performance.

Within your response, include answers to the following questions:

a. Senior Leadership Direction

- (1) How do senior leaders set, communicate, and deploy: a) organizational values, b) performance expectations, and c) a focus on creating and balancing value for customers and other stakeholders? Include communication and deployment to all employees through your leadership structure.
- (2) How do senior leaders establish and reinforce an environment for empowerment and innovation, and encourage and support organizational and employee learning?
- (3) How do senior leaders set directions and seek future opportunities for your organization?

b. Organizational Performance Review

- (1) How do senior leaders review organizational performance and capabilities to assess organizational health, competitive performance, and progress relative to performance goals and changing organizational needs? Include the key performance measures regularly reviewed by your senior leaders.

- (2) How do you translate organizational performance review findings into priorities for improvement and opportunities for innovation and reinvention?
- (3) What are your key recent performance review findings, priorities for improvement, and opportunities for innovation? How are they deployed throughout your organization and, as appropriate, to your suppliers/partners and key customers to ensure organizational alignment?
- (4) How do senior leaders use organizational performance review findings and employee feedback to improve their leadership effectiveness and the effectiveness of management throughout the organization?

Notes: (Item notes serve three purposes: (1) clarify terms or requirements presented in Criteria Items; (2) give instructions on responding to the Criteria Item requirements; or (3) indicate key linkages to other items. In all cases, the intent is to help you respond to the Criteria Item requirements.)

- N1. Senior leaders are normally defined as the highest ranking official and those leaders reporting directly to that official. For some organizations, senior leaders may include union leadership.*
- N2. Your organizational performance results should be reported in **Items 7.1, 7.2, 7.3, 7.4, and 7.5**. It is important to view each of the seven categories as a linked system and not as separate compartments. The entire application should show an integrated approach and deployment.*
- N3. Item responses are assessed by considering the Criteria Item requirements and the maturity of your approaches, breadth of deployment, and strength of your improvement process and results relative to the Scoring System. Refer to the Scoring System information on pages 118-119.*

See the glossary for a more complete description of alignment, approach, deployment, empowerment, innovation, measures, performance, and value.

1.1 Organizational Leadership Item Description

Purpose

This Item examines the key aspects of your organization's leadership and the roles of your senior leaders, with the aim of creating and sustaining a high performance organization.

Requirements

You are asked how your senior leaders set directions, communicate and deploy values and performance expectations, and take into account the expectations of customers, employees, suppliers, the Congress, the public and other stakeholders. This includes how leaders create an environment of empowerment and innovation, learning, and knowledge sharing. You also are asked how your senior leaders review organizational performance, what key performance measures they regularly review, how review findings are used to drive improvement and change, including your leaders' effectiveness, and position relative to competitors and/or other organizations with similar processes, products or services.

Comments

- Leadership's central role in setting directions, creating and balancing value for all stakeholders, and driving performance. Success requires a strong future orientation and a commitment to both improvement and change. Increasingly, this requires creating an environment for learning and innovation, as well as the means for rapid and effective application of knowledge.
- Specifically, this item examines the central roles of leadership: (1) creating values and expectations; (2) setting directions; (3) projecting a strong customer focus; (4) encouraging innovation; (5) developing and maintaining an effective leadership structure; and (6) effectively demonstrating, communicating, and deploying values, directions, expectations, and a strong customer focus. Setting directions includes creating future opportunities for the organization and its stakeholders. An effective leader promotes continuous learning, not only to improve overall performance, but also to involve all employees in the ongoing challenge to enhance customer value. To be successful, leadership must ensure that the organization captures and shares lessons learned. Communication by leadership is critical to organizational success. Communications need to include performance objectives and measures that help provide focus as well as alignment of work units and work processes.
- The organizational review called for in this Item is intended to cover all areas of performance, thereby providing a picture of the "state of health: of your organization. This includes not only how well you are currently performing, but also how well you are moving toward the future. It is anticipated that the review finding will provide a reliable means to guide both improvement and change, tied to your organization's own key objective, success factors, and measures. Therefore, an important component of your senior leader's organizational review is the translation of the review findings into an action agenda, sufficiently specific for deployment throughout your organization and to your suppliers/partners and key customers.
- It is important to depict how the reviews and employee feedback are used to improve leadership effectiveness.

Example 1.1a (Shows only a technique for assessment. This example does not represent a 100% Score.):

1.1a(1) Setting, Communicating, and Deploying Values and Expectations. ARDEC's Commanding General (CG), and Technical Director (TD) jointly lead our quality journey. Together they co-chair the Board of Directors (BoD) and the TQM Executive Council (EC), which comprises all our senior leaders, (as the Directors of our Centers, Directorates, and as Systems Owners and "Baldrige Criteria" Champions). They also support the Picatinny Partnership Council (a management/union partnership), which serves as a formal instrument to develop and convey our objectives, values, and expectations throughout the workforce. The BoD is comprised of our CG, TD, Deputy for Business Operations, Garrison Commander, Associate Technical Directors, Commander/Directors and Deputies of our three Armament Product Centers, and the Director of our Quality Engineering Directorate.

ARDEC leadership's primary role is to establish organizational direction and goals, and ensure that our associates understand and support these objectives. For mission success we have taken the architectural steps to achieve a system approach to our R&D mission with vertical and horizontal integration. Our Systems and Organizational Structure is shown in Figure 1.1. For integration, BoD members also serve on the EC, which is a larger group of senior leaders responsible for implementing BoD direction and fostering quality and process improvements. The primary role of EC members (ARDEC's Mission and Support Systems Owners, the directors of our Armament Product Centers, Quality Engineering Directorate, Customer Advocate, union officials, and a customer representative) is to implement strategic and quality initiatives and lead our continuous improvement effort. The EC membership ensures that all stakeholders have a voice. This corporate level body meets monthly, works on ARDEC-level systems, networking with customers and suppliers, participating in process improvements of Quality Management Boards (QMB) and Process Action Teams (PAT), chairing organizational quality meetings, and interfacing with employees. This same body reviews corporate performance metrics in the Systems Measurement Review (SMR). The BoD, in conjunction with the EC, reviews and revises ARDEC's Vision and Strategic Objectives (See Figure 1.2 for deployment process).

Through the BoD and EC, objectives, values, and expectations are communicated to all our stakeholders. Our Mission, Vision, Strategic Objectives, Quality Objectives, and products and services are available on-line via ARDEC information systems. ARDEC's Vision and Objectives (Strategic Objectives 1 & 3) clearly demonstrate our commitment to satisfying customers and their high performance objectives. With this emphasis comes a strong partnership with our major customers: TRADOC, PEO/PMs, ACALA, and the IOC. We interact with our customers and suppliers in several ways (including participation in their planning processes) by identifying science and technology thrusts; jointly developing requirements; participating in battlefield and weapon simulation exercises; participation on joint Concurrent Engineering (CE)/Integrated Product Teams (IPTs); and most recently with membership on TRADOC customer Integrated Concept Teams (ICTs). This joint participation and interaction creates value for our customers and other stakeholders.

Further deployment of our Vision and Objectives is accomplished in several ways. First we identify the ARDEC objectives into individual performance objectives for senior leaders who are responsible for cascading the objectives into the performance objectives of the Business Unit Managers (BUMs). The BUMs reinterpret them so as to be clearly relevant to the employees in their business units and reinforce them with subordinate performance objectives. IPT leaders establish team goals and objectives in their team charters that are agreed to by all team members and affected senior leaders. Other deployment methods include print media (Posters, The VOICE (bi-weekly internal newspaper), Quality Link (quarterly); and a third via electronic means (Closed Circuit TV System, ARDEC Information System, World Wide Web); all of which target the entire workforce and other stakeholders.

All levels of leadership devote extensive time and use various methods to communicate and reinforce Vision, Objectives, and customer focus to employees in clear and concise two-way communications. Leaders are involved in directing and reviewing organizational performance, mission systems reviews, and employee/team recognition. They lead the development of Center/Directorate Visions and Goals, developed from employee input, and ensure linkage to ARDEC's Visions and Objectives.

ARDEC's leaders have worked to form teaming arrangements with our customers. Customers and suppliers are members of our IPTs, creating joint ownership of our programs and mutual understanding of expectations. Our Development System Owner reviews results of IPT deployment in his QMB and periodically presents them in the quarterly Systems Measurement Review (SMR). The CG, TD, and senior leaders from our Armament Product Centers regularly travel to Army Training and Doctrine Command proponent Schools, Industrial Operations Command customers, and suppliers to assure that ARDEC support to our customers is meeting or exceeding their needs. "User Days" are hosted whereby concerns of our military customers are shared and resources prioritized for maximum payoff. Our Advanced Planning Briefings for Industry and the Commanding General's membership on the Industrial Committee of Ammunition Producers enable transfer of our technology expectations and goals to our industry and government suppliers so they can invest resources wisely.

To further keep the workforce involved and informed, the ARDEC CG holds regular meetings called "Breakfast with the Boss" (at which senior leaders are present). The CG shares information with employees on current initiatives and issues, followed by questions from employees with accompanying answers from the senior leaders. Senior leaders augment these sessions with other informational sessions geared to fit their particular organizational needs; e.g., Town Hall Meetings, Shareholders Meetings, and biweekly staff meetings. On a regular basis, the CG and/or Technical Director write a column for our paper (Voice), where they inform the workforce of topical issues and various important initiatives.

Periodically, the CG and TD conduct sessions in the Command Conference Center (also broadcast on the internal television system so the entire workforce can participate). After a short discussion, employees can ask, or call in questions on topics of concern. The CG and TD also produce videos shown to our employees that communicate our strategic intent. Our leadership also conducts Town Hall Meetings open to the entire Picatinny family (military and civilians). These forums are for sharing information, expectations, and concerns for the benefit of employees and military residents.

1.1a(2) Establishing and Reinforcing Empowerment and Innovation. ARDEC's principal mechanism in establishing and reinforcing empowerment and innovation is through the use of teaming in all aspects of our business. IPTs for product development now have direct reporting access to the TD through Team Charters that delineate team and individual responsibilities and authority; 100% of our product development IPTs are chartered. ARDEC recognizes the need to keep our employees motivated and innovative. The empowerment of employees and teams is one systematic approach. Another approach is a series of noteworthy mentoring programs. Our TD sponsors an Executive Fellowship program providing future leaders the opportunity to get on-the-job staff experience in ARDEC operations. The CG established a

Fellowship II program in 1995 to offer heightened experience to associates with high potential for leadership. Our Centers and Directorates also have Executive Intern/Fellowship programs that develop employees and broaden their knowledge base. Over 300 “fellows” have been mentored since 1988. These initiatives and mechanisms contribute toward an informed, empowered, learning organization (Figure 7.3.12).

We have formal feedback processes in place to ensure that our organization continues to learn and improve. These processes include mechanisms to use customer, performance management and employee feedback. First, through Listen and Learn Strategies (Section 3.2.c), customer satisfaction, performance requirements, and objectives are analyzed and addressed in the quarterly SMR. Second, ARDEC leadership uses feedback from annual self-assessment and quality award competitions to provide transformation and renewal. Through Baldrige Criteria Champions appointed by the CG, each perceived strength and area for improvement is exploited. Third, feedback from employees is collected, analyzed, and acted upon through regular employee surveys.

With customer representation at the EC and the CG’s biweekly staff meetings, we ensure that ARDEC’s plans and actions are aligned with their needs. ARDEC is actively partnering with small and large business, state and local governments, and academic institutions via the Technology Transfer Program where we are forging innovative partnership agreements to transfer and leverage technologies.

In addition to development opportunities, employee recognition is another approach to morale building, innovation, and learning. All senior executives are personally involved in employee recognition. They personally participate in giving hundreds of awards annually. A special award for employees and teams that make a difference is now in its 9th year. More than 1343 “We Make a Difference” medallions have been presented since the award’s inception. At an annual event (over the last twelve years) called the “People Enhancing Picatinny (PEP) Rally,” the senior leaders recognize exceptional teams and the facilitator of the year.

A CG’s Hotline was established to allow employees to anonymously make suggestions and ask questions of our leadership with direct response from the CG. This direct line to the CG represents another means of employee empowerment.

1.1a(3) Setting Direction and Seeking New Opportunities. The BoD focuses on major strategy decisions, such as strategic direction, movement into new business areas, long-term vision, resource decisions, and establishment of our Strategic Objectives (see Figure 2.5) and their deployment. Through our Corporate Strategic Planning Process and our Business Development Office, our leadership-instituted efforts to expand into new markets with new missions, for example, low collateral damage munitions, and pollution prevention (Section 3.1a(1)). Most recently we developed plans to bring other organizations and agencies onto our real estate to reduce our installation support.

The TD is a member of the US Army Materiel Command (AMC) Board of Directors that directs the work of the Army Research Laboratory (ARL). We depend heavily on ARL for much of the basic sciences necessary to bring technologies to the point of system integration. ARDEC and ARL work as partners in the Technology Base Planning Process to identify high payoff technologies in which to invest based on anticipated customer requirements.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

ARDEC employs multiple methods to inform the workforce of the performance expectations and customer requirements. These include: printed media, Internet web pages, periodic TV question and answer productions, "Breakfast with the Boss" meetings, Town Hall meetings. Suppliers and customers have access to many of these information sources.

The organization has established several mentoring programs (Executive Fellowships, Fellowship II, and Intern/Fellowships) to encourage promising employees to learn other aspects of the business, enhance their career progression, and increase their value to ARDEC.

ARDEC primarily focuses on future opportunities through the strategic planning process. A strategic objective has been established to expand the customer base by securing new projects. The Business Development Office and continued partnership with ARL also assists in identifying growth opportunities (example: low collateral damage

munitions and pollution prevention).

The organization is jointly lead by the Board of Directors and the TQM Executive Council. Together they operate with extensive reliance on the core value of partnership development, both internal and external. They emphasize the concept of Integrated Product Teams (IPTs) as a principal mechanism to establish and reinforce empowerment and innovation. By using a highly developed system that uses team charts, individual responsibilities, they are able to focus IPTs on 100% of their product development efforts.

The Systems and Organization Structure ensures vertical and horizontal integration of their leadership system to include customer participation, thus enhancing their focus on creating and balancing value for its customers.

ARDEC encourages and supports organizational and employee learning through their customer Listen and Learn strategies, employee feedback, performance management, quality award competition feedback, Technology Transfer Program, and their special award for employees and teams that make a difference.

The senior leadership at ARDEC utilizes the Board of Directors and TQM Executive Council as a mechanism to establish and deploy their objectives, values, and expectations to all their stakeholders. This is reinforced through a variety of methods, such as on-line services, through their formal management/union partnership, their Quality Management Boards, Process Action Teams, and Business Units. The Business Unit managers promote further deployment through a systematic process that integrates their strategic objectives and their strategic action plans with their Business Unit Plans. This permits the integration of the business unit objectives into each employee's TAPES objectives.

Example 1.1b (Shows only a technique for assessment. This example does not represent a 100% Score.):

1.1b(1) Reviewing Organizational Performance and Capabilities. ARDEC leadership uses the SMR for top-level performance management. The SMR is organized by System. The four Systems Owners present the performance measures critical to their system. The measures are originally documented in the Systems Owners Strategic Action Plans, attached as annexes to the ARDEC Corporate Strategic Plan. This process gives us a set of measures that broadly cover our operations - from the highly technical to facilities maintenance. Not all measures from these plans are used at the QMB level, and not all QMB measures are shown at the SMR. The measures shown represent areas where improvement is sought or where trend analysis is ongoing and the attention of the peer review of senior leaders is needed at the time. The SMR data is continuously available to the workforce via the Picatinny IntraWeb.

Other forums have more specialized application. Regular weekly Top Ten Reviews are for key projects and focus on technical milestones and customer satisfaction. These forums aggregate customer, operational, and quality data to guide our management toward specific operational and business results. Within the ARDEC Mission Systems, annual reviews and a detailed quarterly review are conducted by our Technology Base System owner, a quarterly Type Classification (TC) review is conducted by our Development System owner whose goal it is to have on time TC without residual actions. The Production and Field Support System owner conducts Engineering & Process Technology Panels 3-4 times per year. Financial, program, and technical issues are addressed with action items established and tracked for subsequent reviews. Results of each of these reviews are used to feed subsequent steps in our product life cycle process.

The financial health of the organization is judged by a matrix of revenue and customer ratings. The performance of key business processes such as the acquisition of large weapons systems are tracked through sophisticated, user friendly programs and related databases. Other forums for measurement of corporate data are provided in Figure 4.4. Individual weapons system projects are managed at the IPT level. Their performance is presented to corporate leadership at Milestone and Top Ten reviews, as well as through the mission systems' reviews. Product performance at the corporate level is assessed via key mission system forums such as Tech Base Annual Reviews as well as the annual TRADOC/developer review.

We use a variety of external evaluations to determine effectiveness of customer focus orientation and quality initiatives. ARDEC's TD created a Technical Director's Advisory Council to ensure an unbiased review of our technical performance and programs. Technical Directors from throughout the AMC attend this annual review with our TD and Associate TDs. Annually, the Army Science Board is provided an all-inclusive review of our ongoing technology efforts with the goal of identifying areas for improvement, more concentrated efforts, or program phase out or termination. We also utilize peer group feedback from participation on the Armament Research and Development Advisory Council, composed of CEO's of Industry. Another source of feedback on organizational performance is our annual Peer Review.

That body of objective reviewers analyzes our technical programs and makes constructive comments regarding our technologies and approach to project management.

We benchmark with other Best-in-Class organizations. Our senior leaders, through the EC, created a Command Policy on “Competitive Comparison and Benchmarking” with an associated “Benchmarking Desk Guide.” Systems Owners benchmark processes on a continuing basis. Each IPT performs product benchmarking against the world’s best armaments to ensure U.S. product superiority on the battlefield (Figures 7.5.8A-H).

1.1b(2) Translating organizational Performance review Findings into Improvement Opportunities. Senior leaders are personally involved in reviewing both overall ARDEC-level performance and Business Unit performance on a regular basis. A number of systematic reviews are conducted including the quarterly SMR, monthly EC, and the weekly Top 10 Reviews. Measures presented in these reviews that fall short of desired performance are intensively managed by the appropriate System Owner and associated QMB for review, resolution, incorporation, and implementation into ARDEC’s processes. System Owners use quality and performance metrics to measure and adjust their work processes and utilize teams to improve these processes. Results of these process changes are provided to the EC members and further deployed to affected ARDEC organizations. To further capture the information, and to transfer the knowledge and information developed, we use a knowledge base so that we can share performance as well as lessons learned with all ARDEC associates.

1.1b(3) Recent Key Performance Review Findings and Opportunities. ARDEC uses review findings to make changes in approach and programs. Two examples are as follows: 1) a finding in our annual Peer Review noted we were minimally investigating a technology that could solve an immediate customer need. As a result, we made financial resources available to apply to this cutting edge technology; 2) following another recommendation, we made a concerted effort to better capture and capitalize on intellectual property that we generate. A training program was developed by our Intellectual Property PAT to advise our scientists and engineers of the patent process. We streamlined the process to make it more efficient.

Through joint reviews with customers, e.g., the annual Tech Base review, decisions on technical direction are made based on data presented by our technical staff. These reviews weigh the relative military value of potential technologies against the technological risks and costs. Top Ten Reviews use data on cost and schedule to assess the progress of a revolving set of key programs. Customers and ARDEC senior staff make joint decisions on the projects at these reviews. Results regarding materials, battery technology, warhead design have been transferred to other programs as a result of performance reviews. The results of the Top Ten Reviews are widely distributed via electronic mail.

1.1b(4) Utilizing Performance Reviews and Employee Feedback. The ARDEC Customer Advocates measure specific and aggregate customer feedback. ARDEC system owners use structured analytic forums to perform summary-level reviews, formulate business decisions, and perform planning to focus on customers, operations, and our competitive advantage. Service and support organization processes are routinely measured and improved largely as the result of customer feedback and survey data. Using survey data, ARDEC tracks key customer trends and develops policy and procedural changes to set priorities for performance improvement.

Key performance data from all ARDEC systems in the form of metrics is analyzed by system owners and reviewed at the quarterly SMR. Business unit goals include customer performance ratings. Business Units also develop goals and metrics for their use in managing their program and resides in the knowledge base.

Our leadership develops supervisors and managers at all levels using reverse appraisals by employees as an aid. This is the key approach to implementing our MANTLE (MANagement Through LEadership) model. Statistical results of the feedback are provided to each supervisor along with any written comments that may have been provided. The results are also accumulated for the entire organization so any supervisor can see how he/she “rates” in relation to his/her peers. These appraisals are repeated periodically to enhance cycles of learning and improvement. This process serves as an empowerment tool for employees who have some input into the performance of their supervisors. The Partnership Council chartered a Leadership PAT composed of associates from different perspectives in the Center to identify future Leadership needs. The PAT drives the acceptance and development of competencies required for current, future, and potential leaders.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

System owners are responsible for development of performance measures for supporting action plans linked to the corporate strategic plan. Senior leaders review system measures essentially using a "management by exception" approach during the Systems Management Review (SMR). At that time, the four systems owners only present their respective performance measures that require improvement or support from leadership.

ARDEC's senior leaders use customer feedback and survey data as the basis for improvement of their management systems. Information from employee reverse appraisals (360 degree appraisals) is used to assist leaders and supervisors in identifying and improving Leadership/Management effectiveness. A Leadership PAT provides suggestions for overall leadership improvement and develops competencies required for current, future, and potential leaders.

1.2 Organization Responsibility and Citizenship (35 pts.) [Approach Deployment]

Describe how your organization addresses its responsibilities to the public and how your organization practices good citizenship.

Within your response, include answers to the following questions:

a. Responsibilities to the Public

- (1) How do you address the impacts on society of your products, services, and operations? Include your key practices, measures, and targets for regulatory and legal requirements and for risks associated with your products, services, and operations.
- (2) How do you anticipate public concerns with current and future products, services, and operations? How do you prepare for these concerns in a proactive manner?
- (3) How do you ensure ethical business practices in all stakeholder transactions and interactions?

b. Support of Key Communities

How do your organization, senior leaders, and employees actively support and strengthen your key communities? Include how you identify key communities and determine areas of emphasis for organizational involvement and support.

Notes:

- N1. *Public responsibilities in areas critical to your organization also should be addressed in Strategy Development (Item 2.1) and in Process Management (Category 6). Key results, such as results of regulatory/legal compliance or environmental improvements through the use of 'green' technology or other means should be reported in Organizational Effectiveness Results (Item 7.5(2)).*
- N2. *Society impact results directly related to the organizations mission should be reported in Organizational Effectiveness Results (Item 7.5a(3)).*

N3. Areas of community support appropriate for inclusion in 1.2b might include efforts to strengthen local community services, education, the environment, and practices of trade, business, or professional associations.

N4. Health and safety of customers, including users and visitors, are included in Item 1.2. Health and safety of employees are not addressed in Item 1.2; these are addressed in [Item 5.3](#).

1.2 Public Responsibility and Citizenship Item Description

Purpose

This Item addresses how your organization fulfills its public responsibilities and encourages, supports, and practices good citizenship.

Requirements

You are asked how your organization addresses current and future impacts on society in a proactive manner and how it ensures ethical business practices in all stakeholder interactions. The impacts and practices are expected to cover all relevant and important areas – products, services, and operations.

You also are asked how your organization, your senior leaders, and your employees identify, support, and strengthen key communities as part of good citizenship practices.

Comments

- An integral part of performance management and improvement is proactively addressing legal and regulatory requirements and risk factors. Addressing these areas requires establishing appropriate measures and/or indicators that senior leaders track in their overall performance review. Your organization should be sensitive to issues of public concern, whether or not these issues are currently embodied in law.
- Citizenship implies going beyond a compliance orientation. Good citizenship opportunities are available to organizations of all sizes. These opportunities include employee community service that is encouraged and supported by your organization.
- Examples of organizational community involvement include: influencing the adoption of higher standards in education by communicating employability requirements to schools and school boards; partnering with other businesses and health care providers to improve health in the local community by providing education and volunteer services to address public health issues; and partnering to influence trade and business associations to engage in beneficial, co-operative activities, such as sharing best practices to improve overall U.S. global competitiveness and environment.
- Good citizenship activities also include community service by employees when encouraged and supported by your organization.

Example 1.2a (Shows only a technique for assessment. This example does not represent a 100% Score.):

Addressing the Impacts of our Products on Society. Our Strategic Intent is to be “the premier Armament and Munitions ‘Center of Excellence’... while being a responsible neighbor and steward of resources.” Our Strategic Objectives, which deal with product, operations, and community involvement, are to integrate public responsibility into our policies and strategic Business Plans and to embed public responsibility into all aspects of our business. To ensure that risk is managed and mitigated in our development efforts of new products, we use Integrated Product Teams (IPTs) that include Safety and Environmental Engineers. Because of this important consideration in our programs (environmental compliance), we require an extensive and detailed Environmental Assessment on all products. This rigorous assessment considers materials, manufacturing processes, and future disposal. All products also undergo a thorough and vigorous

Safety Release and Materiel Release process prior to issue to the customer. In managing our Supplier Base, we are a leader in Acquisition Reform initiatives, using processes like Source Selection to ensure that we are buying the best value product at the lowest possible cost to the American taxpayer with the lowest possible risk to the soldier. (See Results 7.4.) (Editor's note: this is an example of a reference to link this response to a result found in Item 7.4.) If information regarding product failures is reported, an engineering team is dispatched within 48 hours as a result of leadership emphasis on customer and safety problems. This information is provided to our Business Unit Managers (BUM) who support the team and work quickly to resolve problems. To further reduce risk in our processes: internal controls are deployed, with feeder annual assurance statements signed by our functional managers, which build to the CG's annual assurance statement.

In addition to maturing technologies for armament applications, we look for opportunities to transfer beneficial technologies to public use through Cooperative Research and Development Agreements (CRADA) with industry, the medical community, and various consortia. Examples of successful technology transfer include improved mammography technology and Airport Baggage Inspection Systems from our munitions x-ray techniques, an Epileptic Seizure monitor from our munitions auto loader mechanisms, and potential AIDS remediation from our high energy explosives molecular technology.

Public and workforce concerns during the environmental studies and clean up process have been given high priority since 1989 when the Technical Review Committee was formed to address environmental actions with local communities and regulatory agencies. In 1996, the Technical Review Committee evolved into a Restoration Advisory Board (RAB) that consists of members of the workforce, on-base residents, representatives from six surrounding towns, public-at-large, and environmental regulatory agencies. These stakeholders meet regularly to discuss their concerns and to review and prioritize environmental restoration work. Through a Department of Defense grant, this board is obtaining expert, independent advice on the cleanup process to incorporate the concerns of all affected stakeholders.

Anticipating Public Concerns. ARDEC has a 20-year plan that lays out our environmental goals with milestones and reporting processes that must be taken should any violation occur. Metrics and status are presented in the quarterly Systems Measurement Review (SMR) so all senior leaders are kept apprised with current information.

A relatively new business area for us is Pollution Prevention R&D. ARDEC expanded into this new business area and as a result was assigned a major portion of the Army's environmental program. Our Environmental Technology Office now manages the Army's pollution prevention R&D programs. A Pollution Prevention and Environmental R&D plan was created and integrated into the Defense Tri-Service Environmental Quality Strategic Plan to maximize the use of Defense funds. This office has initiated a number of "Green" (environmentally friendly) manufacturing programs to eliminate toxic materials from both products and processes.

ARDEC's Safety Office addresses all aspects of installation safety including explosives, radiation, and industrial operations. Major improvements include: elimination of explosive safety zone problems; implementation of a customer rapid response system; and development of a system to safely identify, segregate, collect, sample, package, and dispose of radioactive waste. ARDEC is moving away from the disposal of munitions and explosives through open burning and detonation. Working closely with federal laboratories and academia, we are replacing the open burning of energetic waste with an energetic waste incinerator. This incinerator is planned to be placed in operation in 2000 and will remove or destroy 99.99% of all hazardous outputs. The Safety Office also conducts an annual Safety Stand-Down Day. At this annual event, various aspects of safety are stressed. For example, this year featured: an address by BG Geis to the workforce regarding the importance of safety from a CG's perspective; special presentations on traffic safety by NJ State Police; occupational safety and health by the Occupational Safety & Health Administration; a fire safety demonstration for the children at the Child Development Center; and the establishment of a safety "hotline" to provide quick response to employee safety concerns, complaints and suggestions.

Progress against installation environmental goals is tracked by our Environmental Office to include air, ground, water, and Superfund conditions. Partnering with the Environmental Protection Agency (EPA), periodic agenda discussions in the EC or staff meetings, and our quarterly SMR help to keep us focused on our commitment to public responsibility.

Ensuring Ethical Business Practices. Our employees recognize their responsibility as citizens committed to upholding the Government's Code of Ethics. All employees receive annual training in topics that speak to societal responsibility. Regular training and reminders are provided by our Ethics Counselor who has established a formal reporting process that follows a strict chain of command for reporting any violations. Employees in positions that may affect contractual transactions and obligations are required to file Financial Disclosure Statements to ensure that no financial conflicts of

interest exist. Regular ethics related messages and videos are presented to the workforce that reinforces specific high-importance topics. Our ethics counselor also sends out "Lessons learned" via our email system to keep the workforce apprised of violations that have occurred in other government agencies that may have relevance to our operations. Finally, ARDEC maintains an Internal Control program that has a bottoms up feed through organizational channels to the CG's level. It is at this level that a CG's Assurance Statement is authored assuring compliance with legal and ethical requirements.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

The nature of ARDEC products (munitions, weapons, etc) can pose a substantial risk to society. In response, the organization has instituted a series of checks (safety, environmental) and augments all product development teams with safety and environmental engineers. Quick reaction teams are dispatched within 48 hrs to investigate product failures. No product has been released without meeting all safety and environmental conditions since 1995.

ARDEC has taken a proactive approach to reduce potential risks to society associated with their installation operations and product development. Actions include reduction and eventual elimination of open burning of munitions undergoing disposal; procedures to rapidly identify, segregate, and dispose of radioactive waste; and safety classes and demonstrations to reduce risks to soldiers and civilians from auto accidents and fire.

ARDEC has made successful contributions to the public by the use of Cooperative Research and Development Agreements (CRADA) which have resulted in beneficial technology advancements. Examples of contributions with significant community utilization are the improvements to mammography technology and Airport Baggage Inspection Systems transferred from ARDEC's munitions x-ray techniques.

ARDEC's Restoration Advisory Board includes members of the workforce, on-base residents, representatives from six surrounding towns, public-at-large, and environmental regulatory agencies. The group, which meets regularly to discuss concerns and review priorities for environmental restoration work, promotes a partnership that enhances the organization's practice of public responsibility and good citizenship.

ARDEC takes a proactive role to emphasize the importance of ethical standards of good business. They uphold the Government's Code of Ethics by using annual training videos, email messages, internal controls, and annual assurance statements.

Example 1.2b (Shows only a technique for assessment. This example does not represent a 100% Score.):

1.2b Our leadership sends a strong message by integrating its public responsibility into strategic objectives that produce our products and support base operations and community relations. Our Corporate Responsibility Plan strives to make ARDEC a model corporate citizen and a welcomed neighbor within the local and state community. Our External Affairs Office spearheads this plan which looks at our abilities for community support and involvement for the coming year and evaluates results. Our senior leaders are committed to "...being a responsible neighbor and steward of resources" (Strategic Intent). Our employees maintain a positive presence/influence in the community by participating in activities that support municipal, educational, business, and humanitarian programs and projects. Through our support to Historically Black Colleges & Universities and Minority Institutions (HBCU/MI), we are furthering the development of the HBCU/MI science and technology infra-structure while gaining valuable technology for Army and Defense applications. Contracts have been awarded in areas of pyrotechnics, physics, targeting, pollution prevention, and generic training.

To place appropriate emphasis, our Equal Employment Opportunity (EEO) Officer reports directly to the Command Group. This manager ensures that all employees are treated fairly within Department of Defense EEO guidelines. All personnel actions are monitored to ensure fair and equitable treatment. The EEO Office has a Human Relations QMB chaired by the TD. With senior leader and union representatives as members, they meet quarterly to assure diversity is considered and maintained in our workforce, especially in light of our downsizing environment.

Within the regulatory guidelines, ARDEC has a major impact in our community both as a corporation and through the encouragement and support of our employees to “give back” (Figure 1.3). Results of our community involvement are shown in Figure 7.3.9. We use a number of mechanisms to encourage employees to support local and community charitable causes on an organization-wide basis. “Call for Volunteers” appear in our organization paper (VOICE), as well as in site-wide electronic mail messages, flyers, notices, and billboards at entrances to the arsenal. Examples include the annual Combined Federal Campaign, regular Red Cross blood drives; engineers teach math and science and tutor at local schools; regular sponsorship and/or support to Special Olympic events; annual Toys for Tots; Angel Connection; and speakers/exhibits to name a few. To recognize the contributions of our volunteers, we conduct an annual “Volunteer Appreciation” sponsored by the Morale, Welfare and Recreation Office. This past year, 447 employees were presented certificates and recognized for their volunteer efforts (Figure 7.3.13).

We use partnering to effectively work with the community. For example, in conjunction with the County College of Morris we have entered into a unique, first of its kind Picatinny Innovation Center whereby we foster small business development on our site using our high-tech facilities and engineering expertise. Close cooperation with the Morris County Chamber of Commerce and a unique joint venture project with Rockaway Township on a Water Park for joint use by our employees and residents and the Township residents are examples of these cooperative arrangements.

Operating within our community, we have mutual aid agreements for local fire, hazardous materials response, and explosive ordnance disposal; we provide State Police storage of emergency supplies; we operate a noise abatement program; we support construction of a Rockaway Township Regional Sewage System; and provide protection of historical/archaeological sites. ARDEC also shares facilities with local surrounding towns allowing the use our golf course, the Club, fitness center, ballfields, community pool, inline hockey rink and youth activities center.

To help learn and improve, we established a Mayor’s Council where the CG regularly invites the mayors from the surrounding communities to attend an evening meeting to discuss any concerns they may have as well as advise them of activities that may be of interest to their constituents. A specific result of these meetings was the installation of sound monitors in the community that would advise us of noise levels whereby we would then be able to cease certain operations if noise levels became excessive.

ARDEC acts as a role model for other organizations. During the past four years, it has sponsored speakers, hosted visits, provided documentation and assistance to numerous organizations interested in our approach to quality improvement. During this period, we have participated in two high profile, Quality New Jersey (QNJ) sharing rallies, participated in four national symposiums on TQM, Strategic Planning, and Performance Measurement, and provided over 20 leadership speakers including four to the OPM Federal Executive Institute. Over 35 organizations have benchmarked us and received personal assistance, with over 125 others being furnished written material.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

ARDEC has implemented numerous programs, projects, and partnerships to benefit the local communities adjacent to the arsenal. A Corporate Responsibility Plan has been developed to assist leadership in focusing efforts to improve community relationships as well as benefit ARDEC’s mission accomplishment. Employees are encouraged to volunteer their time and talents to assist the citizens of the community (examples: Math & Science 2000, Adopt-A-School, charitable donations, blood drives, boy scouts). Mutual beneficial partnerships or mutual assistance programs have been established with minority colleges and fire and police departments.

ARDEC partners with the County College of Morris in their "first of its kind" Picatinny Innovation Center whereby they foster small business development on-site using their high-tech facilities and engineering expertise.

ARDEC has an established working relationship with local communities. They conduct regular Mayor's Councils that have resulted in specific improvements for the surrounding communities as evidenced by ARDEC installing sound monitors to alert them to excessive noise levels.

2 Strategic Planning (95 pts.)

The **Strategic Planning Category** examines your organization's strategy development process, including how your organization develops strategic objectives, action plans, and related human resource plans including diversity planning. Also examined are how strategy and plans are deployed and performance is tracked.

Strategic Planning addresses strategic and action planning, and deployment of plans. The Category stresses that customer-driven quality and operational performance excellence are key strategic issues that need to be integral parts of your organization's overall planning.

Specifically:

- Customer-driven quality is a strategic view of quality. The focus is on the drivers of customer satisfaction, customer retention, new markets, and market share – key factors in competitiveness, profitability, and business and/or mission success.
- Operational performance improvement contributes to short-term and longer-term productivity growth and cost/price competitiveness. Building operational capability, *including speed, responsiveness, and flexibility*, represents an investment in strengthening competitive and performance fitness.

The Criteria emphasize that improvement and learning need to be embedded in work processes. The special role of strategic planning is to align work processes with your organization's strategic directions, thereby ensuring that improvement and learning reinforce organizational priorities.

The Strategic Planning Category examines how your organization:

- Understands the key customer, market, and operational requirements as input to setting strategic directions. This helps ensure that ongoing process improvements are aligned with the organization's strategic directions.
- Optimizes the use of resources, ensures the availability of trained employees, and ensures bridging between short-term and longer-term requirements that may entail capital expenditures, supplier development, etc.
- Ensures that deployment will be effective – that there are mechanisms to transmit requirements and achieve alignment on three basic levels: (1) the organization/executive; (2) the key process; and (3) the work-unit/individual-job.

The Strategic Planning Category requirements are intended to encourage strategic thinking and acting – to develop a basis for a distinct competitive position in the marketplace and/or program/mission driven environment. *These requirements do not necessarily imply formalized plans, planning systems, departments, or specific planning cycles.* Also, the Category does not imply that all your improvements could or should be planned in advance. An effective improvement system combines improvements of many types and degrees of involvement. This requires clear strategic guidance, particularly when improvement alternatives compete for limited resources. In most cases, priority setting depends heavily upon a cost rationale. However, there also might be critical requirements such as societal responsibilities that are not driven by cost considerations alone.

The approach toward strategic planning and objectives outlined in this Category is intended to be consistent with, and supportive of, the strategic planning requirements of the Government Performance and Results Act. The focus of the Criteria is on planning strategically without regard to organizational level. If strategic plans are developed by higher levels within the overall organization, the applicant's submission should focus on its own strategic planning process and how its planning process and plans fit

into the parent organization's overall plans, such as those developed pursuant to the Government Performance and Results Act.

2.1 Strategy Development (45 pts.)

[Approach-Deployment]

Describe your organization's strategy development process to strengthen organizational performance and competitive position. Summarize your key strategic objectives.

Within your response, include answers to the following questions:

a. Strategy Development Process

- (1) What is your strategic planning process? Include a description of how you develop strategy and strategic objectives. Also include key steps and key participants in the process.
- (2) How do you consider the following key factors in your process? Include how relevant data and information are gathered and analyzed.

The factors are:

- customer and market/mission needs/expectations, including new product/service opportunities
- your competitive and mission environment and capabilities, including use of new technology
- financial, societal, and other potential risks
- your human resource capabilities and needs
- your operational capabilities and needs, including resource availability
- your supplier and/or partner capabilities and needs

b. Strategic Objectives

What are your key strategic objectives and your timetable for accomplishing them? In setting objectives, how do you evaluate options to assess how well they respond to the factors in 2.1a(2) most important to your organization's performance/mission accomplishment?

Notes:

N1. Strategy development refers to your organization's approach (formal or informal) to a future-oriented basis for business decisions, resource allocations, and management. Such development might utilize various types of forecasts, projections, options, scenarios, and/or other approaches to addressing the future.

N2. The word strategy should be interpreted broadly. It might be built around or lead to any or all of the following: new products, services, and markets; revenue or mission growth; cost reduction; business acquisitions; and new partnerships and alliances. Strategy might be directed toward becoming a preferred supplier, a low-cost producer, a market innovator, and/or a high-end or customized service provider. Strategy might depend upon or require you to develop different kinds of capabilities, such as rapid response, customization, market understanding, lean or virtual manufacturing, relationships, rapid innovation, technology management, leveraging assets, business process excellence, and information management. Responses to Item 2.1 should address the key factors from your point of view.

N3. Item 2.1 addresses overall organizational directions and strategy that might include changes in

services, products, and/or product lines. However, the Item does not address product and service design; these are addressed in [Item 6.1](#).

N4. For organizations whose strategies are developed by higher levels (e.g., agency headquarters, etc.), this item should describe how the organization provides input to the parent organization's strategy development process and how the applicant organization's own strategy is developed consistent with that of higher levels.

See the glossary for a more complete description of process, strategic objectives, and strategic planning.

2.1 Strategy Development Item Description

Purpose

This Item addresses how your organization sets strategic directions and develops your strategic objectives, with the aim of strengthening your overall competitiveness. This Item may include a description of how the organization develops strategic and performance plans to meet the provisions of the Government Performance and Results Act.

Requirements

You are asked to outline your organization's strategic planning process, including the key participants. You are asked how you consider the key factors that affect your organization's future. These factors cover external and internal influences on your organization. You are asked to address each factor and outline how relevant data and information are gathered and analyzed.

Finally, you are asked to summarize your key strategic objectives and your timetable for accomplishing them.

Comments

- This Item calls for basic information on the planning process and for information on all the key influences, risks, challenges, and other requirements that might affect the organization's future opportunities and directions – taking as long a view as possible. This approach is intended to provide a thorough and realistic context for the development of a customer- and market-focused strategy to guide ongoing decision making, resource allocation, and overall management.
- This Item is intended to cover all types of missions, businesses, competitive situations, strategic issues, planning approaches, and plans. The requirements explicitly call for a future-oriented basis for action, but do not imply formalized planning, planning departments, planning cycles, or a specified way of visualizing the future. Even if your organization is seeking to create an entirely new business situation, it is still necessary to set and to test the objectives that define and guide critical actions and performance.
- This item focuses on competitive leadership, which usually depends upon revenue growth and operational effectiveness. Competitive leadership requires a view of the future that includes not only the markets or segments in which your organization operates, but also how it operates. *How it operates* presents many options and requires that you understand your organization's and your competitors' strengths and weaknesses. Although no specific time horizon is included, the thrust of this Item is sustained competitive leadership.

Example 2.1a (Shows only a technique for assessment. This example does not represent a 100% Score.):

2.1a This customer-focused strategy development process involves all levels of our workforce. It is a series of processes that yields four distinct interrelated sets of documents. They are the Corporate Strategic Plan (CSP); four System Owners Plans (SOP); 20 Business Unit Business Plans (BUBPs); and a Corporate Performance Plan (CPP) – see Figure 2.1. Figure 2.2 illustrates the relationship between plans and the personal responsibility for them as measured by our current human resource appraisal system, TAPES.

ARDEC’s formal planning process depicted in Figure 2.3 uses both formal and informal input. Information is provided to the CG and TD who determine if a major change to the existing CSP is necessary. If not, informal communications are made to and from the Business Unit Managers (BUM) who prepare their annual BUBPs. Subsequently, the information is provided to the corporate staff who updates the CPP.

If major change is required, then new guidance specifics are developed based on CG/TD guidance. Additional information, which augments their guidance, is first gathered from the workforce Random Work Groups (RWGs) and BUMs to ensure a complete corporate picture. This information enhances the BoD guidance. Then, a thorough Strengths, Limitations, Opportunities, and Threats (SLOT) analysis is conducted to determine our market position. The new CSP is prepared to set the stage for SOPs and BUBPs. Execution realizes the results desired. Figure 2.4 shows a schedule for these plans.

2.1a(1) The CSP, prepared by the CSP owner for the CG and TD, is presented to the BoD for final approval. The SOPs, (three mission systems matched to the Army Material Life Cycle and a fourth support system plan), are prepared by their owners for TD approval. The BUBPs represent detailed working level plans for execution of the corporate mission; these plans are prepared by BUMs, in coordination with and approved by their organizational Commanders/Directors and updated yearly.

The BUBPs are short-term plans based upon continuous communications with current and potential customers and a current understanding of “real world” resource availability (e.g., people, funding, equipment, and facilities). To predict future direction and workload for Business Units, the CSP and the SOPs owners continuously review and analyze a myriad of executive and legislative branch activities and policies as well as observations made by senior DoD and Army officials to formulate the future expectations of ARDEC.

If major changes are required for ARDEC to remain viable in the future, the CSP and SOPs change to reflect that redirection. For example, our recent change in corporate leaders required process flexibility to incorporate their insights and directional guidance into the CSP and SOPs.

The CPP, a compilation of corporate level goals and their metrics which form a “template” executed over time as the execution year proceeds, is also updated annually. These metrics relate directly back to corporate Key Success Factors (KSFs). ARDEC’s short range (one to three years) KSFs are:

- *Superior support for ongoing customer programs*
- *Transition system-enhancing technologies from our Tech Base program*
- *Accelerate the number of public-private partnerships*

Our long range (three to six years) KSFs are:

- *Realize a gun as a major part of the main armament of the Army’s future Multi-Mission Combat System (MMCS), if not the main armament itself*
- *Regenerate the workforce*
- *Accelerate the number and breadth of public-private partnerships*

As a corporate guide towards realization of the KSFs and corporate objectives, the BoD has formulated a CG’s/TD’s Strategic Intent and six corporate objectives (see Figure 2.5). These objectives and intents are then communicated to the workforce through electronic mail and storyboards placed throughout the work environment. These strategic objectives are adapted and integrated into BUBPs and employee TAPES.

2.1a(2) While government entities are considered “non-competitive” with other government organizations and the private sector, ARDEC programs do in fact compete with other government programs for funding. Some of our capabilities are similar to those in the private sector. Our primary strategy is to understand all of our customers (from

the soldier in the field, to the field command, to system Project/Product Managers), their needs, and our organization's capacity to satisfy those needs.

Analysis of DoD budget projections aid in assessing both organizational and product competition. We assess soldier needs continuously through our on-site liaisons at four major soldier schools under the Training and Doctrine Command (TRADOC). Additionally, we have a core of military officers in the Advanced Systems Concepts Office within ARDEC who understand soldier and PM needs. Finally, ARDEC puts one senior scientist in a field command annually to provide support to commanders on our weapon systems. Internally, quarterly reports and IPT meetings provide quality information from PM customers.

While we continue to upgrade our facilities, our most precious resource remains our people. In spite of directed downsizing, ARDEC initiated a major action to regenerate the workforce. This effort was to hire 75 recently graduated engineers. These newly hired engineers bring energy, knowledge, and ideas to our organization. In conjunction with the skill enhancement and multifunctional training of our current workforce, these efforts will assure that one of ARDEC's core competencies - integrating cutting edge technologies into systems and managing them throughout their life cycle - is intact for the challenges of the 21st Century.

Funding reductions can occur because of changing requirements in the Federal Budget. Therefore, we remain vigilant and proactive in our efforts to keep funding stable (Figure 7.2.1).

ARDEC has several external planning processes that address future workload. Tech Base planning is done on an annual cycle with the TRADOC (customer) and key suppliers. Our Tech Base Reviews result in Science and Technology Objectives (STO) which are contracts among ARDEC, TRADOC, and HQ for technology project execution. Development planning is accomplished through the Research, Development, and Acquisition (RDA) planning process. This plan captures customer requirements over the next 17 years and is widely distributed internally and to suppliers. Advanced Planning Briefings for Industry (APBI) are conducted to further include the supplier base in our advanced planning.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

ARDEC takes a systematic approach to development of their corporate strategic plan. The process provides strategic intent developed by the senior leadership (BoD) and assists in focusing efforts at the managerial (systems owner) and operational (business unit) levels. Performance measures (developed by systems owners) are periodically reviewed for progress. Senior leaders, system owners, business unit managers, and workforce random work groups are directly involved in the planning process, and provide the opportunity to clarify the corporate picture. Plan deployment is conducted through formal and informal communications, e-mail folders (available to all organization members), and public displays. Performance objectives that support Business Unit Business Plans are integrated into individual performance appraisal systems further reinforcing daily action in support of corporate plans.

Customer requirements are monitored through on-site liaison personnel at the major TRADOC schools, feedback from a senior scientist assigned to a field command, and constant influx of military assignees and their field experience. These factors are considered in the initial strategic analysis phase and serve as sounding mechanisms through product life cycles.

The elements of the strategic planning process depicts a supportive approach that strives for alignment of plans with organizational performance to support the mission, vision, values, and strategic objectives of the organization.

ARDEC's strategic planning process is well established and deployed to those levels responsible for development of supporting action plans. Specific time frames have been established for completion of actions at each level. This process also reflects the budgeting cycle.

ARDEC uses Tech Base planning and development of Science and Technology Objectives to integrate long range planning into their strategic planning process.

Example 2.1b (Shows only a technique for assessment. This example does not represent a 100% Score.):

2.1b Key Strategic Objectives & Timetable

Our key objectives are selected after careful consideration of the information provided in the situation analysis and are listed below.

- *Take Installation Redesign to the next level - - most efficient organization through privatization studies and reimbursable service delivery systems*
- *Upgrade, automate, and expand our training and deployment facilities to meet the needs of our warfighting customers well into the next century*
- *Improve facilities where we and our customers work, play, and live (gyms, barracks, motor pools)*
- *Increase employee satisfaction through increased communication, training, and rewards and recognition*
- *Expand partnerships*

Our key short-range (through 2 years) and long-range (beyond 3 years) objectives, strategies, and timelines relative to our key processes are illustrated in Figure 2.1.2. Management oversight of our privatization studies, reimbursable service delivery systems, and partnership reside in support processes and will directly impact all key processes. Our privatization and reimbursable service phase plans extend into FY04; expanding partnerships is ongoing. Although it is too early for results in our privatization process, it is expected to gain a minimum of a 20 percent reduction in operational costs in those activities being studied.

(XVIII Airborne Corps and Fort Bragg; Fort Bragg, NC, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

The organization has established both short and long-term realistic objectives, strategies, and timelines outlined in figure 2.1.2, which are linked directly to their key processes.

Key objectives, strategies, and timeliness (both short and long-range) are outlined in figure 2.1.2. These items show a results-focused, long-range view by senior leadership.

2.2 Strategy Deployment (50 pts.)

[Approach-Deployment]

Describe your organization's strategy deployment process. Summarize your organization's action plans and related performance measures. Project the performance of these key measures into the future.

Within your response, include answers to the following questions:

a. Action Plan Development and Deployment

- (1) How do you develop action plans that address your key strategic objectives? What are your key short-and longer-term action plans? Include key changes, if any, in your products/services and/or your customers/markets.
- (2) What are your key human resource requirements and plans, based on your strategic objectives and action plans?
- (3) How do you allocate resources to ensure accomplishment of your overall action plan?
- (4) What are your key performance measures and/or indicators for tracking progress relative to your action plans?
- (5) How do you communicate and deploy your strategic objectives, action plans, and performance measures/indicators to achieve overall organizational alignment?

b. Performance Projection

- (1) What are your two-to-five year projections for key performance measures and/or indicators? Include key performance targets and/or goals, as appropriate.
- (2) How does your projected performance compare with competitors, key benchmarks, and past performance, as appropriate? What is the basis for these comparisons?

Notes:

N1. *Action plan development and deployment are closely linked to other Items in the Criteria. Examples of key linkages are:*

- **Item 1.1** for how senior leaders set and communicate directions;
- **Category 3** for gathering knowledge on customers, markets and/or mission requirements as input to strategy and action plans, and for deploying action plans;
- **Category 4** for information and analysis to support development of strategy, to provide a sound performance basis for performance measurements, and to track progress relative to strategic objectives and action plans;
- **Category 5**, particularly **Items 5.1** and **5.2**, for work system needs, employee education, training, and development needs, and related human resource factors resulting from action plans;
- **Category 6** for process requirements resulting from action plans; and
- **Item 7.5** for accomplishments relative to organizational strategy.

N2. *Measures and/or indicators of projected performance (2.2b) might include changes resulting from new business ventures, business acquisitions, new value creation, market entry and/or shifts, changing societal needs related to program mission and/or significant anticipated innovations in products, services, and/or technology.*

N3. *In responding to [Area 2.2a\(2\)](#), related human resource plans might include:*

- *recruitment, including critical skill categories and expected or planned changes in work force demographics;*
- *how the organization evaluates and improves its human resource planning and practices and alignment of these with the strategic business directions; and*
- *changes in: (a) work design and/or organization to improve knowledge creation/sharing, flexibility, innovation and rapid response; (b) employee development, education and training; (c) performance appraisal; and (d) compensation, recognition, and benefits.*

See the glossary for a more complete description of action plans, measures and indicators.

2.2 Strategy Deployment Item Description

Purpose

This Item addresses how your organization translates your strategic objectives into action plans to accomplish the objectives and to enable assessment of progress relative to your action plans. The aim is to ensure that your strategies are deployed for goal achievement. The strategy might include how the organization deploys strategic and performance plans to meet the provisions of the Government Performance and Results Act.

Requirements

You are asked how you develop action plans that address your organization's key strategic objectives. You are asked to summarize your key short-and longer term action plans. Particular attention is given to product/services, customer/markets, human resource requirements, and resource allocations.

You also are asked to specify key measures and/or indicators used in tracking progress relative to the action plans and how you communicate and align strategic objectives, action plans, and performance.

Finally, you are asked to provide a two-to-five year projection of key performance measures and/or indicators, including key performance targets and/or goals. This projected performance is the basis for comparing past performance and performance relative to competitors and benchmarks, as appropriate.

Comments

- This Item calls for information on how your action plans are developed and deployed. Accomplishment of action plans requires the definition of resource requirements and performance measures, as well as aligning work unit, supplier, and/or partner plans. Of central importance is how you achieve alignment and consistency – for example, via key processes and key measurements. Also, alignment and consistency are intended to provide a basis for setting and communicating priorities for ongoing improvement activities – part of the daily work of all work units. In addition, performance measures are critical to performance tracking. Critical action plan resource requirements include human resource plans that support your overall strategy.

- Examples of possible human resource plan elements are:
 - Redesign of your work organization and/or jobs to increase employee empowerment and decision making;
 - Initiatives to promote greater labor-management cooperation, such as union partnerships;
 - Initiatives to foster knowledge sharing and organizational learning;
 - Modification of your compensation and recognition systems to recognize team, organizational, stock market, customer, or other performance attributes; and education and training initiatives, such as developmental programs for future leaders, partnerships with universities to help ensure the availability of future employees, and/or establishment of technology-based training capabilities.

- Projections and comparisons in this Item are intended to encourage your organization to improve its ability to understand and track dynamic, competitive performance factors. Through this tracking process, your organization should be better prepared to take into account its rate of improvement and change relative to competitors and relative to your own targets or stretch goals. Such tracking serves as a key diagnostic management tool.

- In addition to improvement relative to past performance and to competitors, projected performance also might include changes resulting from new business ventures, entry into new markets, product/service innovations, or other strategic thrusts.

Example 2.2a (Shows only a technique for assessment. This example does not represent a 100% Score.):

2.2a(1) How We Develop Action Plans that Address Our Key Strategic Objectives

Our key objectives are communicated throughout the Quality Management Structure (QMS) and translated into strategies and action plans. Our Senior and Quality Management Boards (SMB & QMBs) typically conduct brainstorming/planning sessions in planning workshops to identify strategies, measures, and expected performance; process owners and other stakeholders attend these sessions to facilitate appropriate input.

Detailed action plans for identified strategies are developed by process owning teams or, when appropriate, cross-functional teams. Team members work together to determine optional courses of action, measures, sequential steps, resource requirements, impact on other activities, coordination requirements, owners for each action/step, and specific timelines. Multiple courses of action are prioritized based on their potential to achieve optimal results. Action plans are then fed back through the QMS for approval, resource alignment, and additional guidance, if needed. Progress is reviewed throughout the QMS as discussed in Item 2.2a(5).

2.2a(2) Key Human Resource Requirements and Plans

Our Human Resource Plan directly supports our Strategic Business Plan. Our ability to maximize our resources and become the most efficient installation is dependent upon the ability of our work force to become skilled in the use of quality tools and our ability to create an environment conducive to team practices, creativity and innovation, and empowerment. Our employee surveys provide valuable information with which to strategize improvements. Our three priorities are to improve training, communication, and rewards and recognition. Examples of our key human resource objectives, strategies, and measures are outlined in Figure 2.2.1

The design of our organization provides us with high employee satisfaction levels in the areas of Individual and team development, work processes, and individual and team practices (Figure 7.3.5).

New recruits remain limited due to the civilian work force downsizing and zero growth in payroll. The Civilian Personnel Advisory Center works with the Civilian Personnel Operations Center to develop creative and innovative methods to recruit quality personnel through internships, term temporary appointments, and developmental assignments.

Upcoming results of privatization studies may change the demographics of the future Fort Bragg work force. A member of our Senior Management Board is participating in a Forces Command initiative to define the work force of the future in staffing, composition, and structure. This initiative will allow us to plan to meet the needs of a diverse work force well into the next century.

2.2a(3) How We Allocate Resources to Ensure Accomplishment of Our Overall Action Plan

Our QMS facilitates the allocation of resources through the budgeting and review processes. Each level reviews the resource requirements to support their strategies and action plans. Inadequate resources are identified and sent back up the QMS for relief when needed.

Our strategic reviews (Figure 4.2.1) provide senior leaders another vehicle to ensure alignment of adequate resources to support our strategic efforts. The Programming Budget and Advisory Committee specifically reviews our financial performance and requirements based on our key processes and strategic initiatives. Funds that were programmed, but unused for any reason are reprogrammed and used to support our unfinanced requirements (UFRs). These are prioritized by both the Executive Steering Committee and Senior Management Board based on our key processes and objectives. Expenditure plans for priority UFRs are developed and “on the shelf” for quick execution in the event funding becomes available.

A steady decline in civilian strengths challenges our ability to ensure adequate alignment of human resources to our strategic initiatives. Accordingly, we designed a system to centralize control over promotions and new hires to increase flexibility in pay allocations and reduce overhead. Centralization resides with our Deputy Commanding General and Garrison Commander and has enhanced our ability to align human resource requirements to our priorities. A \$1.7 million under execution of pay dollars was realized last year which was reprogrammed to fund other prioritized UFRs. This initiative was undertaken in full partnership with the American Federation of Government Employees (Local 1770) and positions us to meet future expected payroll shortfalls without involuntary personnel separations or compromising our mission capabilities.

2.2a(4) Key Performance Measures Relative to Our Action Plans

Our measurement system cascades down throughout the QMS. The measures become more detailed as you go down the structure as discussed in Item 4.1. The key measures monitored by our Executive Steering Committee and Senior Management Board are listed in Figure 4.1.1. Quality Management Boards and process owning work teams monitor key action plan measures. Figure 2.2.2 shows examples of key action plan measures and their linkage to our strategies.

2.2a(5) How We Communicate and Deploy Our Strategic Objectives, Action Plans, and Performance Measures/Indicators to Achieve Overall Organizational Alignment

Our strategic planning process cascades through our QMS as shown in Figure 2.2.3. The strategic reviews outlined in our strategic planning and deployment processes provide the vehicle to both communicate and review the progress of our strategic initiatives. The frequency of these reviews (Figure 4.2.1) maintains our focus on our strategic initiatives and drives deployment. We employ a variety of other communication mechanisms throughout the organization as outlined in Figure 1.1.2. Additionally, our strategic plan and Semi-Annual Performance Review is available to all employees electronically.

As stated earlier, the Strategic Plans Office coordinates and synchronizes the installation strategic planning efforts. The Office of Internal Review serves as an independent advisor to the Command Group. Members of the Business Office within each business center link and track the overall strategic planning effort with daily operations. They provide advice to the QMB and assist in deploying strategic planning efforts within the center.

Short and long-range strategies are translated into action plans through the QMS. Each level of the structure conducts reviews to monitor progress of strategies and action plans. QMBs meet bi-monthly to review the progress of their strategic initiatives. Measurement graphical trend charts are provided to review actual results of those action plans that have progressed into projects. Initiatives in the planning stages are reviewed based on proposed courses of action, measures, and coordination and resource requirements. Action plan managers

routinely brief QMBs on the progress of their projects. Projects not meeting performance expectations are quickly identified by the “red” status on the report card. Using our Process Improvement Cycle (Figure 6.1.1), process owning teams typically conduct an analysis to determine why the expectations are not being met and to provide improvement recommendations. This is typically done through a facilitated team workshop or meeting. Our senior leaders provide additional guidance, direction, and resources, when necessary to facilitate the improvement effort. Our review process also facilitates revisions to our initiatives when changes in business condition or customer requirements occur.

Our personnel performance evaluation system is used to translate appropriate goals, objectives, and action plans into employee performance objectives.

(XVIII Airborne Corps and Fort Bragg; Fort Bragg, NC, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

At Fort Bragg, detailed action plans linked to identified strategies are developed by process owning teams or, when appropriate, cross-functional teams. Fort Bragg’s team members work together to determine optional courses of action, measures, sequential steps, resource requirements, impact on other activities, coordination requirements, owners for each action/step, and specific timelines. Multiple courses of action are prioritized based on their potential to achieve optimal results. Action plans are then fed back through the QMS for approval, resource alignment, and additional guidance, if needed. Progress is reviewed throughout the QMS as discussed in Item 2.2a(5). Strong action plans linked to strategies allow for the designing of quality processes.

Fort Bragg aligns its key human resource plan objectives to goals stated in the overview with supporting strategies and performance measures as shown in Figure 2.2.1. This supports strong employee development.

Fort Bragg communicates and deploys strategic objectives, action plans, and performance measures/indicators to achieve overall organizational alignment through strategic development and deployment process shown in Figure 2.2.3. Fort Bragg translates its short and long-range strategies into action plans through the Quality Management Structure. Each level of the structure conducts reviews to monitor progress of strategies and action plans. This facilitates continuous improvement, learning, and alignment with leadership direction.

Key performance measures relative to action plans are outlined in figure 2.2.2. The measurement system is cascaded down throughout the QMS (see 4.1 for more details). QMBs and process owning work teams monitor these measures. This facilitates the organization’s management by fact.

Example 2.2b (Shows only a technique for assessment. This example does not represent a 100% Score.):

2.2b(1)-(2) Our Two-to-Five Year Projections and Expected Competitive Performance

The Army of the future will rely more heavily on rapid deployment, prepositioned stocks, and technology. Our strategies to upgrade, increase, and automate our training facilities will position us to meet those requirements. Privatization studies, coupled with our aggressive reimbursable activity based management plans will reduce our operational costs, further positioning us to be the most efficiently run installation in the world. Improving the quality of our gyms, barracks, and motor pools will increase customer satisfaction, readiness, Installation Status Report for Infrastructure rating, and the quality of life we provide our customers. Figures 2.2.2 and 4.1.2 provide a snapshot of what we expect our indicators to look like upon successful implementation of our strategies.

Our major competitors are other installations providing similar services and the local community providing services typical of a city and those larger contractors for services. Our expected performance will position us to obtain a leading edge in our Readiness and Quality of Life key processes and gain momentum in our Infrastructure key process. Competition for declining funds and manpower within the Army will become more pronounced, increasing the criticality of justifying needs based on actual and forecasted performance.

(XVIII Airborne Corps and Fort Bragg; Fort Bragg, NC, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

Two-five year projections and expected competitive performance are outlined in figures 2.2.2 and 4.1.2, providing a snapshot of expected indicators upon successful implementation of strategies, providing a long-range plan of the future.

3 Customer Focus (95 pts.)

The **Customer Focus Category** examines how your organization determines requirements, expectations, and preferences of customers and markets. Also examined is how your organization builds relationships with customers and determines their satisfaction.

Customer Focus addresses how your organization seeks to understand the voices of customers and of the marketplace. The Category stresses relationship enhancement as an important part of an overall listening and learning strategy. Customer satisfaction results provide vital information for understanding customers and the marketplace. In many cases, such results and trends provide the most meaningful information, not only on customers' views but also on their marketplace behaviors – repeat business and positive referrals.

3.1 Customer and Market Knowledge (45 pts.)

[Approach-Deployment]

Describe how your organization determines short- and longer-term requirements, expectations, and preferences of current and potential customers, markets, and/or mission-related segments to ensure the relevance of current products/services and to develop new opportunities.

Within your response, include answers to the following questions:

a. Customer and Market Knowledge

- (1) How do you determine or target customers, customer groups, and/or market/mission-related segments? How do you consider customers of competitors and other potential customers and/or markets in this determination?
- (2) How do you 'listen and learn' and use the analysis of data and information to determine key requirements and drivers of purchase decisions for current, former, and potential customers? If determination methods differ for different customers and/or customer groups, include the key differences.
- (3) How do you determine and/or project key product/service features and their relative importance/value to customers for purposes of current and future marketing, product planning, and other business developments, as appropriate? How do you use relevant information from current and former customers? Include in your answer marketing, sales information and reimbursable services, customer retention, won/lost analysis, and complaints where applicable.
- (4) How do you evaluate and improve your listening and learning methods, and keep them current with business needs and directions?

Notes:

N1. This Item addresses external customers only – those outside of the organization. Responses should also take into account the differing requirements of various categories of customers often served by government organizations, such as entitled and mandated customers in addition to the traditional voluntary customers.

- N2. *If your products and services are sold to end users via other organizations, such as private contractors, state and local governments, or non-profit organizations, customer groups [3.1a(1)] should take into account the requirements and expectations of both the end users and these intermediate organizations.*
- N3. *Product and service features [3.1a(3)] refer to all important characteristics and to the performance of products and services throughout their full life cycle. The focus should be primarily on features that bear upon customer preference and repurchase or use loyalty – for example, those features that differentiate products and services from competing or similar government or private offerings. Those features might include such factors as price, value, delivery, customer or technical support, and the program marketing or outreach relationship. Many government agencies must also consider non-competitive factors such as fairness and mandated services to entitled customers.*
- N4. *Information about customers and markets is requested as a key input to strategic development (Item 2.1), to design products and services (Item 6.1, 6.2), and help leaders set direction for the organization (Item 1.1). However, strategy development could also generate the need for new or additional customer and market information, including new information gathering methods, and new customers and segments from which to gather information.*

See the glossary for a more complete description of customers.

3.1 Customer and Market Knowledge Item Description

Purpose

This Item examines how the organization determines current and emerging customer requirements and expectations. This information is intended to support marketing, business development, and planning. In a rapidly changing competitive environment, many factors may affect customer preference and loyalty, making it necessary to listen and learn on a continuous basis.

Requirements

The Item seeks information on how organizations recognize market segments, customers of competitors or similar organizations inside or outside of the government, and/or other potential customers. Accordingly, the Item addresses how the organization tailors its listening and learning to different customer groups and market/mission-related segments. For example, a relationship strategy might be possible with some customers, but not with others. Other information sought relates to sensitivity to specific product and service requirements and their relative importance or value to customer groups. Use of information and data, such as complaints, gains and losses of customers and enhanced responsibilities established by the parent organization, the White House or Congress, should support this determination. The Item also addresses how the organization improves its listening and learning strategies, with a focus on keeping current with changing business needs and directions.

Comments

- To be effective, listening and learning need to have a close connection with the organization's overall mission and business strategy. For example, if the organization customizes its products and services, the listening and learning strategy needs to be backed by a capable information system – one that rapidly accumulates information about customers and makes this information available where needed throughout the organization or elsewhere within the overall value chain.
- A variety of listening and learning strategies are commonly used. Selection depends upon the type and size of the organization and other factors.

- Some examples are:
 - relationship building, including close integration with key customers;
 - rapid innovation and field trials of products and services to better link research and development and design to market needs and/or mission requirements;
 - close tracking of technological, competitive, societal, environmental, economic, demographic and other factors that may bear upon customer requirements, expectations, preferences, or alternatives;
 - seeking to understand in detail customers' value chains and how they are likely to change;
 - focus groups with demanding or leading-edge customers;
 - training employees, particularly customer-contact employees, in customer listening;
 - use of critical incidents, such as complaints, to understand key service attributes from the point of view of customers and customer-contact employees;
 - interviewing lost customers to determine the factors they use in their purchase decisions; and won/lost and/or comparative analysis relative to competitors and/or similar organizations inside or outside of the government;
 - post-transaction follow-up contacts with customers; and analysis of major factors affecting key customers;
 - analysis of major factors affecting key customers.

Example 3.1 (Shows only a technique for assessment. This example does not represent a 100% Score.):

3.1 Customer and Market Knowledge - ARDEC obtains customer and Market knowledge through its six Listen & Learn Strategies. (see 3.2.c for details). All of these strategies are supported by customer advocate/ liaisons. ARDEC's Listen and Learn Strategies:

1. *Assignment of Customer Advocates/Liaisons*
2. *Establishing Integrated Product Teams*
3. *Embedding employees in Customer's workforce*
4. *Conducting formal reviews of Customer programs*
5. *Soliciting candid Customer feedback*
6. *Benchmarking Competitors Products/Processes*

The table at Figure 3.1 depicts the alignment of our Listen and Learn Strategies with the Customer segments they support.

3.1a.(1) As described in the Overview, our customers are grouped into distinct segments. These segments are driven by the phases of the product life cycle. Throughout the life cycle, customer oversight is handed off although ARDEC retains the technical life cycle responsibility at all times.

Figure 3.1 segments our four largest customer groups by their involvement (life cycle phase), the percentage of our revenue they influence and the Listen and Learn strategies we apply to each.

New Customer Opportunities: Other government organizations as well as the commercial sector play a substantial role in ARDEC's long-term customer strategy. Utilizing market surveys, benchmarking and competitive intelligence tools, we seek opportunities for new business. The Business Development Office has instituted a multi-year goal of marketing ARDEC's capabilities to all DOD PMs. This process is being refined to better track and follow-up on the leads that are generated. The results of these efforts are a well-balanced portfolio of current programs and a robust strategic plan for sustained growth in future programs. (Figures 7.5.8 A-H)

Within the commercial (non-traditional) sector, ARDEC has created a world-class Technology Transfer process as part of its long-term strategy. Through this process, ARDEC seeks to "spin-off" its military technology for commercial applications. This process generates value and goodness. As part of this process improvement, ARDEC established the first "technology incubator," the Picatinny Technology Innovation Center, on a federal installation. The goal is to seek emerging technology-based businesses interested in pursuing cooperative research by employing our advanced technology. Benefits to our partners include: technical consultation, unique laboratory equipment, affordable office

space, administrative services, shared business expenses, management training & consultation and financial assistance. Using CRADAs with these companies, ARDEC is building a strong relationship for future applications of its technologies. (Figure 7.4.7-8)

3.1a.(2) ARDEC collaborates with its customers to understand and formalize their future combat materiel needs based on threat projections, geopolitical assessments, and intelligence estimates developed from many sources. Our Foreign Intelligence Office provides a vital link in this process by obtaining the latest competitor information. ARDEC also actively participates in international committees such as the American, British, Canadian and Australian (ABCA) Quadripartite Working Group on Materiel Acquisition Technical Support and the Standardization NATO Agreement (STNAG) committees. These efforts provide benchmarks for development and valuable insights into key allies' efforts.

TRADOC Segment: Through participation in joint (customer/supplier) Integrated Concept Teams (ICTs) ARDEC works side-by-side with its customers to develop a prioritized list of future warfare capabilities and requirements. Through a rigorous process of ICT concept integration, customer long-term requirements become formalized in the Training and Doctrine Command's (TRADOC) Future Operational Capabilities List. This list represents those capabilities that the warfighter deems necessary to be able to fight and win on future battlefields. Customer requirements are also expressed in Mission Needs Statements which provide general requirements for war fighting equipment and Operational Requirements Documents which provide specific requirements. Against these customer requirements, ARDEC examines product shortfalls and deficiencies against our current inventory of armaments and proposes technology solutions in two types of research projects: Science and Technology Objectives (STOs) and Advanced Technology Demonstrations (ATDs). When completed, these projects yield the enabling technologies upon which future product developments rely. The proposed solutions are rated by the customer and then compete with those of other Army R&D centers for funding within the Army Technology Base. The results of this process are reflected in annual updates to ARDEC's Strategic Plan and the Army Science and Technology Master Plan. Execution of these projects is accomplished through ARDEC's strategic and business plans. (Figures 7.1.1A-B and 7.2.5)

Program/Product/Project Management Segment: Program/Product/Project Managers (PMs) represent our largest customer segment (revenue: 54%). These customers, many of whom are tenants on our installation, rely heavily on our expertise. Our relationship with these customers is a partnership. Through this partnership we execute development and acquisition programs and jointly identify, plan and propose future products, operational characteristics (features), and value to the Army's product portfolio. Notably under our "value engineering" initiatives, we achieve tens of millions of dollars annually in improvements and cost savings on items managed by these customers – often upgrading the feature of products in lieu of new product development (Figure 7.2.3A). Senior management reviews (Top 10 Reviews), PM Round Tables, collocated matrix support, formal surveys and informal feedback provide us with insights into this strategically vital customer segment. On a day to day basis, IPTs and co-located (matrix) employees work closely with these customers in product feature determination, contract/supplier management, and product development. This closely integrated; agile form of management enables us to anticipate product and program changes and to facilitate course adjustments. We partner with both customer and supplier to develop future products and services.

IOC and ACALE Segments: For these customers, we provide collocated specialized services in the areas of Production Engineering, Value Engineering, Technical Data Management, "Forensic Engineering" and Quality Engineering support. For this segment, our engineering expertise in both end-product design and manufacturing process engineering makes us valued partners with both the IOC (ammunition) and the ACALE (weapons). In Field Support Engineering, ARDEC investigates problems encountered with the products in the hands of soldiers. Soldiers complete Quality Deficiency Reports (QDRs) if products are unsatisfactory. ARDEC engineers investigate, remediate, and use the results as lessons learned for future product designs. This is accomplished through our IPT approach, since Production and Field Support engineers are key members during the product development phase. For this phase of the life cycle, ARDEC measures product dissatisfaction through QDR data (Figure 7.4.2). Pareto analysis of QDRs is conducted to pinpoint customer dissatisfaction. This data is used to determine if product Engineering Change Proposals should be initiated.

3.1a.(3) ARDEC uses several proactive processes for determining current and future customer requirements. Customers are members of all our IPTs. IPTs determine key features through both customer involvement on the team and analyzing various trade-offs. In this way, the customer is integrally involved in the decisions. The Business Development Office goes to tradeshow, business opportunity conferences, and product days at the schools of our key military customers. From this, ideas are captured and used in a variety of ways. Trip reports are forwarded to ARDEC organizations for attracting new customers or increasing satisfaction of existing customers. Ideas are also put into periodic Business Spot Reports that are sent to all business units. As a recent process improvement to our mature customer process, the

Customer Focus QMB gathered financial information comparing customer funding over a multi year slice in time. Root cause win/lost analysis of how new customers were attracted and the fluctuations in funding levels of current customers was examined. Particular attention was paid to why ARDEC lost a customer. The outcome of this analysis is applied to our business practices to attract, retain, and strengthen our partnership alliances. Because of the value of this data, this analysis will be performed annually.

3.1a.(4) The Customer Advocate chartered a benchmarking study to identify best practices of world class organizations to improve our process for customer satisfaction. Through cycles of improvement we have significantly upgraded our approaches. These include creation of the Business Development Office to identify new opportunities, enhance our competitiveness, and increase our market share; establishment of a Customer Focus QMB and a centralized support system for all customers. The Customer Advocate and QMB interpret customer satisfaction indices, evaluate data, and recommend courses of action to the EC and BUMs.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

Through direct involvement of customers in the development and life cycle of ARDEC's products, the organization is able to ascertain current and changing needs and problem areas for improvement. Other needs are identified in business conferences, tradeshow, and listening to user feedback at service schools. All data is provided in formal, written reports to systems owners and business units.

The organization has established an annual root cause win/lost analysis of how new customers were attracted and the fluctuations in funding levels of current customers. This analysis positions the organization to be able to use meaningful information in decision making to understand critical service attributes from the customers point of view and actions they have taken that may have influenced the customer.

ARDEC has clearly defined customer segments that are determined by their products, life cycle phases, and percent of revenue generated from each. Their Business Development Office instituted a multi-year goal of marketing ARDEC's capabilities to reach potential customers which are determined through market surveys, benchmarking, and competitive intelligence tools.

ARDEC employs six clearly defined and deployed Listen and Learn Strategies targeting their customer groups. Information obtained from these strategies is reviewed in their formal review processes. These strategies integrate employees and customers in their processes, which enhances alignment of needs, requirements, desires, and value of both current and projected product/service features. For example, ARDEC, in collaboration with their customers and suppliers, is a member of the Integrated Concept Teams (ICTs) for the TRADOC segment. They have a vehicle to translate, develop and prioritize a list of future warfare capabilities that focus on customer requirements, expectations, preferences and alternatives to meet their forecasted mission needs. In addition, for each segment ARDEC defined, clarified, and determined continuous methods of seeking and understanding their detailed customer requirements, value chains and potential areas for change.

ARDEC chartered a benchmarking study to improve their listening and learning methods, which resulted in the creation of the Business Development Office. This office spearheads improvements in listening and learning and customer relations in general. This enhances their ability to keep their methods current with organizational needs and direction.

3.2 Customer Satisfaction and Relationships (50 pts.) [Approach-Deployment]

Describe how your organization determines and enhances the satisfaction of customers; builds relationships to improve current offerings; addresses current and projected customer and market- or mission-related business needs; and develops new opportunities.

Within your response, include answers to the following questions:

a. Customer Relationships

- (1) How do you determine key access mechanisms to facilitate the ability of customers to conduct business, seek assistance and information, and make complaints? Include a summary of your key mechanisms.
- (2) How do you determine key customer contact requirements and deploy these requirements to all employees involved in the response chain?
- (3) What is your complaint management process? Include how you ensure that complaints and suggestions are managed effectively and promptly. How is the data and information aggregated and analyzed for overall organizational improvement?
- (4) How do you build relationships with customers for repeat business and/or positive referral? Indicate key differences for different markets, customer groups, and market or mission segments.
- (5) How do you evaluate, improve, and keep your approaches to customer access and relationships current with business needs and directions?

b. Customer Satisfaction Determination

- (1) What processes, measurement methods, and data do you use to determine customer satisfaction and dissatisfaction? Include how your measurements capture actionable information that reflects customers' future business and/or potential for positive referral. Also include any significant differences in processes or methods for different customer groups and/or market/mission-related segments.
- (2) How do you follow up with customers on products/services and recent transactions to receive prompt and actionable feedback?
- (3) How do you obtain and use information on customer satisfaction relative to competitors and/or benchmarks, as appropriate?
- (4) How do you evaluate, improve, and keep your approaches to satisfaction determination current with business needs and directions?

Notes:

- N1. Customer relationships (3.2a) might include the development of partnerships or alliances.*
- N2. Customer satisfaction and dissatisfaction determination (3.2b) might include any or all of the following: surveys, formal and informal feedback from customers, use of customer account data, and complaints.*

N3. *Customer satisfaction measurements might include both a numerical rating scale and descriptors for each unit in the scale. Effective (actionable) customer satisfaction measurements provide reliable information about customer ratings of specific product, service, and relationship features, the linkage between these ratings, and the customer's likely future actions – repurchase and/or positive response or referral. Product and service features might include overall value and price.*

N4. *Customer satisfaction and dissatisfaction results and information on product/service measures that contribute to customer satisfaction or dissatisfaction should be reported in **Item 7.1**. These latter measures might include trends and levels in performance of customer-desired product features or customer complaint handling effectiveness, such as complaint response time, effective resolution, and percent of complaints resolved on first contact.*

N5. *A complaint management process may include a customer advocacy program.*

3.2 Customer Satisfaction and Relationship Item Description

Purpose

This Item examines your organization's processes for determining customer satisfaction and building customer relationships, with the aim of acquiring new customers, retaining existing customers, and developing new opportunities.

Requirements

You are asked how you provide easy access for customers and potential customers to seek information or assistance and/or to comment and complain. You are asked how (1) customer contact requirements are determined and deployed; (2) your organization aggregates, analyzes, and learns from complaint information; (3) you build relationships with customers because business success, business development, and product/service innovation increasingly depend on maintaining close relationships with your customers; and (4) you keep your approaches to all aspects of customer relationships current with changing business needs and directions since approaches to and bases for relationships may change quickly.

You are asked how you: (1) address your satisfaction and dissatisfaction determination processes and how they differ for different customer groups, different markets, and market segments because satisfied customers are a requirement for loyalty, repeat business, and positive referrals and (2) you follow up with customers regarding products, services, and recent transactions, and how you determine the customers' satisfaction relative to competitors so that you may improve future performance.

Comments

- This Item emphasizes how you obtain actionable information from customers. To be actionable, you should be able to tie the information to key business processes, and you should be able to determine cost/revenue implications for improvement priority setting.
- Complaint aggregation, analysis, and root cause determination should lead to effective elimination of the causes of complaints and to priority setting for process, product, and service improvements. Effective complaint management includes sharing information throughout the organization so all employees can learn from these customer transactions.
- A key aspect of customer satisfaction determination is satisfaction relative to competitors and competing or alternative offerings. Such information might be derived from your own comparative studies or from independent studies. The factors that lead to customer preference are of critical

importance in understanding factors that drive markets and potentially affect longer-term competitiveness.

Example 3.2/3.2a (Shows only a technique for assessment. This example does not represent a 100% Score.):

3.2 Customer Satisfaction and Relationships - ARDEC is a “Learning Organization.” Our learning process extends beyond investments in new technologies, state-of-the-art equipment, training, and education. We work equally hard to learn about our customers and our customer’s customers. ARDEC’s customer base is vast and varied – each with its own unique needs and special requirements. Our customer satisfaction process is designed to ensure that our commitment to customers and quality remain the nexus of all business activity. Customer Service Standards and Principles are deployed at all levels throughout the workforce. We pride ourselves in providing direct client-provider access for our customers to every level of ARDEC.

Our strategy for earning and retaining customers is to make them stakeholders - partners in the process to ensure their own satisfaction. The terms of the partnership are quite simple - ARDEC’s commitment is to do everything we can to “thrill” the customer. The customer’s commitment is to clearly articulate what is required to achieve that “thrilled” customer state. To strengthen these partnerships, 360-degree feedback is provided by ARDEC to several of our key customers.

To ensure customer satisfaction and continue to build positive relations with our customers ARDEC has deployed Six Listen and Learn Strategies that integrates customer relations and satisfaction. This approach ensures that the customer can communicate requirements, that they are understood and satisfied in a seamless system. Our Listen and Learn Strategies are detailed in 3.2c; they demonstrate how customer relationships and satisfaction are systematically employed to provide satisfied and repeat customers.

3.2a. Customer Relationships: ARDEC’s Listen and Learn Strategies are described in 3.2c. These Listen & Learn approaches are the cornerstone of our customer relationship processes. The Customer Advocate and Liaisons (Listen and Learn Strategy 1), work closely with the customers, often attend their weekly staff meetings, are typically the first source for conducting business, seeking assistance and information or raising complaints. As projects become more formalized, ARDEC uses IPTs (Listen and Learn Strategy 2). In this process, IPTs are formed with the Customer as a member. These teams as well as the numerous matrix employees (Listen and Learn Strategy 3) work on a day to day basis with the Customer, to build and strengthen our customer relationship. Satisfied customers come back. With our commitment to “thrill” our customers, repeat customers and/or positive referrals are the outcome. On an individual basis, all ARDEC employees use the Customer Service Standards and Principles as an over arching guide for responsiveness and customer contact requirements. Keeping our approaches to customer access and relationships current with business needs and direction is embodied in all six of our Listen and Learn Strategies. Both formal reviews and informal feedback (Listen and Learn Strategies 4 & 5) are used to effectively deal with customer dissatisfaction/complaints. Figure 3.3 illustrates how ARDEC resolves customer dissatisfaction through our quarterly customer survey process and formal remediation process.

From a product perspective, nothing is more devastating than a field malfunction. In the past, our measure of dissatisfaction was the number of incidents of malfunctions reported. While this was important, we asked our customers to help us focus on an additional measure that more closely reflected their utmost concerns. These discussions revealed that our response time to the reported malfunction was their greatest concern. Many reports of malfunction turn out to be user errors, yet huge inventories of weapons or ammunition can be suspended from use when a malfunction is reported. This prevents military forces around the world from training or fighting with that equipment. The customer wanted a team of experts at their site as soon as possible – before the evidence trail became cold. Our “forensic engineering” team benchmarked its process against MICOM to improve response time to malfunctions. Our ability to deploy anywhere in the world within 1 day, isolate suspected materiel, and initiate a program of remediation is world-class (Figure 7.1.4).

Service Complaints: Several processes are deployed to deal with complaints about our services. ARDEC utilizes its Listen and Learn Strategies, routine customer contact such as IPT involvement and attendance at the customer’s staff meetings as ways to collect current or potential service complaints. ARDEC employees are empowered to handle these complaints in accordance with published Customer Service Standards and Principles. Many organizations have decentralized formal surveys that are used to determine customer satisfaction and complaints for their business area. Service complaints received through unsatisfactory customer ratings during the centralized quarterly customer survey are formally and systematically tracked through a closed loop remediation system (see process improvements in Section

3.2.c). Finally, a CG's Hot-Line and Inspector General provide a confidential process to identify issues of waste, fraud and abuse.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

ARDEC includes three of the four major customers in IPTs and provides an on-site liaison person to all customers. This approach provides immediate and continual customer access to the organization for current information and to voice product or service concerns. The organization affords the customer several means to access the organization to conduct business, seek information, and make complaints. The IPTs serve as an immediate means the customers can use to express concerns and seek information on a continuous basis. The Customer Advocate and Liaisons work closely with the customer, often available at the plant, as well as employees assigned to varied customer sites. Most of the opportunities are representative of partnerships relationships that are consistently ongoing to enable a relationship to be developed.

ARDEC has responded proactively to customer needs with regard to product malfunction. Employing benchmark techniques, they significantly improved their response process from five days to one day and exceeded customer requirements.

ARDEC has developed strong relations with their customers through the deployment of their six Listen and Learn strategies. These strategies ensure full integration of customer input, requirements, and participation in their day-to-day operations. Their Listen and Learn Strategy 1 puts employees in customer weekly staff meetings to obtain first-hand information on how well current access mechanisms are working. This provides a hands-on approach to obtaining and providing information and complaints from and to their customers.

ARDEC's Listen and Learn Strategies 4 and 5 are methods to deal with customer dissatisfaction/complaints as outlined in Figure 3.3. Their process was recently improved to include a remediation loop to facilitate complaint resolution meeting customer approval/satisfaction.

Customer advocates assigned to each customer segment systematically collect, analyze, and distribute customer comments (both positive and negative) for quarterly review as evidenced by Figure 3.3.

Example 3.2b (Shows only a technique for assessment. This example does not represent a 100% Score.):

3.2b. Customer Satisfaction Determination Process: At the heart of our process is the Customer Focus QMB. The QMB, chartered by the CG and TD, is charged with developing, implementing and assessing customer satisfaction measurement processes for major customer segments served by ARDEC and evaluating the development of both traditional and non-traditional new business opportunities. "The Customer Focus QMB is responsible for ensuring that all ARDEC elements remain focused on their customers and that customer satisfaction remains a priority throughout the command." (Customer Focus QMB Charter). A formal quarterly customer survey process (Listen and Learn Strategy 4 and Figure 3.3) is used to measure customer satisfaction. The Customer Advocate reports trends or significant incidents in the quarterly SMR. The formal remediation process monitored by the Customer Advocate is a closed loop system that ensures customer feedback is followed up on. Informal customer feedback and Benchmarking (Listen and Learn Strategies 5 & 6) ensure that our approach to satisfaction is current and our position relative to our competition is understood.

3.2c. At the center of our Customer initiative is an empowered, attentive, well-trained and motivated workforce. Our workforce provides a conduit through which customers become partners in the process of continuously improving satisfaction. These tools (Listen and Learn Strategies) are vital to our process and are so institutionalized that employees use them as good business practices without necessarily thinking about them as a tool. Through them we obtain knowledge about our products and services from the customers' perspective. Supplemented by carefully crafted, easy to use surveys, these initiatives provide both quantitative and qualitative assessments as well as profiles of our customers to our workforce. It is through the deployment of these strategies, that ARDEC determines customers' long and short-term

needs, their level of satisfaction, emerging trends and new business opportunities. Full documentation of customer comments, (both positive and negative) are systematically collected, analyzed and distributed by the customer advocate to top management, directors and business units.

The customer segmentation in Figure 3.2 emerged from the QMB's analysis. Program/Product/Project Managers, IOC and ACALA account for over 71% of our reimbursable customer program while TRADOC, with its review and prioritization of our tech base efforts, has a strong influence over 49% of ARDEC's direct RDTE funding. They represent major contributors to each phase of our life cycle mission and are paramount to realizing our strategic objectives. Our Listen and Learn Strategies give our managers insight to customer contact requirements that are used as guidelines for employees when rating their performance.

Listen & Learn Strategy 1 – Assignment of Customer Advocate/Liaison Offices: ARDEC assigns responsibility for ensuring satisfaction of the major customer groups (Figure 3.2). The advocate conducts a quarterly survey using standardized rating elements and criteria. In addition, these advocate/liaisons attend customer staff meetings, management reviews and meets on a recurring basis with individual customers to oversee and keep abreast on the latest customer requirements and concerns. The advocate and liaison offices act as the first line 'eyes and ears' for the customers rapidly changing needs and help to defuse small issues before they escalate into complaints or areas of chronic customer dissatisfaction.

Listen & Learn Strategy 2 – Integrated Product Teams: Over 75 cross-functional IPTs populated with customers, suppliers and support personnel regularly gain customer knowledge. By their representation, our customer's needs are continually expressed. Through our searchable, IPT database, teams share information, resources and lessons learned information.

Listen & Learn Strategy 3 – Matrix Employees to Customer Organizations: To build a close relationship with key customers, ARDEC personnel are frequently co-located in customer organizations at their sites. This unique arrangement provides for quick action and real-time customer feedback. We have major elements of the ARDEC organization co-located with key customers. Over 500 ARDEC employees are co-located with customers. These associates are organizationally linked to bring the full power of the whole ARDEC to bear on customer problems.

Listen & Learn Strategy 4 – Formal Customer Reviews: The formal process by which we gain insight into our customer needs, assess their satisfaction and address their issues is depicted in Figure 3.3.

At the heart of this process are centralized quarterly surveys incorporating metrics developed jointly with our customer. These surveys provide both quantitative and qualitative assessments of our work, profiles of our customer's level of satisfaction and key customer requirements for major projects and services (quality, timeliness, management involvement, fiscal discipline and new this year – teamwork). Despite its success, this process itself is reviewed in partnership with the customer every two years to ensure currency. Since its inception in 1991, this process has been at the forefront of our quality journey toward continuous improvement.

The most recent cycle of process review has resulted in several major process improvements. While unsatisfactory customer service complaints have always been systematically tracked and analyzed, a remediation loop has now been added. Each quarter's formal report to ARDEC's top management summarizes the unsatisfactory ratings, actions taken and suggested actions for improvement. Trend analysis of this data showed an upward trend during ARDEC's most turbulent times of downsizing (Figures 7.1.2A and 7.1.2B). During this time, ARDEC reorganized with an eye to providing the best service possible to our customers in our core business areas. Recent trend analysis indicated that while our percent of complaints continues to be low, there was a slight upward trend. Data analysis showed some complaints were becoming repetitive. Two recent process improvements address this trend. The Customer Advocate/Liaisons visit with our largest customers to facilitate partnerships and jointly develop ways to improve service. One idea that resulted from a recent series of visits was to institute a remediation loop to confirm that customer complaints have been resolved to the customer's satisfaction. This process will diminish/eliminate recurring customer complaints. For example, a specific recurring complaint was customers' concerns over continued downsizing and ARDEC's ability to sustain mission support in the future. As a logical outcome of our mature customer process, customer input on workload requirements was considered in our "regeneration of the workforce" hiring of approximately 75 new employees. The key assignments of these new hires was formulated by gathering information on future workload requirements from our largest customers and marrying this with where the ARDEC Business Units felt they needed refreshment of critical skills. Since this initiative, customer concerns about future mission support have greatly diminished. Other process improvements instituted during the most current process review also included additional

granularity to the rating scale, automation of the survey to the World Wide Web, adding an additional rating category for Teamwork and further expansion of the survey to other major customers. Another major enhancement to our Customer Support Process is the regular recognition process for outstanding customer service. Elegant Customer Pins, which read “Customer and Service Providers Form a Quality Link” fosters recognition of ARDEC service providers who provide excellent customer service.

Listen & Learn Strategy 5 – Informal Customer Feedback: (Figure 3.4): As an adjunct to our customer-oriented approach, we participate in a variety of customer days. Through these events, we meet with our customer’s customers (the soldiers who use our equipment) and provide them a hands-on opportunity to observe, test and comment on products under development. In addition to the corporate mechanisms, individual business units are encouraged to conduct customer surveys specific to their business. Light Armaments business unit, for instance, has conducted an annual survey during for the last four years during “Umbrella Week” training days at the schools. The surveys have provided vital information from the end user for improvement and enhancement of fielded Small Caliber Weapon Systems. In addition, through out the year ARDEC hosts numerous, regular high level visits from Industry, Government, Academia, Foreign Governments and Higher Headquarters. ARDEC has hosted an average of over one such visit a week for the last three years. Each of these visits is an opportunity to receive direct customer feedback. ARDEC’s TD hosts bi-monthly PM Roundtable meetings. These meetings serve as a forum for exchange of high level information as well as a valuable opportunity to collect informal customer feedback. Finally, through our Customer Focus Home Page we solicit comments, suggestions, and complaints from our customers.

Listen & Learn Strategy 6 – Benchmarking:

FOREIGN MANUFACTURERS – Foreign intelligence allows us to benchmark our weapon systems against foreign products. We benchmark to provide our customers with the “Overwhelming Firepower” they require for survival. This comparison also determines how to defend against other products or, in the alternative, adapt the product for our own use. We regularly fire foreign ammunition against our defenses (Live-Fire Testing) to determine and correct vulnerabilities in our systems. We also fire our weapons against foreign systems to determine which vulnerabilities to exploit through development and/or product improvement of our weapon systems.

OTHER GOVERNMENT AGENCIES AND ACADEMIA – We coordinate our efforts with other government agencies and academia to avoid duplication of effort and leverage our precious program dollars. Joint programs and partnering opportunities abound.

INDUSTRY - A formal process of reviewing contractor Independent Research & Development allows us to leverage that technology into our programs. We refer to this as “spin-on.” We also are a leader in the Federal Government’s Technology Transfer Program. Through this program, defense technology is “spun-off” to the commercial sector through CRADAs (Figures 7.4.7-8).

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

The organization compares its products to foreign armament manufacturers to assess their capabilities and ability to survive ARDEC products. Customer requirements are compared to the foreign versions as evidence of superiority. Quality ideas/concepts are also adopted from foreign manufacturers to better serve the customer. Costs are reduced through coordination with other government agencies to avoid duplication and use available technical information.

ARDEC appears to have a well deployed, robust customer integration processes through their use of Customer Advocates, their Listen and Learn strategies, as well as their Customer Focus QMB. These mechanisms provide the processes, measurement methods, and relevant data to determine satisfaction and dissatisfaction with which they initiate actionable improvement efforts. The different methods they employ for customer segments assists in meeting the specific needs of different customer groups. The regularity of the customer interface these mechanisms provide lend themselves to swift follow-up and prompt actionable feedback and to keeping their approaches to satisfaction determination current with business needs and directions.

4 Information and Analysis (95 pts.)

The **Information and Analysis Category** examines your organization's performance measurement system and how your organization analyzes performance data and information.

Information and Analysis provides the key information necessary to effectively measure performance, manage your organization, and drive improvement of performance and competitiveness. In the simplest terms, Category 4 is the "brain center" for the alignment of your organization's operations and its strategic directions. Collection and analysis of the right information and data is critical. From this information and analysis, your organization determines where it is, if it is going in the direction defined in your strategic plan and how it compares to your competitors or providers of like products or services. Since information and analysis may contain primary sources of competitive advantage and productivity growth, it has strategic considerations.

4.1 Measurement of Organizational Performance (45 pts.)

[Approach-Deployment]

Describe how your organization provides effective performance measurement systems for understanding, aligning, and improving performance at all levels and in all parts of your organization.

Within your response, include answers to the following questions:

a. Measurement of Organizational Performance

- (1) How do you address the major components of an effective performance measurement system, including the following key factors?
 - selection of measures/indicators, and extent and effectiveness of their use, in daily operations of key processes and systems
 - selection and integration of measures/indicators and completeness of data to track your overall organizational performance
 - selection, and extent and effectiveness of use of key comparative data and information
 - data and information reliability
 - a cost/financial understanding of improvement options
 - correlations/projections of data to support planning
- (2) How do you keep your performance measurement system current with business needs and directions?

Notes:

*N1. The term information and analysis refers to the key metrics used by your organization to measure and analyze performance. Performance measurement is used in fact-based decision making for setting and aligning organizational directions and resource use at the work unit, key process, departmental, organization component and whole organization levels. Because of the key nature of the data and information, they should be linked to the organization's operations, systems and processes described in the **Organization Overview** and **Category 6**.*

N2. Deployment of data and information might be web-based, electronic or by other means. Reliability [4.1a(1)] includes reliability of software and delivery systems as well as data accuracy.

N3. Comparative data and information include benchmarking and competitive comparisons.

Benchmarking and competitive comparisons are further defined in the Glossary.

N4. For organizations that operate in a market environment, competitive comparisons refer to performance relative to direct competitors in the organization's markets. Many government organizations do not have competitors as such. For those, "competitive comparisons" in the Criteria refer to organizations with similar mission, operations, and/or customers.

See glossary for a more complete description of benchmarking and the distinction between benchmarking and competitive comparisons.

4.1 Measurement of Organizational Performance Item Description

Purpose

This Item examines your organization's selection, management, and use of data and information for performance measurement, in support of organizational planning and performance improvement. The intent of this Item is to show how your selection, management, use of data and information, and analysis enables your organization to function as a high performing organization.

Requirements

You are asked how you establish the major components of an effective performance measurement system for your organization. You are asked how you select and use measures and indicators for tracking daily operations and how you select and integrate measures for monitoring overall organizational performance. You also are asked how you ensure data and information reliability since reliability is critical to successful monitoring of operations and to successful data integration for assessing overall performance.

You are asked how you select and use competitive comparisons and benchmarking information to help drive performance improvement.

Finally, you are asked how you keep your organization's performance measurement system current with changing business and mission-related needs.

Comments

- Alignment and integration are key concepts for successful implementation of your performance measurement system. Alignment and integration include: (1) how measures are aligned throughout your organization; (2) how they are integrated to yield organization-wide measures; (3) and how performance measurement requirements are deployed within your organizations. The extent and effectiveness of their use to meet performance assessment needs helps your senior leaders track work group, functional level, and/or process level performance on key measures targeted for organization-wide significance and/or improvement.
- Performance data and information are especially important in partnerships, alliances, and supply chains. Your responses to this Item should take into account this strategic use of data and information, and should recognize the need for rapid data validation and reliability assurance given the increasing use of electronic data transfer.

- The use of competitive and comparative information is important to all organizations. It helps alert organizations facing tough competition and high public expectations to threats and new practices from competitors. The major premises for using competitive and comparative information are: (1) your organization needs to know where it stands relative to competitors and to best practices; (2) comparative and benchmarking information often provides the impetus for significant ("breakthrough") improvement or change; and (3) preparation for comparing performance information frequently leads to a better understanding of your processes and their performance. Benchmarking information also may support business analysis and decisions relating to core competencies, alliances, and outsourcing.
- Your effective selection and use of competitive comparisons and benchmarking information and data require: (1) determination of needs and priorities; (2) criteria for seeking appropriate sources for comparisons – from within and outside your organization's business area and/or markets; and (3) use of data and information to set stretch targets and to promote major, non-incremental improvements in areas most critical to your organization's competitive strategy.

Example 4.1 (Shows only a technique for assessment. This example does not represent a 100% Score.):

4.1.a Information management systems are employed throughout our organization and are an integral part of our daily operations and performance measurement systems. Information from several databases is collected, reviewed, and analyzed to support management decisions that affect policies, procedures, programs, and projects. Performance data are collected based on three major parameters: importance to customers, importance to our internal operations, and requirements of law, regulation, or higher headquarters policy. The most important of these measures are reported to our leadership during monthly test updates, "hot wash" executive meetings, and at completion of test programs. Our Strategic Thrust Areas (see Figure O-4) provide the basis for selection of those measures that best reflect the status of our internal operations. They are also useful in guiding us in selection of measures that best reflect those things that are truly important to our customers. Specific measures are developed for each Strategic Thrust, and are based on identified customer requirements, or are in direct support of our mission, vision, and values. Figure 4-1 displays our measures.

Our success is measured in terms of cost, schedule, performance, and technical capabilities. These data are primarily derived from the Universal Documentation System, written and verbal communication between Project Engineers and test customers, customer questionnaires and surveys, project test cost reports, and pre/post-test data analyses. This information is used by our Command Group to measure the level of success in meeting internal goals and satisfying our customers, and to assist in providing continuous improvement to our processes.

The UDS is a particularly important source of information regarding our technological capability to meet customer requirements. As discussed previously, the UDS is a primary method of gathering requirements of each individual customer, but it also allows us to aggregate this kind of information for review and analysis. Measurement in this regard is more qualitative than quantitative, but the system does allow us to gather factual, objective information over time regarding capability shortfalls. Item 4.2 describes our analysis process and the way that analysis feeds action plans for capability improvement.

The Corporate Management Information System was developed in 1996-97 to completely fulfill customer test financial needs based on customer feedback that White Sand's methods of accounting for test costs were too slow. The system is updated daily and provides cost information for test services performed, other financial reports and information (labor rates, standard rates, and historical mission cost data) for use in providing more accurate test cost estimates. The Corporate Management System is available to White Sands Project Engineers, Range Engineers and managers. We plan to expand this capability to customers on a read-only basis. We developed this system as a result of benchmarking a sister agency where the program has been reliably operating for several years.

Financial accountability and management is critical to our continuing success. Our Resource Management Division uses a highly systematic process to track our budget execution. Throughout the year, they measure expenditures against budget, predict future spend rates, and propose reallocation when necessary to best utilize current-year dollars. The resource Management Division uses two key measures/indicators, financial measures, and productivity/workload measures. Several topics are tracked under these two general measures:

Financial Measures:

- *Obligation rate*
- *Disbursement rate*
- *Reimbursable rate*

Productivity/Workload Measures:

- *Civilian Ratios (Customer workload compared to institutional)*
- *Military Ratios (Customer workload compared to institutional)*
- *Contractor Ratios (Customer workload compared to institutional)*
- *Direct Labor Hours (Workload)*

As a member of the federal government-wide Range Commanders Council, we compare ourselves with the Department of Defense, and other federal ranges in such areas as optical systems, frequency management, and data reduction. The Range Commanders Council does joint planning, procuring, and evaluating of instrumentation systems, equipment, and other range resources to develop and publish standards for range instrumentation and to facilitate improvements in equipment and techniques for ensuring safety. Members develop and update range documentation systems, develop and coordinate procedures to carry out inter-range operations, and study range support requirements to identify future range capability needs. We participate with other members of the Major Range and Test Facility Bases work-group to assess our posture relative to product performance and services rendered. Technical communications are conducted and maintained by attending conferences and symposiums to gain insight into test methodologies being used at other installations. We attend other Major Range and Test Facility Base sponsored symposiums to keep up with competitors. We are base-lining all instrumentation used in support of test missions, for example, radar's, video, optical, and laser tracking equipment, and telemetry equipment to better compete with other test ranges and to assist in establishing benchmarks.

These comparisons and teaming activities result in significant improvements to the services and products we offer to our customers.

(White Sands Missile Range, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

The selection of performance data is based on three major parameters: importance to customers; importance to internal operations; and requirements of law, regulation, or higher headquarters policy. Also, the Strategic Thrust Areas that are based on customer requirements provide the basis for selection of measures as does direct support of mission, vision, and values. Measures are depicted in Figure 4-1. The Range's success is measured in terms of cost, schedule, performance, and technical capabilities. The test data is derived from the UDS, written and verbal communication between Project Engineers and test customers, customer questionnaires and surveys, project test cost reports, and pre/post-test data analyses. This information is used by the Command Group.

The Corporate Management Information System provides project engineers, range engineers, and managers access to cost information for test services. There are plans to expand the capability to customers. The development of the system is a result of benchmarking a sister agency.

WSMR has test updates that report their most important measures at monthly "hot wash" reviews and at the end of test programs.

4.2 Analysis of Organizational Performance (50 pts.) [Approach-Deployment]

Describe how your organization analyzes performance data and information to assess and understand overall organizational performance.

Within your response, include answers to the following questions:

a. Analysis of Organizational Performance

- (1) How do you perform analyses to support your senior leaders' knowledge of organizational performance and your organizational planning? How do you ensure that the analyses address the overall health of your organization, including your key business results and strategic objectives?
- (2) How do you ensure that the results of organizational-level analysis are linked to work group and/or functional-level operations to enable effective support for decision making?
- (3) How does analysis support daily operations of key systems and processes throughout your organization? Include how this analysis ensures that measures align with action plans.

Notes:

N1. Senior leaders' knowledge of organizational performance includes information needed on a continuous basis, for periodic review (i.e. quarterly reviews, quarterly training briefs, etc.), and for organizational planning.

N2. Analysis includes trends, projections, comparisons, and cause-effect correlations intended to support performance reviews and the setting of priorities for resource use. Accordingly, analysis draws upon many types of data: customer-related, financial and market, mission requirements, operational, competitive, and others.

N3. Responses to this Item might include information on agency annual performance reports developed pursuant to the Government Performance and Results Act, and performance measures and measurement systems developed for that purpose.

N4. Performance results should be reported in [Items 7.1](#), [7.2](#), [7.3](#), [7.4](#), and [7.5](#).

See the glossary for a more complete description of analysis.

4.2 Analysis of Organizational Performance Item Description

Purpose

This Item examines your organization's analysis of its performance, as a basis for assessing your overall organizational health. The Item serves as a central analysis point in an integrated performance measurement and management system that relies on financial and nonfinancial data and information. The intent of analysis is to guide your organization's process management toward the achievement of key business and mission results and strategic objectives.

Requirements

You are asked how you analyze data and information from all parts of your organization to support your senior leaders' assessment of overall organizational health, your organizational planning, and your daily operations.

Comments

- Individual facts and data do not usually provide an effective basis for organizational priority setting. This Item emphasizes that close alignment is needed between your data gathering and information analysis and your organizational performance review and also between your analysis and your organizational planning. This ensures that analysis is relevant to decision making and that decision making is based on relevant facts.
- Taking correct action depends upon understanding cause/effect connections among processes and between processes and business/performance results. Process actions and their results may have many cost and revenue and /or mission accomplishment implications. Organizations have a critical need to provide an effective analytical basis for decisions because resources for improvement are limited and cause/effect connections are often unclear.
- Analyses that your organization conducts to gain an understanding of performance and needed actions may vary widely, depending upon your type of organization, size, competitive environment, and other factors. Examples of possible analyses include:
 - how product and service quality improvement correlates with key customer indicators such as customer satisfaction, customer retention, and market share;
 - cost/revenue, cost benefit and cost/effectiveness implications of customer-related problems and problem resolution effectiveness;
 - interpretation of market share changes, where appropriate, in terms of customer gains and losses and changes in customer satisfaction;
 - improvement trends in key operational performance indicators such as productivity, cycle time, waste reduction, new product introduction, and defect levels;
 - relationships between employee/organizational learning and value added per employee;
 - financial benefits derived from improvements in employee safety, absenteeism, and turnover;
 - benefits and costs associated with education and training;
 - benefits and costs associated with improved organizational knowledge management and sharing;
 - how the ability to identify and meet employee requirements correlates with employee retention, motivation, and productivity;
 - cost/revenue and cost effectiveness implications of employee-related problems and effective problem resolution;
 - trends in individual measures of productivity, such as work force productivity; individual or aggregate measures of productivity and quality relative to competitors and/or organizations with similar missions, functions or processes;
 - cost trends relative to competitors and/or similar organizations inside and outside of government;
 - relationships between product/service quality, operational performance indicators, and overall financial performance trends as reflected in indicators such as operating costs, revenues, asset utilization, and value added per employee;
 - allocation of resources among alternative improvement projects based on cost/revenue implications and improvement potential;
 - comparisons among business units showing how quality and operational performance improvement affect financial performance;
 - profit impacts of customer retention;
 - cost/revenue, customer, and productivity implications of engaging in and/or expanding electronic commerce;

- trends in aggregate measures such as total factor productivity and;
 - trends in economic, market, and stakeholder indicators of value.
- An important part of the senior leaders' organizational review is the translation of review findings into an action agenda – sufficiently specific so that deployment throughout the organization, and to suppliers/partners and key customers is possible.

Example 4.2 (Shows only a technique for assessment. This example does not represent a 100% Score.):

4.2a(1) At all levels of process performance, metrics are evaluated at the time of development for relevance, significance, correlation to customer requirements, and relationship to key business considerations in the Strategic Business Plan (SBP). Metrics are continually reviewed for effectiveness in measuring customer satisfaction of cost, timeliness, and quality, Fig. 0.3.

Customer data, noted in Category 3, is integrated into our information system at individual, team, and business center levels. Analysis against established performance standards and targets at these levels provide valuable input concerning specific project/product needs as well as our feedback methods. Business leaders summarize this lower-level customer data at the Future Business Status Review (FBSR), which is the main management-level aggregate review of customer input. Complaint data is also addressed in the Quality Status Review (QSR), Logistics Status Review (LSR), and Production Status Review (PSR) management reviews and gauged by the number of RODs and QDRs.

Business center performance is reviewed during four major management activities: the Review and Analysis (R&A), QSR, LSR, and PSR. The same level of executive management participates at these reviews to ensure continuity in support of integrated business decisions and planning. The outcome of each review produces linked, directed actions that flow horizontally through management chains and vertically down through Business Centers, teams, to individual performance standards and the associated process, based on the level of involvement needed to effect process improvement/corrective action.

Competitive performance and market-based performance are primarily reviewed and analyzed during the FBSR and Installation Mission Review (IMR). Financial performance is highlighted in the Executive Financial Status Review (EFSR), which provides a fiscal snapshot of the Arsenal against the following:

4.2a (2 and 3) RIA's performance and capabilities are routinely reviewed at the frequencies noted in Table 4.1.2. Comparisons to established performance standards along with customer input provide the main decision signals with attention paid to trends, recurrences, and targets. The management analysis meetings all have written minutes with directed actions assigned under suspense date timeframes; subsequent meetings address follow-ups. Category 7 provides examples of the business center and management measures used. Review findings from the formal levels analysis noted in fig. 4.1.2 are prioritized at all levels using the same basis: what is most important to our processes and customers and what offers the most return on investment (money/resources). Using the improvement model, fig. 6.1.1 and Fig. 6.1.2, specific actions are directed to the appropriate level of involvement; i.e., team, office, individual, IPT or MAT. The Labor-Management Partnership Council (LMPC) provides a union-management team that addresses numerous human resource and internal employee issues and improvements.

(Rock Island Arsenal, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

RIA has several reviews targeted to assess organizational health in such categories as new business, financial, logistics, quality, and production. These provide senior leaders with a view of organization-wide performance in critical areas.

At all levels of process performance, metrics are evaluated at the time of development for relevance, significance, correlation to customer requirements, and relationship to key business considerations in the SBP. Metrics are continually reviewed for effectiveness in measuring customer satisfaction of cost, timeliness, and quality.

Customer data is integrated into RIA information systems at individual, team, and business center levels. Lower level customer data reviews are held in the FBSR; complaint data is addressed in the QSR, LSR, and PSR management reviews and gauged by the number of RODs and QDRs. Review outcomes produce linked directed actions that flow horizontally through management chains and vertically through Business Centers to teams and individual performance standards.

The reviews conducted periodically analyze performance and capabilities against customer requirements. Outcomes are generated as action plans with suspended timeframes. Subsequent meetings address follow-up actions. Specific actions are directed to the appropriate level of involvement, i.e., team, office, individual, IPT, or MAT. LMPC provides a union-management team that addresses numerous human resource and internal employee issues and improvements.

5 Human Resource Focus (95 pts.)

The **Human Resource Focus Category** examines how your organization enables employees to develop and utilize their full potential, aligned with the organization's objectives. Also examined are your organization's efforts to build and maintain a work environment and an employee support climate conducive to performance excellence full participation, and personal and organizational growth. The efforts may include partnership with unions, as applicable.

Human Resource Focus addresses key human resource practices – those directed toward creating a high performance workplace and toward developing employees to enable them and the organization to adapt to change. The Category covers human resource development and management requirements in an integrated way, aligned with the organization's strategic directions. Included in the focus on human resources is a focus on the work environment and the employee support climate.

To ensure the basic alignment of human resource management with overall strategy, the Criteria also include human resource planning as part of organizational planning in the Strategic Planning Category.

5.1 Work Systems (35 pts.)

[Approach-Deployment]

Describe how your organizations work and job design, compensation, career progression, recognition, and related work force practices enable and encourage all employees to achieve high performance in your operations.

Within your response, include answers to the following questions:

a. Work Systems

- (1) How do you design, organize, and manage work and jobs to promote cooperation and collaboration, individual initiative, innovation and flexibility, and to keep current with business needs?
- (2) How do your managers and supervisors encourage and motivate employees to develop and utilize their full potential? Include formal and/or informal mechanisms you use to encourage and support employees in job- and career-related development/learning objectives.
- (3) How does your employee performance management system, including feedback to employees, support high performance?
- (4) How do your compensation, recognition, and related reward/incentive practices reinforce high performance?
- (5) How do you ensure effective communication, cooperation, and knowledge/skill sharing across work units, functions, and locations, as appropriate?
- (6) How do you identify characteristics and skills needed by potential employees; how do you recruit and hire new employees? How do you take into account key performance requirements, diversity of your community, and fair work force practices?

Notes:

- N1. *The term employees refers to your organizations permanent, temporary, and part-time personnel, as well as any contract employees supervised by your organization. Employees include managers and supervisors at all levels. Contract employees supervised by a contractor performing key or support processes should be addressed in **Item 6.3**.*
- N2. *Work design refers to how employees are organized and/or organize themselves in formal and informal, temporary, or longer-term units. This might include work teams, process teams, customer action teams, problem solving teams, centers of excellence, functional units, cross-functional teams, and organizational units, self-managed or managed by supervisors. Job design refers to responsibilities, authorities, and tasks assigned to individuals. In some work systems, jobs might be shared by a team, based upon cross training, or cross-utilization.*
- N3. *Compensation and recognition refer to all aspects of pay and reward, including promotions and bonuses, which might be based upon performance, skills acquired, and other factors. Compensation and recognition can take the form of monetary and non-monetary, formal and informal, and individual and group-oriented approaches.*

5.1 Work Systems Item Description

Purpose

This Item examines your organization's systems for work and job design, compensation, employee performance management, motivation, recognition, communication, and hiring, with the aim of enabling and encouraging all employees to contribute effectively and to the best of their ability. These systems are intended to foster high performance, to result in individual and organizational learning, and to enable adaptation to change.

Requirements

You are asked how you design work and jobs to allow employees to exercise discretion and decision-making, resulting in high performance.

You are asked how you encourage and motivate employees; manage employee performance; compensate, recognize, and reward employees; and how you ensure effective communication and cooperation, all in support of high performance and employee well being and loyalty.

Finally you are asked how you profile, recruit, and hire employees who will meet your expectations and needs. This requirement entails ensuring that the work force is reflective of your key communities. The right work force is an enabler of high performance.

Comments

- High performance work is characterized by flexibility, innovation, knowledge and skill sharing, alignment with organizational objectives, customer focus, and rapid response to changing business needs and requirements of the marketplace or mission environment. The focus of this Item is on a work force capable of achieving high performance. In addition to the enabled employees and proper work system design, high performance work requires ongoing education and training, and information systems that ensure proper information flow. To help employees realize their full potential, many organizations use individual development plans developed with each employee that addresses his/her career and learning objectives.

- Factors for your consideration in work and job design include simplification of job classifications, cross-training, job rotation, use of teams (including self-directed teams), and changes in work layout and location. Also important is effective communication across functions and work units to ensure a focus on customer requirements and to ensure an environment with trust, knowledge sharing and mutual respect.
- Compensation and recognition systems should be matched to your work systems. To be effective, compensation and recognition might be tied to demonstrated skills and/or to peer evaluations.
- Compensation and recognition approaches also might include profit sharing, team or unit performance, and linkage to customer satisfaction and loyalty measures or other business objectives.

Example 5.1 (Shows only a technique for assessment. This example does not represent a 100% Score.):

5.1 Work Systems. ARDEC's Human Resource (HR) Plan provides the strategy to systematically develop our high performance workforce by employee involvement, team building, education, training, recognition, and skills mobility and diversity. Changes to the Plan are reviewed by the Executive Council (EC). Performance against the Plan is reviewed quarterly at the Systems Measurement Review (SMR). Results against key indicators identify progress and pinpoint opportunities for improvement in work systems and processes.

5.1a(1) ARDEC's R&D mission is designed and organized to be accomplished by cross-functional teams. New technologies are developed through Integrated Concepts Teams (ICT). As participants on customer ICTs, our employees partner with customers and suppliers to develop the technology required for future products. New products are developed through Integrated Process Teams (IPT), which support a product from inception through final disposal. This comprehensive team approach to job design provides vital program flexibility and employee empowerment. Membership on multiple teams develops secondary skills and challenges and motivates employees to use their full potential to improve our organization's products and services (Figure 7.3.11B). Participation on IPTs contributes greatly to job satisfaction (Figures 7.3.3 & 7.3.3A). Teams are empowered through charters that define roles and responsibilities.

ARDEC is a team-based organization, using many types of teams across a broad spectrum of activities (including Process Action Teams (PAT), Quality Management Boards (QMB), Quality Circles (QC), IPTs, Self-Directed Work Teams (SDWT), Natural Work Groups (NWG), and project teams). While downsizing is not an ARDEC strategy, it continues to be an external environmental factor. Results from five cycles of productivity studies led to the formation of matrix work groups and teams as an immediate and long-term alternative to outside recruitment. Thereby, core competencies are protected by systematic internal talent development (see Section 5.2a). We benchmarked with the Air Combat Command, other R&D centers and industry leaders to develop and deploy a structured approach to teaming. Concurrent Engineering (CE) using IPTs enables shorter cycle time and agile tradeoff decisions in our dynamic environment of changing military threats, resources, and customer requirements. Customers are members of IPTs. Our Business Units (home bases) partner with the customer in developing the customer's original product justification, and form joint, chartered teams upon budget approval. Due to the early involvement of multi-functional personnel, IPTs maintain a life cycle perspective, use TQM tools, shorten the development cycle, reduce costs, and maintain flexibility towards evolving customer requirements.

Teaming is our technique for fostering employee involvement. We have hundreds of teams working towards continuous improvement of our products and processes, most of which are NWGs (not formally counted or chartered). CE/IPTs are chartered and leveraged to develop quality products. This has helped to significantly reduce the number of supervisors. (Figure 7.3.1) CE/IPTs are tracked via the Pica Web CE/IPT report system. Our teaming experience coupled with our enhanced process knowledge and culture enabled us to maintain a high level of effectiveness despite of continued defense downsizing. We managed the impact of mandated reductions from 3,715 positions in FY94 to 3,169 in FY98. Significant reductions were accomplished while protecting core expertise and minimizing the impact on employees (Figure 7.3.7).

Fostering risk-management, empowerment, and innovation within the workforce is a responsibility of every manager. Our participative management policy builds bridges between supervisors and employees that encourage both to manifest this behavior. IPTs are visible examples of employee empowerment and enhanced sense of personal responsibility, which increase ARDEC's productivity. ARDEC measures participative management through reverse performance appraisals (Figure 7.3.10) and our Climate Survey. The Motivation PAT, chartered by the HR Sub-System Owner, is instrumental in

promoting employee empowerment and creating a culture-changing quality environment. This PAT spearheads actions for empowering the workforce, enhancing recognition and strengthening our labor-management partnership.

ARDEC was first in AMC to partner with unions, establishing a precedent for others to follow. The Picatinny Partnership Council whose members include senior executives and union leadership acts as the HR QMB. The QMB meets monthly and examines, evaluates, and improves our HR planning and practices.

HR practices are further monitored and improved by presenting customer surveys, operational performance, and organizational assessments at the SMR and by HR Sub-System updates at the EC. HR performance is linked to ARDEC strategic objectives by this analysis of metrics from the Strategic Plan and the HR Plan. When HR data show improvement opportunity, the HR Sub-System owner develops a “get-well” action plan. For example, when ARDEC became aware that DoD was open to reinventing its personnel system, the HR Sub-System Owner chartered six cross-functional teams (Hiring, Pay, Reduction, Training, Mobility, Performance) with broad representation to identify innovative ways to address employee concerns with work design and compensation. Where permitted by Federal Law, new ideas were immediately implemented, such as our work-at-home program (FLEXIPLACE) and Compressed Work Week. As we downsize and evolve to larger employee/manager ratios, leaders who coach are replacing supervisors as the first level of management. We identify and track these leaders to provide them with leadership training. Our initial success with personnel program change encouraged two wide-scope personnel demonstration projects.

Feedback from our external quality assessments has been used to drive improvements. Our seven criteria “Champions” analyze and present ARDEC’s strengths and areas for improvement to the EC for discussion, decision, and action.

5.1a(2) Managers encourage and motivate employees through our participative management initiative called Management Through Leadership (MANTLE). MANTLE drives ARDEC toward desired leadership behaviors required for our quality culture. ARDEC’s “People” objective also results in several HR goals related to MANTLE, implemented via the HR Action Plan. MANTLE behaviors in leaders are assessed and improved via reverse appraisals. (Figures 7.3.10 and 7.3.11A)

Supervisors are trained in MANTLE and refresher information is always available on our WEB. The Ford Foundation and the JFK School of Government at Harvard University recognized MANTLE as a Semi-Finalist for Innovations in American Government Award. Our HR Plan includes reverse appraisals where managers are trained and developed based on employee scoring of their MANTLE behaviors. Since 1994, ARDEC has used reverse appraisals and with repeat assessments to drive changes in the leadership culture. Employee survey data indicate a perceived steady improvement in our leadership. (Figure 7.3.11A)

Teaming is our primary approach for increasing ARDEC employee involvement. The HR Plan features IPTs for mission accomplishment, teaming to improve systems/process on QMBs and PATs, and partnering with unions. Teaming has long been a value at ARDEC. Since the 1970’s “Red Teams” have been formed to solve technical problems. In 1986 Quality Circles were formed. Since then, other kinds of teams (PATs, QMBs, IPTs, etc.) were added. Today, PATs are chartered by system and Sub-System owners to improve process performance. Benchmarking teams are chartered to benchmark process against best in class performers. Chartered IPTs are the normal way products are developed. Team training has helped employees to function successfully in this job design. Customer survey reports are one way that we measure employee, team, and organizational success (Figure 3.3). Teaming is an integral part of the ARDEC culture.

5.1a(3) Our performance evaluation system (TAPES) establishes standards linked to our strategic business plan. This insures that each employee has clear objectives that are linked to organization goals. Employees can electronically access objectives for all systems or business areas at their desk. (Figure 1.2) Formal feedback to employees is documented twice annually.

5.1a(4) ARDEC uses innovative reward and recognition mechanisms to encourage a quality culture and to reinforce behaviors supporting our team-based climate. For example, IPTs that obtain Type Classification for a product that is ready to manufacture receive recognition in multiple forms (e.g., an article is put into “The Voice”, an electronic sign at the entrance to the installation announces their accomplishment, a team celebration is conducted, and cash awards may be presented).

Each of our Commanders has taken pride in presenting individual and team awards. The senior leaders have personally presented the awards at our annual People Enhancing Picatinny (PEP) Rally celebrations for the last 12 years. Winning Facilitator of the Year and teams have received PEP jackets at the last four rallies. Through Patent Awards, presentations and publications, our scientists and engineers are nationally and internationally recognized for their technical expertise.

Other opportunities for acknowledgment include: all-hands town meetings; organization-unique individual and team awards; publication of employee and team efforts in "The Quality Link" and "The Voice"; and displaying team photos on our Wall of Fame in the ARDEC headquarters building, and in the cafeteria.

The HR Plan emphasizes both monetary and non-monetary rewards for high performance individuals and groups - especially teams.

Employee compensation is linked to performance by Quality Step Increase awards and monetary Performance Awards. The effectiveness of our recognition systems is assessed by: 1) HR surveys of employees; 2) customer satisfaction results; and, 3) demonstrated motivation and results achieved by teams without formal supervision. When downsizing threatened our recognition programs, the EC tasked the Motivation PAT to recommend a proactive plan. The PAT surveyed the workforce and implemented changes to streamline the awards approval process and to shorten the time from performance to receipt of monetary recognition. Survey data show that we have maintained our employee recognition while Army-wide results have declined. (Figure 7.3.3)

5.1a(5) Communication and cooperation among employees is considerably improved by our use of IPTs. Employees from all functional areas work together as team members and develop and attain a common goal. For example, rather than our legal office being a hurdle for final project approvals, a lawyer is assigned to an IPT as a working member. Continuous Legal review is now a team capability. Likewise, the quality engineering function that used to be an inspection part of the process is now built into our teams through the assignment of a quality-engineering specialist to each development IPT. As employees move in and out of teams, they carry lessons learned back to their technical business units ("home bases") that maintain the central knowledge base. In these home bases, employees are recharged with the latest technological and process advances. Experiences are shared across IPTs via the CE/IPT reporting web site. Additionally, employees are regularly members of multiple IPTs, ensuring that best practice and technological advances are shared. Annually, a team-oriented "PEP" rally is held not only to recognize teams, but also to showcase the sharing of best practices. Teams of all types are nominated for awards. Winning teams share their best practices by "Picatinny Pride" testimony at the annual rally.

5.1a(6) We identify characteristics and skills needed by potential employees at our Directorate level based on technical program requirements and our need for personnel who can commit to our team culture. We train current employees from each Directorate in how to identify highly qualified candidates and we send these recruiters out to colleges and job fairs to conduct interviews. We track ethnic data to assure that we hire a diverse mix of new employees because we believe that diversity enhances team creativity. For example, we proactively seek candidates from Historically Black Colleges and Universities. We hire college coop students and Engineers & Scientists entry level interns because we prefer to educate and train employees about our unique business at the start of their government employment. The TD chartered a Leadership PAT composed of associates from different perspectives in the center to identify the Leadership needs of the Center. The PAT drives the acceptance of competencies required for current, future, and potential leaders.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

Teaming is the prime method of work design used by ARDEC to accomplish mission requirements and stimulate learning and integration across the organization. Workforce members participate in multiple team based projects (Examples include IPT, PAT, QMB, and matrix work groups). Many of these chartered groups include customer and supplier representatives thereby increasing employee knowledge and understanding of product value. Teams are supported with training to improve their effectiveness. Some examples of training include: team building, employee involvement, required educational training, recognition, and skills mobility.

ARDEC managers link individual performance standards and performance objectives to actions that directly support business unit plans. This assists employees in focusing work efforts on actions that contribute to

organizational plans and direction.

In addition to individual recognition, ARDEC strives to award team performance in concert with its primary work design. Team and individual awards are based on performance and include monetary and honorary award methods. Performance awards are further supplemented by other motivational celebrations including annual PEP Rally celebrations, electronic sign recognition, newspaper articles, cash awards, and Wall of Fame displays in the headquarters. The awards and recognition system is periodically assessed from surveys of the workforce and improvements made where warranted. Measures of the system are captured and reflect favorable results (see Figure 7.3.3).

A structured feedback mechanism is in place to determine the effectiveness of the HR planning. The HR QMB has representation from the senior executives as well as the labor unions. The group meets monthly to examine, evaluate, and improve HR planning and practices. Communications appear to be paramount within the organization as a silent partner that aids the organization in the deliverance of high performance.

ARDEC's MANTLE initiative supports high leadership performance and fosters desired leadership behaviors required for their quality culture. MANTLE behaviors in leaders are assessed and improved via reverse appraisals resulting in managers being trained and developed based on employee scores.

ARDEC's team-based culture assists communication, cooperation, and knowledge/skill sharing across work units. Individuals returning from field assignments carry back experiences, learnings, and customer requirements to their parent organizations. Additionally, their annual team-oriented "PEP Rally" showcases best practices through "Picatinny Pride" testimonials. It is further evidenced by the increase in relevant ratings on their MANTLE reverse appraisals, which have improved managerial behaviors and increased work communications shown in Figure 7.3.10.

ARDEC identifies the skills needed at their directorate level, then trains employees how to identify these attributes. In turn, employees become recruiters for new employees at colleges and job fairs. ARDEC also has a Leadership PAT which identifies leadership traits and needs.

5.2 Employee Education, Training, and Development (30 pts.)

[Approach-Deployment]

Describe how your organization's education and training support the achievement of your business objectives, build employee knowledge, skills, and capabilities, and contribute to improved employee performance.

Within your response, include answers to the following questions:

a. Employee Education, Training, and Development

- (1) How does your education and training approach balance short- and longer-term organizational and employee needs, including development, learning, and career progression?
- (2) How do you design education and training to keep current with business and individual needs such as special skills training and management/leadership development? Include how job and organizational performance are used in education and training design and evaluation.

- (3) How do you seek and use input from employees and their supervisors/managers on education and training needs, expectations, and design?
- (4) How do you deliver and evaluate education and training for both long and short term? Include formal and informal education, training, and learning, as appropriate.
- (5) How do you address key developmental and training needs, including diversity training, management/leadership development, new employee orientation, and safety, as appropriate?
- (6) How do you address performance excellence in your education and training? Include how employees learn to use performance measurements, performance standards, skill standards, performance improvement, quality control methods, and benchmarking, as appropriate.
- (7) How do you reinforce knowledge and skills on the job?

Notes:

- N1. Education and training address the knowledge, skills, and abilities employees need to meet their current and projected work performance and career development objectives.*
- N2. Education and training delivery [5.2a(4)] might occur inside or outside the organization and involve on-the-job, classroom, computer-based, distance learning, and/or other types of delivery (formal or informal).*
- N3. Evaluation of training [5.2a(4)] might include cost/benefits of education and training; most effective means and timing for training delivery; and effectiveness of cross-training or cross-utilization.*

5.2 Employee Education, Training, and Development Item Description

Purpose

This Item examines your organization's work force education, training, and on-the-job reinforcement of knowledge and skills, with the aim of meeting ongoing needs of employees and a high performance workplace.

Requirements

You are asked how education and training are designed, delivered, reinforced on the job, and evaluated, with special emphasis placed on meeting individual career progression and organizational business needs. You are asked how you consider job and organizational performance in education and training design and evaluation in support of a fact-based management system.

You are asked how employees and their supervisors participate in the needs determination, design, and evaluation of education and training, because these individuals frequently are best able to identify critical needs and evaluate success. You are asked how employees and supervisors use performance measures and standards to ensure performance excellence in education and training.

Finally, you are how your organization's key developmental and training needs, including such high priority needs as management/leadership development, diversity training, and safety. Succession planning and leadership development, at all levels in increasingly diverse organizations, present a growing challenge and need.

Comments

- Depending on the nature of your organization's work and employees' responsibilities and stage of organizational and personal development, education and training needs might vary greatly. These needs might include knowledge sharing skills, communications, teamwork, problem solving, interpreting and using data, meeting customer requirements, process analysis and simplification, waste and cycle time reduction, and priority setting based on strategic alignment or cost/benefit analysis. Education needs also might include basic skills, such as reading, writing, language, and arithmetic. Education and training delivery might occur inside or outside your organization and could involve on-the-job, classroom, computer-based, distance learning, or other types of delivery. Training also might occur through developmental assignments within or outside your organization.
- When you evaluate education and training, you should seek effectiveness measures as a critical component of evaluation. Such measures might address impact on individual, unit, and organizational performance, impact on customer-related performance, and cost/benefit analysis of the training.
- Although this Item does not specifically ask you about training for customer contact employees, such training is increasingly important and common. It frequently includes acquiring critical knowledge and skills with respect to your products, services, and customers; skills on how to listen to customers; recovery from problems or failures; and learning how to effectively manage customer expectations.

Example 5.2 (Shows only a technique for assessment. This example does not represent a 100% Score.):

5.2 Employee Education, Training & Development. The HRD Steering Committee directs planning of our education and training to link training to Strategic Objectives. The ARDEC strategic "People" objective, to "Attract, Develop, and Retain a Well-Trained, Well-Equipped, and Motivated Workforce" results in the HR objective to "Deploy a sequential and progressive course curriculum." Called "TEMPLATES," these curricula support job design by training in the enabling technologies required for our core products and are closely linked to our programs for the regeneration of skills expected to be lost through the attrition of an aging workforce.

5.2a Leadership links our training design approach to our Strategic Objectives via training "TEMPLATES" developed by ARDEC teams, in cooperation with business unit managers and an outside consultant. TEMPLATES identify courses and curricula to meet our business goals.

5.2a(1) As the Army regionalized its HR training staff, we saw the need for managing technical training and created a position of Assistant Technical Director for Professional Development and a separate technical training team. These personnel plan, monitor, and guide our technical training and development consistent with our business goals. TEMPLATES provide direction for our training policy requiring 40 hours of training for professional and 20 hours for support staff. Our TEMPLATES focus curricula development to address the knowledge and skills employees require to meet work objectives: team-building, process management, and technical curriculum.

5.2a(2) ARDEC has robust training design. It includes long term training, technical course TEMPLATES and short courses required for high performance. ARDEC systematically determines its quality education and training requirements via top level strategic decisions, TEMPLATES development, employee and supervisor need assessments, recommendations from teams, and results of reverse appraisals.

5.2a(3) We have varied sources of training needs input:

- *Team Building. The key to high performance is ARDEC's strategy to transform people into valuable team players who can recognize and capitalize on each other's strengths. All managers are trained to treat employees as stakeholders and to provide feedback information that employees need to make decisions about training needs. CE training is mandatory for all IPTs and deployment is measured by the QMB.*
- *Process Management and Improvement. Senior leaders participated in TQM workshops in 1989, 1990, 1994, a measurement workshop in 1995, and periodic strategic planning workshops. Employees and managers learn how to think in terms of continuous improvement. Formal process management training (e.g., Benchmarking) and*

informal process training for teams by facilitators are used. We have given internal quality examiner training 3 times since 1992, targeting our SMR team, internal audit staff, and self-assessment/application team members. Experienced Baldrige/PQA trainers provided this training from the Air Force and Tennessee Valley Authority.

- *Technical Curriculum. Our TEMPLATES training is the foundation of ARDEC's technical education. Graduate level degree courses on armament engineering are key to our curriculum. The specialized knowledge required for our mission is not available in colleges so we plan for the education and training of employees. In addition to short courses, ARDEC has on-site graduate level degree programs in several disciplines from two respected colleges.*
- *Performance Evaluation. A normal function of performance review is the development of Individual Development Plans by employees and their supervisors or team leaders.*

5.2a(4) Recognizing the importance of instituting a diverse and vigorous program of training, education, and self improvement, ARDEC delivered and evaluated 6,000 different course titles in the past five years. ARDEC leveraged the motivation of teaming in established teams by offering experiential team training in an outdoors challenge course. (Figure 7.3.4A). Our CPOC is a professional partner in training identification and delivery by conducting needs surveys and identifying quality-training resources.

ARDEC systematically evaluates the effectiveness of training. We use feedback from employees and customers. The student and the supervisor using our automated training evaluation process evaluate each instance of employee training. Our evaluations address the immediate effectiveness of the training, the impact of the training back on the job, and how the training could be improved. Our TEMPLATES courses are refined, improved, or discontinued by this evaluative process.

5.2a(5) ARDEC addresses key developmental and training needs. We participate as the charter government agency in an academic alliance with Stevens Institute of Technology. This alliance enables benchmarking of RDE issues with participants including Allied Signal, Lucent Technology, AT&T, Best Foods, and Exxon. This partnership has resulted in a Masters in Technology Management (MTM) degree Program and numerous symposia and roundtables on technology management. Since inception, ARDEC has sponsored over 30 people for the Masters in Technology Management degree which has highly relevant curricula to research and development performance excellence, total quality, technical project management, technical partnering and state-of-the-art business management. Additionally, since 1988, 302 ARDEC employees have received executive development experience through our progressive fellowship programs (Figure 7.3.12).

We require 8-hours of diversity training annually for all employees under Army's Consideration of Others program. The EEO Office trains a cadre of facilitators for this purpose. Other mandatory EEO training includes annual sessions for managers and supervisors and Prevention of Sexual Harassment for all employees. We provide a tour and hands-on examination of our large and small weapons systems during our 2-day New Employee Orientation.

5.2a(6) We address performance excellence in training. Teams learn techniques for making technical and managerial decisions through CE training and other courses such as Quality Function Deployment, Breakthrough Thinking, Taguchi Methods, Design of Experiments, and Statistical Process Control. The TQM Office sponsors periodic facilitator training. We have a benchmarking advocate who assists teams in finding best in class examples. Team performance is a source of information back to management about the quality of training. ARDEC has made a significant investment in deploying training required for performance excellence. (Figure 5.1).

5.2a(7) We reinforce knowledge and skills on the job by our on-going evaluation and improvement of our core training TEMPLATES. Individual and team performance is measured by our performance measurement system (TAPES) and various system reviews. The HR Steering Committee uses system reviews to determine the effect of training programs and to redirect TEMPLATE development.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

ARDEC has developed a training tool (TEMPLATES) to assist in identifying and guiding employee training requirements linked to job required knowledge and skills. Mandatory courses and class hours are contained in the system. Specific technical training is also included for specified job positions and further monitored by the Assistant Technical Director for Professional Development. TEMPLATES is updated as needed in concert with HR and strategic plan revisions.

Evaluation of training and education courses is complimented through the use of an automated evaluation system. Student and supervisor evaluations address course content and applicability to job effectiveness. The TEMPLATE system utilizes this information for course refinement. Managers and employees can access the information for training decisions. The organization has evaluated and delivered 6,000+ course titles in the past five years. This is an improvement to admin processes and meeting customer requirements while reducing costs.

Partnering with local colleges and incorporating information exchanges with private industry has enabled ARDEC to offer advanced degree training to eligible employees. This approach to development of workforce members compliments the organization's desire to retain a base of experience and knowledge for the future.

Mandatory training is conducted for all employees within the Consideration of Others" program to assist in improvements in cooperation and work habits of a diversified workforce. Additional training and orientations are regularly provided to managers and supervisors on subjects critical to effective management of a diversified workforce.

ARDEC uses a variety of mechanisms to gain input from employees and supervisors/managers to determine training needs, expectations, and design. These include: employee and supervisor needs assessments, team recommendations, and reverse appraisal survey results.

ARDEC has proactive educational courses to instruct and inform employees about Total Quality and tools to assist with improvement efforts. Courses include Quality Function Deployment, Breakthrough Training, Taguchi Methods, Design of Experiments, and Statistical Process Control. These courses provide the basis for performance measurement analysis at all levels of the organization.

ARDEC reinforces knowledge and skills on the job by the use of TAPES and the TEMPLATES system. Individual performance objectives (mutually determined by supervisor and employee) assist in exercising the new skills for improved performance. Feedback on the applied effectiveness of the newly acquired skills (through TEMPLATES) either validates the course or causes revision.

5.3 Employee Well being and Satisfaction (30 pts.) [Approach-Deployment]

Describe how your organization maintains a work environment and an employee support climate that contribute to the well being, satisfaction, and motivation of all employees.

Within your response, include answers to the following questions:

a. Work Environment

How do you address and improve workplace health, safety, and ergonomic factors? How do employees take part in identifying these factors and in improving workplace safety? Include performance measures and/or targets for each key environmental factor. Also include significant differences, if any, based on different work environments for employee groups and/or work units.

b. Employee Support Climate

- (1) How do you enhance your employees work climate via services, benefits, and policies? How are these enhancements selected and tailored to the needs of different categories and types of employees, and to individuals, as appropriate?
- (2) What are the organizational systems that encourage and motivate employees to develop and utilize their full potential in a diverse workforce?

c. Employee Satisfaction

- (1) How do you determine the key factors that affect employee well being, satisfaction, and motivation?
- (2) What formal and/or informal assessment methods and measures do you use to determine employee well being, satisfaction, and motivation? How do you tailor these methods and measures to a diverse work force and to different categories and types of employees? How do you use other indicators such as employee turnover, absenteeism, grievances, and productivity to assess and improve employee well being, satisfaction, and motivation?
- (3) How do you use the results of employee satisfaction assessments to identify work environment and employee support climate improvement priorities?

Notes:

- N1. Approaches for enhancing employees work climate [5.3b(1)] might include: mentoring; career development and employability services; recreational or cultural activities; non-work-related education; day care; job rotation and/or sharing; special leave for family responsibilities and/or for community service; home safety training; flexible work hours; outplacement; and retiree benefits (including extended health care).*
- N2. Specific factors that might affect employee well being, satisfaction, and motivation [5.3c(1)] include: effective employee problem or grievance resolution; safety factors; employee views of management; employee training, development, and career opportunities; employee preparation for changes in technology or the work organization; work environment and other work conditions; workload; cooperation and teamwork; recognition; benefits; communications; job security; compensation; and equal opportunity.*
- N3. Measures and/or indicators of well being, satisfaction, and motivation [5.3c(2)] might include: safety; absenteeism; turnover; turnover rate for customer-contact employees; grievances; other job actions; insurance costs; workers compensation claims; and results of surveys. Results relative to such measures and/or indicators should be reported in **Item 7.3**.*
- N4. Priority setting (5.3c[3]) might draw upon your human resource results presented in **Item 7.3** and might involve addressing employee problems based on their impact to your organizational performance.*

5.3 Employee Well being and Satisfaction Item Description

Purpose

This Item examines your organization's work environment, your employee support climate, and how you determine employee satisfaction, with the aim of fostering the well being, satisfaction, and motivation of all employees, recognizing their diverse needs.

Requirements

You are asked how you ensure a safe and healthful work environment for all employees, taking into account their differing work environments and associated requirements. Special emphasis is placed on how employees contribute to identifying important factors and to improving workplace safety. You are also asked to identify appropriate measures and targets for key environmental factors so that status and progress can be tracked.

You are asked how you enhance employee well being, satisfaction, and motivation based upon a holistic view of this key stakeholder group. Special emphasis is placed on the variety of approaches you use to satisfy a diverse work force with differing needs and expectations.

Finally, you are asked how you assess employee well being, satisfaction, and motivation, and how you relate assessment findings to key business results to set improvement priorities.

Comments

- Most organizations, regardless of size, have many opportunities to contribute to employee well being, satisfaction, and motivation. Some examples of services, facilities, activities, and other opportunities are personal and career counseling; career development and employability services; recreational or cultural activities; formal and informal recognition; non-work-related education; day care; special leave for family responsibilities and/or community service; flexible work hours and benefits packages; outplacement services; and retiree benefits, including extended health care and access to employee services.
- Although satisfaction with pay and promotion is important, these two factors are generally not sufficient to ensure overall employee satisfaction, motivation, and high performance. Some examples of other factors to consider are effective employee problem and grievance resolution; employee development and career opportunities; work environment and management support; workload; communication, cooperation, and teamwork; job security; appreciation of the differing needs of diverse employee groups; and organizational support for serving customers.

Example 5.3 (Shows only a technique for assessment. This example does not represent a 100% Score.):

5.3a Our HR objective to "...Attract...and Retain..." our workforce drives our commitment to the well being of our people. We demonstrate this by consistently dedicating extensive resources to many safety, health, and wellness programs. ARDEC gathers feedback from diverse sources, including a staff of safety and environmental professionals; a network of safety coordinators in all organizations; periodic surveys and continuous customer comment cards from employees and other wellness program participants (including spouses, children, and retirees); Town Hall meetings; family forums; and customer focus groups.

ARDEC utilizes a systematic health and safety risk preventive approach through its robust safety and environmental programs. We created a centralized risk management Directorate of Public Safety and Environmental Affairs to ensure an integrated and proactive approach to emergency response, fire prevention and protection, industrial and work place safety, security, and environmental compliance and restoration. Our network of organizational safety coordinators augments and internalizes safety into all practices with a comprehensive set of measures to monitor performance. Safety feedback is reported to Command group at the bi-weekly staff meetings. Environmental feedback is provided to the

Command group at quarterly Environmental Quality Control Committee (EQCC) meetings. This intensive approach to risk management of safety and health revealed that the arsenal accident rate has declined nearly 50% during the 5-year period FY94-FY98. Experimental operations and facilities are inspected regularly to ensure compliance and conduct on the work site training as required. Through intensive process management, the number of outdoor hazardous operations incidents was reduced to zero in 1997 and has remained at that level. Hazardous waste generation is down from 1.2 million pounds in 1995 to 160 thousand pounds in 1998. (Figure 7.3.6)

As a recent process improvement, Picatinny has developed a Hazardous Materials Management Program (HMMP) including the construction of Hazardous Materials Control Center (HMCC) scheduled to begin operation in August 1999. The HMCC will provide centralized hazardous materials ordering, issuing, and storage resulting in a significant reduction in the amount of hazardous materials stored on work sites throughout the arsenal. These integrated safety and environmental efforts contribute to a safer environment for our workforce and the surrounding communities and result in sounder business practices.

Our health services program, Total Fitness, was recognized at the national level including the 1994 Office of Personnel Management Director's Award for Outstanding Employee Health Services Programs which recognizes exemplary programs and their achievements. This award was based on program design, administration effectiveness, employee participation, and results. ARDEC's and morale welfare recreation (MWR) programs are also proactive. ARDEC's Total Fitness program was first deployed as an executive fitness program. Management recognized its benefits and it was extended to all employees and has reached over 70% of our population with a wide variety of health and fitness programs.

Employee survey feedback resulted in capital improvements to services provided. This includes: a Teen Center, modern gymnasium, state-of-the-art fitness center, School Age/Latch Key Facility, customer service desks in support areas, U-Store-It Facility for military residents, Post Restaurant, sundry store, and an outdoor picnic area.

5.3b(1) ARDEC offers extensive resources contributing to the overall well being and health of the workforce. These include: fitness facilities and programs, preventive health screening and training, child care facilities and programs, flexible work hours, professional counseling services, and morale, recreation and welfare programs. In FY 97, ARDEC invested a half a million dollars it received for winning the ACOE (Army Baldrige competition) in quality of life improvements for employees. Fitness facilities include an aerobics studio, cardiovascular exercise studio, cardiac rehabilitation area, and health risk appraisal assessment center. Activities integral to employee wellness include classes on Nutrition, Weight Reduction, Stress Management, Smoking Cessation, Holistic Wellness, and High Blood Pressure Management. Exercise classes are regularly offered as well as numerous special events including a semi-annual 5K Run/Walk, a 10K run, a Mini-Triathlon, semi-annual Super Aerobic Workshops, and an annual Health Fair. ARDEC's Total Fitness program is enhanced and diversified by integration of other resources such as the gymnasium, outdoor swimming pool, ball fields, tennis courts, walking/running/fitness trails, racquetball court and our own 18-hole golf course.

Child development services at Picatinny were expanded to absorb our waiting lists and now include three child care delivery systems: a new child development center, a family child care program, and a School Age Latch Key/Summer Camp program.

Employees are afforded maximum flexibility in choosing work hours in a program called flexitour. ARDEC uses a Compressed Work Week (CWW) option. Approximately 41% of our workforce participate in CWW to facilitate commuting and to provide maximum flexibility for employees with special family or other responsibilities. ARDEC has Flexiplace - the opportunity to work at home. Leave policy now enables our employees to use their sick leave to address family health issues.

The ARDEC Employee Assistance Office provides professional counseling to a revolving client list of employees and their families who face problems such as alcohol and drugs, divorce, eldercare, parenting, teen issues, and AIDS awareness. Aggressive marketing has increased employee and family use of this vital support.

In 1991, ARDEC established transition support services. Since then, this Center continues to serve the needs of military and civilian employees and family members affected by downsizing, relocation, and reduction-in-force. The Center works to ease the transition from Government employment to private industry and has tracked over 6,900 contacts for training and assistance.

5.3c(1) *The HR Sub-Systems Owner presents key HR data to the EC. Through his QMB and the Motivation PAT, quarterly HR survey data is analyzed to determine the key factors that affect employee well being, satisfaction, and motivation. We benchmark our survey data with Army-wide data for identical survey questions.*

5.3c(2) *ARDEC's quarterly Climate Survey gauges employee satisfaction, well being, motivation, communication, and employee involvement in process improvement. ARDEC also employs exit interviewing where indicators of systemic de-motivators are identified. The HR Sub-System owner employs systematic methods to respond to data trends through the SMR, EC, Picatinny Partnership Council, HR Motivation PAT, CPAC servicing teams, and cross-functional focus groups. We learned that employees want to be regularly informed and updated about reorganization and downsizing. This communication is accomplished through many means including television, electronic mail, newspapers, Town Hall meetings, and regular publication of employee questions and answers. We have learned that sharing this information openly with the workforce is important. Through recent automation enhancements in surveying, organization-specific data and feedback to employees can be obtained.*

Through the quarterly SMR reviews, the HR Sub-System owner, Mr. Rosenkranz, addresses the work environment, climate, and employee satisfaction indicators with senior leadership. By doing this, the Strategic Objectives are related to well being factors for determining action plan priorities to benefit all employees.

5.3c(3) *ARDEC relates assessment findings to our key business results. Cross-functional teams, including ARDEC HR staff, analyze quarterly data from the HR Climate Survey. These groups identify problem root causes, and recommend solutions to senior leadership at the EC. The HR Survey is continuously improved in content and administration. For example, questions on communication and improvement of work processes were recently added to the climate survey, and administration of the survey was improved by providing WEB feedback by organization. Survey results are shared with employees via the WEB. ARDEC's Employee Assistance Office (EAO) and Morale, Welfare and Recreation (MWR) Office also capture and use data on employee well being. Training data, awards data, grievance data, equal opportunity data, and performance review data contribute to our assessment of employment conditions.*

In response to employee concerns for lack of promotion opportunity due to downsizing, ARDEC leadership initiated employee cross-development in the form of job details, multifunctional teams, and temporary promotions. To the benefit of our workforce, we obtained approval for over 250 requests to higher headquarters for exception to permanent promotion and placement freezes.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

ARDEC has embraced a Risk Management approach to assist in identification and reduction or elimination of conditions and factors that affect the safety and health of the workforce. The director of Safety and Environmental Affairs integrates the activities of safety coordinators across the installation and gathers measures to judge performance. Examples of major reductions in work related accidents (50% improvement) and total elimination of outdoor hazardous waste incidents. A Total Fitness program is available and widely used by the workforce.

ARDEC actively solicits information that may give an indication of what issues and policies affect employee well being, satisfaction, and motivation. Feedback is gathered by safety and environmental staff professionals, organization safety coordinators, surveys, customer comment cards, Town Hall meetings, family forums, and employee focus groups.

The organization's commitment to effective health services has been recognized at the national level. The effectiveness of design, delivery and administration of the services were key factors to the award. Employee survey feedback has been used to make capital improvements as well input to needed and subsequently delivered services.

Giving back to the employees was personified when the organization invested a half million dollars from an awards program to improvement of facilities that affect the "Quality Of Life" for its workforce. A clear indicator that its people and their well being is important to the organization.

ARDEC uses a quarterly climate survey to gauge employee satisfaction, well being, and motivation. The HR QMB and Motivation PAT review satisfaction indicators to determine casual factors. Recommendations are reviewed in

the quarterly SMRs. Exit interviews are also conducted to identify employee demotivators.

6 Process Management (95 pts.)

The **Process Management Category** examines the key aspects of your organization's process management, including customer-focused design, product and service delivery, support, and supplier and partnering processes involving all work units.

Process Management is the focal point within the Criteria for all key work processes. Built into the Category are the central requirements for efficient and effective process management – effective design; a prevention orientation; linkage to suppliers and partners; operational performance; cycle time; and evaluation, continuous improvement, and organizational learning. Flexibility, cost reduction, and cycle time reduction are increasingly important in all aspects of process management and organizational design. In simplest terms, flexibility refers to your ability to adapt quickly and effectively to changing requirements.

Depending on the nature of your organization's mission, strategy and markets, flexibility might mean rapid changeover from one product/service to another, rapid response to changing societal needs or customer demands, or the ability to produce a wide range of customized services. Flexibility might demand special strategies such as implementing modular designs, sharing components, sharing manufacturing lines, and providing specialized training. Flexibility also increasingly involves competitive sourcing decisions, agreements with key suppliers, and novel partnering arrangements.

Cost and cycle time reduction often involves many of the same process management strategies as achieving flexibility. Thus, it is crucial to utilize key measures for these requirements in your overall process management.

6.1 Product and Service Processes (50 pts.)

[Approach-Deployment]

Describe how your organization manages key product and service design and delivery processes.

Within your response, include answers to the following questions:

a. Design Processes

- (1) What are your design processes for products/services and their related production/delivery processes?
- (2) How do you incorporate changing customer/market and mission-related requirements into product/service designs and production/delivery systems and processes?
- (3) How do you incorporate new technology into products/services and into production/delivery systems and processes, as appropriate?
- (4) How do your design processes address design quality and cycle time, transfer of learning from past projects and other parts of the organization, cost control, new design technology, productivity, and other efficiency/effectiveness factors?
- (5) How do you ensure that your production/delivery process design accommodates all key operational performance requirements?
- (6) How do you coordinate and test design and production/delivery processes to ensure capability for trouble-free and timely introduction of products/services?

b. **Production/Delivery Processes**

- (1) What are your key production/delivery processes and their key performance requirements?
- (2) How does your day-to-day operation of key production/delivery processes ensure meeting key performance requirements?
- (3) What are your key performance measures and/or indicators used for the control and improvement of these processes? Include how real-time customer input is sought, as appropriate.
- (4) How do you improve your production/delivery processes to achieve better process performance and improvements to products/services, as appropriate? How are improvements shared with other organizational units and processes, as appropriate?

Notes:

- N1. Some organizations are required to rely on processes mandated by their parent organization. Responses to this Item should reflect your efforts to manage and improve your own processes within the parameters and guidelines established by your parent organization, as well as any contributions you may have made to improve your parent organization's mandated processes.*
- N2. Key performance measures includes in-process measurements which indicate if a process, service, or product is performing as expected. Identifying and correcting deviations early help minimize problems and/or cost.*
- N3. Product and service design, production, and delivery differ greatly among organizations, depending upon many factors. These factors include the nature of your products and services, technology requirements, issues of modularity and parts commonality, customer and supplier relationships and involvement, and product and service customization. Responses to Item 6.1 should address the most critical requirements for your organization.*
- N4. Responses to Item 6.1 should include how your customers and key suppliers and partners are involved in your design processes, as appropriate.*
- N5. Your results of operational improvements in product/service design, productivity, and delivery processes should be reported in **Item 7.5**. Your results of improvements in product/service performance should be reported in **Item 7.1**.*

See the glossary for a more complete description of cycle time and productivity.

6.1 Product and Service Processes Item Description

Purpose

This Item examines your organization's key product and service design and delivery processes, with the aim of improving your marketplace and operational performance. This includes how your organization designs, introduces, produces, delivers, and improves your products and services. It also examines how your production/delivery processes are operated and improved. The trouble-free introduction of new products and services is important to the management of these processes. This requires effective

coordination, starting early in the product and service design phase. This Item also examines your organizational learning through a focus on how lessons learned in one process or work unit are replicated and added to the knowledge base of other projects or work units.

Requirements

You are asked to identify your key design processes for products and services and their related production and delivery processes. You are asked: 1) how changing customer and market requirements and technology are incorporated into product and service designs; (2) how production/delivery processes are designed to meet customer, quality, and operational performance requirements; and (3) how design and production/delivery processes are coordinated to ensure trouble-free and timely introduction and delivery of products and services; and (4) how design processes are evaluated and improved to achieve better performance.

You are asked to identify your key production/delivery processes, their key performance requirements, and key performance measures including in-process measures. These requirements and measures are the basis for maintaining and improving your products, services, and production/delivery processes. Finally, you are asked how you improve your production/delivery processes to achieve better processes and products/services.

Comments

- Your design approaches could differ appreciably depending upon the nature of your products/services – whether the products/services are entirely new, variants, or involve major or minor process changes. Responses should reflect the key requirements for your products and services. Factors that might need to be considered in design include: safety; long-term performance; environmental impact; "green" manufacturing; measurement capability; process capability; manufacturability; maintainability; supplier capability; and documentation. Effective design also must consider cycle time and productivity of production and delivery processes. This might involve detailed mapping of manufacturing or service processes and redesigning ("reengineering") those processes to achieve efficiency, as well as to meet changing customer requirements.
- Many organizations need to consider requirements for suppliers and/or business partners at the design stage. Overall, effective design must take into account all stakeholders in the value chain. If many design projects are carried out in parallel, or if your organization's products utilize parts, equipment, and facilities that are used for other products, coordination of resources might be a major concern, but might offer means to significantly reduce unit costs and time to market. This should be addressed in your response to Area 6.1a.
- Coordination of design and production/delivery processes involves all work units and/or individuals who will take part in production/delivery and whose performance materially affects overall process outcome. This might include groups such as research and development (R&D), marketing, design, and product/process engineering.
- Area 6.1b calls for information on the management and improvement of key production/delivery processes. The information required includes a description of the key processes, their specific requirements, and how performance relative to these requirements is determined and maintained. Specific reference is made to in-process measurements and customer interactions. These measurements and interactions require the identification of critical points in processes for measurement, observation, or interaction. These activities should occur at the earliest points possible in your processes to minimize problems and costs that may result from deviations from expected performance.
- Expected performance frequently requires setting performance levels or standards to guide decision-

making. When deviations occur, corrective action is required to restore the performance of the process to its design specifications. Depending on the nature of the process, the corrective action could involve technical and/or human considerations. Proper corrective action involves changes at the source (root cause) of the deviation. Such corrective action should minimize the likelihood of this type of variation occurring again or anywhere else in your organization.

- When customer interactions are involved, differences among customers must be considered in evaluating how well the process is performing. This might entail specific or general contingencies, depending on the customer information gathered. This is especially true of professional and personal services.
- This Item also calls for information on how processes are improved to achieve better performance. Better performance means not only better quality from your customers' perspective but also better financial and operational performance – such as productivity – from your organization's perspective. A variety of process improvement approaches are commonly used. These approaches include: (1) sharing successful strategies across your organization; (2) process analysis and research (e.g., process mapping, optimization experiments, and error proofing); (3) research and development results; (4) benchmarking; (5) using alternative technology; and (6) using information from customers of the processes – within and outside of your organization. Process improvement approaches might utilize financial data to evaluate alternatives and set priorities. Together, these approaches offer a wide range of possibilities, including complete redesign ("reengineering") of processes.

Example 6.0/6.1a (Shows only a technique for assessment. This example does not represent a 100% Score.):

6.0 ARDEC systematically evaluates processes to continuously improve quality and operational performance. Strong customer focus and measurement data drive continuous process improvement in the design and management of (1) product development, production support and fielding (delivery) processes, (2) our support processes and (3) supplier relationships. Our focus on continuous improvement promotes organizational flexibility, an orientation toward defect prevention instead of defect detection, and optimization of process performance.

6.1 Product and Service Processes. ARDEC provides total technical support for products through their entire life cycle from basic research through development, production, and fielding to ultimate disposal. Our three Mission Systems (Figure 1.1) align our processes directly with the product life cycle to assure seamless process integration.

6.1.a Design Processes. New and improved products/services and processes are designed to improve quality, increase operational performance, and exceed customer expectations.

(1) Translating Customer Requirements. The Tech Base System provides the mechanism for proactively identifying and maturing the technology necessary to meet changing customer and market requirements. ARDEC leverages heavily off of the state-of-the-art research of academia, our supplier base, and other Government Laboratories (e.g. Army Research Lab) to obtain technologies for our products. We manage our technological risk by a rigorous Tech Base review and prioritization process, which includes our technology partners and customers.

Integrated Product Teaming is a key approach for effective translation of our customer requirements into product designs. The Integrated Product Team (IPT) methodology is thoroughly and systematically utilized at ARDEC. Through the use of IPTs, we systematically research, design, develop, test, produce, and deliver new and/or modified products.

IPT approach characteristics are:

- *Multifunctional/multidisciplinary Team*
- *Designs program strategy/plans*
- *Includes key customers and suppliers*
- *Empowered by charter*

ARDEC's major deployment actions to ensure that the full benefits of IPTs are realized include:

- *Mandatory use of IPTs on development programs*
- *Charters and team training for IPTs*
- *Entrance and exit criteria applied to each phase of the product life cycle validated by IPTs*
- *Inprocess and milestone reviews*

A systematic approach to new product design ensures that we meet or exceed customer requirements. Once the generic technologies are demonstrated in the Tech Base System through modeling, simulation, and prototype demonstrations, the technology becomes a critical input to the Development System.

In the Requirements Generation Process, IPTs translate and document customer requirements for new and improved products. By using our Listen and Learn Strategies described in Section 3.0, we work with the users to identify unstated needs and requirements. We co-locate personnel with many of our customers to gain first hand knowledge of customer concerns. The acquisition strategy is developed by the IPT during the Program Formulation Process. Customer requirements are reviewed by all IPT members to ensure integration, coordination, and adequate capability to exceed customer expectations. During this process, IPTs perform market research to determine whether to develop a new product, improve an existing product, or purchase the item "off-the-shelf" from another country or industry.

(2) Translating Design Requirements into Production/Delivery Processes. The cross-functional nature of the IPT (Figure 6.2) which includes the customer and supplier, ensures product and service production and fielding quality characteristics are built in during design and development. The Operational Requirements Document states the customer requirements and the ARDEC engineering community works with the customer representative on the IPT. They remain flexible and agile to adjust performance requirements as necessary based on trade-off factors such as safety, reliability, and cost.

(3) Coordination & Testing of Design and Production/Delivery Processes. Designs are evaluated to meet customer, quality, and operational performance requirements by the IPT through real-time access to design data. This gives the IPT flexibility to optimize the design and prevent problems before the design is manufactured. Formal design reviews are conducted on a periodic basis as well as at major milestones (i.e., concept validation, design validation, and engineering and manufacturing process validation).

The ARDEC development process culminates in an Army decision process known as Type Classification (TC). Through TC, the customer, and IPT formally announce that the product design meets all user requirements and is ready for production. Prior to TC, the baseline product design is completely documented in the form of a Technical Data Package (TDP). The TDP (drawings, specifications, and standards) contains the technical information that describes the physical features, operational performance, and quality parameters for the product. TC certification validates that all requirements (e.g., safety, environmental, and human factors) have been addressed prior to production.

ARDEC maintains state-of-the-art facilities to support IPT product evaluation. We utilize the best Army and contractor test facilities available. Each new product is extensively tested as the design matures to evaluate the design and identify potential weaknesses. Test readiness reviews are conducted to assure that testing will be effective and efficient. Technical and operational testing is often conducted by independent assessors to ensure objectivity during design evaluation.

(4) Evaluation and Improvement of the Design Process. ARDEC uses processes that ensure that we meet design requirements and continuously improve quality and operational performance.

Process Analysis & Research. Design processes are evaluated and improved by the Tech Base and Development System Process Owners utilizing the Baldrige/PAQ criteria. In addition, quality professionals are assigned to every IPT to assure product safety, reliability and quality aspects are addressed throughout the development process.

Benchmarking. ARDEC performs extensive product benchmarking before development of new weapons system or ammunition item. We benchmark our products against all similar products throughout the world to assure that our soldiers will always have the technological edge on the battlefield (See Figures 7.5.8A-H)

From the standpoint of process benchmarking, ARDEC participates in a Concurrent Engineering User's Group and a Consortium called the Steven's Alliance both of which consist of organizations from industry, Government and academia. ARDEC participates as a lead user on the AMC Integrated Product & Process Management Working Group to drive broader change. These groups provide a forum for sharing design and development best practices.

Use of Alternative Technologies. Modeling and simulation has largely replaced prototype testing. Stereolithography is utilized to develop prototype models for enabling rapid assessments. These alternate technologies allow our IPTs to be more responsive to customers by increasing design flexibility, and reducing cycle times and development costs.

Customer Feedback. Customer feedback, at the project level, is continually provided since the customer is a member of the IPT. Customer feedback, which impacts the overall design process, is provided to all IPTs through lessons learned by three mechanisms:

- IPTs use numerous design criteria checklists (e.g., fuze safety standards, type classification and material release checklists) to provide process assurance that all requirements are addressed.
- Periodic Program Reviews enable senior leaders to provide valuable lessons learned to IPTs.
- IPT Lessons Learned System enables IPTs to record, retrieve, and transfer knowledge.

HQDA Board of Examiners feedback on the above example:

ARDEC has a sound, systematic process for design of new or improved products, and follow-on production and delivery. The development process follows well-established procedures to ensure a high degree of customer satisfaction and quality. Using the Integrated Product Team (IPT) concept, customers and suppliers are fully integrated into the design process and are key members of the team. Resources are conserved by initially modeling and simulating new product design and potential capabilities. Customer needs are documented and further verified with ultimate users to identify unstated needs. The composition of IPTs (multi-disciplined and functional members) allows product design to be viewed from several perspectives.

ARDEC's Tech based System focuses on identification of new technology and leveraging academic and commercially developed technical innovations for potential application to customer current and future needs. This capability, plus continual design evaluations with customers, assists in identifying problems before production. Extensive testing of the design and components provide in-process checks to assure quality and identify production requirements. Independent testing is often employed to further assure objectivity. Throughout the design, development and test phases, members of the IPT with quality training review the processes to identify barriers and areas for process improvement. This assists follow-on production, delivery, and customer satisfaction. Utilization of off-the-shelf products that have potential to meet all or core customer requirements is also considered to reduce costs and speed up delivery time.

The use of alternate technologies such as modeling and simulation has enabled the organization to be more responsive to the customers' design flexibility. The cycle time that is gained from the use of these technologies assures improvements of future designs, with the probability of lower costs and higher quality.

ARDEC's Development System Flowchart, coupled with their use of formal Integrated Product Teaming provides a sound systematic approach to design new products and services. This fully integrates suppliers, customers, employees from cross-functional units, and others when warranted. This approach additionally ensures incorporation of changing customer/market requirements.

The Requirements Generation Process of ARDEC's Development System Flowchart is used to translate and document customer requirements in the design stage. This process also utilizes their Listen and Learn Strategies to identify unstated needs and requirements. Product acquisition strategies are developed by the IPT during the

Program Formulation Stage during which they perform market research to determine whether to develop a new product, improve an existing product, or purchase the item "off-the-shelf." This provides evidence that ARDEC considers cost control, and other efficiency/effectiveness factors, as well as key operational performance requirements in their design process.

ARDEC uses different methods to enhance their capability for trouble free introduction of their products and services. Formal design reviews are conducted on a periodic basis as well as at major milestones. Their development process culminates in a decision process (Type Classification) where the customer and IPT announce that product design meets all user requirements and is ready for production. Type classification certification validates that all requirements are addressed prior to production. Each new product is tested as design matures often using independent assessors for operational testing to ensure objectivity.

Example 6.1b (Shows only a technique for assessment. This example does not represent a 100% Score.):

6.1.b Production/Delivery Processes. Key production/delivery processes are systematically managed and improved through the Production/ Field Support System. These systems ensure that designs are correctly produced and supportable.

(1) Production/Delivery Processes and Key Requirements. The ARDEC Production/Field Support System has five key processes, which result in delivery of effective engineering support of production:

- *Materiel Release Process – the key step in our validation process to release systems to the user.*
- *Technical Data Development Process – development of all the drawings, specifications and standards to support production and fielding.*
- *Supplier Quality Management Process – assuring and /or improving the capabilities of ARDEC suppliers.*
- *Production and Field Support Cost Reduction Process – proactively striving to reduce the cost to produce (through reduction or waivers and deviations) and logistically support our products.*
- *User Problem Resolution Process – rapidly responds and investigates field malfunctions.*

(2) Management of Production/Delivery Processes to Maintain Process Performance. Key production/delivery process performance is managed and maintained by the Production/ Field Support System Process Owners. Process Owners define their process goals and link them to the System and ARDEC objectives. Key System metrics are monitored quarterly in the SMR to guide, monitor, control, and improve performance (Sections 4.1 and 4.2). Customer driven measures monitored include the timeliness and quality of Materiel Releases, Technical Data Packages (TDP), and Engineering Change Proposals. Process Owners utilize teams as necessary to monitor performance as well as initiate and implement process improvement efforts (Figure 7.3.4). Additionally, certified quality engineers and product quality managers monitor producer performance and assure the product meets all customer requirements.

(3) Evaluation & Improvement of Production and Delivery Processes. Key production/delivery processes are engineered to achieve better quality, cycle time, and operational performance. ARDEC uses a comprehensive toolbox to identify, prevent, and solve problems that disrupt production/delivery processes. These tools include Design of Experiments, Taguchi analysis, Statistical Process Control (SPC) and root cause analysis. Process analysis and research, benchmarking, use of alternative technology, and customer feedback are also utilized.

Process Analysis and Research. The Executive Council (EC) oversees the continuous improvement of systems and key processes. Process owners monitor process performance.

ARDEC teams follow the improvement model shown in Figure 6.3. They begin their assessment/ improvement process by defining and flow charting the process. Key metrics are selected and monitored to identify significant variations in processes that require correction. Areas for improvement are chosen based on projected improvements in process capability. Causes of problems are identified using tools such as fishbone diagrams. Improvement areas are then prioritized using Pareto analysis. Potential corrective actions for root cause(s) are implemented on a trial basis and tested. If the process shows a positive change, the remedy is permanently implemented. This cycle is repeated for continuous improvement. Results of many implemented improvements are in Section 7.

Benchmarking. ARDEC has a mature approach to process benchmarking against providers with similar processes. We have institutionalized a Benchmarking Guide, have an ARDEC Benchmarking Focal Point, participate in several benchmarking services, and monitor benchmarking activity on a regular basis.

Use of Alternative Technology. Automation has greatly reduced cycle time in the area of production support; for example, the TDP Tracker system was developed to process TDPs and dramatically reduced the process turn-around time and improved productivity (Figure 7.5.2).

Customer Feedback. Customer satisfaction with services is tracked and maintained using quarterly surveys of customers (Section 3.2). Any product or service that receives a less than satisfactory mark requires the development of a corrective action plan coordinated with the customer. Feedback on product performance is provided from soldiers in the form of malfunction reports, deficiency reports and surveillance findings. Customer feedback is utilized to focus Mission Systems process improvements.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

Production, delivery, and follow-on fielding support use the outcomes of five key sub-processes (1) Material Release, (2) Technical Data Development, (3) Supplier Quality Management. (4) Production and Field Support Cost Reduction, and (5) User Problem Resolution. These systematic processes are customer focused and assist in life cycle management. They have identified those processes most important to production/delivery and provided their key requirements, such as (1) key step in validation process to release systems to the user, (2) developing drawings, specs, and standards to support production and fielding, (3) improving the capabilities of ARDEC suppliers, (4) reduce the cost to produce and logistically support products, and (5) rapidly respond and investigate field malfunctions.

Customer and process measures have been identified and are tracked by the Production/Field Support System process owner. Improvements follow a basic Shewert cycle (Plan, Do, Check, Act). Quality tools and techniques are employed to identify problems and seek improvements. Benchmarking comparisons are explored for approaches to improve processes. Innovative use of off-the -shelf software has assisted in reducing cycle time and administrative delays. Quarterly surveys of customers are analyzed for dissatisfiers and corrective action is initiated. Malfunctions of products (weapons) receive immediate response. It is evident that ARDEC has a systematic and deployed approach to improve their production/delivery processes. This process incorporates use of current quality tools and techniques, process benchmarking, alternative technology, and customer feedback. ARDEC shares knowledge across their command via deployment through their IPTs. As employees move in and out of teams, they carry lessons learned back to their home offices. At the home offices, lessons learned are shared with all employees so the entire organization may benefit from the IPTs. Additionally, employees are members of multiple IPTs so best practices and technological advances are shared across the organization.

ARDEC monitors key system metrics quarterly in the SMR to guide, monitor, control, and improve performance.

6.2 Support Processes (20 pts.)

[Approach-Deployment]

Describe how your organization manages its key support processes.

Within your response, include answers to the following questions:

a. Support Processes

- (1) What are your key support processes?
- (2) How do you determine key support process requirements, incorporating input from internal and/or external customers, as appropriate? What are the key operational requirements (such as

productivity and cycle time) for the processes?

- (3) How do you design these processes to meet all the key requirements?
- (4) How does your day-to-day operation of key support processes ensure meeting key performance requirements? How do you determine and use key performance measures and/or customer feedback in your support processes?
- (5) How do you improve your support processes to achieve better performance and to keep them current with organization needs and directions, as appropriate? How are improvements shared with other organizational units and processes, as appropriate?

Notes:

- N1. Support processes are those that support your organization's products/services design, productivity and delivery processes, and operations. For many organizations, this might include information and knowledge management, finance and accounting, facilities management, research and development, administration, intergovernmental relations, Congressional and public affairs, and sales/marketing. The key support processes to be included in Item 6.2 are unique to your organization and how you operate. Focus should be on your most important processes not addressed in [Items 6.1](#) and [6.3](#).*
- N2. Your results of improvements in key support processes and key support process performance results should be reported in [Item 7.5](#).*

6.2 Support Processes Item Description

Purpose

This Item examines your organization's key support processes, with the aim of improving your overall operational performance. This Item examines how your organization designs, implements, operates, and improves its support processes.

Requirements

You are asked to identify your key support processes and their design requirements. You are asked how your organization's key support processes are designed to meet all your requirements and how you incorporate input from internal and external customers, as appropriate.

You also are asked how the day-to-day operation of your key support processes ensures meeting the key requirements, including how in-process measures and/or customer feedback are used.

Finally, you are asked how you improve your key support processes to achieve better performance and to keep them current with your changing business and mission needs and directions.

Comments

- Your support processes are those that support product, program and/or service delivery, but are not usually designed in detail with the products and services. The support process requirements usually do not depend significantly upon product and service characteristics. Support process design requirements usually depend significantly upon your internal requirements, and they must be coordinated and integrated to ensure efficient and effective linkage and performance. Support processes might include finance and accounting, software services, sales, marketing, public and

congressional relations, information services, personnel, legal services, plant and facilities management, research and development, and secretarial and other administrative services.

- This Item calls for information on how your organization evaluates and improves the performance of your key support processes. Four approaches frequently used are: (1) process analysis and research; (2) benchmarking; (3) use of alternative technology; and (4) use of information from customers of the processes – within and outside your organization. Together, these approaches offer a wide range of possibilities, including complete redesign ("reengineering") of processes.

Example 6.2 (Shows only a technique for assessment. This example does not represent a 100% Score.):

6.2 Support Processes. ARDEC's Support Processes are designed and managed to meet customer, quality, and operational performance requirements. Measurements via surveys and focus groups are utilized throughout the Support System to maintain/improve process performance.

Determining Key Support Service Requirements. The design of the Support System and the determination of the key requirements is done by the EC which includes our internal customers and an external customer advocate.

(2) Translating Key Support Service Requirements into Efficient and Effective Processes IPTs include support team members to ensure that support parameters are addressed early in the process and for proper integration, coordination and capability assessment.

(3) Support Processes & Key Requirements. The ARDEC Support System has five Sub-Systems:

- *Resource Management*
- *Human Resources*
- *Information*
- *Procurement*
- *Base Operations*

Support System processes share common key requirements: to effectively support the customers of Mission Systems as quickly as possible at the least possible cost. Lower level key support requirements are determined through customer contact.

(4) Management of the Support Processes to Maintain Process Performance. Key support service process performance is monitored and maintained by the Support Sub-System Owners. The Support System metrics are reviewed at the QMB level and in the SMR to guide, monitor, control and identify areas for improvement. Process Owners assess process performance by monitoring key indicators. When performance is not achieving System goals, owners use teams to assess and improve. Management and teams monitor and assess the quality and performance of key processes on a continuous basis.

(5) Support Process Evaluation & Improvement. ARDEC'S Support Processes are continuously improved to achieve exceptional quality, reduced cycle time, and increased operational performance. A wide range of techniques is used to implement process improvements.

Process Analysis and Research. The Support System design provides the framework for the systematic evaluation and improvement of business processes and support services. Each Process Owner has designated QMBs and PATs who monitor and improve each process. The impact of these improvement efforts is found in the support services' results in Figures 7.1 through 7.5.7.

Benchmarking. The same steps that were taken to promote the use of benchmarking for the Mission Systems (see benchmarking in paragraph 6.1.b(3)) are also applied to the Support Systems.

Use of Alternative Technology. Alternative technologies are continually used to improve the operational performance of the Support System processes. A primary thrust has been the movement toward a "paperless" office to reduce administrative processing time and cost; travel and training requests are processed on electronic forms, time and attendance is recorded electronically, and the requisition process is automated.

Customer Feedback. Internal customer feedback is an essential element of support service processes. Surveys are typically attached to completed work orders and results are used to focus improvement efforts.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)
HQDA Board of Examiners feedback on the above example:

ARDEC is leveraging alternate technology to reduce administrative processing times, travel and training management and supply procedures to meet core customer requirements of timely response and lower costs. The support processes use benchmarking information to compare approaches and initiate improvements.

The organization has identified five sub-systems as support processes, Resource Management, Human Resources, Information, Procurement and Base Operations. When products and services are being designed it is understood throughout the organization that support systems share common key requirements. There is representation of support processes on IPTs.

The organization uses four improvement approaches to production as well as support processes that offer a wide range of possibilities to be attained including redesign. This positions the organization to maintain the same level of rigor and concern for internal processes as they project for external processes.

6.3 Supplier and Partnering Processes (25 pts.)

[Approach-Deployment]

Describe how your organization manages its key supplier and/or partnering interactions and processes.

Within your response, include answers to the following questions:

a. Supplier and Partnering Processes

- (1) What key products/services do you purchase from suppliers and/or partners?
- (2) How do you incorporate performance requirements into supplier and/or partner process management? What key performance requirements must your suppliers and/or partners meet to fulfill your overall requirements?
- (3) How do you ensure that your performance requirements are met? How do you provide timely and actionable feedback to suppliers and/or partners? Include the key performance measures and/or indicators and any targets you use for supplier and/or partner assessment.
- (4) How do you minimize overall costs associated with inspections, tests, and process and/or performance audits?
- (5) How do you provide assistance and/or incentives to suppliers and/or partners to help them improve their overall performance and to improve their abilities to contribute to your current and longer-term performance?
- (6) How do you improve your supplier and/or partner processes, including your role as supportive customer/partner, to keep current with your organization needs and directions? How are improvements shared throughout your organization, as appropriate?

Notes:

N1. The term supplier refers to other organizations and to units of your parent organization that provide you with goods and services.

N2. Supplier and partnering processes might include processes for supply chain improvement and optimization, beyond direct suppliers and partners.

N3. *If your organization selects preferred suppliers and/or partners based upon volume of business or criticality of their supplied products and/or services, include selection criteria in the response.*

N4. *Results of improvements in supplier and partnering processes and supplier/partner performance results should be reported in [Item 7.4](#).*

N5. *If contractor staff who provide functions for the organization are supervised in their work by the organization's staff as employees, then they should be treated as an internal support process in [Item 6.2](#).*

6.3 Supplier and Partnering Processes Item Description

Purpose

This Item examines your organization's key supplier and partnering processes and relationships, with the aim of improving your performance and your suppliers' performance. This Item addresses how your organization designs, implements, operates, and improves its supplier and partnering processes and relationships.

Requirements

You are asked to identify the key products and services that you obtain from suppliers and partners to understand the nature and business/mission criticality of these supplies. You are asked for your key performance requirements and measures for suppliers and partners, and how you use these requirements and measures in managing and improving performance. These performance requirements and associated measures should be the principal factors you use in making purchases (e.g., quality, timeliness, and price). Processes for determining whether or not requirements are met might include audits, process reviews, receiving inspections, certification, testing, and rating systems.

You are asked how you provide actionable feedback and how you minimize costs associated with acceptance testing (two components of a system for supplier/partner relationship building and process improvement). You also are asked how you provide your suppliers and partners with assistance and incentives, which will contribute to improvements in their performance and your performance.

Finally, you are asked how you improve your supplier and partnering processes so that you and your suppliers can keep current with your changing business needs and directions.

Comments

- The terms, “supplier” and “partner,” refer to other organizations (public and private) and to units of your parent organization that provide goods and services. Suppliers' and partners' goods and services may be used at any stage in the production, design, delivery, and use of your organization's products and services. Thus, suppliers include businesses such as distributors, dealers, warranty repair services, transportation, contractors, and franchises, as well as those that provide materials and components. Suppliers also include service suppliers, such as health care, training, and education providers.
- Suppliers and partners are receiving increasing focus as many organizations re-evaluate their core functions and the potential for better overall performance through strategic use of suppliers, partners, and the establishment of partnering relationships. As a result, supply chain management is a growing factor in many organizations' productivity, effectiveness, and overall business or mission success. For many organizations, suppliers and partners are an increasingly important part of achieving not only high performance and lower-cost objectives, but also strategic objectives. For

example, they might provide unique design, integration, and marketing capabilities.

- This Item places emphasis on the unique relationships that organizations are building with key and preferred suppliers, including establishing partnering relationships. In identifying key suppliers and partners, you should consider goods and services used in the design, production, delivery, and use of your organization's products and services, i.e., consider both "upstream" and "downstream" suppliers and partners.
- This Item places particular emphasis on the supplier/partner relationships that lead to high performance. Electronic data and information exchange is fostering new modes of communication and new types of relationships that can support high performance on the part of suppliers and customers. You are encouraged to focus on actions that will not only improve supplier performance, but actions that will enable them to contribute to your improved performance. Such actions might include one or more of the following: (1) improving your procurement and supplier management processes (including seeking feedback from suppliers and internal customers); (2) joint planning; (3) rapid information and data exchanges; (4) use of benchmarking and comparative information; (5) customer-supplier teams; (6) training; (7) long-term agreements; and (8) incentives and (9) recognition. Your supplier management planning might include changes in supplier selection, leading to a reduction in the number of suppliers and an increase in preferred supplier and partnership agreements.

Example 6.3 (Shows only a technique for assessment. This example does not represent a 100% Score.):

6.3 Supplier and Partnering Processes. The successful execution of the ARDEC mission demands that we serve as an effective bridge between our supplier base and our customers, the soldier in the field. ARDEC ensures that supplier product quality meets performance requirements and we are fully committed to improving the quality processes of our suppliers through innovative partnering arrangements built on best value source selection, commercial best practices and continuous improvement initiatives.

(1) Key Products/Services Purchased from Suppliers. ARDEC purchases key products & services from three supplier sectors:

- *Mission System Sector: Provides work in the exploration and development of technologies to create and maintain new armaments. Engineering services and prototype hardware are purchased from this sector.*
- *Technical Services Sector: Provides technical expertise to add to ARDEC core capabilities.*
- *Operations & Facility Sector: Provides goods and services to maintain the ARDEC infrastructure.*

(2) Principal Requirements of Suppliers. Quality requirements for supplier selection including performance, reliability, safety, durability, storage, are well defined and communicated in our request for proposals, product specifications, and quality assurance provisions.

Supplier risk is managed through a rigorous source selection process followed by proactive contract management. Quality management requirements and contractor past performance are our primary source selection evaluation criteria. Best Value Contracting approaches are used which focus on supplier quality, schedule, and performance factors, rather than on price alone.

When appropriate, ARDEC utilizes an "Alpha" contracting approach. Alpha contracting is an innovative method for solicitation and proposal preparation whereby an IPT consisting of key requirements developers, contracting and contractor personnel jointly develop the scope of work and other contract requirements. This team approach has proven to be a means of reducing cost and avoiding non-value added requirements while achieving a high level of performance and quality from key suppliers. Over the last five years the use of Alpha contracting has continuously increased. (Figure 7.4.5)

(3) Evaluation of Supplier Performance. Contracting Officers and Technical Contracting Officer Representatives determine if suppliers are meeting requirements. These individuals are specially trained and certified to fulfill their roles as the primary interfaces with suppliers. We also conduct pre-bid, pre-award and post-award conferences, and prevention/detection visits.

On research, development, and engineering contracts, we assess supplier engineering discipline, CE processes, customer focus, use of design validation tools, computer-aided design and manufacturing capabilities, and the potential for the achievement of an optimal, robust design. On production contracts, metrics on product quality (waivers/deviations, quality deficiency reports, and requests for engineering changes), cost, value engineering savings, and timeliness are monitored. Audits are conducted to ensure that suppliers are meeting requirements and that their processes are fully capable.

Performance information is fed back to suppliers at the contract level as the Contracting Officer and the Technical Contracting Officer Representative frequently provide performance feedback to the supplier. Our CG and TD meet with major suppliers, as well as small business, to highlight mutual concerns and provide feedback to improve customer/supplier relationships.

(4) Improve Suppliers' Abilities to Meet Requirements. Systematic approaches are used to evaluate supplier performance and assist suppliers meet contract requirements. Quality assurance professionals continually monitor and evaluate supplier quality. Emphasis is on controlling process variability and other in-process preventative activities. Process improvement opportunities in supplier processes, methods and capabilities, as well as ARDEC procurement processes are identified and corrective actions initiated. The Supplier Quality Process Owner in conjunction with the Procurement Sub-System Owner focuses, promotes, and monitors process improvement efforts in this area.

ARDEC routinely requires supplier quality systems to conform to the requirements of ISO9000 (or equivalent) and encourages key suppliers to become certified as quality contractors through the Army's Contractor Performance Certification Program (CP)². (CP)² is a voluntary government/supplier partnership, which recognizes highly responsive suppliers with proven world class quality practices who consistently provide quality products. While the ISO9000 series quality system requirements form the framework for (CP)², the program applies advanced quality principles and practices that go well beyond the basic requirements. The (CP)² program offers two types of certifications – production and research and development (R&D). During product development, (CP)² emphasizes the use of disciplined design techniques and proven analytical tools that foster robust designs. The production (CP)² concentrates on control of production processes and relies heavily on SPC to increase product yields. Certification requires validation of the implementation of supplier quality policies and procedures and a surveillance program. Approved suppliers become eligible for reductions in data submission requirements, independence in gage design, and lot acceptance based on SPC data rather than end-item inspection. Reduced oversight directly translates into reduction of costs to verify supplier performance. The number of ARDEC suppliers who have chosen to participate in the (CP)² program has consistently increased over the last five years. (Figure 7.4.1)

As a cycle of improvement, ARDEC initiated a Qualified Suppliers List (QSL) program. The QSL program is used to establish and maintain a list of qualified sources for a family of product. The QSL qualifies suppliers that have been determined to be acceptable based on conformance to applicable quality, manufacturing, or design criteria for a family of products. Subsequent contract actions for any of the applicable parts are limited to qualified suppliers on the QSL.

Supplier feedback and survey results are continuously analyzed to gain an understanding of supplier needs. Feedback analysis is a key trigger for supplier process improvement which has resulted in a reduction and simplification of contract clauses, the circulation of draft requests for proposals to industry for comment to improve request for proposal quality, and the implementation of a Procurement WWW Site, which allows contractors to download solicitations and associated technical data directly to their personal computers saving mailing time and associated costs.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

Supplier performance requirements are determined in advance of solicitation and letting of contracts in all cases. Contract Officer and Technical Contract Officer Representatives continually monitor these requirements. Feedback is provided to the customer and supplier for corrective action and/or determination of performance incentives. Assessment of suppliers varies with the nature of the contract.

The organization has taken a proactive approach to supplier management that benefits both parties by encouraging supplier certification in the Army Contractor Performance Certification Program. The contractors become eligible for reduction in data submissions, gauge redesign, and can deliver products in a more timely manner. This assists in minimizing overall costs associated with inspections. This further assists in reducing costs to verify supplier performance.

The organization recognizes the significant impact that suppliers and partners have on their organization. They have created systems that seek and continuously rely on their support. Opportunities are constantly maintained that includes the supplier and the partner as key team members. Feedback mechanisms are in place to inform supplier and partners of expectations and performance. ARDEC performs a 360 degree evaluation on suppliers.

The organization has segmented suppliers into three distinct sectors and identified the services each supplies. The sectors are Mission Systems, Technical Services and Operations and Facility Sectors. Suppliers are informed of expectations in well-defined request for proposals, product specifications and quality assurance provisions in measurable terms. On RD&E contracts, they assess supplier engineering discipline, CE processes, customer focus, use of design validation tool, computer-aided design, and manufacturing capabilities, and the potential for robust design. Metrics on product quality (waivers/deviations, quality deficiency reports, and requests for engineering changes), cost value engineering savings, and timeliness are assessed on production contracts.

ARDEC has established requirements for supplier selection, such as performance, reliability, safety, durability, storage, etc. ARDEC uses Best Value Contracting approaches and Alpha Contracting approaches to ensure their suppliers meet those requirements.

ARDEC utilizes an "Alpha" contracting method for solicitation and proposal preparation, where an IPT consisting of key requirements developers, contracting, and contractor personnel jointly develop the scope of work and other contract requirements. This approach reduces cost and avoids non-value added requirements while achieving a high level of performance and quality from key suppliers.

7 Business Results (400 pts.)

The **Business Results Category** examines your organization's performance and improvement in key business areas – customer satisfaction, product and service performance, financial, marketplace performance, mission accomplishment, human resource results, supplier and partner results, and operational performance. Also examined are performance levels relative to competitors. Results should be clearly linked to the overall performance goals and objectives.

Business Results provides a results focus that encompasses your customers evaluation of your organization's products and services, your overall financial and market performance, and results of all key processes and process improvement activities. Through this focus, the Criteria's dual purposes – superior value of offerings as viewed by customers and the marketplace, and superior organizational performance reflected in your operational and financial indicators – are maintained. Category 7 thus provides "real-time" information (measures of progress) for evaluation and improvement of processes, products, and services, aligned with your overall mission and business strategy. Item 4.2 calls for analysis of business results data and information to determine your overall organizational performance.

Comparative data for measures in each Category Item might include agency best, best performance of similar organizations and processes, agency average, and appropriate benchmarks from inside or outside of the Government.

7.1 Customer-Focused Results (125 pts.)

[Results]

Summarize your organization's customer-focused results, including customer satisfaction and product and service performance results. Segment your results by customer groups and market/program segments, as appropriate. Include comparative data.

Provide data and information to answer the following questions:

a. Customer-Focused Results

- (1) What are your current levels and trends in key measures and/or indicators of customer satisfaction, dissatisfaction, and satisfaction relative to competitors?
- (2) What are your current levels and trends in key measures and/or indicators of customer loyalty, positive referral, customer-perceived value, and/or customer relationship building?
- (3) What are your current levels and trends in key measures and/or indicators of product and service performance?

Notes:

- N1. *Customer satisfaction and dissatisfaction results reported in this Item should relate to determination methods and data described in [Item 3.2](#).*
- N2. *Measures and/or indicators of customer satisfaction relative to competitors and/or similar organizations/processes inside or outside of government might include objective information and data, such as customer-perceived value, from customers and independent organizations.*

- N3. *Measures of product/service performance that are important to customers should be included in 7.1a(3) with comparative performance data. These may also include overall program performance measures, and customer-focused results relating to customer service standards, customer surveys, and customer feedback.*
- N4. *The combination of direct customer measures/indicators in 7.1a(1) and 7.1a(2) with product and service performance measures/indicators in 7.1a(3) provides an opportunity to determine cause and effect relationships between your product/service attributes and evidence of customer satisfaction, loyalty, positive referral, etc.*
- N5. *Item 7.1 should only include results of performance in satisfying customers external to the applicant organization itself. Results of performance in satisfying internal customers should be reported in other items.*

7.1 Customer-Focused Results Item Description

Purpose

This Item addresses the results of most significance to assessing the organization's customer-related performance – customer satisfaction, customer dissatisfaction, customer satisfaction relative to competitors, and product/service performance.

Requirements

You are asked to provide current levels, trends, and appropriate comparisons for key measures and/or indicators of customer satisfaction, dissatisfaction, and satisfaction relative to competitors or similar organizations. You are asked to provide data and information on customer loyalty (retention), positive referral, and customer-perceived value.

You also are asked to provide levels and trends in key measures and/or indicators of product and service performance. Such results should be for key drivers of your customers' satisfaction and retention.

Comments

- The Item focuses on the creation and use of all relevant data to determine and help predict your organization's performance as viewed by your customers. Relevant data and information include: (1) customer satisfaction and dissatisfaction; (2) retention, gains, and losses of customers and customer accounts; (3) positive customer referrals; (4) customer complaints; (5) customer-perceived value based on quality and price; and (6) awards, ratings, and recognition from customers and independent organizations.
- The Item includes measures of product and service performance that serve as indicators of customers' views and decision making relative to future purchases and relationships. These measures of product and service performance are derived from customer-related information gathered in Items 3.1 and 3.2 ("listening post").
- Product and service measures appropriate for inclusion might be based upon the following: (1) internal (organizational) quality measurements; (2) field performance; (3) data collected by or for your organization or (4) customer surveys on product and service performance. Data appropriate for reporting include internal measurements and field performance, and data collected by the

organization or other organizations through follow-ups for attributes that cannot be accurately assessed through direct measurement (e.g., ease of use) or when variability in customer expectations makes the customer's perception the most meaningful indicator (e.g., courtesy).

- The correlation between product/service performance and customer indicators is a critical management tool – defining and focusing on key quality and customer requirements and for identifying product/service differentiators in the marketplace or mission-driven environment. The correlation might reveal emerging or changing business or mission requirements, the changing importance of requirements, or even the potential obsolescence of products and/or services.

Example 7.1 (Shows only a technique for assessment. This example does not represent a 100% Score.):

7.1 CUSTOMER RESULTS Customer satisfaction improvement initiatives are undertaken at both the management and working levels. At the management level, strengths, weaknesses, and trends identified through analysis of customer feedback are presented to the leadership during SMR along with recommendations/strategies to deal with them.

7.1.1A/B. For Army R&D centers, new technology is developed with Advanced Technology Demonstrations (ATDs) and Science and Technology Objective (STO) programs. ARDEC's strategy for maintaining a robust technology base is to maximize the percentage of our funding in this area. We have been very successful. Figure 7.1.1A shows the superior quality of our Science & Technology work packages as rated by our customers from 0-4, (prior to FY97, a rating scale from 1-5 was used); over 95% were rated 3 or above, demonstrating high customer confidence. The significant improvement in the ratings of the work packages in FY97 was due to the partnering efforts of ARDEC's ASCO and the TRADOC school counterparts.

GOAL: 98% of Work Packages rated 3 or above
 STRETCH GOAL: 100% of Work Packages rated 3 or above.

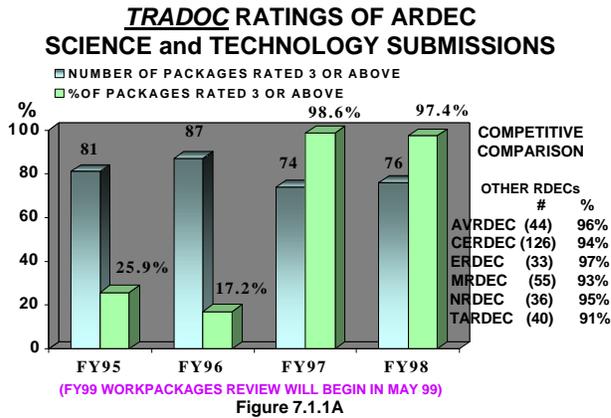


Figure 7.1.1A

Percent Of ARDEC Tech Base Program Funded by Science And Technology (STOs) & Advanced Technology Demonstrations (ATDs)



Figure 7.1.1B

Figure 7.1.1B shows the growing percent of our tech base work funded by STOs and ATDs, attributed to an increase in customer satisfaction.

7.1.2A/B/C/D Customer surveys are used to quantify satisfaction among our customers, target areas for improvement, and measure the results of our improvement efforts. Figure 7.1.2A shows that ARDEC's customer satisfaction is increasing, that we have surpassed our FY98 goal and have established a stretch goal in FY99. Figure 7.1.2B depicts the high level of customer satisfaction. Figure 7.1.2C focuses in on the unsatisfactory customer comments, plotting trends and highlighting areas for improvements. Figure 7.1.2D ARDEC continues to emphasize customer satisfaction. ARDEC's Listen and Learn strategies used over a number of years have paid off with increased customer satisfaction. This has fostered teamwork and employee involvement. Figure 7.1.2D shows a steady increase in individual associates recognized by customer for their efforts.

CUSTOMER SURVEY RESULTS



Figure 7.1.2A

Satisfied Vs

Unsatisfied Customers



Figure 7.1.2B

UNSATISFIED

CUSTOMER COMMENTS

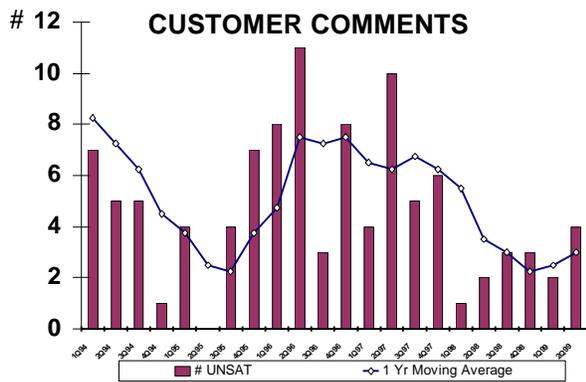


Figure 7.1.2C

ARDEC ASSOCIATES

RECOGNIZED BY CUSTOMERS



Figure 7.1.2D

GOAL: 100% 4.0 Ratings

CITD INTERNAL CUSTOMER SATISFACTION HELP DESK RATINGS

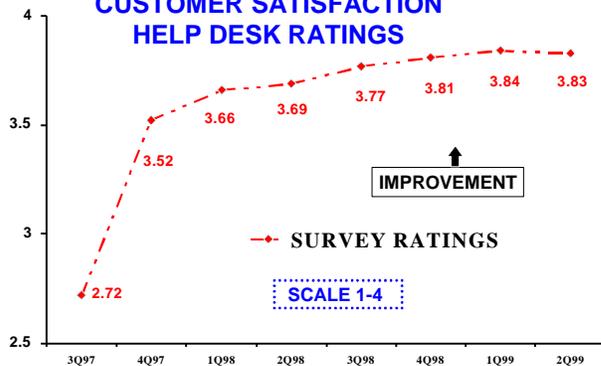


Figure 7.1.3

Figure 7.1.3 Many organizations have decentralized formal surveys that are used to determine customer satisfaction and complaints for their business areas.

MALFUNCTION RESPONSE TIME

GOAL: Respond w/in 2 days of Notification, unless customer requests delayed arrival. **STRETCH GOAL:** One Year (1.5 days); Five Year (1.5) and Long Term (1 day)

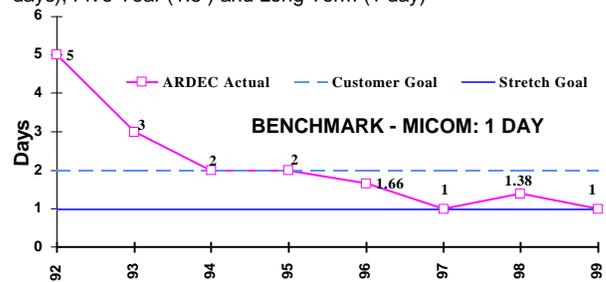
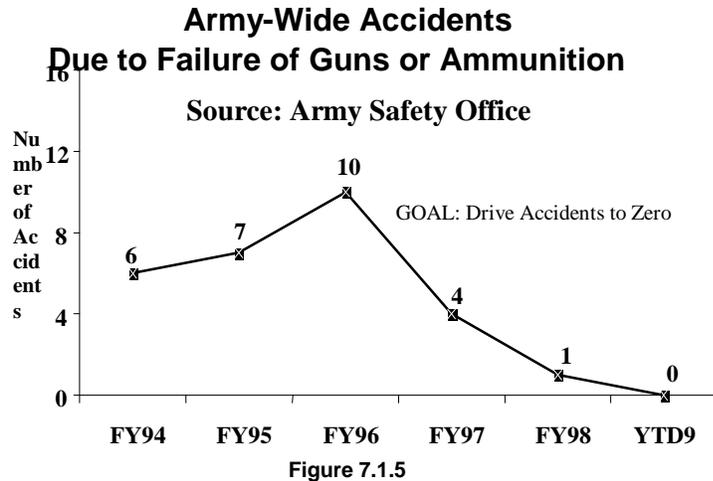


Figure 7.1.4

Figure 7.1.4 Rapid response to field malfunction is essential to maximize data collection before evidence is disturbed or lost, or personnel/witnesses depart. Over the past 7 years ARDEC has been able to improve its response time from 5 days down to approximately 1 day.



(Editor's note: the ARDEC's results figures for Item 7.1 are included to demonstrate the importance of graphs, charts and other illustrations. When properly used, they effectively portray complex information in a concise format. Consider carefully your choice of colors or patterns. Your data must be clear regardless of whether it is printed in color, black and white, or mechanically reproduced. Note the clear linkage between the text and figure.)

Figure 7.1.5 One of ARDEC's Corporate Values is to provide safe ammunition and weapons to our soldiers. This chart shows that the Army-Wide Accident rate due to failure of guns or ammunition fell to one in FY98 and is at zero for FY99 YTD.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

Figures 7.1.1A, 7.1.2A, 7.1.2B, 7.1.2D, and 7.1.3 reflect favorable trends and results in customer satisfaction levels. Dissatisfiers have steadily declined (Figure 7.1.2C) and the number of satisfied customers has significantly increased in the past year (Figure 7.1.2B).

Figure 7.1.2A Customer Survey Results. It is evident the organization adjusted the goal as it appeared too low in previous years. Despite this "raising the bar" the organization has shown favorable performance.

Figures 7.1.4 and 7.1.5 are excellent examples of efforts to improve product and service performance. Figure 7.1.4 depicts a breakthrough at meeting a five-year goal of malfunction response time twice within the past three years. For the past four years the organization has exceeded the customer goal. This supports that they troubleshoot user problems with their products in the field as stated in the Overview (Mission, Products and Services, Page i). Extremely favorable product performance is further evidenced in Figures 7.5.8A-H.

7.2 Financial Performance Results (50 pts.)

[Results]

Summarize your organization's key financial and marketplace performance results, segmented by market and mission focus, as appropriate. Include comparative data.

Provide data and information to answer the following questions:

a. Financial Performance Results

- (1) What are your current levels and trends in key measures and/or indicators of financial performance, including aggregate measures of financial return and/or economic value?
- (2) What are your current levels and trends in key measures and/or indicators of marketplace performance and/or mission accomplishment, including program impact, market share/position, business growth, and new markets entered?

Notes:

- N1. Responses to 7.2a(1) might include aggregate financial measures such as return on investment (ROI), measures of cost-benefit and cost effectiveness, budget and resource utilization indicators, and other fiscal responsibility, liquidity, and financial activity measures such as asset utilization, operating margins, profitability, profitability by market/customer segment, debt to equity ratio, and value added per employee.*
- N2. For those organizations involved in market-type activities, key results presented in response to 7.2a(2) are often measured in terms of financial and market performance, as they are in private sector commercial activities. For others in the public sector who do not operate in a market environment, appropriate financial measures might include cost-benefit and cost effectiveness, budget increases, and budget and resource utilization indicators segmented by mission areas or customer groups.*
- N3. Item 7.2 should include only top-level results showing aggregate financial measures of overall organizational performance. These results are typically captured in performance goals and planning documents. For applicants whose strategic plans are part of a higher-level organization's strategic plan, Item 7.2 might address: (a) top-level results which contribute to achieving the parent organization's overall financial goals, and/or (b) locally developed goals and objectives which the (subordinate) applicant uses to guide and measure progress toward attainment of its own measures of overall financial performance.*
- N4. Responses to Item 7.2 might include financial measures used to link progress in meeting performance outcomes, and goals and objectives.*

7.2 Financial Performance Results Item Description

Purpose

This Item addresses your organization's financial and market results, with the aim of understanding your marketplace challenges and opportunities.

Requirements

You are asked to provide levels, trends, and appropriate comparisons for key financial, market, and business indicators. Overall, these results should provide a complete picture of your financial and marketplace success and challenges.

Comments

- Measures reported in this Item are those usually tracked by senior leadership on an ongoing basis to assess your organization's overall performance.
- Appropriate measures of financial performance reported in Item 7.2a(1) might include return on investment, fiscal stewardship, cost/benefit and cost/effectiveness measures, and other appropriate financial activity measures, and other liquidity and financial activity measures. Financial performance could also include measures of value accruing to clientele or mission in relation to budget levels, or aggregate value to the government for levels of budget resources.
- Marketplace performance is intended primarily for those organizations that operate in a marketplace environment. Responses could include success in managing new products or services, business growth, new products and geographic areas entered, and other key market-related measures, as appropriate.
- Financial measures of mission accomplishment, including program impact would normally include outcomes, goals and objectives which are used by senior leaders to determine how well a program or activity is doing in achieving its intended financial objectives. These might also include measures useful to agency heads and other key stakeholders (Congress, Office of Management and Budget, the executive branch, public interest groups) in framing an assessment of a program or activity's financial health.

Example 7.2 (Shows only a technique for assessment. This example does not represent a 100% Score.):

7.2a (1-2) As a government entity, Rock Island Arsenal (RIA) is not concerned with making profit or pleasing capital investors - the law does not allow it; however, RIA is a taxpayer-funded facility and is required to comply with government directives, rules, and regulations. One such directive is the Government Performance and Results Act (GPRA). GPRA requires government organizations to continually identify areas for improvement and to use available resources efficiently. RIA meets this directive by implementing various initiatives to cut costs and improve process performance, especially process cycle time. Results presented in this section demonstrate the success of RIA in achieving the President's vision of a more efficient, less costly Government operation.

Fig. 7.2.1 identifies RIA's net operating results (NOR) for the past 9 fiscal years. The NOR is the difference between operating revenues and operating expenses for all RIA activities. The present down turn may be attributed to three factors: reduced workload, excess manpower, and diverted resources (assigned to work on the current A-76 Study). Workload is currently showing signs of improvement due to an aggressive marketing plan and in-process Reduction in Force, scheduled to take effect by the end of the fiscal year. We anticipate a positive trend with improved results for FY00.

An important element of total manufacturing costs is the cost devoted to activities that ensure the outgoing quality of products. Fig. 7.2.2 indicates that, over the past 5 years, RIA's quality costs have decreased by approximately 50%. Quality costs are divided into three categories at RIA: prevention, appraisal, and failure. Prevention costs are associated with activities designed to prevent quality problems from occurring, appraisal costs are associated with activities required to assess and evaluate the quality of products, and failure costs are associated with the occurrence of internal and/or external quality deficiencies.

Minimizing cost is a continuing, primary concern at RIA. One way in which we accomplish cost reduction is through our Value Engineering (VE) Program. To maximize benefits to customers, RIA uses the VE concept in Manufacturing, Logistics, and Managerial areas. This broad application ensures all customers receive the highest value for their dollars. Each year, the IOC identifies a dollar goal for VE savings for the year, a portion of which is allocated to RIA. Fig. 7.2.3 shows RIA's and our higher Headquarters' achievements compared to our respective, annual goals, as a percentage of goal achieved. RIA met (100%) or exceeded its goal for 9 straight years, and compares closely to the overall performance of IOC. In FY97, RIA was able to save 10 times the value of our goal for total cost savings of \$6,552,000. RIA has already obtained its FY99 goal with additional saving expected by year's end. RIA's exceptional performance in this area has resulted in our Commander and Value Engineering Program Manager receiving prestigious DOD, AMC, and IOC value engineering awards in recent years.

In addition to VE savings, RIA has been able to reduce cycle times and save customers money in the manufacturing area. Specific 1990s projects involved include:

- “ A new Distributed Numerical Control system was installed to electronically deliver and drive programs for Computerized Numerical Control machines. Consequently, turn around time to produce program changes was reduced by 90%.
- “ CAD/CAM hardware/software was implemented to perform production engineering tasks. As a result, costs to perform the task of engineering drawing interpretation to create production models has been reduced by 53%.
- “ Laminated Object Manufacturing (LOM), a rapid prototype/tooling process used to produce 3-D models of CAD drawings from laminated paper was acquired. A cost savings of 80% and development cycle time reduction of 83% were realized as a result.
- “ Reverse engineering technology was implemented to efficiently capture and manipulate geometric data from actual parts of all sizes. Once part data has been captured using an interactive probe, it is exported to our CAD/CAM system where a part drawing is created. A solid model replica of the actual part can then be produced. This reverse engineering system allows RIA to complete this process with 75% savings over previous methods.

Energy consumption is an important cost factor at RIA. With the new REARM machinery and additional factory space added in the early 1980s, and an increase in the number of computers at RIA over the years, electrical usage increased dramatically. Figure 7.2.4 shows RIA's dramatic increase in electrical power consumption from 1980 to 1994. Until recently, usage was more than double what it was in 1980; however, usage has declined significantly over the past three years, and is likely to continue in FY99. This reduction is partially due to the recent focus on energy awareness and the need to conserve energy at RIA. It is also due to the success of numerous energy related projects aimed at modifying or eliminating existing facilities to reduce overall energy consumption. The amount of electricity generated in-house also has an impact on RIA's overall energy related costs. Over the past 3 years, the amount of energy produced in-house has been decreasing. This has been largely due to the age and state of RIA's energy producing equipment/generators. In FY98, a major overhaul of this equipment was initiated, and the generators were inoperable for a significant period of time. This resulted in even further reductions of in-house generated electricity. Upon completion of the overhaul work in FY99, an increased level of in-house generated power is anticipated.

The current energy reduction goal for Department of the Army is to decrease usage by 30 percent by the year 2005, based upon FY85 consumption. For RIA, this means a decrease from 196 thousand British thermal units/square foot (KBTU/SF) to 137 KBTU/SF.

Fig. 7.2.5 shows the glide path required for RIA to meet this goal. As indicated on the chart, RIA is already well within reach of its goal. This is a remarkable accomplishment, considering RIA's additional requirements for

heating, ventilation, and air conditioning since 1985. Early progress is primarily due to central heating plant improvements and consolidation of manufacturing space.

Another effort which resulted in reductions is the modification to lighting systems in the largest administrative and manufacturing buildings on RIA. Energy usage for lighting these buildings declined by 64%. Other projects include: replacement of inefficient fuel oil boilers at the RIA simulation facility, installation of a new natural gas main to the simulation facility, and the replacement of over 2000 steam traps to reduce steam losses. The cost of these improvement projects totaled \$2.7 million; however, savings in the first year amounted to 153,304 MBTUs or \$581,000. These savings will continue to benefit RIA for years to come. Recently, coal consumption was down 18.8% from the previous year and was the lowest usage rate at RIA in modern times. RIA's total investment in recent conservation projects amounts to \$11.9M, funded through the Army Energy Program. With an average payback period of 5 years, our utility bills should decline by about \$2.4M per year upon the completion of all current projects.

Last year, RIA received extensive recognition for its energy management efforts to date. Our energy program manager received awards entitling him as the AMC and Secretary of the Army "Energy Manager of the Year." He will also be eligible for the top prize in the Federal Government. In addition, AMC performed a comparison of its 70+ facilities, and ranked RIA as the #2 installation for energy management in AMC, and the top facility in IOC. RIA is also eligible to win a Department of Energy award. These awards demonstrate RIA's ability to be a top performer when it comes to energy management. It also shows we are excelling in comparison to similar Army facilities.

Disposal costs are tied to the amount of hazardous waste generated at RIA, which has also been significantly reduced. This is due primarily to a new process utilized by RIA in which a dryer turns liquid wastes into a fine, dry powder. Fig. 7.2.6 shows the volume of waste generated by RIA since FY91. RIA exceeded its CY97 goal by 35,954 kg, or 29.5%, and is well on its way to meeting the presidential mandated goal of 104,000 kg for FY99.

Minimizing the cost of hazardous waste disposal has a beneficial effect on cost reduction and the environment as well. Fig. 7.2.7 shows RIA's cost reduction progression over the past 8¾ years, demonstrating a sharply favorable trend in the costs associated with the disposal of hazardous waste. If FY99 costs continue at their present rate, we will have reduced our costs by more than 93% since FY91. RIA has a number of programs in place to avoid/reduce costs for itself and product/service customers. One such program is the tool set disassembly program performed by the logistics mission. Industrial operations personnel receive used tool sets from the field, disassemble them, and select/retain those tools still suitable for further use. These tools then become available for other tool sets, saving RIA the cost of replacing them. The total value of recovered tools in excellent condition (condition code "A") since FY93 is greater than \$17M.

The Transportation Division of Industrial Operations manages the purchase of passenger tickets for air travel by RIA and tenant activity personnel. Fig. 7.2.8 depicts total dollar savings from airline ticket fare reduction programs. These programs resulted in \$76M in cost savings since January 1992.

The Simplified Acquisition Office manages the procurement of supplies, materiel, and services at RIA. Each year, RIA sets goals internally for the amount of procurement money to be awarded to certain programs. This forms the basis of the Advance Acquisition Plan. Goals are set for the fiscal year and each month of the fiscal year, allowing constant monitoring of our progress toward the goal. Fig. 7.2.9 depicts RIA's Advance Acquisition Plan progress through third quarter of FY99. Each bar represents the percentage of goal reached for the specified category.

RIA makes extensive use of credit cards to simplify micro-purchases (less than \$2500) of supplies and services. The initial Army goal for such purchases was 80% in 1996, and later raised to 90% in 1997. During the first three quarters of FY99, RIA made 11,425 of 11,436 micro-purchases by credit card for a total of 99.9%. This figure is well above the Army goal, and one of the best within IOC and DOD.

The inventory discipline program is a group of initiatives at RIA designed to reduce unneeded space and equipment. Efforts in this area saves RIA money (i.e., reduced maintenance costs, less HVAC needed, etc.). Furthermore, the sale of excess equipment also brings additional income to RIA. Individual initiatives vary

significantly, as each business center controls different types of space and equipment. A brief summary of the primary initiatives through third quarter 1999 follows:

“ Manufacturing reduced inventory by approximately \$500,000, and obtained nearly \$100,000 from recycled items. In addition, floor space usage was reduced by more than 138,000 square feet (Fig. 7.5.8) at a significant cost savings.

“ Industrial Operations reduced the value of items it controls by \$73M since the beginning of FY96, for an overall reduction of 65%.

“ Information Technology is reducing the number of computer systems in use at RIA. Initial goals have been met, and we will continue to reduce as we excess unneeded and outdated equipment.

“ Last year, Base Activities laid away 450,000 square feet of floor space in eight different buildings. Four are slated for demolition.

“ \$21.7M worth of inspection equipment and special tooling was excessed by the end of FY98. This brought RIA close to our FY99 goal of \$24.6M. The goal represents a 35% reduction in value since the end of FY96.

Other initiatives to improve process performance and save money include:

“ RIA formed several partnerships to provide new products/services to different customers. One successful partnership has been a community partnership with area, state, and local Government agencies, colleges/universities, and utilities/railroads. The purpose of the partnership is to manage the expansion of the Iowa (IA) Communications Network (ICN) into Eastern IA. The ICN is a fiber-optic based, digitally designed system that will connect the entire state and provide users with equal access to information/educational materials. Through this collaboration, participating organizations have saved from \$200,000 - \$600,000 each in network funding and the overall connection schedule has been accelerated.

“ RIA implemented an automated system to process nonconforming material found through inspection of manufactured products. This system replaced the former, paper-based system and prevents unauthorized processing of nonconforming material. Process cycle time, on average, has declined from 25 to 14 working days (44%) over a 2 year period.

(Rock Island Arsenal, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

RIA's manufacturing quality costs show a positive declining trend since 1995. RIA's exceptional performance in VE (a \$6,552,000 savings in FY 97 alone) has resulted in the RIA Commander and VE Program Manager receiving prestigious DOD, AMC, and IOC engineering awards in recent years.

RIA has received extensive recognition for its achievements in the energy management program. Several initiatives were implemented to lower energy usage. Results presented are positive. RIA is on target to meet the DA energy reduction goal.

Hazardous Waste measures demonstrate strong positive trends since FY 94/95.

The Transportation Division of Industrial Operations has realized a cost savings of \$76M since Jan 92 by instituting airline ticket fare reduction programs to purchase airline passenger tickets.

Manufacturing has reduced inventory by approximately \$500,000 and obtained nearly \$100,000 from recycled items. Floor space usage was reduced by more than 138,000 square feet at a significant cost savings. Approximately \$21.7M worth of inspection equipment and special tooling was excessed by the end of FY 98, representing a 35% reduction in value since the end of FY 96 and bringing RIA closer to its FY 99 goal of \$24.6M.

7.3 Human Resource Results (75 pts.)

[Results]

Summarize your organization's human resource results, including employee well being, satisfaction, development, and work system performance. Segment your results by types and categories of employees, as appropriate. Include comparative data.

Provide data and information to answer the following questions:

a. Human Resource Results

- (1) What are your current levels and trends in key measures and/or indicators of employee well being, satisfaction and dissatisfaction, and development?
- (2) What are your current levels and trends in key measures and/or indicators of work system performance and effectiveness?

Notes:

- N1. *The results reported in this Item should address results from related activities described in **Category 5**. Your results should be responsive to key process needs described in **Category 6**, and organization's action plans and related human resource plans described in **Item 2.2**.*
- N2. *Indicators of employee satisfaction, well being, and effectiveness might include diversity, safety, absenteeism, turnover, turnover for customer-contact employees, grievances, worker compensation, on-the-job performance improvements, and the results of employee surveys. For additional information regarding the appropriate measures of employee well being and satisfaction, see Notes to **Item 5.3**. Measures and/or indicators of employee development that contribute to work performance effectiveness might include ratios of training levels to performance improvements.*
- N3. *Measures and/or indicators of work system performance and effectiveness might include job simplification, job rotation, work layout, and changing supervisory ratios.*
- N4. *For results reporting purposes, employees include the organization's permanent, temporary, and part-time personnel, as well as any contract employees supervised by the organization. Contract employees supervised by a contractor should be addressed in **Item 6.3** and results reported in **Item 7.4**.*

7.3 Human Resource Results Item Description

Purpose

This Item addresses your organization's human resource results with the aim of demonstrating how well your organization has been creating and maintaining a positive, productive, learning, and caring work environment.

Requirements

You are asked to provide current levels, trends, and appropriate comparisons for key measures and/or indicators of employee well being, satisfaction, dissatisfaction, and development.

You are also asked to provide data and information on your organization's work system performance and effectiveness.

Comments

- Results reported could include generic or organization-specific factors. Generic factors might include safety, absenteeism, turnover, satisfaction, and complaints (grievances). For some measures, such as absenteeism and turnover, local or regional comparisons are appropriate.
- Organization-specific factors are those you assess for determining your employees' well being and satisfaction. These factors might include extent of training or cross-training, or extent and success of self-direction.
- Results of work system performance manifest in a set of indirect outcomes in employee morale and improvements to mission support performance

Example 7.3 (Shows only a technique for assessment. This example does not represent a 100% Score.):

7.3a(1-2) RIA has seen a continuing decline in personnel numbers for many years now. Fig. 7.3.1 shows the number of employees at the completion of the last eight fiscal years, ending in FY98. Additional reductions will occur in FY99, but are not being published due to an ongoing A-76 study. In spite of past and planned reductions, RIA continues to improve performance and provide exceptional service and value to our customers around the world.

The largest, recent initiative at RIA related to human resources is a renewed emphasis on personnel safety in the workplace. Organizations hold meetings on a monthly basis to address safety issues. RIA conducts special reviews of all safety incidents to identify root causes and eliminate problems, and for the past 3 years, RIA has dedicated an entire day for all employees to focus on safety, security, and wellness issues. Results have been outstanding. In 1997, RIA had an entire month without any reported lost time incidents, the first time in its recorded history. Fig. 7.3.2 shows the number of lost time cases at RIA over the past 7 years. The incident rate has been steadily decreasing during this period, with a large drop occurring in FY98. This reduction is significant and shows that RIA programs and prevention activities have been extremely successful. In addition to a decline in incidents over the past few years, a decline in severity of incidents occurred as well. At RIA, incident severity rate is calculated by finding the number of lost workdays per 200,000 employee hours worked. The more severe the incident, the more workdays lost. As Fig. 7.3.3 shows, the severity rate for FY98 was down 92%. It declined from a high of about 100 days per 200,000 employee hours worked in FY93, to 7.65 days in FY98. A reduction to even fewer workdays lost is expected for FY99. Since the percentage drop in lost workdays is even greater than the drop in the number of cases, we can conclude that the incidents taking place now are much less severe than they have been in the past.

Much of our success may be attributed to our Continuous Improvement in Safety Performance (CISP) program, initiated by the Safety Office in Spring 1997. CISP is a structured process requiring the development of directorate and division-level action plans and accountability for results at all employee levels. In addition to goals, objectives, and accountability, CISP focuses on accident prevention, safety awareness, and employee involvement, ensuring continuous improvement in safety performance.

The sharp decline in severity rate leads to another valuable benefit, an overall decline in total injury/illness costs. Fig. 7.3.4 depicts the total cost data for the past 8 fiscal years. Costs in the early 1990s were about \$750,000 per year. In FY98 and FY99, costs dropped significantly. Improvements represent a significant decrease over FY93 levels; this is a major achievement.

RIA has benchmarked its safety program in the past (Fig. 7.3.2) and has now formalized this process. Fig. 7.3.5 compares our safety efforts to the durable goods industry and a world class organization in a similar industry (Deere & Company). As expected, RIA continues to perform well against the durable goods industry, and is striving to improve performance levels to those of Deere. RIA will actively monitor safety incidents and related costs, with special emphasis on effects expected from a workforce performing new or additional tasks as a result of an up-coming RIF/re-organization.

Another goal in human resource management has been to reduce the costs and workdays lost associated with workers' compensation claims. After a strong focus on claim reductions over the past 5 years, RIA has been able to significantly reduce costs. Results for the first half of the last five fiscal years are shown in Fig. 7.3.6. In FY99, the associated costs for the first 9 months are 50% below the average FY95/FY96 value. With our increased safety program efforts, we expect this trend to continue; however, as with safety incidents, RIA will continue to monitor workers' compensation claims in light of the upcoming RIF/re-organization. Meanwhile, the number of days used for Continuation of Pay (COP) declined from 333.5 days in FY95/96 (first month's average) to 133 in FY99 (first 9 months). This is a reduction of 60%. Further reductions were anticipated; however, per Government regulations, RIA can no longer verify employee injury information with doctors via telephone. This has led to incomplete medical information and delays in employees returning to work. Additional savings were realized as a result of fewer claims being processed. 71 were processed in FY95/96 (first 9 months average) with only 41 submitted in the first 3 quarters of FY99. This equates to 42% reduction in claims processed over the past 5 years.

Sick leave usage is closely monitored by management, as it effects cost rates. Since FY96, it has been under review to determine the effects of compressed work schedules (CWS). At CWS initiation, there was a 13% decline in sick leave usage over FY95. In FY97 and FY98, sick leave usage was slightly higher than in FY95. Some of the increase may be attributed to the ability of employees to use sick leave associated with the Family Friendly Leave Act. This type of sick leave recently accounted for nearly 20% of all sick leave used in a particular quarter. First quarter sick leave usage for FY99 was the lowest recorded in the past 3 years; however, usage increased 42% during the second quarter, equating to a 3 year high. The increase may be to employees' reaction to the upcoming RIF. Upon completion of the RIF, a continued downward trend in sick leave usage is anticipated. As usual, employees are being strongly encouraged to conserve sick leave to keep costs down and enhance our competitive position.

RIA uses several awards programs, sharing employee-generated savings and rewarding outstanding performance. Fig. 7.3.7 shows the total number of awards given in three categories over the past 7 fiscal years: special act or service award, performance award, and on-the-spot award. Overall, there has been an increase in the number of awards since FY93; however, the number of awards issued has been declining since FY98. This downward trend is expected to continue as workforce levels decline and budgets continue to decrease.

RIA management and employees are committed to treating each other equally, regardless of race, gender, or national origin. Recently, RIA initiated the DOD mandated Consideration of Others training. This training has helped to keep the need for and number of submitted complaints to a minimum. Fig. 7.3.8 illustrates RIA's success in this effort, a steadily decreasing rate of complaints. The number of complaints at RIA declined by 77% from FY91 to FY99. Most complaints today focus on the lack of promotional opportunities available at RIA. This is likely to be an ongoing concern, as high grades continue to disappear and the teaming concept is embraced. DOD hiring/strength restrictions also have an impact.

Other human resource results of interest during FY 99 include the following:

- .. During FY99 thus far, 100% of RIA employees have taken nearly 40 hours of training each.
- .. RIA recently intensified its self-directed work team (SDWT) transformation effort. Our current goal is to have all employees on SDWTs by the end of the fiscal year. Presently, we have 159 SDWTs in place and trained. Once seven of the 159 teams complete and sign their final charters, our goal will be realized.

(Rock Island Arsenal, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

RIA has been in a steady decline of assigned personnel since FY 91. Additional reductions are anticipated. In spite of past and planned reductions, RIA continues to strive to improve its human resource environment. RIA's safety performance indicates excellent results in incidents of lost time and the severity rate for workplace incidents.

The sharp decline in severity rate has led to the overall decline in total injury/illness costs. These costs have dropped from about \$750,000/year from the early 1990s, to a negligible cost in FY 98 and FY 99. RIA uses benchmarking to improve its safety programs and has formalized this process. The benchmarking data presented in Figure 7.3.5 shows very favorable data.

The RIA significantly reduced workers compensation costs since FY 95/96. This reflects a decrease in the number of workdays lost by employees. This reduction has generated additional savings by lowering the costs to process workers compensation claims (a 42% reduction in claims processed over the past five years).

The data reflected for the number of awards is very favorable. The slight decline in FY 98 and to date in FY 99 is attributed to the decline in work force levels and the decrease in budget.

7.4 Supplier and Partner Results (75 pts.)

[Results]

Summarize your organization's key supplier and partner results. Include comparative data.

Provide data and information to answer the following question:

a. Supplier and Partner Results

What are your current levels and trends in key measures and/or indicators of supplier and partner performance? Include your performance and/or cost improvements resulting from supplier and partner performance and performance management.

Notes:

*N1. Results reported here should relate directly to processes and performance requirements described in **Item 6.3**.*

7.4 Supplier and Partner Results Item Description

Purpose

This Item addresses your organization's supplier and partner results, with the aims of demonstrating how well your organization ensures the quality, delivery, and price of externally provided goods and services and how your suppliers/partners contribute to your improved performance.

Requirements

You are asked to provide current levels, trends and appropriate comparisons for key measures and/or indicators of supplier and partner performance, including how their performance affects your improved performance. You should emphasize your most critical requirements for business success.

Comments

- Suppliers and partners, both private and public, provide “upstream” and/or “downstream” materials and services. The focus should be on the most critical requirements from the point of view of your organization – the “buyer” or other direct recipient of the products and services. Data reported should reflect results by whatever means they occur – via improvements by suppliers and partners and/or through selection of better performing suppliers and partners. Measures and indicators of performance should relate to the principal factors involved in your organization’s purchases, e.g., quality, delivery, and price.
- For purposes of this Item, providers of goods and services within your parent organization, but not in your own organization, should be included as suppliers or partners.
- Results reported also should reflect how suppliers and partners have contributed to your organization’s performance goals. These could include quality levels, cost savings; total supply chain management costs, reductions in waste, reductions in inventory, reductions in cycle time and increases in productivity. Indicators of better connection and communication, such as achieved via electronic commerce or data exchanges, are appropriate for inclusion. Indicators of supplier and partner performance improvement via external compliance, such as ISO 9000, also are appropriate for inclusion.

Example 7.4 (Shows only a technique for assessment. This example does not represent a 100% Score.):

7.4a The most effective way for RIA to evaluate/monitor our level of supplier/partnership success is to utilize incoming inspection data. 9 years of inspection data is presented in Fig. 7.4.1. The data reflects the proportion of material lots accepted at incoming inspection as a percentage of all lots inspected. A lot is considered to be a group of items received from a supplier in an attempt to meet some or all parts of a contract requirement. Usually, a lot consists of an entire order quantity as specified in the contract. As the chart indicates, our suppliers’ incoming conformance rate has been successfully improving over time; however, FY97 was a recent exception. This temporary set-back was attributable to problems associated with two specific items: the M242 Feeder and the M1A1 Spring. Problems with the M242 Feeder were mostly due to our receipt of nonconforming fastener shipments. Government regulations restrict our selection of fastener suppliers, and most large, high quality vendors will not provide the small quantities of fasteners required by RIA. Thus, it is difficult to ensure the quality of fasteners we receive. This has been an ongoing problem, not only at RIA, but also throughout the Government. M1A1 springs have also been an ongoing problem. This is due to the high level of expertise required to manufacture the strict tolerances involved and the fact that only one supplier is available and willing to produce/provide the item. Several attempts have been made to improve the quality of spring shipments, including the inclusion of SPC requirements in the contract and site visits to the supplier’s facility to provide assistance. Some improvements have been realized over the past 2 years, and incoming inspection acceptance rates have begun to improve.

RIA contracts with private companies to provide most of our base operation services. We usually evaluate the performance of these suppliers in two ways: we directly inspect the supplier’s completed work and we solicit service customers’ opinions on the supplier’s performance. Currently, we have approximately 32 open contracts, providing everything from elevator repair to cable TV services. Of these contracts, the most important are for facilities support (roads, grounds, and buildings), utilities, custodial services, and HVAC.

For FY98, the facilities support contract was awarded to Rock Island Integrated Services (RIIS). Contract performance is divided into 25-30 separate categories or attachments. Each attachment has its own quality assurance plan, which specifies how RIA will inspect the service. If the supplier fails to perform a required service adequately or on time, the contract provides for a deduction of money paid to the supplier for the service. The total monetary value of recommended deductions becomes the primary measure of a supplier’s performance. So far, in our experience with RIIS, performance has been outstanding, and RIA inspectors have found very few discrepancies. When discrepancies were identified, RIIS quickly corrected them to the satisfaction of the inspectors. As a result, monetary deductions have not been required thus far for this contract.

Customer surveys provide another view of service contractors' performance. The largest customer survey is related to facilities. Respondents are asked to rate 11 different aspects of roads, grounds, and building services on the island. Fig. 7.4.2 shows the results of the FY99 survey, from which 75 responses were received. The average for the 11 categories surveyed was 3.71, or "good" to "very good." Individual values ranged from 3.4 to 4.19. Last year, the survey had 10 categories and an average response rating of 3.74. This year's survey indicates that customers have remained satisfied but there is still room for improvement.

One of the most important wintertime functions of the facilities support contractor is snow removal. This year, RIA expanded its survey to include a customer satisfaction indicator for snow removal performance. Customers now answer questions on eight different aspects of snow removal and their level of satisfaction in terms of quality and timeliness. Results are shown in Fig. 7.4.3. The average rating for this survey was 2.82, down from the FY98 average of 4.14. As indicated by survey respondents' comments, this low rating was primarily a result of the extraordinary amount of snow we received, which was the third heaviest snowfall on record for the area. The extra time required to clear the snow irritated many of the survey respondents. As a result, the contractor worked with customers to find out which areas should be cleared first should such a heavy snowfall occur again in the future.

RIA also conducted a survey to determine the customers' satisfaction level for facilities support services (buildings and facilities). The survey requested responses to seven different items, ranging from office moves to pest control. Fig. 7.4.4 shows the survey results. The average rating was 3.72, "good" to "very good." Once again, RIA personnel are generally satisfied with support services received. One of the seven items, fire protection, was rated significantly higher than the others. This shows there is a high level of customer satisfaction when it comes to fire support services.

The second major category of base support contracts is utilities. RIA obtains most utility services from outside contractors, while facility contractors generally perform special repairs and maintenance. Good utility service is critical to ensuring a productive environment is maintained. Fig. 7.4.5 shows results of a FY98 survey including five utility categories. The yearly average was 3.92, or "very good." This year's survey indicated a noticeable improvement over last year's when it came to HVAC services, indicating that the contractor has been improving to better meet customer needs.

The final major category for base support services is custodial. For the past 5 years, customers have had the opportunity to rate custodial services provided by yet another service contractor. Fig. 7.4.6 shows survey results for the first half of FY99. The average of nine categories surveyed was 3.86. This shows that customers rate most services as "very good." Results are shared with suppliers, who use the feedback in improving processes. Yearly averages have been fairly consistent, ranging from 3.75 in 1997 to 3.875 in 1995.

HQDA Board of Examiners feedback on the above example:

RIA shows positive levels and trends in the reported supplier performance results.

Figure 7.4.1, Incoming Material, shows RIA exceeding its targets and goals. The only exception in FY 97 was related to supplier problems that have been resolved.

The attention provided by RIA to internal customers for support services has reaped favorable results in trend data and customer satisfaction in the areas of Roads and Grounds, Snow Removal, and Buildings and Facilities.

7.5 Organizational Effectiveness Results (75 pts.)

[Results]

Summarize your organization's key operational and in-process performance results that contribute to the achievement of organizational effectiveness. Include comparative data.

Provide data and information to answer the following questions:

a. Organizational Effectiveness Results

- (1) What are your current levels and trends in key measures and/or indicators of key design, production, delivery, and support process performance? Include appropriate productivity, cycle time, and other measures of effectiveness and efficiency.
- (2) What are your results for key measures and/or indicators of regulatory/legal compliance and citizenship?
- (3) What are your results for key measures and/or indicators of accomplishment of organizational strategy?

Notes:

- N1. Results reported in **Item 7.5** generally fall into two categories: (a) those in-process and other measures which gauge progress in meeting overall performance goals and objectives which the organization uses to measure how well it is doing, such as those described in the **Organization Overview**, and in **Items 1.1, 2.2, 6.1, and 6.2**, and/or overall results reported in **Items 7.1** and/or **7.2**; and (b) those which stand alone and are key performance measures, but are not reported in **Items 7.1, 7.2, 7.3, or 7.4**.
- N2. Results reported in **Item 7.5** should provide key information for analysis (**Item 4.2**) and review (**Item 1.1**) of your organizational operational performance and should provide the operational basis for customer results (**Item 7.1**) and financial and marketplace performance results (**Item 7.2**). Information presented here might be performance indicators used in an organization's annual performance plan as internal or intermediate measures of progress toward meeting overall performance goals and objectives.
- N3. Regulatory/legal compliance results reported in **Item 7.5** should address requirements described in **Item 1.2**.

7.5 Organizational Effectiveness Results Item Description

Purpose

This Item examines your organization's other key operational performance results, with the aim of achieving organizational effectiveness and key organizational goals.

Requirements

You are asked to provide current levels, trends, and appropriate comparisons for key measures and/or indicators of operational and strategic performance that support the ongoing achievement of results reported in Items 7.1 through 7.4.

You are also asked to provide data and information on your organization's regulatory/legal compliance and citizenship.

Comments

- This Item addresses key performance results not covered in Items 7.1 through 7.4 that contribute significantly to the organization's goals – customer satisfaction, product and service quality, operational effectiveness, and financial/marketplace mission-related performance. The Item encourages the use of any unique measures the organization has developed to track performance in areas important to the organization not directly measured in previous Category 7 Items. Results should reflect key process performance measures, including those that influence customer satisfaction.
- Measures of productivity, resource utilization, and operational effectiveness in all key areas - product/service delivery areas and support areas – are appropriate for inclusion. Results of compliance with regulatory/legal requirements should be reported.
- Measures and/or indicators of operational effectiveness and efficiency could include the following: (1) environmental improvements reflected in emissions levels, (2) waste stream reductions, by-product use, and recycling; (3) responsiveness indicators such as cycle time, lead times, and setup times; (4) process assessment results such as customer assessment or third-party assessment (such as ISO standards); and (5) business-specific indicators such as innovation rates, innovation effectiveness, cost reductions through innovation, time to market, product/process yield, and complete and accurate shipments, and indicators of strategic goal achievement.
- Results also should include indicators of support for key communities and other public purposes.

Example 7.5 (Shows only a technique for assessment. This example does not represent a 100% Score.):

7.5.1/2 A key output of ARDEC processes is engineering technical data. To provide product designs to our industry partners for manufacturing, ARDEC produces technical data packages (TDPs). Our error rate and cycle-time have been the focus of considerable improvement activity and are now major successes (Figures 7.5.1 and 2)

7.5.3 Once manufactured, our products must be certified acceptable for use (Materiel Release). Materiel Release is the single most important process measure of ARDEC's sustainable competitive advantage. To release with conditions means that the designer/supplier partnership has not met all customer requirements. In 1995, we released materiel with conditions at the request of the customer.

7.5.4 To optimize our customer's funds, our lead-time for acquisition is critical. Our efforts have resulted in a 20% improvement.

7.5.5 Acquisition cycle time was improved by a transition to 100% electronic commerce.

7.5.6 A key to TACOM-ARDEC's information management plan is greater use of the World Wide Web (WWW) for all business applications. Successful implementation of an action plan resulted in the conversion of all targeted applications to the WWW.

7.5.7 The ADP Contracts Team achieved lower costs with no decline in performance through the analysis of requirements, best value contracts and retirement of older high cost maintenance equipment. (The FY99 increase above FY98 was due to the changes in the licensing of maintenance imposed by Microsoft Corporation.)

*7.5.8 **CUSTOMER RESPONSIVE PRODUCTS** ARDEC's specific business results are closely tied to its Vision and Strategic Objectives. Our Vision is to "Provide Overwhelming Firepower for Decisive Victory." Our results clearly show ARDEC's world-class status in the armaments development community. To demonstrate ultimate success, we have highlighted current products, in each of the four phases of the product life cycle: Technology Base, Product Development, Production, and Field Support. In our portfolio, we compare our products' effectiveness against the world's best products.*

*For each portfolio category, we show a product performance chart with past, present, and projected results. These performance charts are followed by tables with our present product performance measured by customer requirements and compared to the world's next best products. Each customer requirement is separately Benchmarked against the capability of the world's next best product. What is presented in this application is a sampling of our current workload. In this portfolio are 34 products, which are absolutely the **WORLD'S BEST**. Many of our future performance goals are true stretch goals. Many are technological breakthroughs that will revolutionize the armaments industry – the **WORLD'S FIRST**. These are truly "impact" metrics intended by GPRA. Many of the performance requirements are classified. Therefore, we express our results in terms of percent of our customer's requirements met by our products and by the world's next best product.*

*7.5.8A **FUZES** ARDEC is the world leader in design and development of proximity sensors used to detonate munitions, particularly artillery and mortars. Over the next 5 years, our goal is to continue to improve the burst point accuracy, maintain an advantage over enemy jamming techniques, and reduce cost. See Figure 7.5.8A and Product Table 7.5.8A.*

*7.5.8B **ARTILLERY** ARDEC is a world leader in the development of Artillery. We are developing cutting edge technologies to more accurately deliver projectiles to extended ranges, while delivering greater effectiveness. We are currently focusing on single designs that are capable of delivering various types of cargo in support of the 21st century Army. See Figure 7.5.8B and Product Table 7.5.8B.*

*7.5.8C **TANK AMMUNITION** There will be increasing emphasis on smart munitions for the defeat of conventional and non-conventional armor, and to defeat these targets at extended ranges. There will be growing use of Modeling and Simulation to reduce life cycle development and test costs. Short Term Goals are to improve the performance and reduce the cost of current and next generation tactical and training ammunition. Long Term Goals are to exploit emerging technologies. See Figure 7.5.8C and Product Table 7.5.8C for current results.*

*7.5.8D **MORTARS** Because of the large number of different cartridges in each of the three families of mortar munitions (60mm, 81mm and 120mm), management and acquisition strategies will be tailored to combine procurements and management of similar items for greater efficiencies. **SHORT TERM GOALS** are to incorporate improvements to lower cost and/or add performance. **LONG TERM GOALS** are to exploit advanced technology to develop and field new ammunition and weapons. See Figure 7.5.8D and Product Table 7.5.8D for stretch goals and results.*

*7.5.10.E **INFANTRY** We are focusing on initiatives that emphasize cost reduction and evolutionary product improvements during the short term and the refocusing of technology efforts in the long term. Our support to programs such as the Objective Family of Light Weapons illustrates our strategic direction. See Figure 7.5.8E and Product Table 7.5.8E.*

7.5.8F ENERGETICS Energetic materials (explosives, propellants, and pyrotechnics) are major components of munitions. Customer requirements for increased lethality, extended range for artillery and more effective pyrotechnics are major goals. In addition to improved performance, the long term goal is to develop munitions which are insensitive to battlefield threats, safer to transport and store, and environmentally friendly from production through to disposal. See Figure 7.5.8F and Products Table 7.5.8F.

7.5.8G PACKAGING ARDEC is the world leader in designing and developing packaging for military munitions and weapon systems. Over the next five years, we will continue to develop packaging that will help to make ammunition safer in storage and in transit, and be more “user friendly” (storage and handling). In the long term, our customer’s goal is to have packaging interface directly with the weapon systems. See Figure 7.5.8G and Product Table 7.5.8G.

7.5.8H FIRE CONTROL Our technology is advancing rapidly in both the fire control and software domains. Emphasis will be in horizontal integration of weapons systems and force digitization. Our emphasis will be to identify new technology base initiatives to increase systems effectiveness and ultimately firepower for the customer.

7.5.9 This last figure is the external validation to our assertion that implementing a thorough and systematic approach to performance management has radically improved our organization.

(US Army Armament Research, Development and Engineering Center, self-assessment for 2000 PQA Application)

HQDA Board of Examiners feedback on the above example:

Measures of the processes to design, develop, and produce ARDEC products reflect favorable performance levels. Comparisons with the world's next best producer are provided to assist senior leaders in determining the level of value of product and ability to meet customer requirements. The measures link to and support the organization's vision, commander's intent, and strategic objective for processes.

The organization has achieved exceptional results for material release that has been sustained for seven years (Figure 7.5.3). These results are reflective of the organization's goal to “Thrill the Customer.” The results are 34% better than the AMC comparative average.

Figures 7.5.5 and 7.5.6, the organization has positioned itself to effectively deal in a paperless environment, which is keeping in line with the organization's strategy for acquisition reform.

Measures shown in Figures 7.5.8A-H indicate ARDEC maintains a competitive lead in the design and production of their key products. The organization has incorporated comparative data to measure the levels of performance in meeting customer requirements. There are instances where the organization is 90% better than the world's next best producer of specific weapons or munitions.

Glossary of Key Terms

This Glossary of Key Terms defines and briefly describes terms used throughout the Criteria booklet that are important to performance management.

Action Plans

Action plans refer to principal organization-level drivers, derived from short- and long-term strategic planning. In simplest terms, action plans are set to accomplish those things your organization must do well for your strategy to succeed. Action plan development represents the critical stage in planning when strategic objectives and goals are made specific so that effective organization-wide understanding and deployment are possible. Deployment of action plans requires analysis of overall resource needs and creation of aligned measures for all work units. Deployment might also require specialized training for some employees or recruitment of personnel.

An example of a strategic objective for a government organization supplying goods and services in competition with private-sector suppliers might be to develop and maintain a price leadership position. Deployment should entail the design of efficient processes, analysis of resource and asset use, and creation of related measures of resource and asset productivity, aligned for the organization as a whole. It might also involve the use of a cost-accounting system that provides activity-level cost information to support day-to-day work. Unit and/or team training should include priority setting based upon costs and benefits. Organization-level analysis and review should emphasize overall productivity growth. Ongoing competitive analysis and planning should remain sensitive to technological and other changes that might greatly reduce operating costs for the organization or its competitors.

Alignment

Alignment refers to consistency of plans, processes, information, resource decisions, actions, results, analysis, and learning to support key organization-wide goals. Effective alignment requires common understanding of purposes and goals and use of complementary measures and information for planning, tracking, analysis, and improvement at three levels: the organization level; the key process level; and the work unit level.

Analysis

Analysis refers to assessments performed by an organization or its work units to provide a basis for effective decisions. Overall organizational analysis guides process management toward achieving key business results and toward attaining strategic objectives.

Despite their importance, individual facts and data do not usually provide an effective basis for actions or setting priorities. Actions depend upon understanding cause/effect relationships. Understanding such relationships comes from analysis of facts and data.

Approach

Approach refers to how an organization addresses the APIC Item requirements – the methods and processes used by the organization. Approaches are evaluated on the basis of the appropriateness of the approach to the Item requirements; effectiveness of use of the approach; and alignment with organizational needs. For further description, see the Scoring System on pages 118-119.

Comparisons – Benchmarking and Competitive Comparisons

Benchmarking is the process of systematically comparing and measuring products, services, and processes against “best practices,” “best-in class” achievements, and performance of similar activities, inside or outside the Army or government. At its essence, benchmarking involves systematically looking at proven ways to provide better customer service and adapting these ways to an organization’s operations. It turns the “not-invented-here” philosophy on its head by focusing on the best practices of other organizations.

Competitive Comparisons refer to examining an organization’s current processes against effective processes of other organizations which are competitors in the organization’s markets, or with similar missions or functions in the Army or government. Competitive Comparisons often are less systematic and rigorous than Benchmarking, and without detailed exploration of the differences in underlying methods.

Customers

External customers are those who use or are directly affected by the organization’s products or services – those for whom the organization is in business. They can be grouped into classifications according to their relationship to the government as a supplier: voluntary, entitled and compelled users of the organization’s products and services. Voluntary users choose to use the product/service, such as visitors to national parks and users of government statistics. Entitled users have an automatic legal right to benefit from the program, such as recipients of social security benefits and users of veterans’ hospitals. Compelled users fall under the jurisdiction of government programs that are prescriptive in nature, where punitive action can be taken if users do not comply (e.g., prison inmates and taxpayers).

Internal customers refers to employees within the organization who receive goods and services produced elsewhere in the organization and act upon them in the production chain, ultimately leading to the organization’s final output of goods and services.

Cycle Time

Cycle time refers to responsiveness and completion time measures – the time required to fulfill commitments or to complete tasks. Time measurements play a major role in the Criteria because of the great importance of time performance to improving performance and competitiveness. Cycle time and related terms are used in the Criteria to refer to all aspects of time performance. Cycle time improvement could include time to market, order fulfillment time, delivery time, change-over time, and other key process times.

Deployment

Deployment refers to the extent to which an organization’s approach is applied to the requirements of an APIC Item. Deployment is evaluated on the basis of the breadth and depth of the application of the approach throughout the organization. For further description, see the Scoring System on page 118-119.

Empowerment

Empowerment refers to giving employees the authority and responsibility to make decisions and take actions. Empowerment results in decisions being made closest to the “front line,” where work-related knowledge and understanding reside.

Empowerment is aimed at enabling employees to satisfy customers on first contact, to improve processes and increase productivity, and to better the organization's business results. Empowered employees require information to make appropriate decisions; thus, an organizational requirement is to provide that information in a timely and useful way.

High Performance Work

High performance work refers to work approaches used to *systematically* pursue ever higher levels of overall organizational and human performance, including quality, productivity, innovation rate, and time performance. High performance work results in improved service for customers and other stakeholders.

Approaches to high performance work vary in form, function, and incentive systems. Effective approaches frequently include: cooperation between management and the work force, including work force bargaining units; cooperation among work units, often involving teams; self-managed/self-directed responsibility (employee empowerment); employee input to planning; individual and organizational skill building and learning; learning from other organizations; flexibility in job design and work assignments; a flattened organizational structure, where decision making is decentralized and decisions are made closest to the "front line"; and effective use of performance measures, including comparisons. Many high performance work systems use monetary and non-monetary incentives based upon factors such as organizational performance, team and/or individual contributions, and skill building. Also, high performance work approaches usually seek to align the design of organizations, work, jobs, employee development, and incentives.

Innovation

Innovation refers to making meaningful change to improve products, services, and/or processes and create new value for stakeholders. Innovation involves the adoption of an idea, process, technology, or product that is considered new or new to its proposed application.

Successful organizational innovation is a multi-step process that involves development and knowledge sharing, a decision to implement, implementation, evaluation, and learning. Although innovation is often associated with technological innovation, it is applicable to all key organizational processes that would benefit from breakthrough improvement and/or change.

Leadership System

Leadership system refers to how leadership is exercised through-out the organization – the basis for the way that key decisions are made, communicated, and carried out. It includes structures and mechanisms for making decisions and reinforcing values, expectations, and behaviors. It also includes the formal and informal bases and mechanisms for leadership development used to select leaders and managers, to develop their leadership skills, and to provide guidance and examples regarding behaviors and practices.

An effective leadership system creates clear values respecting the capabilities and requirements of employees and organization stakeholders, and sets high expectations for performance and performance improvement. It builds loyalty and teamwork based upon the values and the pursuit of shared purposes.

It encourages and supports initiative and risk taking, subordinates organization to purpose and function, and minimizes reliance on chains of command that require long decision paths. An effective leadership system includes mechanisms for the leaders' self-examination, receipt of feedback, and improvement.

Measures and Indicators

Measures and indicators refer to numerical information that quantifies input, output, and performance dimensions of processes, products, services, and the overall organization (outcomes). Measures and indicators might be simple (derived from one measurement) or composite.

The Criteria do not make a distinction between measures and indicators. However, some users of these terms prefer the term indicator: (1) when the measurement relates to performance, but is not a direct measure of such performance (e.g., the number of complaints is an indicator of dissatisfaction, but not a direct measure of it); and (2) when the measurement is a predictor (“leading indicator”) of some more significant performance (e.g., increased customer satisfaction might be a leading indicator of market share gain).

Performance

Performance refers to outcome results obtained from processes, products, and services that permit evaluation and comparison relative to goals, standards, past results, and other organizations. Performance might be expressed in non-financial and financial terms.

Three types of performance are addressed in this Criteria booklet: (1) customer focused, including key product and service performance; (2) financial and marketplace; and (3) operational.

Customer focused performance refers to performance relative to measures and indicators of customers' perceptions, reactions, and behaviors, and to measures and indicators of product and service characteristics important to customers. Examples include customer retention, complaints, customer survey results, product reliability, on-time delivery, defect levels, and service response time.

Financial and marketplace performance refers to performance using measures of cost and revenue, including asset utilization, asset growth, and market share. Examples include returns on investments, value added per employee, debt to equity ratio, returns on assets, operating margins, and other profitability and liquidity measures.

Operational performance refers to performance relative to effectiveness and efficiency measures and indicators. Examples include cycle time, productivity, waste reduction, and regulatory compliance. Operational performance might be measured at the work unit level, key process level, and organizational level.

Process

Process refers to linked activities with the purpose of producing a product or service for a customer (user) within or outside the organization. Generally, processes involve combinations of people, machines, tools, techniques, and materials in a systematic series of steps or actions. In some situations, processes might require adherence to a specific sequence of steps, with documentation (sometimes formal) of procedures and requirements, including well-defined measurement and control steps.

In many service situations, particularly when customers are directly involved in the service, process is used in a more general way – to spell out what must be done, possibly including a preferred or expected sequence. If a sequence is critical, the service needs to include information to help customers understand and follow the sequence. Service processes involving customers also require guidance to the providers on handling contingencies related to customers' likely or possible actions or behaviors.

In knowledge work such as strategic planning, research, development, and analysis, process does not necessarily imply formal sequences of steps. Rather, process implies general understandings regarding competent performance such as timing, options to be included, evaluation, and reporting. Sequences might arise as part of these understandings.

Productivity

Productivity refers to measures of efficiency of the use of resources.

Although the term is often applied to single factors such as staffing (labor productivity), machines, materials, energy, and capital, the productivity concept applies as well to the total resources used in producing outputs. The use of an aggregate measure of overall productivity allows a determination of whether or not the net effect of overall changes in a process—possibly involving resource tradeoffs — is beneficial.

Results

Results refer to outcomes achieved by an organization in addressing the purposes of an APIC Item. Results are evaluated on the basis of current performance; performance relative to appropriate comparisons; rate, breadth, and importance of performance improvements; and relationship of results measures to key organizational performance requirements. For further description, see the Scoring System on 116-117.

Strategic Objectives

Strategic objectives refer to an organization's major change opportunities and/or the fundamental challenges the organization faces. Strategic objectives are generally externally focused, relating to significant customer, market, product/service, or technological opportunities and challenges. Broadly stated, they are what an organization must change or improve to remain or become competitive. Strategic objectives set an organization's longer – term directions and guide resource allocations and redistributions.

See the definition of *action plans* on page 112 for the relationship between strategic objectives and action plans and for an example of each.

Strategic Planning

Strategic planning is the process of setting strategic directions and determining key action plans, and for translating plans into an effective performance management system. The process leads to establishment of general goals and objectives (see strategic objectives), including outcome related goals and objectives, for the major functions and operations of the organization, and for establishment of annual performance goals linked to the general goals and objectives.

Systematic

Systematic refers to approaches that are repeatable and use data and information so that improvement and learning are possible. In other words, approaches are systematic if they build in the opportunity for evaluation and learning, and thereby permit a gain in maturity. As organizational approaches mature, they become more systematic and reflect cycles of evaluation and learning. For use of the term, see the Scoring Guidelines on page 120-121.

Value

Value refers to the degree of worth relative to cost and relative to possible alternatives of a product, service, process, asset, or function.

Organizations frequently use value considerations to determine the benefits of various options relative to their costs, such as the value of various product and service combinations to customers. Organizations seek to deliver value to all their stakeholders. This frequently requires balancing value for customers and other stakeholders, such as stockholders, employees, and the community.

Scoring System

The scoring of responses to APIC Items (Items) and self-assessment feedback are based on three evaluation dimensions: (1) Approach, (2) Deployment, and (3) Results. Criteria users need to furnish information relating to these dimensions. Specific factors for these dimensions are described below. Scoring Guidelines are given on pages 120-121.

Approach

Approach refers to how you address the Item requirements – the **method(s)** used. The factors used to evaluate approaches include:

- appropriateness of the methods to the requirements
- effectiveness of use of the methods. Degree to which the approach:
 - is systematic, integrated, and consistently applied
 - embodies evaluation/improvement/learning cycles
 - is based on reliable information and data
- alignment with organizational needs
- evidence of innovation

Deployment

Deployment refers to the **extent** to which your approach is applied to all requirements of the Item. The factors used to evaluate deployment include:

- use of the approach in addressing Item requirements relevant to your organization
- use of the approach by all appropriate work units

Results

Results refers to **outcomes** in achieving the purposes given in the Item. The factors used to evaluate results include:

- your current performance
- performance relative to appropriate comparisons and/or benchmarks
- rate, breadth, and importance of your performance improvements
- linkage of your results measures to key customer, market, process, and action plan performance requirements identified in your Business Overview and in Approach/Deployment Items

Item Classification and Scoring Dimensions

Items are classified according to the kinds of information and/or data you are expected to furnish relative to the three evaluation dimensions.

The two types of Items and their designations are:

1. Approach/Deployment
2. Results

Approach and Deployment are linked to emphasize that descriptions of Approach should always indicate the Deployment – consistent with the specific requirements of the Item. Although Approach and Deployment dimensions are linked, self-assessment feedback reflects strengths and/or opportunities for improvement in either or both dimensions.

Results Items call for data showing performance levels and trends on key measures and/or indicators of organizational performance. Results Items also call for data on breadth of performance improvements, – how widespread your improvement results are. This is directly related to the Deployment dimension. That is, if improvement processes are widely deployed, there should be corresponding results. A score for a Results Item is thus a composite based upon overall performance, taking into account the breadth of improvements and their importance. (See next paragraph.)

“Importance” as a Scoring Factor

The three evaluation dimensions described previously are critical to evaluation and feedback. However, evaluation and feedback also must consider the importance of your reported Approach, Deployment, and Results to your key business factors. The areas of greatest importance should be identified in the Business Overview and in Items such as 2.1, 2.2, 3.1, 6.1, and 7.5. Your key customer requirements and key strategic objectives and action plans are particularly important.

Assignment of Scores to Your Responses

The following guidelines should be observed in assigning scores to your Item responses:

- All Areas to Address should be included in the Item response. Also, responses should reflect what is important to the organization.
- In assigning a score to an Item, first decides which scoring range (e.g., 50% to 60%) best fits the overall Item response. Overall “best fit” does not require total agreement with each of the statements for that scoring range. Actual score *within* the range depends upon the judgment of the closeness of the Item response in relation to the statements in the next higher and next lower scoring ranges.
- An Approach/Deployment Item score of 50% represents an approach that meets the basic objectives of the Item and that is deployed to the principal activities and work units covered in the Item. Higher scores reflect maturity (cycles of improvement), integration, and broader deployment.
- A Results Item score of 50% represents a clear indication of improvement trends and/or good levels of performance in the principal results areas covered in the Item. Higher scores reflect better improvement rates and/or levels of performance, and better comparative performance as well as broader coverage and key business or mission requirements.

Scoring Guidelines

SCORE	Approach - Deployment
0%	<ul style="list-style-type: none"> ▪ no systematic approach evident; anecdotal information
10% to 20%	<ul style="list-style-type: none"> ▪ beginning of a systematic approach to the basic purposes of the Item ▪ major gaps exist in deployment that would inhibit progress in achieving the basic purposes of the Item ▪ early stages of a transition from reacting to problems to a general improvement orientation
30% to 40%	<ul style="list-style-type: none"> ▪ an effective, systematic approach, responsive to the basic purposes of the Item ▪ approach is deployed, although some areas or work units are in early stages of deployment ▪ beginning of a systematic approach to evaluation and improvement of basic Item processes
50% to 60%	<ul style="list-style-type: none"> ▪ an effective, systematic approach, responsive to the overall purposes of the Item ▪ approach is well-deployed, although deployment may vary in some areas or work units ▪ a fact-based, systematic evaluation and improvement process is in place for basic Item processes ▪ approach is aligned with basic organizational needs identified in the other Criteria Categories
70% to 80%	<ul style="list-style-type: none"> ▪ an effective, systematic approach, responsive to the multiple requirements of the Item ▪ approach is well-deployed, with no significant gaps ▪ a fact-based, systematic evaluation and improvement process and organizational learning/sharing are key management tools; clear evidence of refinement and improved integration as a result of organizational-level analysis and sharing ▪ approach is well-integrated with organizational needs identified in the other Criteria Categories
90% to 100%	<ul style="list-style-type: none"> ▪ an effective, systematic approach, fully responsive to all the requirements of the Item ▪ approach is fully deployed without significant weaknesses or gaps in any areas or work units ▪ a very strong, fact-based, systematic evaluation and improvement process and extensive organizational learning/sharing are key management tools; strong refinement and integration, backed by excellent organizational-level analysis and sharing ▪ approach is fully integrated with organizational needs identified in the other Criteria Categories

Note – Bands like 10% to 20% are a scoring range – Individual examiners normally assign scores using multiples of 10 – and averaging (example-20%, 30% and 30%) results in a 26.6% for the item score.

SCORE	Results
0%	<ul style="list-style-type: none"> ▪ no results or poor results in areas reported
10% to 20%	<ul style="list-style-type: none"> ▪ some improvements and/or early good performance levels in a few areas ▪ results not reported for many to most areas of importance to the organization's key business requirements
30% to 40%	<ul style="list-style-type: none"> ▪ improvements and/or good performance levels in many areas of importance to the organization's key business requirements ▪ early stages of developing trends and obtaining comparative information ▪ results reported for many to most areas of importance to the organization's key business requirements
50% to 60%	<ul style="list-style-type: none"> ▪ improvement trends and/or good performance levels reported for most areas of importance to the organization's key business requirements ▪ no pattern of adverse trends and no poor performance levels in areas of importance to the organization's key business requirements ▪ some trends and/or current performance levels — evaluated against relevant comparisons and/or benchmarks — show areas of strength and/or good to very good relative performance levels ▪ business results address most key customer, market, and process requirements
70% to 80%	<ul style="list-style-type: none"> ▪ current performance is good to excellent in areas of importance to the organization's key business requirements ▪ most improvement trends and/or current performance levels are sustained ▪ many to most trends and/or current performance levels — evaluated against relevant comparisons and/or benchmarks — show areas of leadership and very good relative performance levels ▪ business results address most key customer, market, process, and action plan requirements
90% to 100%	<ul style="list-style-type: none"> ▪ current performance is excellent in most areas of importance to the organization's key business requirements ▪ excellent improvement trends and/or sustained excellent performance levels in most areas ▪ evidence of industry and benchmark leadership demonstrated in many areas ▪ business results fully address key customer, market, process, and action plan requirements

Preparing the Organization Overview

The self-assessment process begins with the preparation of the Organization Overview. The Organization Overview is an outline of your organization. It addresses what is most important to your organization, key influences on how your organization operates, and where your organization is headed. *The Organization Overview is a statement of what is relevant and important to your organization and its performance.*

The Organization Overview is critically important because:

- It is ***the most appropriate starting point for self-assessment*** and for writing applications for PQA or ACOE. It helps you focus on key business or mission performance requirements and business results; and
- If the organization is applying for PQA or ACOE, examiners and judges use it in all stages of application review and during the site visit.

It is strongly recommended that the Organization Overview be prepared first and used as a guide in self-assessment and in writing/reviewing a PQA or ACOE application.

Guidelines for Preparing the Organization Overview

The Organization Overview consists of five sections as follows:

1. Basic description of your organization

This section should provide the following information of your organization:

- your mission, products and services;
- your organizational culture: purpose, vision, and values, as appropriate;
- the major markets or mission/service areas (local, regional, national, or international) and principal customer types: Army or DoD organizations, other businesses, government, etc.;
- your key processes and measures;
- the size and location of your organization and profile of soldiers and civilians in the workforce including number, types, educational level, bargaining units, and special safety requirements;
- your major equipment, facilities, and technologies used;
- the regulatory environment affecting you: occupational health and safety, environmental, financial, and product, etc;
- brief history of when and how quality principles and tools have been/are used to improve organizational performance.
- chart depicting current organizational structure;

If your organization is a subunit of a larger organization, describe:

- the organizational relationship to your “parent” and percent of employees the subunit represents;
- how your products and services relate to those of your “parent” and/or other units of the “parent” organization; and
- key support services, if any, that your “parent” organization provides.

2. Customer and market requirements

This section should provide information on:

- list of principal customers and their category (voluntary, entitled, and compelled), where appropriate, and principal customer types (consumers, other government agencies, etc.). Note any special relationships, such as partnerships with customers or customer groups;
- key customer requirements for major products and services (e.g., on-time delivery, defect rates, etc.); and
- description of significant differences, if any, in requirements among customer groups.

3. Supplier and partnering relationships

This section should provide information on:

- types and numbers of suppliers of goods and services;
- the most important types of suppliers, dealers, and other businesses; and
- any limitations, special relationships, or special requirements that may exist with some or all suppliers and partners.

4. Principal factors determining performance success

This section should provide the following information of your organization:

- important performance factors that determine performance success such as regulatory clarification, reduction or simplification, product innovation, cost reduction, technology, productivity or other changes taking place in the organization affecting program success;
- explanation and illustration of how these factors influence organizational success elsewhere in the application, particularly Category 7, Business Results.

5. Other strategic factors important to the organization

This section should provide information on:

- competitive factors, if applicable, such as the organization's position (size) in the industry, numbers and types of competitors, and principal factors determining competitive success;
- major new thrusts or future challenges;
- introduction of new technologies;
- laws and regulations significantly affecting operations;
- and new organizational alliances/partners

Page Limit

An APIC self-assessment has no page limit. If an organization is using the APIC to submit an application for the ACOE or PQA Award programs, please review the program's page limit and other format requirements.

MALCOLM BALDRIGE, PRESIDENTIAL QUALITY AND ARMY PERFORMANCE IMPROVEMENT AWARDS 2000

“CLIFFNOTES” for Leaders:

Developed by US Army CERL

1.0 Leadership

1.1 Organizational Leadership

How well senior leaders guide the organization in setting directions and in reviewing the organization's performance. Leaders accomplish this by:

- ❖ **setting, communicating, & deploying the organization's values & performance expectations;**
- ❖ **communicating the importance of creating value for the customer and balancing value for the customer & other stakeholders;**
- ❖ **creating an environment within the organization for empowerment & innovation;**
- ❖ **encouraging organizational & employee learning;**
- ❖ **reviewing the organization's performance to assess its “health” and its progress relative to established performance goals; and using performance review findings, along with employee feedback, to improve their leadership effectiveness.**

1.2 Public Responsibility & Citizenship

How the organization addresses its responsibilities to the public and how it practices good citizenship. Leaders facilitate this by:

- ❖ **translating the goals and standards for public responsibility and corporate citizenship into operational policies and procedures (anticipating the public's concern with current & future products/services & operations);**
- ❖ **making legal requirements and risks factors (risks associated with your products/services and operations) an integral part of performance measurement and improvements;**
- ❖ **ensuring ethical business practices in all stakeholder interactions; and**
- ❖ **identifying the organization's “key communities” and determining areas of emphasis for organizational involvement & support in these communities.**

2.0 STRATEGIC PLANNING

2.1 Strategy Development

The process the organization uses to develop strategies that will strengthen its performance and enhance its competitiveness. This is accomplished by:

- ❖ **addressing all key influences, challenges, and requirements that might affect the organization's future opportunities and directions;**
- ❖ **taking into account risks such as: financial, market place, societal, and others;**
- ❖ **identifying current & future requirements of customers and the market;**

- ❖ **considering the organization’s human resource, operational, and supplier and/or partner capabilities & needs; and**
- ❖ **using this information to develop goals and strategies for the organization with an established timetable for accomplishing each goal.**

2.2 Strategy Deployment

This involves how the organization’s strategic objectives are translated into action plans and how these plans are deployed. It includes key performance requirements and measures, and an outline of related human resource requirements and plans. The approach for this includes:

- ❖ **developing action plans (short and long-term) derived from the organization’s strategies;**
- ❖ **communicating and deploying the strategic objectives/requirements, action plans, and performance measures & indicators to achieve overall organizational alignment;**
- ❖ **determining how the performance of these plans will be tracked; and**
- ❖ **developing a two-to-five year projection of the organization’s performance in key business areas with respect to its competitors or benchmarks.**

3.0 CUSTOMER FOCUS

3.1 Customer and Market Knowledge

How the organization determines its short- and longer-term requirements and expectations, and how it uses the preferences of its customers and the market to anticipate needs, and develop business opportunities. Specifically it accomplishes this by:

- ❖ **targeting customers, and customer groups;**
- ❖ **identifying customers requirements and priorities;**
- ❖ **segmenting customers by market or group, or other categories (approaches to listening and learning may vary per category group);**
- ❖ **determining key requirements & drivers of purchase decisions for current & potential customers;**
- ❖ **continuously evaluating and improving its methods of determining its customers requirements;**
- ❖ **determining and projecting the key product and service features, and their relative importance and/or value to the customer; and**
- ❖ **using information from former customers and markets, to enhance its product and service features.**

3.2 Customer Satisfaction and Relationships

How the organization determines the satisfaction of its customers, and builds relationships to retain current business and develop new opportunities. Organizations facilitate this by:

- ❖ **having a process in place that makes it easy for customers to seek information or assistance about the organization’s products and/or services, or to voice a complaint;**
- ❖ **determining the requirements and priorities of the customer, and relaying those requirements to all employees who are involved in meeting those requirements;**
- ❖ **being timely in resolving customer complaints and using the information gathered from the complaints to make organizational improvements;**
- ❖ **regaining the confidence of dissatisfied customers;**

- ❖ receiving positive referrals from customers;
- ❖ obtaining objective information on customer satisfaction levels relative to the organization's competitors; and
- ❖ ensuring that the organization maintains an overall positive relationship with its customers.

4.0 INFORMATION AND ANALYSIS

4.1 Measurement of Organizational Performance

How the organization maintains an effective performance measurement system for understanding, aligning, and improving its performance at all levels within the organization. It does this by:

- ❖ selecting, managing and using a variety of financial & non-financial data & information for organizational planning and performance improvement;
- ❖ selecting measures and indicators for tracking its daily operations;
- ❖ selecting measures and indicators for tracking overall organizational performance;
- ❖ deploying performance measures throughout the organization to track work group and/or functional level performance;
- ❖ selecting competitive comparisons and benchmarks to drive performance improvements;
- ❖ ensuring that data is accurate & reliable; and that
- ❖ the organization's performance measurement system is kept current with its business needs and strategies.

4.2 Analysis of Organizational Performance

How information and data from all parts of the organization are analyzed to assess overall organizational health and to support daily operations. This involves:

- ❖ reviewing customer-related performance, operational performance (including human resource and product/service performance), competitive performance, and financial and market-related performance to assess progress relative to the organization's goals, plans and changing business needs;
- ❖ ensuring that the results of organizational-level analysis are linked to work group and/or functional-level operations to enable effective support for decision making (i.e., translating those review findings into improvement priorities and deploying them throughout the organization, and as appropriate to the organization's suppliers and/or business partners).

5.0 HUMAN RESOURCE FOCUS

5.1 Work Systems

How all employees contribute to achieving the organization's performance and learning objectives, through the organization's work design, and compensation & recognition approaches. It also focuses on developing employees to enable them and the organization to adapt to change. This is done by:

- ❖ designing, organizing, and managing work systems that promote cooperation, collaboration, individual initiative, innovation, and flexibility;
- ❖ encouraging communication, cooperation, and knowledge and skill sharing across work function and units; and
- ❖ motivating and encouraging employees to develop and utilize their full potential.

5.2 Employee Education, Training, and Development

How the organization develops the work force via education, training, and on-the-job reinforcement of knowledge and skills. This involves:

- ❖ **addressing the knowledge and skills employees need to meet their overall work and personal objectives, and at the same time considering the organization's need to develop its employees for leadership roles;**
- ❖ **balancing the short and longer-term needs of the employee against those of the organization;**
- ❖ **addressing how education and training are designed, delivered, reinforced, and evaluated within the organization, placing a special emphasis on "on-the-job" application of knowledge and skills;**
- ❖ **involving employees and their managers in the design of training programs and in determining individual and organizational training needs/requirements (which might include diversity training, safety training, or others, as appropriate);**
- ❖ **offering orientation of new employees;**
- ❖ **defining performance excellence for the organization's education and training system; and**
- ❖ **teaching employees to use performance measurements, performance standards and benchmarking in their jobs.**

5.3 Employee Well being and Satisfaction

How the organization maintains a work environment and work climate that support the well being, satisfaction, and motivation of its employees. This is accomplished by:

- ❖ **determining the key factors that affect employee well being, satisfaction, and motivation;**
- ❖ **assessing the overall work environment and work climate;**
- ❖ **addressing and improving workplace health & safety concerns (including ergonomic factors);**
- ❖ **enhancing the work climate via services, benefits & policies; and**
- ❖ **relating the assessment findings to business results to identify work environment and employee support climate improvement priorities.**

6.0 PROCESS MANAGEMENT

6.1 Product and Service Processes

How products and services are designed, implemented, and improved. Also, how production and delivery processes are designed, implemented, managed, and improved.

This is done by:

- ❖ **incorporating changing customer and market requirements and technology into product and service designs;**
- ❖ **using sound statistical methods to analyze market research data on customers and their requirements;**
- ❖ **having production and delivery processes that ensure the customer's requirements for quality and operational performance are met;**
- ❖ **coordinating the design, production and delivery of products to ensure a trouble-free introduction and delivery of products and services;**
- ❖ **involving all functions/departments that will work with a product/service, in the design phase of the new product/service;**

- ❖ **having design processes which incorporate “lessons learned” from past projects, and from other efficiency and effectiveness factors (e.g., cost control) to ensure better products and efficient delivery; and**
- ❖ **using control mechanisms to ensure that design, production, and delivery processes stay within specified tolerance levels.**

6.2 Support Processes

How the organization’s key support processes are designed, implemented, managed, and improved. This involves:

- ❖ **determining key requirements for support processes (incorporating input from internal and external customers as appropriate);**
- ❖ **designing and implementing key support processes to meet the customer’s requirements for quality and operational performance; and**
- ❖ **evaluating and improving these processes to achieve even better performance and reduced cycle time.**

6.3 Supplier and Partnering Processes

How the organization’s supplier and partnering processes and relationships are designed, implemented, managed, and improved. Also, how supplier and partner performance is managed and improved. This involves:

- ❖ **determining the performance requirements that your suppliers and/or partners need to meet for your organization to fulfill its overall requirements;**
- ❖ **developing objective and reliable measures for evaluating supplier and partner performance;**
- ❖ **establishing a procedure for relaying the performance information back to suppliers and partners; and**
- ❖ **determining ways to provide assistance and/or incentives to suppliers and/or partners to help them improve their ability to contribute to your organization’s overall performance.**

7.0 BUSINESS RESULTS

7.1 Customer Focused Results

The organization’s customer focused results, including customer satisfaction and product and service performance results.

- ❖ **A summary of customer focused results. Include data on levels & trends for the following:**
 - **customer satisfaction, and customer satisfaction relative to competitors**
 - **customer loyalty, positive referral, customer-perceived value, and customer relationship building, as appropriate; and**
 - **the organization’s product and service performance.**

7.2 Financial and Market Results

The organization's key financial and marketplace performance results.

- ❖ **A summary of financial performance, including aggregate measures of financial return and/or economic value, as appropriate.**

For example:

- financial results comparing world-class organizations in similar businesses.
- trends showing continuous improvement over three or more years.

7.3 Human Resource Results

The organization's human resource results, including employee well being, satisfaction, development, and work system performance.

- ❖ **A summary of current levels and trends in key measures and/or indicators of employee well being, satisfaction, development, work system improvement, and effectiveness. Addressing all categories and types of employees, as appropriate, and including appropriate comparative data.**

For example:

- current level, trends in key measures, and indicators of employee well being, satisfaction, dissatisfaction, and development; and
- results indicating a balance in focusing on the needs of employees, shareholders and customers; and
- all measures indicating that the organization would be a good place to work.

7.4 Supplier and Partner Results

Results of the organization's supplier and partner performance.

- ❖ **A summary of current levels and trends in key measures and/or indicators of supplier and partner performance, including organization cost and/or performance improvements attributed to supplier and partner performance, as appropriate. Include comparative data.**

For example:

- trends showing continual improvement in supplier & partner performance.

7.5 Organizational Effectiveness Results

Key operational performance results that contribute to the achievement of the organization's overall effectiveness.

- ❖ **A summary of key organization-specific results derived from: product and service quality and performance; key process performance; productivity, cycle time, and other effectiveness and efficiency measures; regulatory/legal compliance; and other results supporting the organization's strategy, such as new product/service introductions.**

For example:

- **internal product/service quality results;**
- **operational results (such as cycle time, productivity, or efficiency);**
- **regulatory and compliance results;**
- **public responsibility results;**
- **process results; and**
- **new product/service performance results.**

References:

ASQC Quality Press. *Malcolm Baldrige National Quality Award Criteria for Performance Excellence, Baldrige National Quality Program 2000.*

Brown, Mark Graham (1998). *Baldrige Award Winning Quality, 8th Edition: How to Interpret the Baldrige Criteria for Performance Excellence, New York, NY: Quality Resources.*