OFFICE OF THE UNDER SECRETARY OF DEFENSE

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QUISITION AND
CHNOLOGY

MEMORANDUM FOR DEPUTY SECRETARY OF DEFENSE (ACQUISITION REFORM)

FROM: ACTING ADUSD(AR/AP&P)
Prepared by Lt Col Floyd, 693-7794, June 17, 1996

SUBJECT: Past Performance Information Study

SUMMARY:

- On June 12, 1996 Arthur D. Little delivered a review draft of the final report for subject study. Feedback was provided to the contractor by Lt Col Floyd on June 14, 1996. The revised final report, dated June 17, 1996 is attached.
- Pages 82 through 91 contain ADL's conclusions and lessons learned.
- In response to DUSD(AR) specific questions the report concludes the following:
  - *Should DoD use past performance?* Yes, because:
    (1) it makes good business sense -- has overwhelming industry acceptance.
    (2) it is being used successfully in DoD now, although on a limited scale.
    (3) it can be tailored -- it should be made clear who may do tailoring and to what extent.
  - *What information should be collected--what type of approach should be used and what direction and guidance should be provided?*
    (1) Decentralized approach supported by general guidelines, decision rules, best practices, and information technology support.
    (2) Business area focus.
    (3) Total program context.
    (4) Horizontally integrated business areas across DoD.
    (5) User-driven -- including technical, management and procurement.
    (6) Share of PP information across DoD should be considered after above considerations.
    (7) PP approach needs to be simple and comprehensible.
    (8) PP policy implementation should follow the tenets, procedures and techniques of Contractor Evaluation Program ("To-be model").
    (9) FAR Part 42 PP information collection requirements:
      - Implemented for commodities, except commercial items.
      - Tested on pilot/prototype basis for services.
      - Not be required for major/small systems -- should be tested on pilot/prototype basis with emphasis on evaluation of processes.
- DFARS Case 95-D715 was forwarded to DAR Council June 14, 1996 for publication in the Federal Register as a final rule.
- We now need to formulate a "roll-out" plan for the study findings which would include implementation recommendations and call for plans from DoD components.

Approved by COL Charles J. Adams, Acting ADUSD(AR), 697-6398

#864

Contractor Evaluation Program

Final Report for the
Contractor Past Performance
System Evaluation Study
to the
Deputy Under Secretary of
Defense (Acquisition Reform)

~~June 10, 1996~~

Arthur D. Little, Inc.

Contract No. DASW01-95-F-2

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Section 1: Executive Overview

A. Background

Policy, legislation, regulations, and guidance have been issued on contractor past performance as it relates to Government contracting.

This action has caused some concern within DOD on the best approach for implementation. Because of these concerns, the Deputy Under Secretary of Defense (Acquisition Reform) determined that an independent study was needed before implementing a department-wide policy dealing with matters related to contractor past performance.

B. Objective and Scope

The principal objective of the study is to provide information and independent evaluations that will assist in the formulation of a DOD-wide policy on the collection and use of information on the past performance of contractors.

C. Summary of Results

Existing DOD and other Government Agency Past Performance Processes and Systems

This study area involved an evaluation of existing processes and systems. A prerequisite to this evaluation was a definition of terms and a structure for organizing the information that is currently available and relevant to the past performance of contractors. The definitions that were used made a distinction between the following types of information that pertains to the past performance of contractors:

- Performance information gathered at the time of a specific procurement decision on an ad hoc basis and for the exclusive use in that decision, and
- Performance information gathered on a routine basis as contract work is performed, which is further divided into:

- Information gathered for purposes of managing the active contracts, and
- Information gathered with the intention that it will be made available for use in acquisition decisions at some future date.

In the process of identifying and evaluating existing past performance information systems, the focus was placed on the information available for use in acquisition decisions at some future date. The following criteria were also used to precisely identify the existing processes and systems:

- Information is collected, validated and filed for the specific purpose of supporting future source selection decisions,
- Opportunity is provided for review, comment and rebuttal of the information by the contractor,
- Provisions are established to resolve disputes between the contractor and the government concerning the validity of the information,
- Information is subject to the same controls and safeguards as other information used in source selection decisions, and
- The system is in operation and currently supporting source selection decisions.

The application of these definitions and criteria revealed a very limited coverage for the past performance information systems that are currently in use in DOD relative to the requirements envisioned by the proposed FAR and DFARS implementation. The analysis also revealed two basically different types of systems. One type relied on an appraisal of the contractor's performance by an official, or officials, in a position to make a judgment on how well the contractor had performed. The other type relied on quality and delivery information gathered and recorded for the purpose of tracking the specific line items delivered under the terms of an existing contract. A third type of system was also identified which involves the certification of contractors based on their past performance and which draws on information that may be available from the two other types of systems noted above.

Past performance policy implementation was a matter of concern within the Government agencies as well. Only the GSA Federal Supply Service has an existing system. Most other Government agencies were primarily focused on how they were going to collect and validate past performance information for <u>future use</u> in procurement decisions.

One of the most noteworthy findings was a NASA decision to not collect past performance information ahead of time on their contracts. This decision was primarily based on the fact that award fee contracts cover about 80% of NASA's procurement

dollars and these contracts already provide for a periodic evaluation of the contractor's performance. Another factor in this decision was reported to be recent experience with a contractor evaluation system that proved to be an administrative burden and that did not provide the expected benefits. NASA will, however, continue to use past performance as a standard evaluation factor in source selection.

Industry Supplier Evaluation Programs

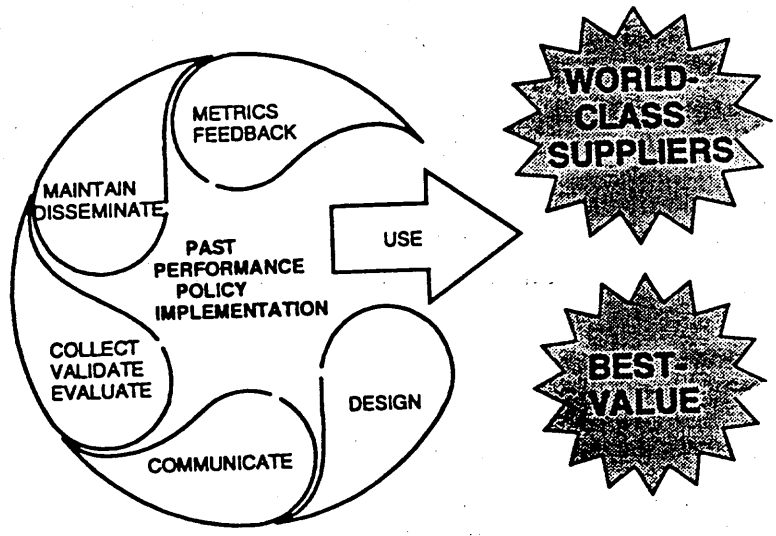
On the industry side, the use of supplier evaluation programs was generally found to be an integral element in programs designed to achieve improvement to the purchased goods component of the cost of goods sold. Purchases of the average U.S. manufacturing firms typically range from about 40% to 65% of sales, and therefore, to achieve and sustain a competitive position in a market not only requires, but demands attention to supplier evaluation programs and in particular to supplier relationships.

Another related trend that was evident in many industries was a move to establish more profitable, longer-term relationships with fewer suppliers. An important factor considered in this process was the demonstrated performance of particular suppliers based on a number of factors, including past contract performance.

Although the industry programs varied in many of their details, one of the common elements was a recognition that successful programs needed to be tailored to discrete business areas. And one of the initials steps was a thorough analysis of the specific business area with regard to company requirements, past and projected; as well as industry trends and the specific contractors and suppliers that represent current and potential sources of supply. This step was designed to lead to a sensible program, given the details of the specific business area.

Contractor Evaluation Program Model

One of the principal challenges in conducting the study was to find common ground, in the form of a model, that could be used to discuss and explore alternatives for dealing with contractor past performance issues and with the broader issues related to conducting market analyses, contracting for best value, and achieving world-class relationships and performance with contractors and suppliers.



Consequently, as a part of the study effort a Contractor Evaluation Program model was developed to serve as a frame of reference for evolving a consensus on a viable approach, not only for dealing with contractor past performance issues, but also for addressing the related issues indicated above--market analysis, best value contracting, and world class contractors and suppliers.

This model was developed from the Aurthur D. Little case histories and discussions with a wide range of Government and industry officials who represented a cross-section of the functions and disciplines that are involved in the acquisition of products and services. In addition, two workshops were held with representatives of Acquisition Reform Scenarios Steering Group (ARSSG) members.

A description of the model is contained in the body of the report. To some extent, the model may be viewed as a "straw man" at this stage, nevertheless it is believed to be an important step in achieving the objectives of the study. As currently envisioned, the Contractor Evaluation Program model has three principal elements:

- Business area plan--an analysis of the business areas in which contracts are awarded
- Business area strategy--an approach for dealing with contractor past performance and related issues in each business area
- Business area evalution process--the process for executing the approach in each business area.

The principles used in designing the model included the following:

- A cost-effective approach to the collection and use of contractor past performance information depends on, and is sensitive to factors related to the business areas in which products and services are procured and used (as opposed to a universal approach that can be applied to the full range of products and services procured by DOD in all sectors of the industry).
- A business area consists of a homogeneous group of products or services which share similar characteristics and for which a forward-looking plan and a coherent and congruous strategy and evaluation process can be developed.
- Business areas can be local or extended in application. In their most robust form, they constitute the horizontal integration of products and services.
- The process for implementing contractor past performance issues in a particular business area is developed from business area plans and strategy for the specific business area and typically involves a cross-functional team effort.
- The initial and vital step in developing plans and strategy for a business area is an analysis that covers the requirements for the product or service, past and projected; the industry composition and basis of competition; and the market trends and specific performance of leading companies in the industry.
- The business area plan and strategy will provide the basis for developing a tailored approach to the collection and use of contractor past performance information in the particular business area as well as the foundation for a total program designed to incorporate best value practices into the procurement process and to attract contractors and suppliers committed to high levels of performance.
- Information technology will be utilized to facilitate communication between Government managers in separate organizations with a need to share information about business area strategies and plans as well as the past performance of individual contractors in those business areas.

A description of the Contractor Evaluation Program is contained in Section III. C. of the report.

Business Case Analysis

The analyses were conducted from economics automated data informaiton systems, and comparison perspectives.

The business case analysis focused on the following areas:

- Process and automated systems analysis of current past performance systems;

- Analysis of recent changes to the FAR and proposed changes to the DFARS contractor past perfomrance relative to the As-Is model
- A proposed approach for dealing with contractor past perfomrance issues, referred to as the "To-Be Model"; and
- Differences between the porposed model and the FAR/DFARS approach.

The objective of *economic analysis considerations* aspects of the business case analysis was to provide information and insight that would help determine whether the use of past performance information in the procurement process makes good business sense. Also addressed in the study was the extent of the administrative burden associated with collecting the information.

We reviewed and diagrammed the process for the systems that are currently in use, and identified the principal activities that are involved in the collection and use of past performance information. These process analyses are discussed in the body of the report.

In examining the existing systems, the major cost elements were found to be related to the collection and validation of performance information for possible future use in source selection decisions. The major steps in that process are:

- Opportunity provided for contractor to review performance information
- Response possibly provided by the contractor in the form of comments, rebuttal, or additional informaiton
- Any response from contractor reviewed by Government officials and decisions made on possible adjustment to the evaluation
- All information treated as "Source Selection Informaiton" and filed for possible future use for a three-year period.

Attributing specific and quantifiable benefits to the existing systems was found to be extremely difficult. Factors that complicated these determinations included the following:

- Some of the information systems were in the early stages of implementation and specific, tangible benefits were yet to be demonstrated;
- The value of specific information was difficult to isolate because of the multiple sources and types of information that are available for use in a procurement process, and because the ultimate award decision typically involves a range information from many sources; and

- The existing systems were tailored to specific business areas and used information and evaluation factors unique to the particular business area (which did not necessarily have relevance outside of that business area).

A system used by the Air Force for major programs, as well as the systems used by the Corps of Engineers for architect, engineering and construction work, are tailored to specific areas, analogous to *business areas*. In so doing, evaluation factors were developed and used in these systems that had direct relevance to the type of work typically contracted for in the particular business area.

Whereas these systems seem to be operating well and for the purpose intended, there was concern that an attempt to design a system to cover all active contracts, in all product and service codes, will prove to be extremely costly with very limited benefits that can be supported by analysis. The rationale for this observation is presented in the body of the report.

Because of the design features of the Contractor Evaluation Program model, as previously enumerated, the cost/benefit ratio appears to be very favorable. This is largely because the specific contractor past performance information issues will be addressed and resolved at the business area level, typically by cross-functional teams that are formed in organizations with direct acquisition responsibility.

The Automated Data Information System aspects of the business case analysis reviewed and documented the information technology currently used, or planned for use, in two of the existing information systems. The ultimate resolution of issues related to the collection and use of contractor past performance information will clearly benefit from the application and use of information technology. Therefore, the objective of this task area was to explore some of the possible applications for this technology and to describe the potential system development options that appear reasonable and feasible at this point.

Comparison of existing programs, proposed DFARS, and the Contractor Evaluation Program was the final aspect of the business case analysis. This analysis determined that there were criteria that could be used to evaluate the overall performance of contractors and that these criteria could be reduced to common data elements for all types of products and services. However, we also found that the evaluation criteria had to be tailored to the type of work being performed in order for the information to be useful in making contractor selection decisions at some future date. Consequently, we concluded that it is not practical to strive for a single DOD-wide past performance

information system that prescribes the same detailed evaluation criteria and common data elements for use in evaluating contractor performance in all acquisition cases and proposes to collect that information in one system.

The business case analysis is in Section III. D. of the report.

D. Conclusions

Question: Should DOD use past performance?

Answer: Yes, because:

- it makes good business sense
- it is required by law and regulation
- it can be tailored to fit specific circumstances, although it is not clear who should do the tailoring and to what extent.

Question: What information should be collected--what type of approach should be used and what direction and guidance should be provided?

Answer: The DOD approach should follow these general principles:

- Decentralized--The range of products and services, and the variance in the size, scope, type, and complexity of contracts makes a standard, DOD-wide system impractical. Government and industry experience support a decentralized approach supported by general guidelines, decision rules, best practices, and information technology support.
- Focused on Business Areas--The implementation of past performance should focus on individual business areas at the operating level that encompass similar products or services for which a coherent and congruous strategy can be developed by organizations with procurement authority and technical responsibility.
- Total Program Context--Past performance needs to be viewed in the context of a total program that goes beyond the collection and use of past performance information, and covers:
    - Analysis of individual business areas, to include both internal and external factors

- Development of a sensible strategy for contractor past performance at the business area level.
- Processes designed to implement the strategy for business areas in which the organization is active

- Horizontally Integrated--The business area concept starts at the local level, where it is integrated with the overall acquisition strategy and procurement planning for the business areas. As business area alliances are formed, it exerts a DOD-wide horizontal integration effect by joining similar business areas across the Services and DLA. The implementing direction needs to emphasize the need for this integration and coordination.
- User-Driven--The users of past performance information need to have the principal role in defining what information to collect, when to collect it, and how to make it available for their use in selecting contractors. And the users should include the technical, management, and procurement officials who are involved in and responsible for making contractor selection decisions.
- Share Information--Systems and processes for sharing past performance information among organizations depend on all of the above and should be dealt with after all of the above are dealt with.
- Simple--To be effective, the past performance approach has to be easy to understand and explain, without being simplistic, or it runs the risk of being misunderstood, ignored, or both.

Section II. Goals, Objectives, and Methodology

A. Background

Policy, legislation, regulation, and guidance have been issued over the past three years on matters related to the collection and use of contractor past performance information in the awarding of government contracts.

Methods and approaches for implementing this direction and guidance within the DOD have been studied, discussed, and evaluated by officials in the Office of the Secretary of Defense (OSD), in each of the military services, and in the Defense Logistics Agency (DLA). In addition, the Past Performance Coordinating Council (PPCC) procurement representatives from the services and DLA have been active in developing a DOD-wide position on contractor past performance.

The current plan in DOD is to issue a change to the Department of Defense FAR Supplement (DFARS) establishing the manner in which contractor past performance will be handled within the Department of Defense. The DFARS change is in the final stages of coordination.

In addition, there has been, and continues to be, some concern and reservation on the part of officials within the DOD on many of the issues that surround the implementation of the existing policy and regulations--as well as the contemplated changes that are contained in the draft DFARS. Although the policy and regulations provide that implementation can be tailored to the particular circumstances and nature of a procurement program, there has been no consensus on the extent of the tailoring that should or could be done, nor on who should be empowered to do the tailoring.

Because of these issues and concerns, the Deputy Under Secretary of Defense (Acquisition Reform) determined that further study was needed before implementing a department-wide policy dealing with matters related to contractor past performance.

B. Objective and Scope

The principal objective of the study was to provide information and independent evaluations which will assist in the formulation of a DOD-wide policy on the collection and use of information regarding the past performance of contractors. More specifically, the study was twofold. First, it was to consider:

- All existing past performance processes and systems used within the DOD, and a sample of comparable processes and systems used by other federal agencies and commercial firms;
- The manner in which past performance information is collected and validated;
- The past performance data elements prescribed by the functional users;
- Customer satisfaction with past performance information and the systems that provide this information;
- Customer views on the difference that past performance information makes in the source selection process;
- An economic analysis to determine whether the use of past performance information makes good business sense;
- The appropriate use of contractor past performance information;
- The current use of past performance information within DOD; and
- The administrative burden associated with collecting the information.

Second, it was to develop a model program, using the results of the above considerations, to assist past performance policy implementation.

C. Methodology

The principal steps in our approach for this study were:

- Research
- Review
- Interviews
- Analysis
- Benchmarking
- Model Program Development
- Functional Requirements Development

- Business Case Analysis

A description of the major activities that occurred as these steps were applied and the results of these efforts are included in Section III of the report. A brief overview for each step follows:

Research

Government, industry, and Arthur D. Little research resources were used to provide a starting point for the study. Our research at the start of the study was focused in three areas:

- History of past performance information systems in DOD. We examined the history of other past performance efforts in DOD since the 1960s. The collection and use of past performance information in source selection decisions is not new--numerous approaches have been tried, and this historical perspective has proven useful in guiding the study as well as developing our recommendations.
- Policy, Legislation, Regulations, and Guidance.

- The principal documents reviewed included:
  - OFPP's Policy Letter 92-5, Past Performance Information, December 30, 1992
  - Section 1091 of the Federal Acquisition Streamlining Act of 1994 (FASA)
  - Federal Register, March 31, 1995, Federal Acquisition Regulation, Past Performance Information, Final Rule
  - OFPP's "A Guide to Best Practices for Past Performance," Interim Edition, May 1995.
  - Proposed amendment to Defense Federal Acquisition Regulation Supplement (DFARS)
  - DUSD (AR) and Past Perfomrance Coordinating Council information
- Arthur D. Little's Industry Supply Chain Management Database. Arthur D. Little maintains a database of Industry Supply Chain Management case histories which was reviewed.

Reviews of Past Performance Processes and Systems

A comprehensive review process was used to *identify* and *categorize existing* past performance information systems in the federal sector. The approach we followed was to first identify all systems and processes that contained, or in some way dealt with, past performance information. They are as follows:

Systems and Processes Related to Past Performance

	Acronym	System/Process Name	Owner
1	ABVM	Automated Best Value Model	DLA
2	ACASS	A&E Contract Administration Support System	COE
3	ACPS	Automated Contract Preparation System	Air Force
4	ACTS	Automated Configuration Tracking System	DCMC
5	AMIS	Acquisition Management Information System	Air Force
6	BCAS	Base Contracting Automation System	Air Force
7	BRP	Blue Ribbon Program	All DOD
8	C/SSR	Cost/Schedule Status Reports	DOD
9	CCASS	Construction Contract Appraisal Support System	COE
10	CCSS	Commodity Command Standard System	Army
11	CDCS	Customer Depot Complaint System	DLA
12	CIS	Contractor Information System	Army
13	CIS	Contractor Information Service	DCMC
14	CPARS	Contract Performance Assessment Reporting System	Air Force
15	CPR	Cost Performance Reports	DOD
16	CPS	Contractor Profile System	DCMC
17	DPACS	DLA Pre-award Contracting System	DLA
18	GIDEP Alerts	Government Industry Data Exchange Program Alerts/Safe Alerts	DOD
19	JO41	Acquisition and Due In System	Air Force
20	JACG-IPT	Joint Aeronautical Commanders Croup Integrated Product Team (study covers contractor past performance and supplier rating)	Joint Service/ DLA
21	MIR	Material Inspection Records	Navy
22	MOCAS	Mechanization of Contract Administrative Services	DCMC
23	PADDS	Procurement Automated Data and Document System	Army
24	PASS	Pre-award Survey System	DCMC
25	PDREP	Product Deficiency Reporting and Evaluation Program	Navy
26	PQDR	Product Quality Deficiency Reports	DCMC
27	PRAG	Performance Risk Assessment Groups	Army/ AF
28	PROCAS	Process Oriented Contract Administration Services	DCMC
29	QPL	Qualified Parts List	Navy
30	RAM	Risk Assessment Model	DCMC
31	RYG	Red Yellow Green	Navy
32	SAACS	Standard Army Automated Contracting System	Army
33	SALT	System Analysis and Lab Testing	DLA
34	SAMMS	Standard Automated Material Management System	DLA
35	VRS	Vendor Rating System	Air Force

In the next step, we used the definition of past performance information to focus on the more relevant systems and processes. According to the OFPP Policy, *past performance*

information regarding a contractors actions under previously awarded contracts is relevant information. Past performance information includes the contractor's:

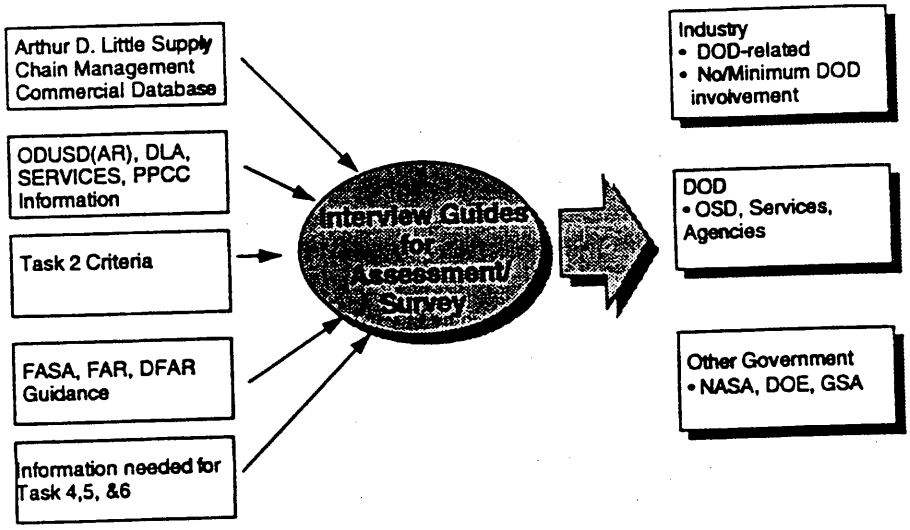
- Record of conforming to specifications and to standards of good workmanship;
- The contractor's record of containing and forecasting costs on any previously performed cost reimbursable contracts;
- Adherence to contract schedules, including the administrative aspects of performance;
- History for reasonable and cooperative behavior and commitment to customer satisfaction; and
- Business-like concern for the interest of the customer.

The next step involved further screening of the systems and processes using the definition for past performance information systems. This definition was derived from guidance and direction contained in OFPP Policy Letter No. 92.5, FAR changes (FAC 90-26), and OFPP "A Guide to Best Practices for Past Performance." The definition used for past performance information systems is as follows:

- Information is collected, validated and filed for the specific purpose of supporting future source selection decisions;
- Opportunity is provided for review, comment and rebuttal of the information by the contractor;
- Provisions are established to resolve disputes between the contractor and the government;
- Information is subject to the same controls and safeguards as other information used in source selection decisions; and
- System is in operation and currently supporting source selection decisions.

Interviews

We conducted interviews to obtain current information on existing past performance processes and systems. The chart below illustrates the approach we used to gather data on existing past performance process and systems.



Data to construct the interview guides was obtained from Arthur D. Little supply chain management databases; information provided by DUSD (AR); the evaluation criteria contained in the statement of work for the study provided above; data from the relevant Federal Acquisition Streamlining Act, Federal Acquisition Regulation, and Office of Federal Procurement Policy documents; and questions for information we anticipated would be needed later in the study.

The interview guides and their application provided a consistent, structured approach to data collection. As indicated in the right-hand side of the above chart, interviews were conducted in three major sectors--DOD, including OSD, the Services and DLA; industry, including both defense and commercial contractors; and non-DOD Government agencies, including the National Aeronautics and Space Administration, Department of Energy, Department of Commerce, General Services Administration, and Department of Transportation.

An important outcome of this approach was the broad industry and government response we were able to obtain. Such response was significant in that it assured broad representation and helped mitigate potential bias. A wide range of DOD organizations was contacted for information relevant to this study. Interviews were conducted with representatives of: Defense Logistics Agency (DLA) at Headquarters and at the Defense General Supply Center; Defense Contract Management Command; Assistant Secretary of the Army/Research, Development, and Acquisition; Army Material Command; Army Corps of Engineers; Secretary of the Air Force/Acquisition Contracting; Air Force Material Command/Procurement and Wright Laboratories; Assistant Secretary of the Navy/Research Development and Acquisition; Naval Air Systems Command; and Naval Material Quality Assurance Office. Non-DOD Federal Agencies were also contacted. GSA in particular provided significant coverage in terms

of contracting experience since GSA manages many contracts that serve other federal government agencies. NASA provided a technology perspective and DOE the perspective of complexity. Such wide organizational representation also provided a diversity of experience in terms of the nature of the products and services that were acquired.

It is important to note that in conducting the interviews, information was gathered not only from users of past performance systems and processes, but also from the managers and owners of such systems and processes. This approach provided assessments and ideas from many individuals representing the different points of view in the process. Together, the DOD and non-DOD sources of information provided a relatively large experience base to draw upon. This base was a particular strength of this study. The interview guides are included in Appendix A.

Analysis

Analyses were conducted for each of the existing systems to determine the success of each system in meeting its past performance information system objectives. Other analyses examined the extent of coverage provided by the existing systems relative to contract dollar value, product or service areas, and the evaluation factors cited in the OFPP guide on Contractor Past Performance.

In addition, each of the systems and processes was compared to the evaluation factors contained in the Statement of Work. These factors covered the following:

- Data System Design--centralized or non-centralized
- Kinds of data used--government, private
- Integrity of data--identity of sources
- Accuracy
- Currency
- Remedial Process by Contractors
- Availability of Information for Source Selection
- Confidentiality
- Sub-contractor Involvement
- Maintaining Identity of Contractors That are Acquired
- Fairness
- Due Process
- Lack of Past Performance

- Threshold of Applicability
- Capability of Attribution
- Penalty

Each of the services and DLA have initiatives underway which aim at expanding the past performance information available for use in contractor selection decisions. Planned past performance information sources were identified in the study along with the conceptual approach that will be applied and the depth of coverage.

Systems used by other government agencies were also analyzed, focusing on the following four areas:

- Published Policies
- Rating System
- Databases
- Known problems with existing approach to past performance evaluation

Benchmarking

The benchmarking phase of the study was developed through on-site visits and the review of information in the Arthur D. Little Supply Chain Management practice database and secondary research. For benchmarking purposes we interviewed companies which are considered to be best in class in terms of supplier past performance evaluation. These firms included:

- Allen-Bradley
- Baxter Health Care
- Black & Decker
- Boeing Defense and Space Group
- Fisher Scientific
- Ford Motor Co. (by telephone)
- McCormick & Co.
- McDonnell Douglas/C-17
- Mobile Corporation
- National Semiconductor
- Rockwell North American
- U.S. Postal Service

- W. W. Grainger

We compiled the results into a series of "best practices" for DUSD(AR) consideration.

Model Program Development

The Contractor Evaluation Program is the model program we developed to assist DUSD(AR) in past performance policy implementation. We approached the development of the Contractor Evaluation Program by refining our benchmarking results and by conducting workshops for DOD officials who were involved in acquisition reform initiatives and who represented the functional areas that were affected in some way by contractor past performance processes and systems.

In so doing, several workshops were held with the following representatives from the Acquisition Reform Senior Steering Group (ARSSG) and the Past Performance Coordinating Committee (PPCC):

- Major Programs (API)
- Logistics
- Economic Security
- Systems Engineering
- Quality
- Inspector General
- Procurement
- General Counsel
- Defense Contract Management Command (DCMC)
- Defense Contract Audit Agency

Workshops were built around four inter-related modules, listed below:

- Review background informaiton (address new policies; government and industry programs)
- Develop working definition of contractor past performance
- Assess selected contractor past performance evaluation practices
- Develop a working process for contractor past performance

Workshop participants were introduced to the goals, objectives, and desired outcome of the study. In order to provide a baseline for each workshop, information was provided to participants on DOD 5000 and FAR/DFARS, as well as on common elements associated with a contractor evaluation program. In addition, industry supplier evaluation programs and lessons learned from industry were shared with participants.

During the workshops, maximum opportunity was provided for participants to share their perspectives on past performance evaluation. Participants also addressed questions concerning a DOD contractor vision and implications of anticipated changes for the acquisition community.

Functional Requirements Development

The Contractor Evaluation Program was analyzed to develop a functional requirements document.

Business Case Analysis

The business case analysis focused on an assessment of the alternate approaches for implementing Past Performance policy. Information was addressed in three areas:

- The current processes and systems that deal with contractor past performance;
- The recent changes in the processes and systems that are directed by the FAR and the proposed changes to the DFARS; and
- A proposed approach for dealing with contractor past performance issues, referred to as the Contractor Evaluation Program

The analysis covers process mapping, automated data information system analysis, and a comparison of the differences between the proposed Contractor Evaluation Program model and the FAR/DFARS approach.

SECTION III. A. Government Perspective

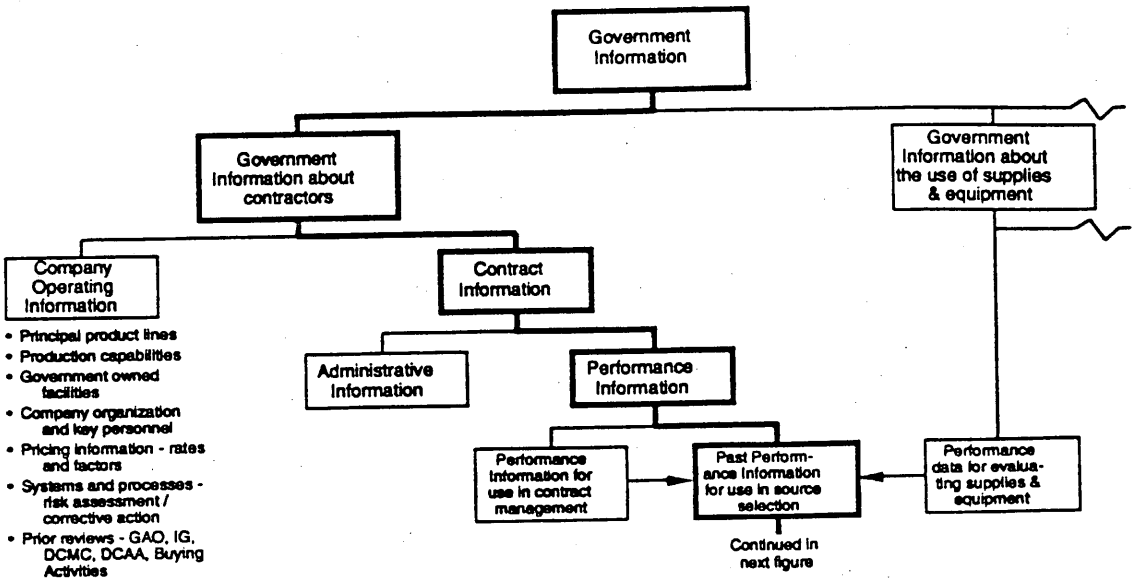
1. Establish Past Performance Information Definition

Past performance information is relevant information regarding a contractor's actions under previously awarded contracts. It includes:

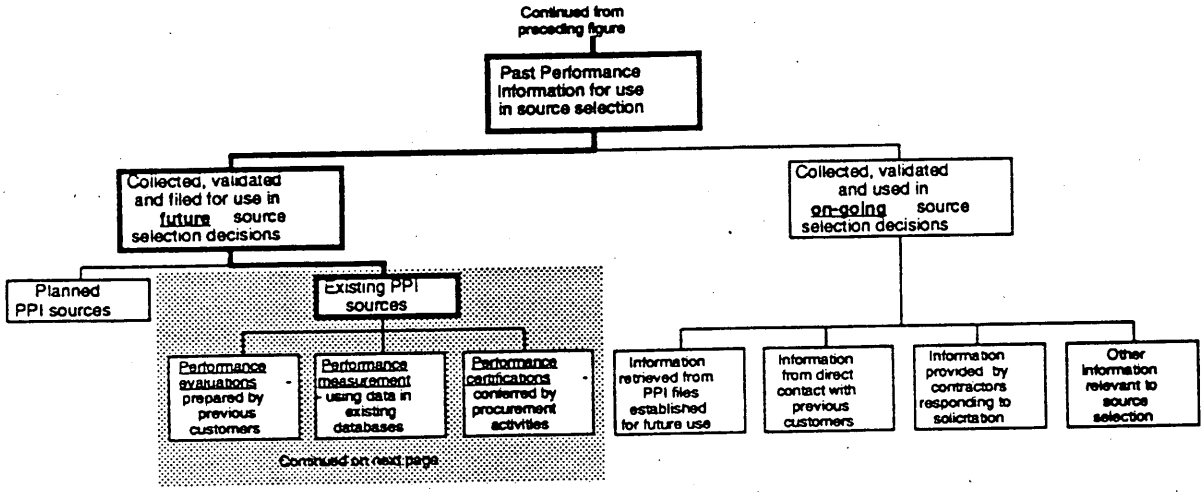
- The contractor's record of conforming to specifications and to standards of good workmanship
- The contractor's record of containing and forecasting costs on any previously performed cost reimbursable contracts
- The contractor's adherence to contract schedules, including the administrative aspects of performance
- The contractor's history for reasonable and cooperative behavior and commitment to customer satisfaction
- The contractor's business-like concern for the interest of the customer

2. Develop Past Performance Information Structure

The 35 systems and procedures we examined listed in section II contained or in some way dealt with past performance information but did not have comparable information system structures. To add to the challenge most of the databases contained the information in multiple categories e.g. company, contract performance, administrative. We therefore found it useful to devise a scheme to classify all past performance information within the context of all government information. This information structure is shown below:



Once the chain of information leading to past performance information for use in contractor selection was established, we distinguished between past performance information collected, validated, and filed for use in future contractor selections, and past performance information that collected and used--possibly validated--during an on-going selection. This distinction is depicted as follows:



3. Identify Existing Systems and Processes

Criteria derived from OFPP Policy Letter No. 92-5, FAR (FAC 90-26), OFPP "A Guide to Best Practices for Past Performance," and interviews with government and contractor users, system managers, and process owners were used to specifically identify existing

government past performance information systems, as opposed to systems that just had past performance information elements.

Building on the definition of past performance information, the following criteria was used to specifically identify existing past performance information systems:

- Information is collected, validated, filed, and dissemenated for the specific purpose of supporting future contractor selection decisions;
- Opportunity is provided for review, comment and rebuttal of the information by the contractor;
- Provisions are established to resolve disputes between the contractor and the government;
- Information is subjected to the same controls and safeguards as other information used in contractor selection decisions; and
- System is in operation and currently supporting contractor selection decisions.

Thus, a past performance information system is an ongoing effort to collect and record past performance information for subsequent use in determining contractor eligibility and selection.

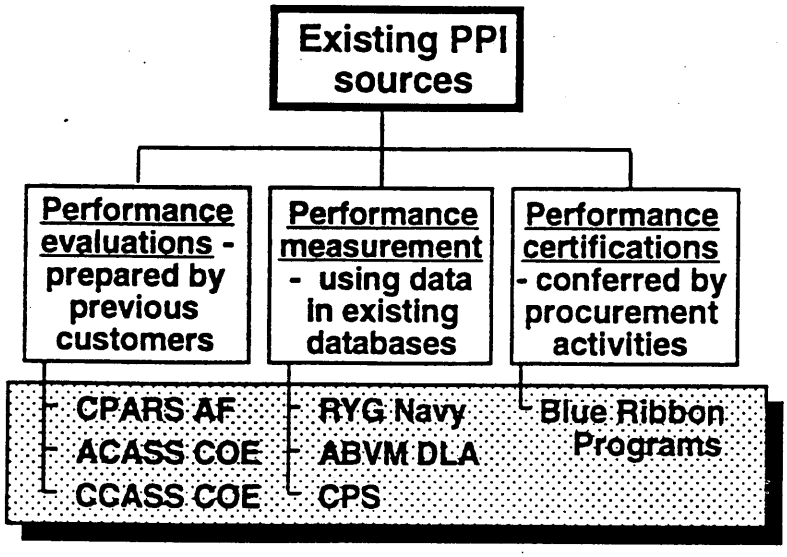
Using this definition, we identified three types of past performance information systems-- which include six distinct systems from the list of 35 systems we reviewed. The three types of past performance information systems are:

- Performance appraisal systems which contain contractor evalutions prepared by cognizant government officials;
- Performance tracking systems which draw on quality and delivery data from existing databases, and
- Performance certification systems which establish specific criteria which are applied for purposes of identifying high levels of performance exhibited by certain contractors.

Using this structure, the following past performance information systems were identified:

- Performance appraisal systems
  - Contractor Performance Assessment Reporting System (CPARS) developed and used within the Air Force
  - A&E Contract Administration Support System (ACASS) developed and used by the Army Corps of Engineers

- Construction Contract Appraisal Support System (CCASS), also developed and used by the Army Corps of Engineers
- Performance tracking systems
  - Red/Yellow/Green (RYG) system developed by the Navy Supply Systems Command and used by certain procurement orginizations within the Navy
  - Automated Best Value Model (ABVM) devleoped and used within DLA
  - Contractor Profile System (CPS), also developed by DLA
- Performance certification systems which include Blue Ribbon Programs which have been implemented by some procurement organizations



Performance appraisal systems, such as CPARS and ACASS, generally cover a wide range of evaluation factors--CPARS addresses 14; ACASS rates 11. Performance tracking systems generally focus on two or three factors. The difference in a number of factors is generally due to two reasons: tracking systems are associated with higher volume, relatively small dollar acquisitions ($25 - $500K), and evaluations may be conducted on less than the whole contract requirements. The performance appraisal systems differ from tracking systems in both respects in that the evaluation is for the whole contract and it is used on a relatively low-level of high-dollar transactions. CPARs uses interim reports so in one sense is also based on less than the whole contract, but the final CPARS report card for a contractor is accomplished for the whole contract requirement. The existing systems focus on a specific segment of the DOD acquisition program in terms of contractor dollar value and product/service.

Performance certification systems are generally for the same level of complexity and dollar value as tracking systems. They build on the data in tracking systems but go a step beyond rating and ranking contractors. Performance certification systems actually offer pre-established evaluation standing in the contractor selection process. Certifying contractor performance requires a broader/deeper level of information than is obtained in tracking systems.

4. Coverage of DOD Acquisition Program by Existing Government Past Performance Information Systems

By 1997 the proposed DFARS policy provides that past performance information must be collected for all contracts over $100,000. There is currently a large number of active DOD contracts and it is important at this point to discuss the coverage that existing past performance information systems provide relative to the total DOD acquisition program. It is this collection requirement that is the biggest challenge DOD is facing in implementing past performance policy.

This table shows the limited coverage that is available from current systems from dollar value and product/service perspective.

Contract Dollar Values	Research & Development	Services and Construction	Supplies and Equipment
> $ 5 M			CPARS[1]
> $ 100 K		ACASS CCASS	
> $ 100 K			RYG[2] ABVM[3] BRCP

[1] CPARS is also used on major R&D programs

[2] The contractor performance data only from RYG can be used for transactions above $100K

[3] ABVM can be used for higher dollar transactions where the higher dollar value is due to greater quantities

Gaps in coverage are evident. Supplies and Equipment have the most applications in terms of past performance evaluation systems.

5. Systems Assessments and Key Characteristics Evaluation

The system assessments and key characteristics evaluations required by the Statement of Work as to the success of the existing government past performance information systems follow.

System Assessment--Red/Yellow/Green (RYG) This is a Navy system designed to help reduce the risk of receiving non conforming products and late shipments. RYG classifies the degree of risk by assigning a color code to a contractor's historical quality and delivery performance in individual Federal Supply Classifications (FSCs). Red is high risk, yellow is moderate risk, and green is low risk. The system provides procedures and an automated system for incorporating these classifications into contractor selection decisions.

In addition to the color indicators, the system provides price adjustment factors that reflects the additional cost to the government for actions needed to reduce the risk of receiving non conforming products and late deliveries. When added to a red or yellow offeror's price, the adjustment factor may displace the low offeror in favor of an offeror with a better product quality and delivery history. The price adjustment feature of the system generally has relevance to the smaller contracts because the adjustment factors represent a fixed amount and this amount tends to lose significance as the contract value approaches $100,000.

The RYG system tracks the quality of items delivered under specific line items and does so by relating discrepancy information observed and reported by government personnel at sites that accept and stock the material. This information is used to calculate a rating for the contractor's specific plant location and for the specific FSC. An opportunity is provided to each contractor to review their ratings, and to challenge the basis upon which the ratings were determined. Any differences are resolved between the government and the contractor.

The ratings and the related price adjustment factors are then available for use by government officials as a factor in contractor award decision, provided that the solicitation informed the contractors that this past performance information would be used for making the award. The system does not currently cover delivery information, although activity is underway to include this information. And the system does not have the capability to track the in-service quality and reliability of items after delivery and acceptance, although this type of information can be retrieved from the database upon which the RYG system draws its data.

The RYG system has been in operational use for over five years and implementation and enhancements are continuing. The following was determined during the course of the study:

- The RYG system was available at 17 of the planned 41 sites, but some are closing
- Plans for expanded use at more sites are unclear and unscheduled
- Use to this point has largely been by advertising the system's value versus directing its use

The RYG system includes quality data and is currently adding delivery performance, which is not yet operational. It combines the data with an algorithm that produces a color indicator (red, yellow, or green) and a Technical Evaluation Adjustment (TEA), which is a price adjustment added to bid price of contractors with a yellow or red rating. As the dollar value of the contract increases, the effect of the TEA in an award decision decreases. For example, contract awards over $100K do not use the TEA feature. However, color code ratings can provide a past performance indicator for any contract value. When delivery performance is incorporated in the system, two sets of past performance indicators will be provided for each FSC in which a contractor does business - one for quality and one for delivery. RYG Data is downloaded monthly to the using acquisition offices. Contractor have electronic access to and can read their ratings. RYG gives indications that design objectives are being met, but it is too soon to judge ultimate success throughout the Navy with any certainty.

System Assessment - ABVM: This DLA system is also designed to cover specific equipment and supplies with FSC's and firm specifications. In this respect, coverage of the system is similar to the RYG system. It includes information on the reported quality and on-time deliver of specific contract line items and uses this information to calculate a score for each contractor's site and for each FSC. An opportunity is provided to each contractor to review their scores, and to challenge the basis upon which they were determined. The scores are then made available to buyers for use in making award decisions. The ABVM also has the capability to include the results of random testing for items accepted and maintained in stock.

The ABVM is a module in the DLA Pre-award Contracting System, which is the migration system being used in the development of the Standard Procurement System (SPS). Initial implementation of ABVM started in 1995 and is currently underway at DLA sites. Consequently, it was not practicable to conduct an objective assessment of the system from the perspective of users. A user survey is currently being planned by DLA to assess the performance of the system and to solicit ideas for system enhancements.

The ABVM system is in the early stages of operational use. For example:

- Defense General Supply Center started ABVM operation in July 1995:
- Training programs are currently underway
- Other DLA Centers will have installed the system in 1996.

The ABVM system includes quality and delivery performance data which are combined with an algorithm to produce a score for each contractor in each FSC. Past performance scores are used as a tool in making a comparative assessment of price and performance risk. ABVM information is provided to buyers through DPACS. Contractors can read, rating through in EBB. ABVM replaces the Quality Vendor Program (QVP) as the principal system used by DLA. QVP is a performance certification type system rather than a performance measurement system. DLA shifted to the ABVM because QVP was:

- Too burdensome to administer;
- Covered only a small portion of the supplier base;
- Ended up with two ratings--certified and non-certified rather than a more comprehensive ranking of the suppliers

QVP is still authorized for use for specific FSCs or selected service requirements by individual contracting offices. ABVM gives indications that design objectives are being met, but it is too soon to judge ultimate success throughout the DLA with any certainty.

System Assessment - CPARS: This is an Air Force system that applies to major acquisition programs above $5 million. It involves a periodic assessment by government officials responsible for the overall program and covers factors that include:

- Product / system performance, including system engineering and software development
- Schedule
- Cost performance
- Product assurance
- Test and evaluation
- ILS program
- Management responsiveness
- Subcontract management

Each report includes a description of the program, a statement describing the contractor's effort, a narrative that addresses the performance of the contractor during the period, and a rating for each of the evaluation areas listed above using four color codes--red, yellow, green and blue. Performance appraisals are provided to contractors for their review and comment, and then reviewed by the Government evaluator who may adjust the initial appraisal.

At the present time CPARS is a manual system. Completed reports are identified as "Source Selection Information" and filed in libraries maintained at AFMC organizations that initiate the assessment report. Information is retrieved for use in source selection decisions by contacting the cognizant CPARS focal point.

Some initial action has been taken to automate the CPARS process utilizing Lotus Notes as well as to extend coverage to small systems, services, science and technology, and operational contracting.

This Air Force system was designed for major system acquisitions with a low volume of transactions, extensive performance measurement categories, and is a manual system kept in files at Product Centers. It provides strong support to the source selection process by communicating contractor strengths and weaknesses; it covers relevant areas of performance; uses contractor data; and is updated every 12 months. It may also provide out-of-cycle reports. It provides relative performance feedback to contractors across all measurements. CPARS very consistently performs its intended purpose as reports are based on first-hand data controlled by program offices.

System Assessment - ACASS & CCASS: ACASS is a system used by the Army Corps of Engineers which covers architect and engineering services related to construction (Code C in the coding structure used by the Federal Procurement Data System (FPDS)). Evaluations are prepared by professionals who review and accept the work. Principal evaluation areas include:

- Thoroughness of site investigations
- Quality control procedures and execution
- Accuracy of plans and specification
- Clarity and completeness of the plans
- Overall management and adherence to schedule
- Compliance with cost limitations
- Suitability of design or study results
- Environmental suitability of proposed solution

- Cooperativeness and responsiveness of contractor
- Quality of briefings and presentations

Evaluations are prepared at the completion of contract efforts and ratings are assigned in three categories -- outstanding, satisfactory, and unsatisfactory. Contractors have the opportunity to review and challenge the evaluations. And completed assessments are maintained in a central database which can be accessed by officials who are involved in contracting for A&E services.

CCASS is also a system used by the Army Corps of Engineers which covers the construction of structures and facilities (Code Y in the coding structure used by the FPDS). Evaluations are also prepared by professionals who review and accept the work. Principal evaluation areas include:

- Quality of work (including eleven sub-factors)
- Timeliness (including seven sub-factors)
- Effectiveness of management (including nine sub-factors)
- Compliance with labor standards (including three sub-factors)
- Compliance with safety standards (including three sub-factors)

Evaluations are prepared at the completion of contract efforts and ratings are assigned in five categories--outstanding, above average, satisfactory, marginal and unsatisfactory. Contractors have the opportunity to review and challenge the evaluations. And completed assessments are maintained in a central database which can be accessed by officials who are involved in contracting construction work.

These systems were originally designed to facilitate selection of "qualified" A&E and construction contractors. The systems were recently expanded to provide for incorporation of past performance information into contract award decisions. Evaluations are performed by government professionals responsible for reviewing and accepting work, namely:

- Administrative Contracting Officers
- Contracting Officer's Representative
- Other Receiving Officials
- Resident Engineers

Reports are reviewed with contractors and entered into a central database via computer or mail. Access to the data is provided to COE elements; contractors do not have read access to the rating information.

The CPARS approach used for major acquisitions has been tailored to be suitable for small systems, services, and R&T. The tailoring is primarily in the evaluation factors that are addressed in each case. Some initial work has also been done in automating the records that would facilitate the communication with contractors and the filing and retrieval of information.

System Assessment--Contractor Profile System (CPS): The Contractor Profile System, a DLA system that is currently available for use, did not fully meet the other criteria for past performance information systems. Work is underway by DCMC to enhance MOCAS data extraction. DCMC's Contractor Information Service which is currently under development will encompass CPS and its system enhancements which are in progress. The CIS is discussed later in this report under planned past performance information systems.

Key Characteristics Evaluation: The results of comparing the five existing DOD Past Performance Information Systems to the 16 key characteristics provided in the Statement of Work is shown below.

System Evaluation Factors	Existing Past Performance Information Systems				
	RYG Navy	ABVM DLA	CPARS Air Force	ACASS CCASS	CPS DLA
Data system design - centralized or non-centralized	Centralized	Non-centralized	Centralized	Centralized	Centralized
Kinds of data used - Government, private	Quality and delivery	Quality and delivery	Cost, schedule, tech. perform.	Cost, schedule, tech. perform.	Access to exist - ing databases.
Integrity of data – identity of sources	Drawn from ex- isting databases	Drawn from ex- isting databases	Eval. by respon - sible officials	Eval. by respon - sible officials	MOCAS, PASS, and DPACS
Accuracy	Ensured by con - tractor review	Ensured by con - tractor review	Ensured by con - tractor review	Ensured by con - tractor review	Limited to accu - racy of data input
Currency - frequency of update	Monthly	Monthly	Annually & con - tract completion	At contract completion	Based on source databases
Remedial process by contractors	Yes	Yes	Yes	Yes	No routine process in place
Availability of information for source selection	Via computer terminal	Via computer terminal	From CPARS focal point	Via computer terminal	Via computer terminal
Confidentiality	Yes	Yes	Yes	Yes	Yes
Subcontractor involvement	No	No	Yes	No	No
Maintaining identity of con - tractors that are acquired	Yes	Yes	Yes	No	No
Fairness	Yes	Yes	Yes	Yes	Fairness ensured by user
Due process	Yes	Yes	Yes	Yes	Due process ensured by user
Lack of past performance	Neutral rating used	Average score used	NA	Not included in database	Not addressed in system
Threshold of applicability	Primarily below $100K	Primarily below $100K	$5M and above	Over $25K	DLA contracts & admin. by DCMC
Capability of attribution	Protected	Protected	Protected	Protected	No performance evaluation info.
Penalty	Info. used in source selection	Info. used in source selection	Info. used in source selection	Info. used in source selection	Info. used in source selection

Detailed evaluations for each system are included in the appendix section.

6. Systems Under Development

Each of the Services and DLA have initiatives underway to implement DFARS that are aimed at expanding the past performance information available for use in contractor selection decisions.

The Air Force is examining an automated version of CPARS. The Navy is exploring a Contractor Evaluation System. The Army is developing a Performance Information Management System. DLA is developing the Contractor Information Service.

The Contractor Information Service design goal is to make DCMC's knowledge and experience more accessible to its customers, including:

- Near term - enhance MOCAS data extraction capability and develop past performance input screens

- Mid term - merge three existing systems (CPS, PASS, DSIS) into a single information system over the next two to three years

Information will be organized on a company-wide basis with a capability to "drill down" to divisions and plant facilities. Coverage envisioned at this time includes:

- Principal product lines and unique production capabilities
- Company organization and key personnel
- Sales, earning and financial health
- Past performance history - trends, data, and commentary
- Pricing information - rates and factors
- Systems and processes status - risk assesments and corrective actions
- Prior reviews - GAO, IG, DCMC, DCAA, buying activities
- Acquisition strategy "lessons learned"

7. Experience of Other Government Agencies

A total of 15 other non-DOD Federal Agencies were reviewed in terms of their approach to past performance information systems. The diversity of agencies provided extensive coverage in terms of the nature of products and services contracted for as well as missions performed.

Our observations are based on contacts with officials in several agencies and on a review of documentation on past performance implementation. Most agencies are implementing past performance by passing the OFPP Guide along with minimal guidance. Some exceptions to this include:

- Energy--which issued a 10-page Acquisition Letter to accompany the OFPP Guide
- GSA--which issued an Acquisition Letter in March 1993 (which is being updated) plus Federal Supply Service specific guidance in a separate Acquisition Letter issued in October 1995
- Transportation--which puts all guidance in the "Transportation Acquisition Manual"

Generally, the evaluation form in the OFPP Guide is provided for guidance purposes. No guidance is provided on how to tailor the evaluation to size, content, and complexity of the contractual requirements. Little additional guidance on known problem areas is

available (e.g., meaning of neutral rating for contractors with no past performance). No automated databases exist, but some agencies are planning to investigate. Specific concerns include:

- Protests and ruling by appeals boards and courts
- Number of open, active contracts that will need to be evaluated
- Workload impact

NASA will use past performance in source selection, but will not evaluate on-going contracts except as required for award fee determinations. NASA implemented a Contractor Performance Summary (CPS) in January 1992 which was based on the Air Force CPARS. CPS features included:

- An evaluation on all award fee contracts above $25M
- Evaluation of non-award fee contracts was discretionary (by the Centers)

The CPS system was abandoned in March 1994 because the value added to the contracting process could not justify continuation of the system. In response to OFPP on the recent FAR changes, NASA will continue to use past performance as a standard evaluation factor in source selections (NASA has been doing this for at least 6 years), but will not create an Agency-wide system to require performance reports on active contracts.

NASA elected not to require performance reports because:

- Award fee evaluations capture approoximately 80% of NASA's procurement dollars (and these are exempt from the FAR)
- Implementing an Agency-wide system would significantly burden the workforce without significant benefits

At the $100K threshold, 80% of contracts would be non-award fee contracts and would account for about 20% of the procurement dollars. NASA estimates that a ten-fold increase in evaluations would be needed to evaluate the non-award fee contracts (from 224 to 2404). OFPP requested that NASA reconsider their decision, but this is apparently unlikely.

The Federal Supply Service in GSA has issued policy on use of past performance information and on a system for routinely recording this information. Guidance was provided by the FSS Acquisition Letter FC-95-7 of October 19, 1995, "Use of Past Performance as an Award Evaluation Factor - Routine Stock and Special Order Programs." The guidelines allow a contracting officer to efficiently use the quality of an offeror's past performance as a factor in a contract award decision. Past performance is

to be considered along with price and applies to negotiated acquisitions in excess of $1 million.

The process provides for:

- Supplier Rating Reports used to evaluate contractor performance by the cognizant Office of Quality and Contract.
- The Administrative Contracting Officer opinion, supported by a summary of the Supplier Rating Report, is provided to a Procuring Contractoring Officer upon request.
- The ultimate award decision must be based on the Contracting Officer's judgement and not just the results of a mathematical calculation.

The existence of well-developed policy was very limited. Taken as a whole, these 15 agencies' systems, with the exception of the GSA Federal Supply Service, appear to represent less structured and more ad hoc past performance evaluation programs. While represented in this report at a summary level, most of these agencies' programs appear to represent immature, unstructured approaches to evaluation.

SECTION III. B. Industry Perspective

This section presents the results of industry benchmarking and our review of industry supplier evaluation programs.

Benchmarking

The benchmarking phase of the study was accomplished by conducting on-site visits and by reviewing information in the Arthur D. Little Supply Chain Management practice database.

The names of companies we visited during the course of the study and the industries they represent are listed below. Notice that while manufacturing is heavily represented, industries dealing with electronics, process industries and companies performing logistics-like activities were included in our research to provide both breadth and depth in terms of industry types.

Companies Included in the Supplier Evaluation Database

Company Name	Industry Type
Allen-Bradley	Process Controls Equipment Manufacturing
Baxter	Pharmaceutical Manufacturing & Distribution
Black and Decker	Consumer Goods Manufacturing
Boeing Defense & Space Group	Aerospace/Defense Manufacturing
British rail	Transportation
Fisher Scientific	Industrial Distribution
Ford Motor Co.	Automotive Manufacturing
McCormick & Co.	Consumer Goods Manufacturing
McDonnell Douglas	Aerospace/Defense Manufacturing
Mobil Corporation	Process Manufacturing
National Semiconductor	Electronics Manufacturing
Rockwell Defense Electronics	Aerospace/Defense Manufacturing
W.W. Grainger	Industrial Distribution
U.S. Postal Service	Transportation

Companies researched for benchmarking purposes included those producing consumer items as well as those in the defense contracting community. In addition, companies

manufacturing component parts were also included since supplier certification is often performed down to the part level in a system.

A key finding of our industry research is that in best-of-class supplier evaluation programs there is a distinct supplier approval process keyed to associated risks. Also, the supplier approval process outcome results in a consolidation of suppliers, which is a necessary condition before a business relationship can take place.

Industry Supplier Evaluation Programs

The information in this section is organized according to the key features we found in industry supplier evaluation programs. The nine key features, which were identified in companies that are recognized as "best of class" among supplier evaluation programs along with their purpose, scope, and selected implementation features are summarized in the following table:

Evaluation Program Component	Purpose	Scope	Selected Implementation Features
Supply Base Management Process/Supply Base Strategy	• Align supply base strategy to corporate strategy • Manage the supply base to achieve corporate strategy • Manage the supply base to create leverage, achieve least total cost, gain competitive advantage • Improve continuously	Company-wide All materials, services, equipment	• Size of supply base, overall and within commodity segments • Commodities Management Strategy • Identification of key suppliers • Long-term partnership strategies • Just-in-time • ISO 9000, Baldrige, other certification requirements • Process control focus
Supplier Performance Measurement	• Evaluate supplier performance on an ongoing basis • Use supplier performance data for continuous improvement, total cost reduction	Typically minimum measurements Quality of product materials/services provided Service performance Delivery performance Cost performance Overall commitment	• Measurement can apply to all suppliers
Supplier Performance Measurement Feedback (Evaluation)	• To feedback supplier performance results for the purposes of improving supplier performance	Strategic and Alliance Suppliers	• Cross-functional data sources • Feedback in an annual meeting • Development of corrective action plans
Supplier Quality System Assessment	• Assure that the suppliers' quality systems and processes are documented and in use	Comprehensive assessment of quality systems, often based on ISO 9000 or other systems	• Quality Process Self-Assessment Questionnaire
Item or Part-Level Certification	• Identify parts or items that consistently meet statistical process control requirements • Identify parts or items based on conformance to process that will not be subjected to incoming inspection	All suppliers, but especially critical suppliers	• 100% conformance to requirements
Total Cost Assessments	• Determine the total cost of doing business in a supplier relationship	All suppliers but especially critical suppliers	• Published guidelines and standards • Formal new supplier education program
Supplier Evaluation and Development	• Communicate supplier performance standards and requirements • Educate suppliers on the supplier improvement process	All suppliers, but especially critical suppliers	• Published guidelines and standards • Formal new supplier education program
Supplier Approval	• Identify the suppliers that are approved to buy from before orders are placed	Company-wide Suppliers quality system Supplier's conformance to regulatory requirements Supplier's general business standing	• Depth of evaluation varies with risk
Supplier Recognition Programs	• Honor the best performing suppliers • Recognize outstanding contributions by a supplier employee	Strategic and critical suppliers	• Plaques, certificates of appreciation, thank you notes

Supply Based Management Process/Supply-Based Strategy

Notice that the scope of application ranges from all suppliers to critical suppliers. In terms of "best-of-class" benchmarking findings, the following three principles, derived from the first key feature listed above, stand out:

- World class supply chain orientation
- Supply base improvement strategy
- Explicit supply base management process

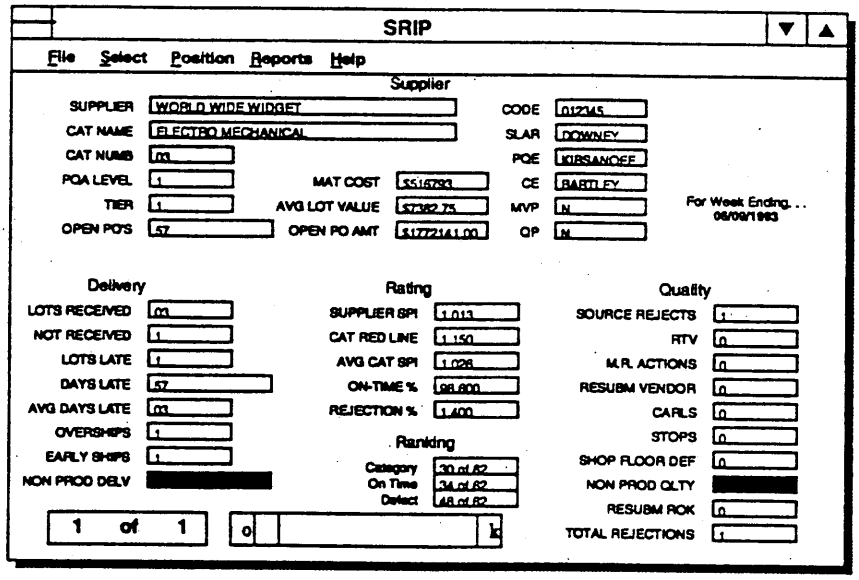
Companies that adopt these principle have seen a significant increase in operational and organizational performance. The emphasis on a world-class orientation moves organizations from a prescriptive "meet the spec" environment to a fully collaborative internal and external team environment which emphasizes process rather than specifications. The emphasis on developing an explicit supply base improvement strategic and management process raises the level of supplier performance, reduces supply chain costs, and moves staff and supplies into new roles which change over time from a largely reactive to a proactive orientation that reinforces continued improvements. Conspicuous in this new perspective is a systems approach to delivery of world-class products and services.

Supplier Performance Measurement

Ongoing supplier performance measurement is a central feature of supplier evaluation programs. Supplier performance measurement is generally performed for a small number of critical data elements, such as quality, service, delivery, and cost. Each business unit defines what constitutes product quality, service, and delivery performance, as well as the appropriate measures for each of these.

Prior to beginning supplier performance measurements, the customer's performance standards and requirements are communicated to suppliers. These include how often a supplier will be rated and how ratings will be used and communicated.

Detailed profiles of ratings are generally available on-line. A supplier's data is never shared with another supplier. Two examples of these profiles follow:



In this profile, a supplier's performance index (SPI) and an average for the commodity group are calculated. Each commodity group has a cutoff or "redline." Suppliers with an SPI above the redline are not eligible for awards.

A sample supplier performance report used by a national distributor has four categories, three of which pertain exclusively to the supplier's performance in terms of quality, cost and delivery (timeliness or schedule).

Category	Criteria		Current Month Results	Current Quarter Results	Current YTD Results
QUALITY	Total Units Sold		1,106	15,702	15,702
	Warranty Returns:	Units	5	48	48
		% of Total Units Sold	0.45%	0.31%	0.31%
		Cost $	$508	$4,012	$4,012
DELIVERY	Purchase Order Lines Delivered: (%)	Early	51.4%	42.4%	42.4%
		Late	14.3%	18.7%	18.7%
		On-Time	34.3%	38.9%	38.9%
	Shipments:	Total	27	294	294
		Shipping Errors	0	1	1
		Error Rate	0.0%	0.3%	0.3%
	Lead Time:	Prior Year End	2.5	12	12
		Current	3.5	0.08%	0.08%
		% Change	1.40	$170	$170
	Past Due Open Orders:	Total Open Order $	$38,375	$369,653	$369,653
		Total Past Due $	$1,900	$16,698	$16,698
		Past Due %	5.0%	4.5%	4.5%
COST	Invoices:	Total	34	333	333
		Invoice Errors	0	4	4
		Error Rate	0.0%	1.2%	1.2%
	Average Cost Change vs. Prior Year:				-0.87%
SALES	Our Cost		$38,108	$461,734	$461,734
	Prior Year Cost		$36,506	$440,194	$440,194
	% Change		4.4%	4.9%	4.9%

The last, sales, pertains to the buying company's performance associated with a product line involving a particular supplier. Measures in the "criteria" column of the report are accompanied by data in a format which has the capability to indicate trends--if any exists. In addition to using measures applicable to operating units, the report also includes data in dollars--suitable for use by upper management.

Suppliers Performance Measurement Feedback

Another key feature of a supplier evaluation program is focused on feedback processes and improvements in communication. Feedback to suppliers is a very important ingredient in an effective supplier evaluation program. This is mutually beneficial as it provides needed information on quality to suppliers for their own improvement processes. Best-in-class companies provide feedback to their suppliers on their performance results for the purposes of improving future performance. While feedback is the key to improvement, an effective supplier evaluation program will have to contend with both the nature of specific feedback as well as the frequency. Many organizations utilize a formal "report card" process to provide suppliers feedback in a structured fashion periodically. .Many companies meet in person with their suppliers at least once a year to inform them of their evaluation results, identify areas of improvement, and in more advanced situations, develop an action plan for improvement. Companies also notify their suppliers more frequently by on-line services, telephone, or letter about their performance. This feedback is critical since it gives both parties the opportunity to improve the product, reduce costs, and improve service

Supplier Quality System Assessment

The foundation for a supplier evaluation program lies in an active, thorough, on-site evaluation of a supplier's approach to the installation and use of an effective Quality System. Supplier quality systems assessments are often based on rigorous standards such as the ISO 9000 series of standards. A key feature of the ISO series is registration of a company or production element with a third party organization which monitors compliance to the registered standard. Purchasers of products and services from ISO registered companies are assured that the registered company has a documented quality system in place. Some approaches to assessment are developed in-house using ISO 9000 (or other applicable standards for the industry) or the Malcolm Baldrige National Quality Award criteria. However, the most objective approaches at this time rely on third-party certification including on-site evaluation, subsequent registration, and periodic re-evaluation.

Part-level Certification

Use of this type of approach requires accurate historical data on supplier past performance. An important outcome, often not explicitly stated, is the change in the relationship which occurs as a result of becoming a certified supplier. Generally, companies requiring supplier certification often experience a decrease in the number of

qualified suppliers. The remaining suppliers, then, have an opportunity for a more stable business relationship.

Supplier certification tends to bring increased benefits for both the certified supplier and the customer. For the supplier, it can mean additional business, single or lead source within a commodity area. For the customer, it can mean significant cost savings as a result of being able to use parts received from certified suppliers because certification can eliminate costly incoming inspection and associated costs.

The best-in-class supplier evaluation programs usually certify to the item/part or family of parts level. Most companies have the goal of certifying all of their key parts and products. However, they typically start with a manageable number of critical parts and then expand the program to include all of the critical items as well as those that have the potential to reduce operating costs. Some companies interviewed during the course of the study had certified virtually all of their products or were on their way to certifying all critical parts.

Total Cost Assessment

An emerging trend in the supplier evaluation arena is the use of a "total cost assessment" approach which attempts to capture all of the acquisition and consumption costs associated with doing business with a particular supplier. Acquisition costs are the costs of a supplier's activities to process and deliver an order supplier's material--plus profit. Consumption costs are the costs of the customer activities--labor and overhead--to process a supplier's shipment through the customer's system. Effective total costs assessment processes usually rely on activity-based costing principles.

Activity Based Costing techniques are used to acquire the best value by estimating the total costs of doing business with different suppliers. The "true" lowest bidder is sought--and bids account for all costs including quality, cost, and delivery. Customers identify historical non-productive costs resulting from supplier non-compliance with customer's mode of operations. Some supplier non-productive events that are "charged" to the supplier are:

Quality Events
• Source rejection
• Inspection resubmittal
• Return to supplier
• Material review
• Shop floor rejection (latent defect)
• Corrective action request letter
• Supplier stop notice
• CECA action

Scheduled Events
• Early delivery
• Overshipment
• Late receipt

One important use of a total cost assessment is the adjustment of bid prices from suppliers using a Supplier Performance Index (SPI). The index is developed from a ration that estimates the true cost of supplier bids. An example application of the Supplier Performance Index concept is illustrated below.

Section 3 - Industry Supplier Evaluation Programs — Total Cost Assessments

One effective use of total cost assessment is to compare bids and award business to the "best value" supplier.

$$SPI^{1} = \frac{\text{Material Cost} + \text{Nonproductive Cost}}{\text{Material Cost}}$$

Supplier	Supplier A	Supplier B	Supplier C
Quoted Price	$1,000.00	$1050.00	$1025.00
X SPI	1.450	X 1.230	X 1.086
Evaluated Bid	$1,450.00	$1,291.50	$1,113.15

Lowest Total Cost Supplier

[1] A lot normalization factor (Q factor) is used to eliminate any lot value bias (Not shown)

[2] For this company, suppliers with insufficient data for a valid SPI are weighted at the commodity group average.

Supplier Evaluation and Development:

There are two primary purposes to supplier evaluation and development initiatives:

- Communicate supplier performance standards and requirements; and,
- Educate suppliers on the supplier improvement process.
-

The scope generally covers all suppliers, but especially critical suppliers. Companies typically communicate their guidelines and standards through published documents and

formal supplier education programs. This is a highly proactive process in which companies view their suppliers "as their customers."

Supplier Approval

A robust supplier approval process incorporates multiple data sources, focuses on quality, is documented, and is shared with suppliers. Supplier information gathered during the evaluation may include general business standing, service levels, distribution/logistic capabilities, supplier specifications/product brochures, company networking, and existing like-product data.

An example of the scope and depth of supplier approval programs is presented in this chart:

Supplier Approval Requirements	Raw Materials, Components & Services			Contract Finished Goods & Services								
	RISK LEVELS			DISTRIBUTED PRODUCT			PRIVATE LABEL			MANUFACTURED		
	Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	High
Facility Assessment–Process & Control Systems			✖					✖	✖	✖	✖	✖
Questionnaire (e.g., general business, regulatory, environmental, diversity)	✖	✖	✖				✖	✖	✖	✖	✖	✖
Regulatory Standing										✖	✖	✖
Supplier Change Approval Commitment			✖				✖	✖	✖	✖	✖	✖
Business Standing		✖	✖							✖	✖	✖
Service Levels, distribution/logistics capability/networking		✖	✖				✖	✖	✖	✖	✖	✖
Approved NDA (if applicable)	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖
Labeling approved							✖	✖	✖	✖	✖	✖
Legal contracts: Pricing, volumes, indemnification, liability insurance, recall responsibilities, quality, distribution, design responsibility/regulatory ownership labeling					✖	✖	✖	✖	✖	✖	✖	✖

Note: Example from Manufacturer/distributor operating under Current Good Manufacturing Practices (CGMP). Variations in who has regulatory responsibility, provides specifications, labeling, design, and change control responsibility, trademark, etc.

Approval is formally documented to cover approved locations; any required reports or data; a list of processes approved; additional relevant quality information; and sign-off by business area teams.

Supplier Recognition Programs

Many commercial firms acknowledge supplier performance with some type of recognition program. How this recognition is achieved varies, but an important outcome is the strengthening of customer-supplier relationships. Many companies present their best performing suppliers with an award, while others less formally send thank you letters. Most suppliers strive for such recognition--it brings publicity as well as more business from the customer giving the award.

Section III. C. Contractor Evaluation Program

1. Introduction

To satisfy the requirement to develop a "To-be" vision for use by in past performance policy implementation, we proceeded through several phases. The first phase involved analysis of government and industry information including document reviews, research results, system assessments, benchmarking, and interviews. The analyses led to the development of concepts to explore in a tentative model. The second phase involved designing a workshop approach with ARSSG representatives and preparing materials to facilitate the workshops. The third phase involved scheduling/conducting the actual workshops, and collecting perspectives and insights concerning "To-be" concepts and issues from the workshop participants. The final phase involved integration of information, perspectives and concepts into the actual "To-be" model--the Contractor Evaluation Program.

Information essential to developing the Contractor Evaluation Program model was collected over the course of the study and described in the preceding sections of this report. However, the workshops, with ARSSG representatives, added value to the process by providing a broader, functional participation than had been present in previous past performance forums. The ARSSG workshops included representatives from Major Programs (API), Logistics, Economic Security, Systems Engineering, Quality, Inspector General, Procurement, General Counsel, Defense Contract Management Command (DCMC),and Defense Contract Audit Agency. With this group, we were able to test and explore the implications of the vision of a "To-be" model on surrogates for the DOD acquisition management and user communities. The workshop format also provided a forum for identification of milestones supporting the vision and discussion of actions to be taken.

The workshop approach provided an opportunity to present the status of current activity in both the government and industry arenas and led to the identification of many important factors for the Contractor Evaluation Program model, including the following:

- A key objective for industry in adopting supplier evaluation programs is to increase competitiveness. Characteristics associated with increased competitiveness include:
    - Reduced costs
    - Reduced cycle and response times
    - Improved operational efficiencies
    - Increased customer satisfaction and loyalty

- Reduced inventory (improved inventory turnover)
- Increased revenues

- Three key factors are inherent in the buyer-supplier relationship. These are *collaboration, competency, and continuous improvement.* Characteristics associated with these include:
  - Willingness to invest resources
  - Quality products
  - Service
  - Responsiveness
  - Technology
  - Corporate culture
- Supplier evaluation components. Industry uses supplier evaluation programs to meet specific objectives. Components of industry supplier evaluation programs:
  - Business area and management strategy
  - Qualification Assessment (single quality system)
  - Performance measurement
  - Performance feedback
  - Item certification
  - Total cost assessment
  - Supplier recognition
  - Supplier evaluation and development
  - Supplier approval
- The purposes for past performance in DOD:
  - *Evaluate risk of performance* by providing information which can be used in making trade-off decisions for what is the best value in the source selection process. This information can be used in the award of the initial contract, exercise of options, and the issuance of task and delivery orders.
  - *Develop acquisition strategy* by helping in the decision as to contract type and source selection factors, e.g., the mid-1980s overuse of FP development contracts led to many cost overruns.
  - *Manage contractor performance* by providing information to identify variances form established tolerances in the existing program
  - *Improve contractor performance* by providing feedback to the contractor about performance which will allow the contractor an opportunity to improve its performance.

- *Allocate oversight and review resources* by identifying those contracts or aspects of contracts in which experience dictates there have been problems, and employing our oversight resources in those areas.

2. Contractor Evaluation Program

The breadth, depth, and complexity of requirements is a major challenge to those involved in DOD acquisition programs and to those proposing solutions to issues--such as the past performance policy implementation issues being considered in this study. The Contractor Evaluation Program we designed is aimed at simplifying the past performance implementation effort facing the DOD as well as to improve the effectiveness of this effort. The program is conducted by cross-functional Business Area Teams that start locally and may extend across organizations and services, as appropriate.

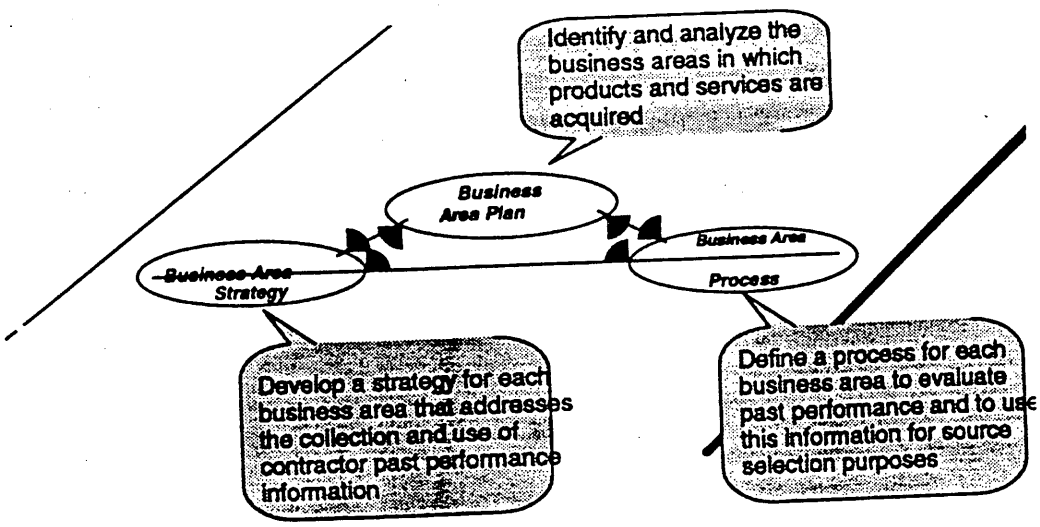
Overview

Implementation of the recent policy on contractor past performance requires a recognition of the business environment and existing acquisition systems, to include:

- The *total size* of the defense business
- The *wide range of products and services* for which contracts are issued
- The large *number of procurement organizations* that issue contracts
- The *existing procurement process*

In the aggregate these factors define a conglomerate that is engaged in an extensive number of business areas. In recognition of these factors, and with the overall goal of reducing the cost of doing business, the Contractor Evaluation Program is designed to:

- Develop a Business Area Plan, including defining common business areas
- Develop a Business Area Strategy that makes sense for the particular business area
- Develop a Business Area Evaluation Process to implement contractor evaluation in the context of the business area



The Contractor Evaluation Program is designed to ensure the business area is getting the information to select world-class suppliers with a best-value outcome. The scope includes the products and services acquired by all the services and agencies.

Business Area Plan

There are four aspects to the business area plan

Define your business area
Conduct internal, industry, and contractor analyses
Develop a business area resource center
Form business area alliances.

Define your business area: Defining your business area is the step designed to take an organization from a vertical hierarchical focus to a horizontal view of the similar acquisition programs, products, and services in its local, inter-Command, inter-Service/Agency, and inter-Service/Agency acquisition environment. An example to illustrate the process for defining your business area follows.

The wide range of products and services purchased in DOD is the basis for starting this example of defining a business area.

These product and services are bought in DoD's business areas.

Research & Development	Money Spent	%
	21,824	100
AB Community Service	1.7	0.0
AC Defense Systems	14,798.5	67.8
AD Defense - Other	3,634.9	16.6
AE Economic Growth and Productivity	184.7	0.7
AF Education	2.0	0.0
AG Energy	2.1	0.0
AH Environmental Protection	53.0	0.2
AJ General Science & Technology	153.1	0.7
AR Medical	444.8	2.0
AP Natural Resources	4.4	0.0
AR Space	487.4	2.2
AS Transportation - Model	6.3	0.0
AT Transportation - General	.0	0.0
AV Mining	.3	0.0
AZ Other Research and Development	1,698.3	7.7

Services & Construction	43,948	100
B Special Studies and Analyses - Not R&D	343.6	0.8
C Architect & Engineering Serv. - Construction	2,879.6	6.6
D Auto. Data Processing & Telecom. Services	3,080.6	7.0
E Purchase of Structures and Facilities	.2	0.0
F Natural Resources Management	667.3	1.5
G Social Services	361.4	0.8
H Quality Control, Testing & Inspect. Services	340.6	0.8
J Maintenance, Repair, & Rebuilding of Equip.	5,838.0	13.3
K Modification of Equipment	1,136.9	2.6
L Technical Representation Services	880.4	2.0
M Operation of Government-Owned Facility	2,437.8	5.5
N Installation of Equipment	334.1	0.8
P Salvage Services	72.2	0.2
Q Medical Services	477.6	1.1
R Professional, Admin. & Mgmt. Support Serv.	7,264.9	16.5
S Utility and Housekeeping Services	3,194.7	7.3
T Photo., Mapping, Printing, & Pub. Services	157.6	0.4
U Training Services	662.7	1.5
V Transportation and Travel	2,144.1	4.9
W Lease or Rental of Equipment	432.9	1.0
X Lease or Rental of Facilities	118.1	0.3
Y Construction of Structures and Facilities	6,607.7	15.0
Z Maint., Repair, or Alteration of Real Property	4,690.6	10.7

Supplies & Equipment	Money Spent	%
	52,342	100
10 Weapons	701.9	1.3
11 Nuclear Ordnance	3.2	0.0
12 Fire Control Equipment	563.1	1.1
13 Ammunition and Explosives	1,008.5	2.0
14 Guided Missiles	4,644.0	8.8
15 Aircraft & Airframe Structural Components	13,073.5	25.0
16 Aircraft Components and Accessories	1,178.1	2.2
17 Aircraft Launch, Landing, and Ground Equip.	53.3	0.1
18 Spacecraft Vehicles	166.1	0.3
19 Ships, Small Craft, & Floating Docks	3,488.3	6.6
20 Ship and Marine Equipment	137.1	0.3
22 Railway Equipment	18.3	0.0
23 Motor Vehicles, Trailers, & Cycles	2,894.4	5.5
24 Tractors	25.7	0.1
25 Vehicular Equipment Components	264.4	0.7
26 Tires and Tubes	33.0	0.1
28 Engines, Turbines, and Components	2,832.3	5.4
29 Engine Accessories	176.0	0.3
30 Mechanical Power Transmission Equipment	66.1	0.1
31 Bearings	61.0	0.1
32 Woodworking Machinery and Equipment	1.1	0.0
34 Metalworking Machinery	53.0	0.1
35 Service and Trade Equipment	7.4	0.0
36 Special Industry Machinery	172.1	0.3
37 Agricultural Machinery and Equipment	3.8	0.0
38 Construc., Mining, Excavating, Highway Equip.	187.4	0.3
39 Materials Handling Equipment	220.2	0.4
40 Rope, Cable, Chain and Fittings	12.1	0.0
41 Refrig. Air Conditioning / Circulating Equip.	72.3	0.1
42 Fire Fighting, Rescue, and Safety Equip.	121.0	0.2
43 Pumps and Compressors	72.0	0.1
44 Furnace / Steam Equip. & Nuclear Reactors	278.1	0.5
45 Plumbing, Heating, and Sanitation Equip.	16.5	0.0
46 Water Purification & Sewage Treat. Equip.	16.3	0.0
47 Pipe, Tubing, Hose and Fittings	47.0	0.1
48 Valves	76.2	0.1
49 Maintenance and Repair Shop Equipment	453.0	0.7
51 Hand Tools	19.0	0.0
52 Measuring Tools	7.4	0.0

Supplies & Equipment (cont)	Money Spent	%
53 Hardware and Abrasives	73.0	0.1
54 Prefabricated Structures and Scaffolding	36.6	0.2
55 Lumber, Millwork, Plywood and Veneer	13.2	0.0
56 Construction and Building Materials	51.1	0.1
58 Comm., Detect., & Coherent Radiation Equip.	4,660.1	8.3
59 Elect. and Electronic Equip. Components	1,011.9	1.9
60 Fiber Optics Mat., Comp., Assy., Assess.	56.6	0.1
61 Electric Wire, and Power and Distrib. Equip.	534.1	1.0
62 Lighting Fixtures and Lamps	33.9	0.1
63 Alarm, Signal, and Security Detect. Systems	31.2	0.1
65 Med. Dental, & Veterinary Equip. & Supplies	346.6	0.7
66 Instruments and Laboratory Equipment	788.3	1.5
67 Photographic Equipment	36.4	0.1
68 Chemicals and Chemical Products	348.9	0.6
69 Training Aids and Devices	646.9	1.2
70 Gen. Purpose Auto. Data Processing Equip.	2,213.5	4.2
71 Furniture	308.6	0.6
72 Household & Com. Furnish. & Appliances	41.9	0.1
73 Food Preparation and Serving Equipment	28.6	0.0
74 Office Equip. Text Processing / Visible Records	18.7	0.0
75 Office Supplies and Devices	7.0	0.0
76 Books, Maps, and Other Publications	160.3	0.3
77 Musical Instruments, Phonographs & Radios	1.0	0.0
78 Recreational and Athletic Equipment	10.6	0.0
79 Cleaning Equipment and Supplies	21.3	0.0
80 Brushes, Paints, Sealers and Adhesives	3.7	0.0
81 Containers, packaging & Packing Supplies	136.6	0.3
83 Textiles, Leather, Furs, Apparel, Tents/ Flags	134.0	0.3
84 Clothing, Individual Equipment, & Insignia	511.7	1.0
85 Toiletries	36.7	0.1
87 Agricultural Supplies	6.7	0.0
88 Live Animals	.1	0.0
89 Subsistence	1,877.0	3.6
91 Fuels, Lubricants, Oils, and Waxes	4,840.0	9.7
93 Nonmetallic Fabricated Materials	12.3	0.0
94 Nonmetallic Crude Materials	17.3	0.0
95 Metal Bars, Sheets and Shapes	21.2	0.1
96 Ores, Minerals and Their Primary Products	4.0	0.0
99 Miscellaneous	1,547.4	3.0

These are some of the major acquisition organizations within the Services and DLA. In the business area definition process, these acquisition organizations are initially categorized by *system, central, base/post/camp, and science and technology.*

Army

Armament, Munitions & Chem. Com.
Armament R & D Center
Chemical Biological Defense Com.
Aviation and Troop Command
Communications & Electronics Com.
Missile Command
Tank-Automotive Command
Troop Support Command
Ballistic Research Laboratory
Research Laboratory
Belvoir Research Dev. & Eng. Ctr.
Defense Supply Service Wash.
Military Traffic Management Com.
Medical RDA&L Command
Health Services Commands
Brooke Medical Center
Central Contracting Office
Eisenhower Medical Center
Fitzsimons Medical Center
Beaumont Medical Center
Madigan Medical Center
Tripler Medical Center
Walter Reed Medical Center
U.S. Army Depots
Anniston Depot
Corpus Christi Depot
Letterkenney Depot
Red River Depot
Tobyhanna Depot
Tooele Depot
Corps of Engineers
Information Systems Command
Information Systems

Navy

Headquarters U.S. Marine Corp
Military Sealift Command
Office, Chief Naval Research
Strategic Systems Program Office
Naval Air Systems Command
Space & Naval Warfare Sys. Com.
Naval Facilities Engineering Com.
Naval Sea Systems Command
Regional Contracting Ctr., Wash.
Regional Contracting Ctr., Phil.
Regional Cont. Ctr., Long Beach
* Navy Aviation Supply Office
* Navy Ship Parts Control Center
* Mare Island Naval Shipyard
* Pearl Harbor Naval Shipyard
* Portsmouth Naval Shipyard
* Philadelphia Naval Shipyard
* Norfolk Naval Shipyard
Submarine Support Facility, Groton
* Air Warfare Center, Lakehurst
Air Warfare Center, Warminster
* Air Warfare Center, Indianapolis
Air Warfare Center, Pax. River
Air Warfare Center, China Lake
* Air Warfare Center, Orlando
* Surface Warfare Center, Crane
Surface Warfare Ctr., Indian Head
Surface Warfare Ctr., Panama City
Surface Warfare Center, Dahlgren
Surface Warfare Center, Carderock
* Surface Warfare Center, Louisville
* Undersea Warfare Ctr., Keyport
Undersea Warfare Ctr., Newport, RI
Exchange Serv. Com., Va. Beach
Oceanographic Office, Stennis, MS
Command, Control & Ocean Surv. Ctr.
Headquarters, Naval District Wash.
* Fleet & Industrial Sup. Ctrs. (9 sites)
Construction Organizations (6 sites)

Air Force

Oklahoma City Air Logistics Center
Ogden Air Logistics Center
Sacramento Air Logistics Center
San Antonio Air Logistics Center
Warner Robins Air Logistics Center
Aerospace Guidance and Metrology Center, OH
Space and Missile Systems Center
Electronic Systems Center
Aeronautical Systems Center (ASC)
Directorate of R&D, ASC
Air Force Dev. Test Center, Eglin
Air Education & Training Com., TX
Air Military Command, Scott AFB
Air Combat Command, Langley, VA
10th Air Base Wing, USAF Academy
Air Intelligence Agency
Air Force Space Com., Peterson AFB
Air Force Reserve, Robbins AFB
Space and Missile System Center, LA
HQ Space Command, Peterson AFB
Human Systems Center, Brooks AFB
Armstrong Laboratory, Brooks AFB
Phillips Laboratory, Kirtland AFB
Wright Laboratory, WP AFB
Freight Test Center, Edwards AFB
Rome Air Development Center
Arnold Eng. Dev. Ctr., Arnold AFB
Civil Engineering Center, Tyndall AFB
Office, Scientific Research, Bolling AFB

DLA

Defense Contracting Mgmt Command

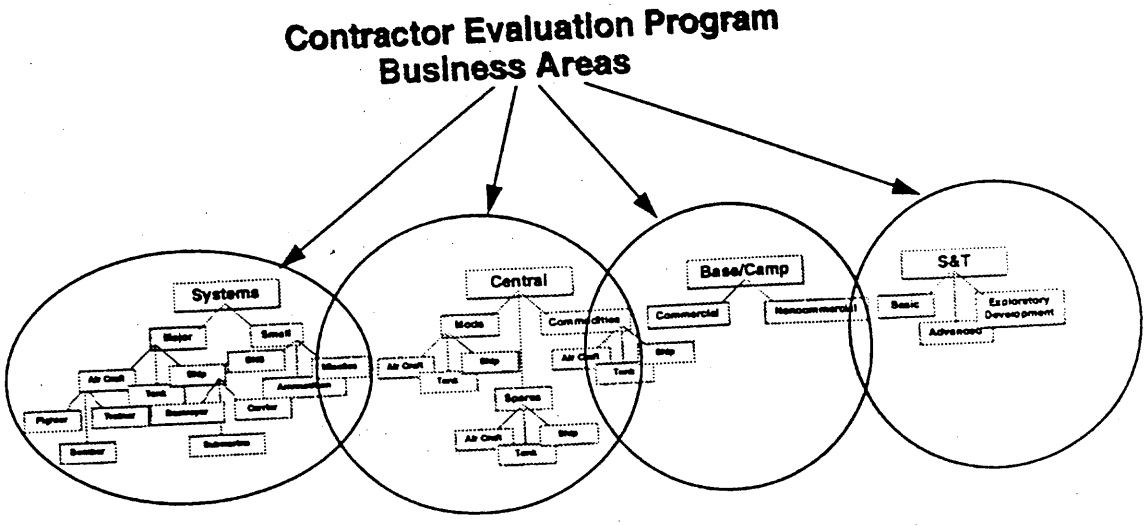
DLA (Contracting)

General Supply Center, Richmond
Construction Supply Center, Columbus
Electronics Supply Center, Dayton
Fuel Supply Center, Alexandria, VA
Industrial Supply Center, Phila.
Personnel Support Center, Phila.
Subsistence Region Pacific, Alameda
ADP/T Contracting Office, Alexandria
National Stockpile Center, Art. VA

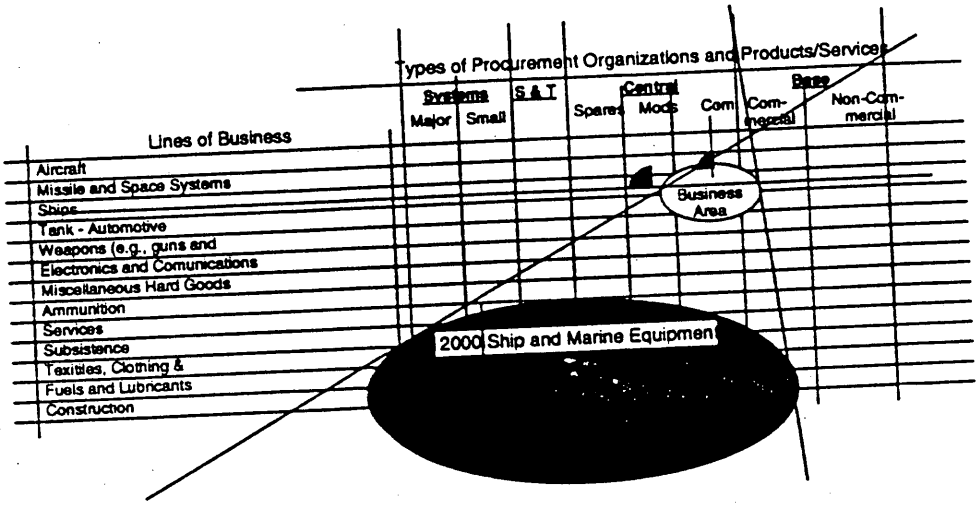
4

* Navy activities that use, or have used the RYG system

Business areas are thus defined in the context of products and services and the associated *system, central, base/post/camp, or science and technology* acquisition organizations.



A business area depicted at a commodity level:



Develop a Business Area Resource Center: Extensive information is required to keep the business area teams supplied with the internal, industry, and contractor information they will need to conduct their analyses. Each business area should have an on-line or other form of resource center to keep their implementation up-to-date and to support their business area analysis.

Examples of the data elements that may be needed for industry analysis are: information on competitors, market size/growth, market forecasts, profitability, cost structure, and technology. Examples of contractor analysis data elements are market share, balance sheet, facilities, profitability, and size/growth information.

The sources for such data are internal document and documents such as Duns Business Rankings, S&P's Industry Surveys, Ward's Directories, U.S. Industrial Outlook, Producers Prices, and Prices Index.

Conduct a Business Area Analysis: The objective of the business area analysis is to develop an understanding of the internal and external aspects of the business area and to be a basis for a strategy for evaluating and improving the performance of contractors. Issues typically addressed include:

- What is the past experience and future requirements of the government in this area?
- What are the relevant characteristics of the industry in terms of size, growth, and competitive forces?
- What is the current position of the key contractors in the industry?

Some of the factors that are typically involved in this analysis include:

(1) Internal analysis

- Current contractor/supplier base
- Government's past experience
- Expenditures over time
- Internal acquisition costs
- Projected requirements

(2) External analysis (industry)

- Market size and growth
- Capacity and utilization
- Market share of principal contractors
- Industry profitability
- Cost structure and drivers

(3) External analysis (contractor)

- Customer base
- Position in the industry
- Commitment to industry
- Quality and service performance

Form business area alliances: Regarding the business area as only a local construct denies the synergy that exists within the horizontal integration of DOD-wide resources. At its fullest expression, a business area will enable DOD to harness the energy in the various Service and DLA elements, accelerate the elimination of waste and inefficiency within DOD, and promote the growth of world-class quality and best-value in the DOD contractor base.

Once operating at the local level, business area teams then may look outside their organization to form wider alliances. The real benefits of this program are only realized

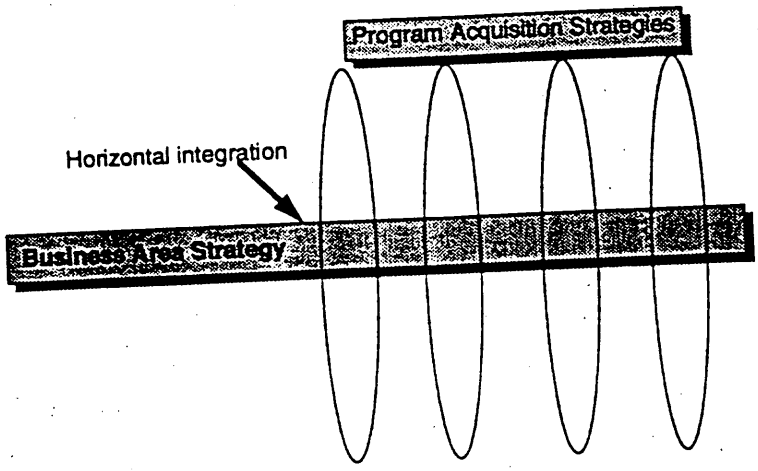
if business area teams across the Services and DLA are formed to coordinate their business processes and present "one face" to their industry segment.

Contractor Business Area Strategy:

Each business area should develop a Business Area Strategy. This includes integrating of the business area in a coherent strategy, developing goals for the business area, and determining what past performance information will be used in making contractor selection decisions.

Integrating the Business Area
Business Area Goals
Uses for Past Performance Information

Integrating the Business Area: The business area strategy is the product of a cross-cutting, horizontal integration perspective. It starts at the local level but as business area alliances are formed, it becomes a more robust and richer product that exerts a DOD-wide influence. At the peak of horizontal integration, it becomes the backbone for a "one-face" to industry for a DOD-wide business are, e.g., fighter aircraft, engines, a commodity group, medical services.



Through its unique horizontal integration perspective, the business area strategy will help DOD organizations determine how to meet the challenges of the changing acquisition environment today and in the future. Developing a business area strategy is a means of making the fundamental departure from a narrow procurement perspective of past performance to a broader business-like viewpoint.

Business Area Goals: From our analysis, we identified goals that an effective strategy might include:

- Develop a world-class orientation
- Maintain total quality with focus on continuous improvements
- Increase the number of high-quality suppliers
- Improve contributions to corporate profitability/operations
- Implement a team approach internally and externally--new suppliers as an integral part of the team
- Accreditation of key, critical suppliers
- Develop, coordinate, communicate and integrate pricing strategies in all critical commodities
- Recognition of highly reliable sources of supply--best first, critical, high-dollar

The strategy should address the evaluation of contractor performance in the context of a total program tailored to the particular business area. Implementation may be directed into one or all of the three areas of the Contractor Evaluation Process: measurement, certification, and improvement. The results of the strategy deliberations may be that only the measurement level is appropriate for some products/services whereas more aggressive certification or improvement approaches are required for other products/services.

Uses for Past Performance Information: The strategy elements that relate to the use of contractor past performance information in contractor selection decisions introduce the need for a tailored approach. Use of contractor past performance information include:

- Tailor solicitation/award approach to selecting contractors
- Make secondary decisions once long-term contract relationships are established (option exercised and IDIA decisions)
- Manage key, critical, strategic suppliers and track their impact on organization's performance goals
- Recognize superior performance
- Build long-term relationship/partnerships
- Achieve specific performance improvements objectives

- Avoid incoming quality inspection
- Improvement in on-time deliveries
- Enhanced logistics support

Allocate government oversight resources commensurate with risk

Resolution of these issues can be different for different programs and business areas and should be addressed in the strategy at the business area level.

Business Area Evaluation Process

Each business area should develop an evaluation process that implements the Business Area Plan and Business Area Strategy. The business area evaluation process establishes the elements for collecting and evaluating past performance information in the business area. The business area evaluation is designed to ensure the business area is getting the information to select world-class suppliers with a best-value outcome with the goal of reducing the total cost of doing business.

These are major outcomes of a business area evaluation process:

Measurement
Certification
Improvement

There are other outcomes that may be more appropriate for a business area. These are not meant to be mandated, but are used as examples generally found in most industry situations.

The business area evaluation process effort is a challenge to adopt the elements of the measurement, certification, and improvement outcomes that are appropriate for your business area--Base/Camp/Post, Central, Systems, or Science and Technology.

		MEASUREMENT	CERTIFICATION	IMPROVEMENT
Base/Camp/ Post	Commercial			
	Non-commercial			
Central	Mods			
	Spares			
	Commodities			
Systems	Major			
	Small			
S & T	Basic			
	Advanced			
	Exploratory Development			

Adopt the elements that are appropriate for the business area

Measurement: Ongoing performance measurement is a central aspect of the business area evaluation process. The benefits of performance measurement includes:

- Systematic collection of accurate, relevant data for contractor selections
- Consistent approach to measurement across major business areas
- Consistent feedback to contractors
- Focus for supplier improvement
- A tool for item level certification
- A means to facilitate benchmarking

The major process elements for developing a measurement approach are:

Develop Measurement Criteria
Develop Approach for Data Validation by Contractors
Develop Performance Feedback Process

Develop Measurement Criteria: Each business area's business area evaluation process defines the system that best meets its business requirements, while incorporating common criteria for measuring supplier performance. Common requirements for each business unit include:

- Development of a procedure detailing (1) rating frequency; and (2) rating communication and use
- Supplier Performance Report with ratings
- Minimum reporting frequency of quarterly

- Distribution policy for rating results

While incorporating common criteria for measuring supplier performance, suppliers are rated on:

- Quality of the products and services they provide
- Delivery performance
- Ability to provide service, including pertinent information

Each business area must define what constitutes product quality, delivery performance, and service requirements. Measures appropriate to the business area then need to be defined for the three rating areas. Quality, delivery, and service delivery are not equally weighted in every situation, thus there is a need for each business area to devise the appropriate weights. Each business area may weigh the three categories as it desires.

Performance measurement is used to select contractors with whom to place business and to allocate increased/decreased business to a contractor based on performance during the current contract relationship, which could occur through the exercise of contract options.

Develop Approach for Data Validation by Contractors: The objective of this process is to ensure that contractors are afforded the opportunity to review, comment on, and, if appropriate, rebut information that bears on their performance in the execution of existing contracts and that has the potential to be used in awarding future contracts.

The validation process will typically provide contractors with access to information that pertains to their performance. In the past, this has been accomplished by mailing the performance information to the respective contractors; however, the performance tracking systems are now using direct electronic access for this purpose.

In addition, as information moves through the validation process, provisions must be made for distinguishing between validated and non-validated data. And in all cases, provisions need to be established for retaining any comments or rebuttal information from contractors that relates to their performance.

In the case of performance appraisal systems, all contractor comments and rebuttal information should be filed and retrievable with the related government performance appraisal.

Develop Performance Feedback Process: Feedback is provided to suppliers on their performance results for the purpose of improving future performance. The feedback may occur in any number of forms, including:

- In-person meetings with suppliers at least annually to inform them of their evaluation results, identify areas of improvement and develop an action plan for improvement
- More frequent notification by telephone or letter
- Notification to suppliers of their performance, and their performance relative to other suppliers for their product or service, and for the business area in general

Feedback gives both parties the opportunity to improve the product, reduce costs, and improve service. Maintaining open communication helps keep contractors informed of their performance relative to all contractors and contractors within their commodity groups. Specific information pertaining to a single, identified supplier is never shared with other suppliers.

3. Certification

Certification to the item/part or family of parts level is a key feature of a contractor evaluation process. Certified items are purchased items that will not routinely be subjected to incoming inspection. The supplier is responsible for complying to form, fit and function criteria previously evaluated at incoming inspection. Certification is performed on an item-by-item basis. When certifying a component, the specific supplier manufacturing location that is producing the item will be the only site approved to provide the certified product. This process applies to the procurement of parts, materials, assemblies, and printed materials.

Develop Certification Process Procedures
Identify Key Strategic Critical Parts, Materials, Assemblies
Conduct Quality System Assessment
Develop Total Cost Assessment

Develop Certification Process Procedures: The development of procedures for a certification process should be made with due consideration given to the following points:

- Item quality level
- Financial requirements
- Risk analysis of using a certified product
- Supplier quality systems
- Supplier process capability

- Item stability

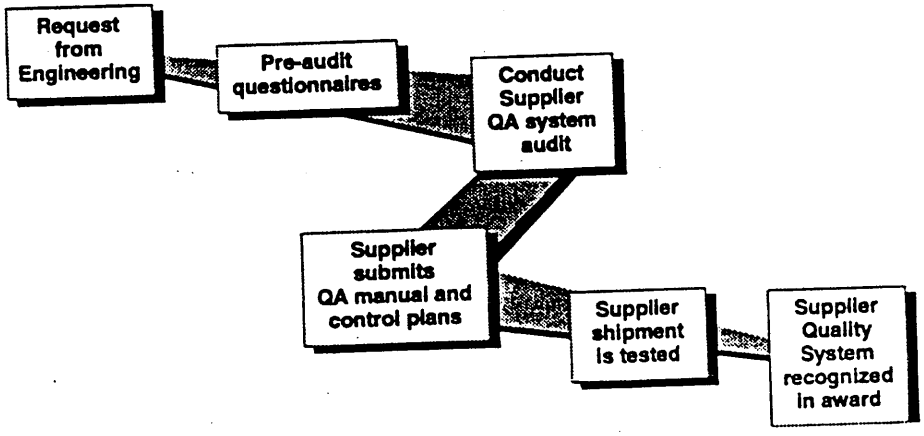
Procedures should also address: the sharing of information with all pertinent parties, i.e., business area management, other user locations; a recognition process for suppliers of certified items; how proposed changes to certified items or the process in which they are manufactured must be carefully reviewed to ensure the change(s) will not invalidate the original qualification for certification; and periodic audits or reviews to determine continuing certification, de-certification, or re-certification.

The criteria for and risks of certification will be determined at the immediate business area level. Each business area will determine the minimum amount of time and number of defect-free receipts that are acceptable before an item is eligible for certification. Each business area should determine a suitable threshold risk level on an item-by-item basis. The risk factor will vary depending on the supplier plant and item being certified.

A quality history must have been established for the supplier facility producing the item being considered for certification. Historical compliance data, i.e., supplier delivery and incoming quality performance, quality history for the same or similar item produced for another facility, and supplier's product complaint levels for other similar products, will help validate supplier performance. Certification of items involves site visits and the evaluation of processes. To provide a thorough understanding of the supplier's process, an on-site assessment prior to item certification is essential. Any issues found during the assessment must be resolved prior to certification of the item.

Identify Key Strategic Critical Parts, Materials, Assemblies: Start with a manageable number of critical parts and expanding the program to include all of the critical items as well as those that have the potential to reduce operating cost. Part-level certification is vital for base/camp and central commodities business areas.

Conduct Quality System Assessment: The foundation for a contractor evaluation process is a quality systems assessment. Assessment of a supplier's quality system can be viewed as a 6-step process.



This is an example "Supplier Quality Process Evaluation Report" resulting from a quality system assessment.

Supplier Quality Process Evaluation Report

Supplie Address	Product	Date
Telephon Facsimil Persons	SQA	

Evaluation	Rating	Max
•	7	10
•	9	10
•	23	40
• Quality	1	15
• Document	14	20
• Purchased	22	40
• Statistical	12	15
• Gage	12	15
• Material Control	6	10
• Final		
• Continuous /Customer		
Total Rating	132	200

Quality Improvement

Significant improvement has been made in material control. Increasing emphasis on employee training was Need to focus on real time statistical process control.

This particular example includes both a quantitative rating and a narrative section to record identified improvement actions and other related remarks.

Eligibility for classification as a certified item should also include:

- Responsibility for quality lies solely with the supplier of an item
- Regulatory risk requirements must be reviewed to understand impact on the certification process
- Financial risk consideration must be given to balancing the potential risks of not routinely inspecting items against total system cost

Develop Total Cost Assessment: Effective total cost assessments, based on Activity Based Costing principles, are part of a contractor evaluation program.

Total cost encompasses the "all in" cost of doing business with a supplier. For example, acquisition cost, the cost of supplier's activities to process a customer order and supplier's materials plus profit, and consumption cost, the cost of a customer's activities--labor and overhead--to process a supplier's shipment through the customer's system.

The objective of a total cost assessment, using Activity Based Costing principles, is to award contracts to the true lowest cost bidder. These are the issues to be addressed:

- Identify historical nonproductive costs resulting from supplier noncompliance
- Use to estimate the true cost or procurement bids
- Suppliers' nonproductive events are "charged" in the program

Quality Costs
- Source rejection
- Inspection resubmittal
- Return to supplier
- Material review
- Shop floor rejection (latent defect)
- Corrective action request letter
- Supplier stop notice
- CECA action

Schedule Costs
- Early
- Overshipment
- Late receipt

Stockless Production Cost
- Inventory carrying

Costs of Communications
- Paper based or EDI

Cost Containment
- Stability of pricing

Improvement: The improvement aspects of a business area evaluation process are aimed at evaluating contractor's progress in achieving the highest levels of performance. There are four major elements in the improvement process.

Conduct Process Approvals

Formulate Projects to Reduce Cost/Improve Quality
Develop On-Going Cycle of Continuous Evaluation & Improvement
Develop Improvement Recognition Programs

Conduct Process Approvals: The scope of processes that are involved in improvement-related activities is more extensive than the certification process considers. Here the focus can extend to most of the following:

- Quality/Service History
- Cost Management
- Environmental Initiatives
- Quality Systems
- Risk Management

Additionally, management and technology factors are considered:

- Management commitment of the business area
- Industry position
- Technology position
- Resource commitments to continuous improvement

To the extent that on-going measurement and certification efforts have improved contractor processes, those processes that meet minimum requirements for approval will be approved.

While not explored in depth, three possible scenarios for approving processes are: first, rely on either third-party certifications, commercial certifications, or both (e.g., ISO 9000, Malcolm Baldrige National Quality Award criteria, or other commercial certifications); second, grant DOD certification; or third, either include third party, commercial, DOD, or all of these at the time of each acquisition--not in advance as implied above. This would potentially include ISO 9000, Baldrige, or other commercial certifications in addition to DOD.

For items used in private industry for which DOD has a need, third party or commercial certifications may be appropriate. The administrative burden of certification would be minimal in this scenario. In other situations, where the item is unique to DOD, DOD

criteria may be appropriate. This scenario may require a greater burden--and thus cost--to administer.

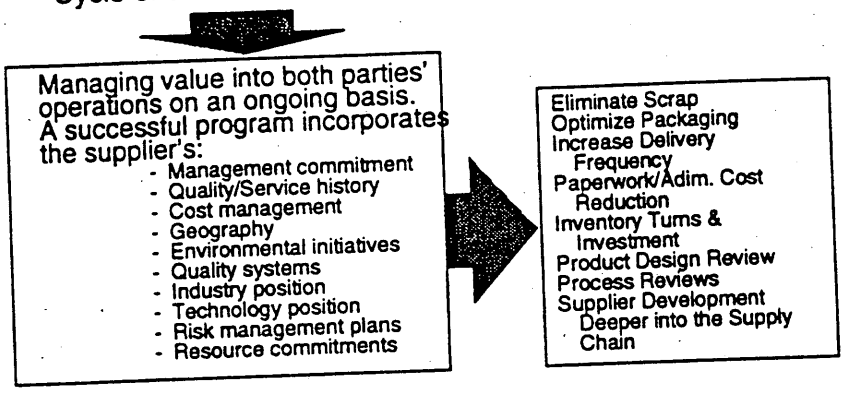
Formulate Projects to Reduce Cost/Improve Quality: Notwithstanding approvals for processes, projects to raise the contractor's level of performance can be mutually and/or singly identified. In this role, DOD is working with its contractors to aid in their efforts to achieve world-class performance.

Working with strategic, critical, and other key contractors on projects to upgrade their performance is a follow-on activity to initial certification. The goal is for contractors to achieve Government approval of processes in addition to any parts certification previously achieved.

Develop an On-going Cycle of Continuous Improvement: Self-assessments and performance measurement form the basis for the continuous improvement. Process evaluation is the focus of continuous improvement. The progress contractors make in exceeding their initial process approval levels is the focus of the on-going cycle of continuous improvement. As higher performance levels are achieved, new targets are formulated and progress tracked and evaluated.

The best cost reduction and quality improvement results will be obtained from steady, focused continuous improvement.

- Invest time and resources to target projects that can significantly reduc cost therefore benefit both buyer/seller
  - Cycle of continuous evaluation and improvement



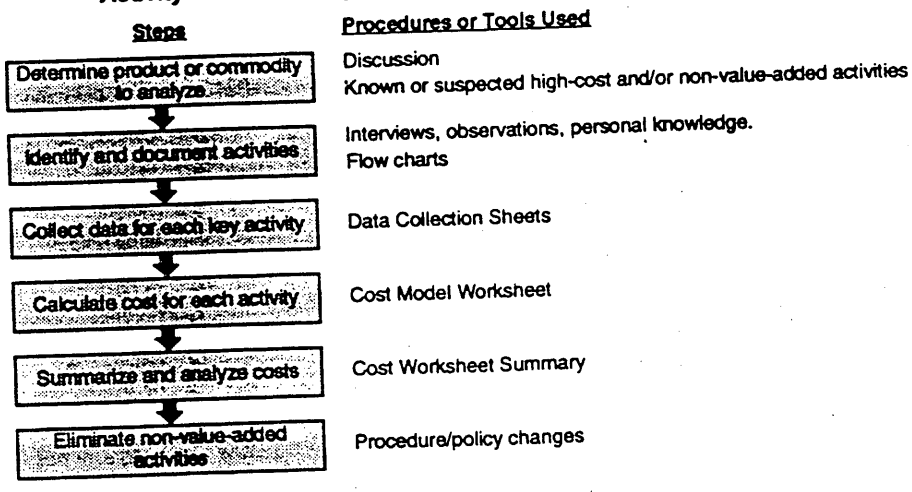
The respective DOD business areas should be proactive in all aspects of the business area evaluation process, but particularly when undertaking continuous improvement objectives. The "partnering" model is the posture that should be used to guide contractor interfaces in the improvement environment.

Develop Improvement Recognition Programs: A program should be developed to provide feedback and to recognize accomplishments. Documentation that describes the business area's evaluation process and objectives should be available for all interested contractors. Periodic meetings and reports should be a part of the program.

The cost aspects of the contractor evaluation process track with the level of contractor evaluation the business area has adopted.

- Measurement--Cost Assessment
  - The minimum needed to support best value
- Certification--Total Cost Assessment
  - Encompasses the "all in" cost of doing business with a supplier
- Improvement--Cost Reduction
  - Focuses on specific target opportunities to reduce cost using activity based costing

Activity Based Costing Process Flow



Here's how industry supplier evaluation programs and existing Government past performance information systems align with the Contractor Evaluation Program.

Ford - Xerox - Baxter Health Care - British Rail - Allen-Bradley -Texas Instruments - Boeing - Rockwell - McDonnell - Motorola - Allied Signal

Improvement

National Semiconductor - Lozier - Fisher Scientific

RYG - Blue Ribbon Contractor Programs
DLA Quality Supplier

Certification

Grainger Distributors - Black&Decker
Mobil Oil - R.J. Reynolds

ABVM CPARS ACCASS/CCASS

Measurement

Mature industry programs to a great extent.
Other industry and government programs to a far lesser degree or not at all.

Business Area Analysis and Contractor Evaluation Program Strategy

4. Functional Requirements for the Contractor Evaluation Program

A functional requirements document for the Contractor Evaluation Program was prepared during the course of this sutdy. It is included as Appendix . The effort to document functional requirements for the Contractor Evaluation Program model conducted in two parts.

The first part was to perform a functional requirements analysis. We analyzed the Contractor Evaluation Program model to identify specific functional requirements that must be satisfied by a potential information system, e.g., SPS, CCR. We then identified the data and information requirements of the Contractor Evaluation Program model that must be satisfied by the information system

The second part was to develop the functional requirements document, a statement of the functional requirements for information system support of the Contractor Evaluation Program model. The method we used was to:

- Identify current system capabilities that need to be retained
- Identify deficiencies and limitations in the current system capabilities

- Identify from the Contractor Evaluation Program model additional functional and performance capabilities that will be required to satisfy new or changed past performance requirements
- Identify from the Contractor Evaluation Program model functional and performance capabilities that proivde opportunities for increased economy and efficiency

We implemented a Use Case Approach to analyzing and documenting functional requirements for the Contractor Evaluation Program model. Through Use Case Analysis, we divided the Contractor Evaluation Program model into a collection of use cases. Next, textual descriptions of use case were developed to describe the graphical information presented in use cases.

Once the Contractor Evaluation Program functional requirements were documented, we compared them to the functional requirements for the Standard Procurement System. We analyzed the Standard Procurement System functional requirements related to *collection* of contractor past performance information. They were found primarily in two areas:

Under Administer Contract, it indicated that the system shall:

- Notify the user when previously-identified criteria for contractor performance have been breached
- Process material review board actions and corrective action requests/ notices/ plans
- Track contract performance reports
- Notify the user when performance parameters do not meet user-defined criteria
- Process shipment and performance data against the MILSTRIP requisition number and contract schedule.

Under the Procurement Planning functional requirements, it indicated that the system shall perform a Contractor Assessment. In doing so, the system shall automatically

- Aggregate contract performance information into contractor summary performance reports
- Use these summary reports along with other contractor information to create vendor rating summary reports.

We also analyzed the Standard Procurement System functional requirements related to *use* of contractor past performance information. They were found primarily in the Solicit Offers and Award Contracts area.

In the Solicit Offers and Award Contracts section it indicated that to evaluate offers, the system shall provide the capability to:

- Evaluate offers based on the offer data and previously-defined criteria
- Integrate offer data and previously-established evaluation criteria to perform evaluation
- Integrate an offeror's past performance information into the evaluation process, and recommend a determination of responsibility based on user-defined criteria and algorithms applied to previously entered data
- Be able to create, request, receive, and dispose of pre-award survey requests.

Our analysis showed that the Contractor Evaluation Program model functional requirements are consistent with apparent Standar Procurement System contractor past performance functional requirements from the standpoint that use and collection criteria are user-defined to the Standard Procurement System.

4. System/ Process Issues for the Contractor Evaluation Program

The Contractor Evaluation Program *implementation* must consider the following system/process issues. The general criteria for their application is defined in terms of which of the three sections of the Contractor Evaluation Program the specific system/process relates--Business Area Plan, Business Area Strategy, Business Area Evaluation Process. In two cases--Fairness and Due Process--the issues appeared to be more related to the Government's conduct of the contractor selection process and how the information would be used than the attributes of the Contractor Evaluation Program.

ISSUES	GENERAL CRITERIA FOR APPLICATION		
	Business Area Plan	Business Area Strategy	Business Area Evaluation Process
Centralized / Decentralized The degree and level of centralization. Is data aggregated to the product center, major command or HQ level?		X	
Automated / Manual Is the system or process automated, semi-automated or manual in the manner in which past performance information is collected, maintained and disseminated?		X	
Confidentiality System's capability to protect, limit, and otherwise effectively control against unauthorized access to contractor past performance data.			X
Data Availability System's capability to rapidly disseminate the requested standard and tailored information on real-time or time delay basis.		X	
Currency / Integrity / Accuracy / Validity - System's capability to present latest relevant information, update and purge data, and time period covered - Can the data sources be identified and are they appropriate? - The system's capability to provide complete, comprehensive, validated data. The system's capability to align past performance evaluations with sources - Has the data been validated by internal and external sources as appropriate?			X

Source and Type of Data Categories of data included in the system -- government, DoD only / commercial. Quantitative, qualitative data. Data trends. Comparison data.		X	
Mergers and Acquisitions System capability to report on company's past performance that occurred prior to a merger or acquisition.			X
Subcontractor Involvement The system's capability to discern between the prime and its subcontractor's past performance on prior contracts			X
Fairness The system's capability to treat all offeror's equally and ensure past performance data is evaluated with the same impartiality as other evaluation data			Contractor Selection Issue
Due Process Opportunity for contractor to respond to weaknesses / deficiencies documented in the government's evaluation process			Contractor Selection Issue
Lack of Past Performance History The system's capability to overcome / handle the lack of past performance data for a particular contractor.		X	
Threshold of Applicability The system's capability to apply data according to cost, time, or other (dollar) thresholds.			X
Capability of Attribution The system's capability to shield the sources of data from unwarranted disclosure.			X
Consequences to the Contractor The system's intended / untended penalties / rewards for poor / superior past performance data		X	

Feedback			X
Recognition		X	

The system/process issues that should be considered under the Business Area Strategy aspects of the Contractor Evaluation Program are:

- Centralized/Decentralized
- Automated/Manual
- Data Availability
- Source and Type of Data
- Lack of Past Performance History
- Consequences to the Contractor
- Recognition

The system/process issues that should be considered in the Business Area Evaluation Process aspects of the Contractor Evaluation Program are:

- Confidentiality
- Currency/Integrity/Accuracy/Validity
- Merges and Acquisitions
- Subcontractor Involvement
- Threshold of Applicability
- Capability of Attrition
- Feedback

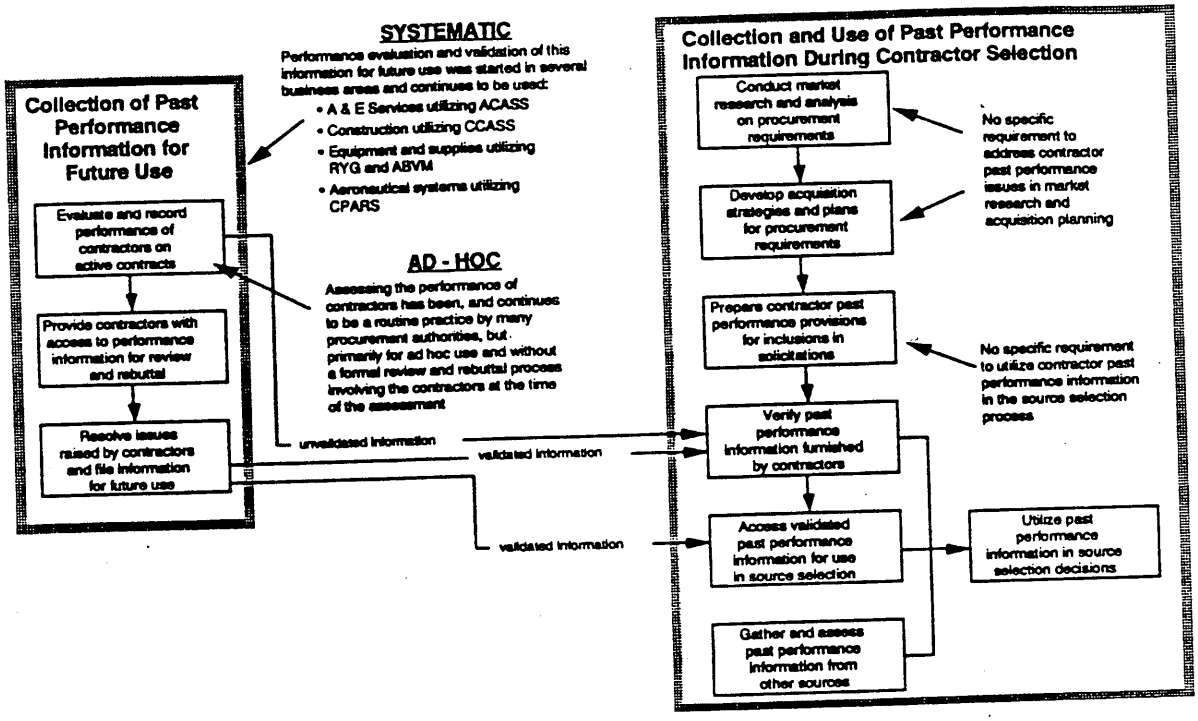
Specific criteria for application of these issues should be developed as part of the respective Business Area Strategy or Business Area Evaluation Process considerations to which they relate.

SECTION III. D. Business Case Analysis

This section provides an analysis of three alternative approaches to past performance policy implementation. The three alternative models that will be used for comparison purposes in the business case analysis are the "As-is" model, which is structured from the information in Section II. A.; the DFARS model developed from information in the FAR and the proposed changes to the DFARS; and the Contractor Evaluation Program model, the To-Be model, developed from information in Section III. C. In each model a distinction is made between the "Collection of Past Performance Information for Future Use", and the "Collection and Use of Past Performance Information during Contractor Selection". The analysis of each model focuses in these two areas.

1. As-Is Model

The As-Is model for existing government past performance information systems, as depicted below, provides a top-level flow diagram for the situation prior to recent changes to the FAR and the related DFARS case. The left side of the diagram covers the collection of contractor performance information for future use. The right-hand side depicts the principal activities performed for the collection and use of past performance information during contractor selection.



There are two approaches to collecting past performance information for future use that are highlighted on the left-hand side of the diagram -- ad hoc and systematic. The *ad hoc* collection of past performance information for future use has been, and continues to be a routine practice by some procurement authorities. However, the primary purpose has been to support local contractor selection decisions. And in most cases the performance evaluations are not provided to contractors for review and possible rebuttal, and the evaluations are not identified as "source selection information" and filed for possible use in the future. Information from these activities is used in contractor selection decisions, as depicted on the right-hand side of the diagram, together with other past performance information that may be gathered at the time of a contractor selection decision.

The *systematic* approach for gathering contractor performance information on active contracts is used in the systems that are identified and described in Section III. A. of this report. These existing systems operate in essentially two different ways. One relies on the existence of performance tracking data at the contract line item level. These data are used to calculate performance ratings based on previously established decision rules. For reference purposes, we have classified these systems as *performance tracking systems*. Typically these systems address attributes of supplies and equipment that are discernible and detected at the time of, or subsequent to delivery by the contractor. The

principal focus of these systems is on the *quality* of the supplies and equipment and the *timeliness* of the deliveries by the contractor. And the data upon which these systems rely is essentially quantitative and objective -- for example, number of reported defects and number of days late in delivery. The Red/Yellow/Green and the Automated Best Value Model were the existing systems that used this approach. The process analyses and the automated data information system analyses for these two systems are included in Appendix A.

The other type of system for gathering contractor performance information relies on the appraisal of a contractor's performance by government officials who are knowledgeable of the work performed by the contractor. These appraisals cover the work performed on the total contract or contract order. For reference purposes, we have classified these systems as *performance appraisal systems*. Typically these systems address not only the quality and timeliness of products delivered by a contractor, but also additional factors dealing with the performance of work in-process and with the overall technical, cost and schedule performance of the contractor. These factors might include anyone or all of the following, depending on the circumstances of the acquisition and the nature of the product or service that is being acquired:

- compliance with contract requirements,
- overruns experienced on reimbursable contracts,
- responsiveness to technical direction,
- effectiveness in managing the provisions of the contract,
- effectiveness in executing the program provisions in the contract (e.g., systems engineering management, design engineering, manufacturing, test and evaluation, logistics, subcontract management, quality assurance, continuous process improvement, etc.)
- the quality and thoroughness of research conducted under the contract,

Our analysis identified CPARS, ACASS and CCASS as the existing systems that use this approach. The processes analyses and the automated data information systems analyses for these systems are included in Appendix B.

The right-hand side of diagram for the As-Is Model, depicts the activities related to the collection and use of past performance information at the time of contractor selection and contracting decisions. Market research has been, and continues to be used to investigate commercial products and the use of commercial distribution systems. In addition, market analyses are also undertaken as a part of non development item initiatives. However, in neither case is there a specific requirement to inquire into the past performance of potential sources as part of these analyses. Likewise, acquisition strategies and plans may be formulated in anticipation of a solicitation for certain

products or services, but there is no stated requirement to address the approach for dealing with contractor past performance as a part of these strategies and plans.

The activities at the bottom right of As-Is Model diagram are performed in connection with gathering, validating and using past performance information at the time of a contractor selection decision. These activities are:

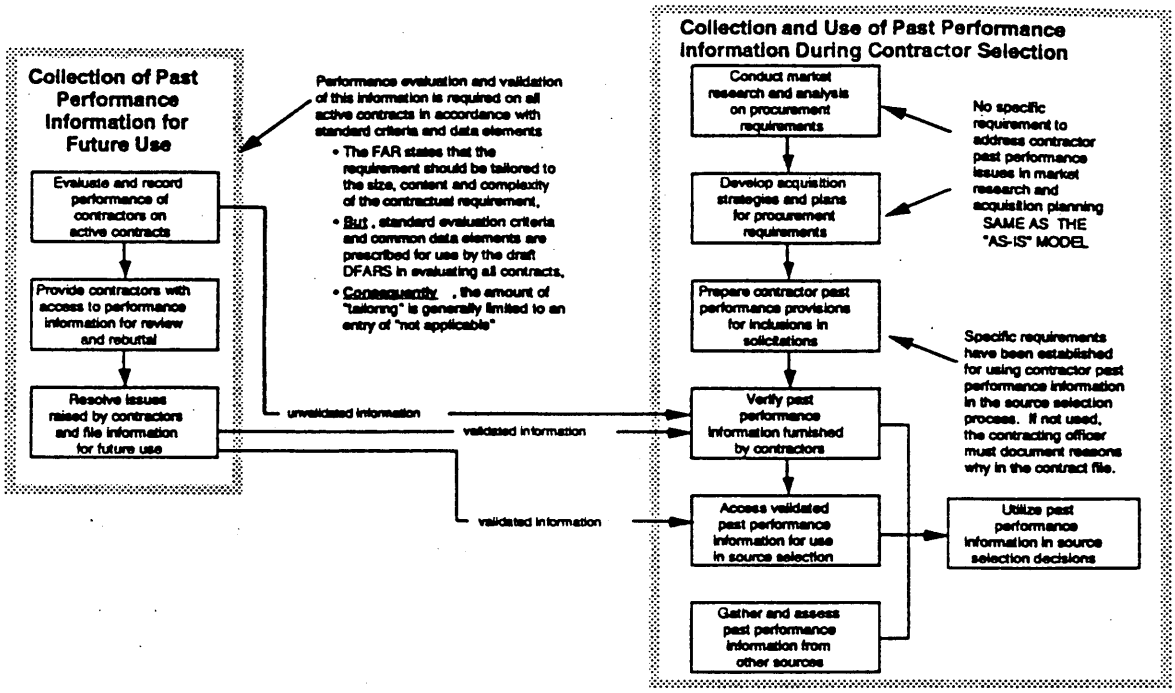
- verify past performance information furnished by contractors in response to the requirements in the solicitation;
- access validated past performance information for use in source selection, to the extent that it may exist; and
- gather and assess past performance information from other sources, such as information available from risk assessments, process reviews, government maintained databases, performance award listings, and commercial survey services.

The final step in this process is the utilization of past performance information in contractor selection decisions based on the ground rules established for the acquisition and consistent with the evaluation criteria and other information provided to the offerors.

B. DFARS Model

The DFARS model is depicted in the diagram on the next page. It is based on the our interpretation of the DFARS Case at this point in time. With respect to the collection of past performance information on active contracts for future use (as portrayed on the left side of the diagram), the key differences from the current model (discussed in the preceding paragraph) are that: performance evaluations will essentially be required on all contracts above $100,000 with few exceptions; and, results of the evaluation will be provided to the contractors for their review, comment and possible rebuttal. Methods for handling the review process and resolving any differences between contractor and government officials are also covered of the model.

With respect to the collection and use of past performance information at the time of contractor selection, as shown on the right-hand side of the DFARS model, the key difference is the addition of a requirement to use contractor past performance information, except in those cases where its use is not found to be practical or useful. In those cases, the contracting officer must document in the contract file the reasons why past performance was not used.



A significant point concerning the DFARS model is that Although the FAR states that the requirement for the evaluations should be tailored to the size, content and complexity of the contractual requirement, the DFARS (as of the current draft) establishes standard evaluation criteria and common data elements to be used in all cases. Consequently, the amount of "tailoring" could be constrained by the use of the standard criteria. The following table provides a summary of these provisions of the FAR that indicate that the collection and use of past performance information can be tailored to the particular circumstances of the procurement.

Collection of past performance information for future use (Ref. FAR, SUBPART 42.15)	**Collection and use of past performance information at the time of source selection** (Ref. FAR, PART 15)
The content and format of performance evaluations shall be established in accordance with agency procedures and should be **tailored** to the size, content and complexity of the contractual requirements. [Ref. 42.1502 (a)]	The cognizant technical official is responsible for the technical and past performance requirements related to the source selection process. [Ref. 15.604(b)] Past performance shall be evaluated . . . unless the contracting officer documents in the contract file the reasons why past performance should not be evaluated. [Ref. 15.605 (b) (1) (ii)] The source and type of past performance information to be included in the evaluation is within the broad discretion of agency acquisition officials and should be **tailored** to the circumstances of each acquisition. [Ref. 15.608 (a) (2) (ii)]

The FAR provisions provide government officials the latitude to develop and adopt a tailored approach that fits the specific circumstances of each acquisition. However, the FAR does not go into the nature and extent of the tailoring that is envisioned.

On the other hand, the proposed DFARS provide criteria and a rating scheme that shall be used in the evaluation of contractor performance. These prescriptions could be construed to establish boundaries around the degree of tailoring that would be acceptable.

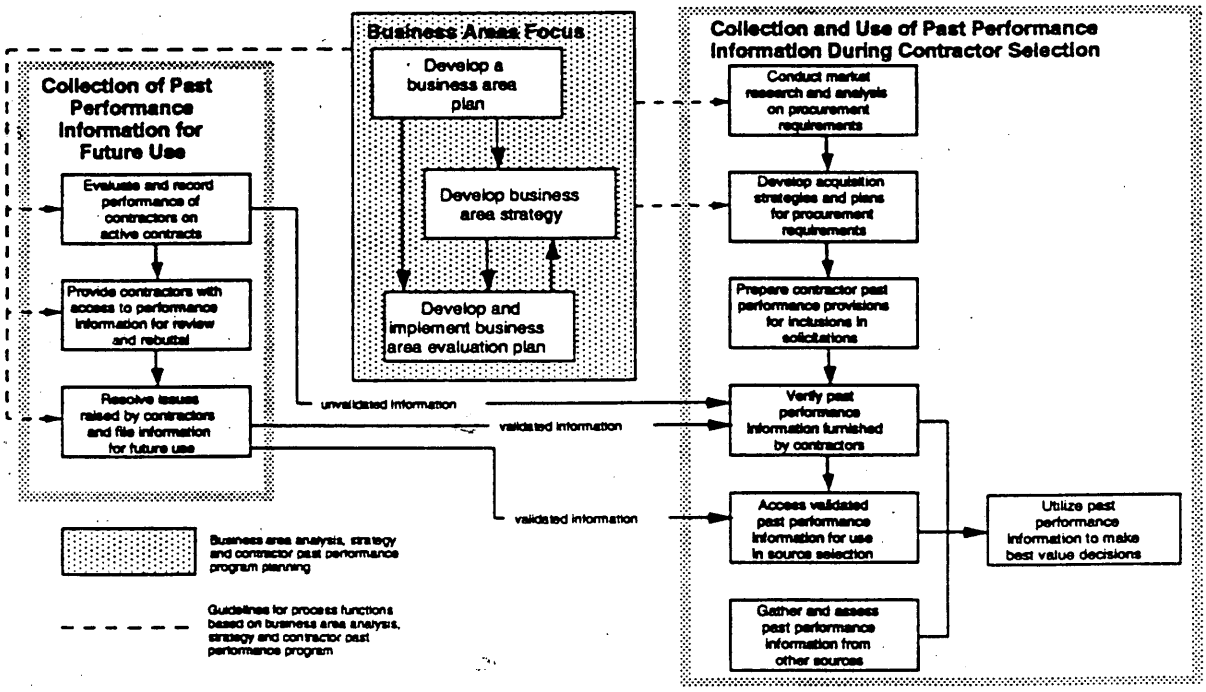
The evaluation criteria and rating scheme in the DFARS is summarized below.

EVALUATION AREAS AND FACTORS	RATINGS
Quality of Product or Service (a required element). This includes the following aspects of performance: 1. Compliance with contract requirements; 2. Accuracy of reports; 3. Appropriateness of contractor personnel assigned to the contract.	0 **Unsatisfactory** : Nonconformances compromise (or are compromising) the achievement of contract requirements, despite the use of Agency resources. 1 **Marginal** : Nonconformances require major Agency resources to ensure achievement of contract requirements. 2 **Satisfactory** : Nonconformances do not impact achievement of contract requirements. 3 **Excellent** : There are no quality problems.
Cost Control (not required for firm-fixed-price and firm-fixed-price with economic price adjustment contracts). This includes the following aspects of performance: 1. Current, accurate, and complete billings; 2. The relationship of negotiated cost to actuals; 3. Cost containment initiatives; and 4. The number and cause of change orders issued.	0 **Unsatisfactory** : Cost issues are compromising performance of contract requirements. 1 **Marginal** : Cost issues required (or require) Agency resources to ensure achievement of contract requirements. 2 **Satisfactory** : Cost issues do not impact achievement of contract requirements. 3 **Excellent** : There are no cost issues.
Timeliness of Performance (a required element). This includes the following aspects of performance: 1. Whether the contractor met interim milestones; 2. Contractor's responsiveness to technical direction; 3. Contractor's responsiveness to contract change orders and administrative requirements; 4. Whether the contract was completed on time, including contract close-out and reporting responsibilities and contract administration; and 5. Whether liquidated damages were assessed.	0 **Unsatisfactory:** Delays are compromising the achievement of contract requirements, despite the use of Agency resources. 1 **Marginal:** Delays require Agency resources to ensure achievement of contract requirements. 2 **Satisfactory:** Delays do not impact achievement of contract requirements. 3 **Excellent:** There are no delays.
Contracting / Business Relations (a discretionary element). This includes the following aspects of performance: 1. Whether the contractor effectively managed the contract effort; 2. How responsive the contractor was to contract requirements; 3. How promptly the contractor notified the Government of problems; 4. Whether the contractor was reasonable and cooperative; 5. How flexible the contractor was; 6. Was the contractor proactive; 7. How effective were contractor recommended solutions; and 8. Did the contractor effectively implement socioeconomic programs, including compliance with requirements of the clause of FAR 52.219-8, Utilization of Small Business Concerns and Small Disadvantaged Business Concerns, and 52.219-9, Small Business and Small Disadvantaged Business Subcontracting Plan.	0 **Unsatisfactory:** Response to inquiries, technical service, and administrative issues is not effective and responsive. 1 **Marginal:** Response to inquiries, technical service, and administrative issues is marginally effective and responsive. 2 **Satisfactory:** Response to inquiries, technical service, and administrative issues is usually effective and responsive. 3 **Excellent:** Response to inquires, technical service, and administrative issues is effective and responsive.

There may appear to be some advantages in a single set of evaluation criteria for all contracts, just as there are apparent disadvantages that bring into question a "one size fits all" approach to evaluating contractor past performance. These questions are addressed later in this section.

C. Contractor Evaluation Program Model ("To-be" Model)

The diagram below provides another view of the Contractor Evaluation Program described in Section III. C. The principal difference between this model and the As-Is and DFARS models is the business area focus shown in the shaded area in the center of the diagram. This emphasis on business areas includes a business area plan, similar to the market research currently addressed in the FAR but broader in scope; business area strategy to guide the collection and use of past performance information; and a business area evaluation plan, tailored to the specific requirements of the business area.



The principles that were used in designing the model were derived from an analysis of our previous research in this area and the government and industry approaches to contractor past performance and supplier evaluation we reviewed in this study and included the following:

- A cost-effective approach to the collection and use of contractor past performance information depends on, and is sensitive to factors related to the business areas in which products and

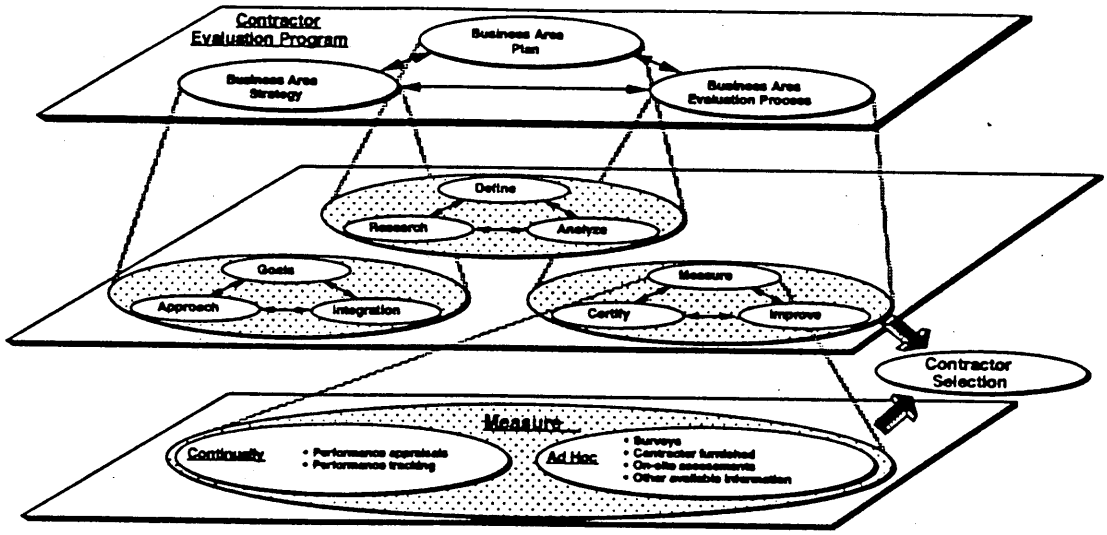
services are procured and used (as opposed to a universal approach that can be applied to the full range of products and services procured by DOD in all sectors of the industry).

- A business area consists of a homogeneous group of products or services which share similar characteristics and for which a forward-looking plan and a coherent and congruous strategy and evaluation process can be developed.
- Business areas can be local or extended in application. In their most robust form, they constitute the horizontal integration of products and services.
- The process for implementing contractor past performance issues in a particular business area is developed from business area plans and strategy for the specific business area and typically involves a cross-functional team effort.
- The initial and vital step in developing plans and strategy for a business area is an analysis that covers the requirements for the product or service, past and projected; the industry composition and basis of competition; and the market trends and specific performance of leading companies in the industry.
- The business area plan and strategy will provide the basis for developing a tailored approach to the collection and use of contractor past performance information in the particular business area as well as the foundation for a total program designed to incorporate best value practices into the procurement process and to attract contractors and suppliers committed to high levels of performance.
- Information technology will be utilized to facilitate communication between Government managers in separate organizations with a need to share information about business area strategies and plans as well as the past performance of individual contractors in those business areas.

The principle elements of the Contractor Evaluation Program are:

- a business area plan;
- a business area strategy in the context of an overall acquisition strategy for the business area; and
- a business area evaluation plan that can be used to tailor the contractor past performance provisions of the FAR and the DFARS to the particular business area.

Each of these elements is interrelated. The model's three major components are shown at three levels of detail in the diagram below.



The business area plan, in the top center of the diagram, includes a definition of the area to be investigated; a research program into the area, including the internal requirements as well as the industry sources for the particular product or service; and a comprehensive analysis of all relevant factors dealing with doing business in the particular area from the perspective of the government acquisition officials.

The business area strategy, shown on the left-hand side of the diagram, encompasses three principal focus areas. These include:

- integration of contractor past performance issues with the broader issues related to the overall acquisition program for the business area, and with the cross-functional considerations that may be involved (e.g., engineering, test and evaluation, production, logistics, risk management, and quality);
- the goals and objectives for the contractor past performance program in the business area, including the desired level of performance sought from contractors with whom contracting relationships exist or are anticipated; and
- an overall approach for the use of past performance information designed to achieve the past performance goals and objectives established for the business area, and to provide guidelines for developing a cost effective plan tailored to the particular business area.

The purpose of the business area evaluation process, as depicted on the right-hand side of the diagram, is to lay out a plan for executing the business area strategy. Three principal area are identified for possible coverage in the plan, although others may be added when warranted in a specific business area. Whereas all plans should address the performance measurement aspects of the program, the other two areas will be covered to the extent that the agreed to strategic approach provides guidance and direction in these area. The three principal areas include:

- A plan of action to measure the performance of contractors based on criteria tailored to the business area and consistent with the strategy for the business area;
- A plan of action to certify the performance of contractors consistent with the strategy for the business area and that considers the certification of processes, products and services (e.g., "Blue Ribbon" Programs); and
- A plan of action to undertake initiatives designed to improve the performance of contractors that constitute the supplier base, and in a manner consistent with the strategy established for the business / program area (e.g., process improvement initiatives and recognition programs).

The third tier of the diagram is intended to address the methods that will be used to collect past performance information on contractors that participate in the business area. The following methods are candidates for use:

- A *continuous* measurement program that may include provisions for review of the information by the contractor; a process for dealing with the resolution of contractor rebuttals; and the maintenance of the information for future use when needed for source selection purposes, or some other purpose consistent with the strategic plan. This approach includes:
  - Performance appraisals, on a periodic basic at the contract, or contract order level, based on an assessment by the responsible government official(s) for contract technical and management oversight; and
  - Performance tracking, on a continuing basis at the contract line item level, based on quality and delivery data collected as a part of established contract management and oversight processes.
- An *ad hoc* measurement program that is designed to provide past performance information when needed to support contractor selection decisions, or some other purpose established in the strategic plan. This type of program may include information from sources such as:
  - Surveys of prior customers—e.g., reference checks;
  - Requests for past performance information from contractors (e.g., in response to solicitations);
  - On-site assessments of contractor operations to include their technical and management processes; and
  - Information gathered from other available source (e.g., product performance and reliability data, CSCS data, certifications and awards, etc.).

The Contractor Evaluation Program is a comprehensive approach for collecting and providing information on the past performance of contractors for contractor selection purposes. It is also an orderly approach to tailoring the policy and requirements on this subject to specific business areas, and to achieving and sustaining improvements in the overall level of performance that is exhibited by contractors in the business area.

Difference Between Contractor Evaluation Program and Proposed DFARS

The following summarizes the principal differences between the Contractor Evaluation Program and the DFARS model in dealing with contractor past performance issues, policies and requirements. Each of the criteria indicated in the chart is discussed in the following paragraphs.

CRITERIA	DIFFERENCES	
	DFARS	TO-BE MODEL
FLEXIBILITY Organizations are provided latitude and empowered to tailor requirements and guidelines to fit particular characteristics of their business areas	Limited	Substantial
SCOPE Consideration of past performance information extends beyond its use in source selection decisions to include improvement initiatives	None	Significant
BUSINESS AREAS FOCUS An analysis of business areas is recognized as a key factor in developing effective strategies and plans for dealing with past performance issues	No	Yes
PROCESS INTEGRATION & TEAMWORK Past performance strategies and plans are developed consistent with overall acquisition strategies and utilizing cross-functional teamwork	Limited	Yes
VALUE TO THE USER Information on the past performance of contractors provides a valuable input to sources selection decisions and is shared with other organizations	Limited	Substantial
SHARING INFORMATION Provisions are made for sharing contractor past performance information among DoD organizations in a cost effective manner	Not addressed	Yes

Flexibility

The flexibility criterion addresses the capability to deal with, and adapt to the particular circumstances of an acquisition program. It is especially important in the implementation of past performance policy and requirements within the DOD because of the wide range of products and services that are acquired and the wide range of circumstances that may affect the acquisition process leading up to the selection of contractors and to the award of contracts. In addition, the post-award activities and the contract management approach employed by DOD components and agencies are also subject to considerable variability depending on factors such as the size, scope, complexity, and nature of the contracted work.

Both models are designed to address the flexibility criteria. However, the extent of the flexibility in the Contractor Evaluation Program is considerably greater than the FAR / DFARS model, as summarized in the following table.

FLEXIBILITY DIFFERENCES	
CONTRACTOR EVALUATION PROGRAM	**FAR / DFARS MODEL**
Organizations with contracting authority and technical oversight responsibilities shall establish the content and format of performance evaluations based on analysis of their business areas and consistent with strategies and processes established by these organizations.	Content and format of performance evaluations shall be established in accordance with agency procedures and should be tailored to the size, content and complexity of the contractual requirements. (Ref. FAR 42.15)
Contractor evaluations will be tailored to the business areas in which the contracts are issued and to the requirements established in the contracts, and this tailoring may extend to the thresholds used and to the provisions for review and rebuttal by the contractor.	Contractor evaluations will be prepared on all active contracts above the $100,000 threshold, reviewed by contractors subsequent to the evaluation, and filed and protected as "source selection information" after resolution of any rebuttal by the contractor. (Ref. FAR 42.15)
Principal users of contractor past performance information include government officials involved in contracting decisions, and therefore these user of the information shall have a major role in determining the scope and content of contractor evaluations in specific business areas.	The evaluation of contractor performance shall include specific data elements and evaluation areas, factors and ratings (as delineated in the proposed DFARS 42.15)
Same as the FAR / DFARS model, except that the cognizant technical officials will also ensure that their responsibilities are discharged in a manner consistent with the strategy and the plan established for the business area.	The cognizant technical official is responsible for the technical and past performance requirements related to the source selection process. [Ref. FAR 15.604 (b)]
Same as the FAR / DFARS model, except that the contractor past performance strategy and implementing process shall cover guidelines and provide decision rules for determining the inclusions of past performance factors in source selection and contracting decisions.	Past performance shall be evaluated (in contract award decisions) . . .unless the contracting officer documents in the contract file the reasons why past performance should not be evaluated. [Ref. FAR 15.605 (b)]
Same as the FAR / DFARS model, except with the addition that the source and type of past performance information is first tailored to each business area and the approach is described in the strategy for the business area.	The source and type of past performance information to be included in the evaluation is within the broad discretion of agency acquisition officials and should be tailored to the circumstances of each acquisition. [Ref. FAR 15.608 (a)]

A more rigid structure for the collection and use of contractor past performance information would very likely simplify the information processing functions and the automated systems that may be used to support these functions. However, our analysis indicated that the value of past performance information to the user for contractor selection purposes is diminished as the degree of standardization is increased in the evaluation process and in the collection of the information. And the views of many of the government officials who were interviewed during the course of the project and who participated in the workshops that were conducted, tended to support this analysis.

Scope

The scope criterion is intended to address the coverage provided for all types and sources of contractor past performance information as well as for all potential uses of this information beyond its use for contractor selection purposes.

Other than one statement in Part 15 of the FAR, the current provisions of the FAR, as supplemented by the provisions in the proposed DFARS, essentially address one type and source of contractor past performance information (in Subpart 42.15), and one purpose served by this information (i.e., for source selection purposes). The one statement in the FAR that addresses other types and sources of past performance information appears in Subpart 15.8 on the subject of proposal evaluation.

> . . . the solicitation shall afford offerors the opportunity to identify . . . contracts performed by the offerors that were similar in nature to the contract being evaluated, so that the Government may verify the offerors' past performance on these contracts. . . . Past performance information may also be obtained from other sources known to the Government. The source and type of past performance information to be included in the evaluation is within the broad discretion of agency acquisition officials and should be tailored to the circumstances of each acquisition. Evaluations of contractor performance prepared in accordance with Subpart 42.15 are one source of performance information which may be used.

Whereas supplemental guidance could be provided to address the other types and sources of past performance information and the potential use of this information for other purposes, there is currently no *final* version of this guidance. The OFPP guide on best practices for past performance, published in May 1995, is recognized to be an interim measure. And some of the guidance provided in this document does not appear to have universal relevance to the DOD procurement program. ?

The Contractor Evaluation Program is intended to provide a broader perspective to contractor past performance and is designed to address a total systems approach to the collection and use of past performance information, to include:

- The type of analyses required to develop a tailored approach by business area;
- A definitive strategy for dealing with the entire issue of contractor past performance in each business area in a manner consistent with the overall acquisition strategy and procurement planning for the business or program area; and
- A process focused on the actions necessary to execute the contractor past performance strategy in areas such as performance measurement, product and process certification, and performance improvement initiatives.

Coverage in the Contractor Evaluation Program is provided not only for the performance appraisal information that is addressed in Subpart 42.15 of the FAR, but also performance tracking systems, such as the Navy's Red/Yellow/Green system and DLA's Automated Best Value Model. In addition, the proposed model covers past performance information related to the certification of contractors for products and services as well as the processes employed by the contractors.

Business Area Focus

This criterion addresses the capability to effectively deal with the size, scope and diversity of the DOD acquisition program.

The proposed Contractor Evaluation Program recognizes that the products and services acquired by DOD span everything from sophisticated, multi-million dollar weapon systems to relatively simple, inexpensive commodities. Using FY '94 data, the following table illustrates the size of the DOD procurement program as well as the range of products and services that are acquired. Also shown is the breakdown of the total dollars into the various categories.

FY94 funds in $M		Money Spent	%
	Research & Development	21,824	100
AB	Community Service	1.7	0.0
AC	Defense Systems	14,750.5	67.6
AD	Defense - Other	4,034.9	18.5
AE	Economic Growth and Productivity	158.7	0.7
AF	Education	2.9	0.0
AG	Energy	2.1	0.0
AH	Environmental Protection	63.6	0.3
AJ	General Science & Technology	163.1	0.7
AN	Medical	444.5	2.0
AP	Natural Resources	4.4	0.0
AR	Space	497.4	2.3
AS	Transportation - Modal	8.3	0.0
AT	Transportation - General	.9	0.0
AV	Mining	.3	0.0
AZ	Other R&D	1,690.3	7.7
	Other Services & Construction	43,948	100
B	Special Studies and Analyses - Not R&D	343.6	0.8
C	Architect & Engineering Servi. - Construc	2,629.6	6.0
D	Auto. Data Processing & Telecom. Servic	3,090.6	7.0
E	Purchase of Structures and Facilities	.2	0.0
F	Natural Resources Management	667.3	1.5
G	Social Services	361.4	0.8
H	Quality Control, Testing and Inspect. Servic	340.6	0.8
J	Maintenance, Repair, and Rebuilding of Eq	5,859.0	13.3
K	Modification of Equipment	1,135.9	2.6
L	Technical Representation Services	890.4	2.0
M	Operation of Government-Owned Facility	2,423.6	5.5
N	Installation of Equipment	338.1	0.8
P	Salvage Services	72.2	0.2
Q	Medical Services	471.8	1.1
R	Professional, Admin. & Mgmt. Support Se	7,304.9	16.6
S	Utilities and Housekeeping Services	3,194.7	7.3
T	Photo., Mapping, Printing, & Pub. Services	157.6	0.4
U	Training Services	692.7	1.6
V	Transportation and Travel	2,144.1	4.9
W	Lease or Rental of Equipment	432.9	1.0
X	Lease or Rental of Facilities	118.1	0.3
Y	Construction of Structures and Facilities	6,607.7	15.0
Z	Maint. Repair or Alteration of Real Propert	4,690.6	10.7
	Supplies and Equipment	52,342	100
10	Weapons	701.0	1.3
11	Nuclear Ordnance	2.2	0.0
12	Fire Control Equipment	553.1	1.1
13	Ammunition and Explosives	1,068.5	2.0
14	Guided Missiles	4,598.0	8.8
15	Aircraft and Airframe Structural Componen	13,078.5	25.0
16	Aircraft Components and Accessories	1,170.1	2.2
17	Aircraft Launch, Landing, and Ground Equip	82.3	0.2
18	Space Vehicles	166.1	0.3
19	Ships, Small Craft, Pontoons / Floating Dry	3,480.3	6.6
20	Ship and Marine Equipment	137.1	0.3
22	Railway Equipment	19.3	0.0
23	Motor Vehicles, Trailers, & Cycles	2,006.5	3.8
24	Tractors	26.7	0.1
25	Vehicular Equipment Components	355.4	0.7
26	Tires and Tubes	33.9	0.1
28	Engines, Turbines, and Components	2,832.3	5.4
29	Engine Accessories	176.8	0.3

		Money Spent	%
	Supplies & Equipment (cont)		
30	Mechanical Power Transmission Equipment	60.1	0.1
31	Bearings	51.9	0.1
32	Woodworking Machinery and Equipment	1.1	0.0
34	Metalworking Machinery	53.8	0.1
35	Service and Trade Equipment	7.4	0.0
36	Special Industry Machinery	173.1	0.3
37	Agricultural Machinery and Equipment	3.8	0.0
38	Const., Mining, Excavating, Highway Equip	107.4	0.2
39	Materials Handling Equipment	220.2	0.4
40	Rope, Cable, Chain and Fittings	12.1	0.0
41	Refrig., Air Conditioning & Circulating Equip	72.3	0.1
42	Fire Fighting, Rescue, and Safety Equipment	121.8	0.2
43	Pumps and Compressors	72.9	0.1
44	Furnace / Steam Equip; & Nuclear Reactor	270.1	0.5
45	Plumbing, Heating, and Sanitation Equipment	16.5	0.0
46	Water Purification and Sewage Treat. Equip	16.3	0.0
47	Pipe, Tubing, Hose and Fittings	47.9	0.1
48	Valves	76.2	0.1
49	Maintenance and Repair Shop Equipment	353.0	0.7
51	Hand Tools	19.8	0.0
52	Measuring Tools	7.4	0.0
53	Hardware and Abrasives	73.9	0.1
54	Prefabricated Structures and Scaffolding	96.5	0.2
55	Lumber, Millwork, Plywood and Venee	13.2	0.0
56	Construction and Building Materials	51.1	0.1
58	Com., Detection, & Coherent Radiation Eq	4,820.1	9.2
59	Electrical and Electronic Equip. Component	916.9	1.9
60	Fiber Optics Materials, Comp., Assy., Acces	58.6	0.1
61	Electric Wire, and Power and Distrib. Equip	534.1	1.0
62	Lighting Fixtures and Lamps	33.9	0.1
63	Alarm, Signal, and Security Detect. Systems	31.2	0.1
65	Med. Dental, & Veterinary Equip. & Supplies	348.6	0.7
66	Instruments and Laboratory Equipment	769.2	1.5
67	Photographic Equipment	35.4	0.1
68	Chemicals and Chemical Products	240.8	0.5
69	Training Aids and Devices	646.9	1.2
70	Gen. Purpose Auto. Data Processing Equip	2,213.5	4.2
71	Furniture	269.6	0.5
72	Household & Com. Furnishings & Appliances	41.9	0.1
73	Food Preparation and Serving Equipment	25.6	0.0
74	Office Equip., Text Process. / Visible Records	8.7	0.0
75	Office Supplies and Devices	7.0	0.0
76	Books, Maps, and Other Publications	160.3	0.3
77	Musical Instruments, Phonographs & Radios	1.6	0.0
78	Recreational and Athletic Equipment	10.5	0.0
79	Cleaning Equipment and Supplies	21.3	0.0
80	Brushes, Paints, Sealers and Adhesives	3.7	0.0
81	Containers, packaging and Packing Supplies	86.6	0.3
83	Textiles, Leather, Furs, Apparel, Tents / Flag	94.0	0.3
84	Clothings, Individual Equipment, and Insignia	1.7	1.0
85	Toiletries	35.7	0.1
87	Agricultural Supplies	6.7	0.0
88	Live Animals	.1	0.0
89	Subsistence	1,577.9	3.0
91	Fuels, Lubricants, Oils, and Waxes	4,549.9	8.7
93	Nonmetallic Fabricated Materials	12.3	0.0
94	Nonmetallic Crude Materials	17.3	0.0
95	Metal Bars, Sheets and Shapes	31.2	0.1
96	Ores, Minerals and Their Primary Products	4.0	0.0
99	Miscellaneous	1,547.4	3.0

Included in the tabulation shown in the table above are all contract actions above $25,000. The total of these actions was about $118 billion in FY '94, which was

divided into about 19% for R&D, 37% for services and construction, and 44% for supplies and equipment. And the total DOD procurement program for FY ë94 accounted for about 67% of the total for all federal departments and agencies.

Also relevant to fully grasping the size and scope of the DOD procurement program are the number of organizations that have procurement authority and technical oversight responsibilities for a portion of the total program. Some of the principal organizations in each military service and DLA are listed below. In addition, contracts are awarded by the operational organizations in each service including bases, posts and camps.

Army

Armament, Munitions & Chem. Com.
Armament R & D Center
Chemical Biological Defense Com.
Aviation and Troop Command
Communications & Electronics Com.
Missile Command
Tank-Automotive Command
Troop Support Command
Ballistic Research Laboratory
Research Laboratory
Belvoir Research Dev. & Eng. Ctr.
Defense Supply Service Wash.
Military Traffic Management Com.
Medical RD&L Command
Health Services Commands
Brooke Medical Center
Central Contracting Office
Eisenhower Medical Center
Fitzsimons Medical Center
Beaumont Medical Center
Madigan Medical Center
Tripler Medical Center
Walter Reed Medical Center
U.S. Army Depots
Anniston Depot
Corpus Christi Depot
Letterkenny Depot
Red River Depot
Tobyhanna Depot
Tooele Depot
Corps of Engineers
Information Systems Command
Info. Sys. Selection & Acquisition

* Navy activities that use, or have used the RYG system

Navy

Headquarters U.S. Marine Corp
Military Sealift Command
Office, Chief Naval Research
Strategic Systems Program Office
Naval Air Systems Command
Space & Naval Warfare Sys. Com.
Naval Facilities Engineering Com.
Naval Sea Systems Command
Regional Contracting Ctr., Wash.
Regional Contracting Ctr., Phil.
Regional Cont. Ctr., Long Beach
* Navy Aviation Supply Office
* Navy Ship Parts Control Center
* Mare Island Naval Shipyard
* Pearl Harbor Naval Shipyard
* Portsmouth Naval Shipyard
* Philadelphia Naval Shipyard
* Norfolk Naval Shipyard
Submarine Support Facility, Groton
* Air Warfare Center, Lakehurst
Air Warfare Center, Warminster
* Air Warfare Center, Indianapolis
Air Warfare Center, Pax. River
Air Warfare Center, China Lake
* Air Warfare Center, Orlando
* Surface Warfare Center, Crane
Surface Warfare Ctr., Indian Head
Surface Warfare Ctr., Panama City
Surface Warfare Center, Dahlgren
Surface Warfare Center, Carderock
* Surface Warfare Center, Louisville
* Undersea Warfare Ctr., Keyport
Undersea Warfare Ctr., Newport, RI
Exchange Serv. Com., Va. Beach
Oceanographic Office, Stennis, MS
Command, Control & Ocean Surv. Ctr.
Headquarters, Naval District Wash.
* Fleet & Industrial Sup. Ctrs. (9 sites)
Construction Organizations (6 sites)

Air Force

Oklahoma City Air Logistics Center
Ogden Air Logistics Center
Sacramento Air Logistics Center
San Antonio Air Logistics Center
Warner Robins Air Logistics Center
Aerospace Guidance and Metrology Center, OH
Space and Missile Systems Center
Electronic Systems Center
Aeronautical Systems Center (ASC)
Directorate of R&D, ASC
Air Force Dev. Test Center, Eglin
Air Education & Training Com., TX
Air Military Command, Scott AFB
Air Combat Command, Langley, VA
10th Air Base Wing, USAF Academy
Air Intelligence Agency
Air Force Space Com., Peterson AFB
Air Force Reserve, Robbins AFB
Space and Missile System Center, LA
HQ Space Command, Peterson AFB
Human Systems Center, Brooks AFB
Armstrong Laboratory, Brooks AFB
Phillips Laboratory, Kirtland AFB
Wright Laboratory, WP AFB
Freight Test Center, Edwards AFB
Rome Air Development Center
Arnold Eng. Dev. Ctr., Arnold AFB
Civil Engineering Center, Tyndall AFB
Office, Scientific Research, Bolling AFB

DLA

Defense Contracting Mgmt Command

DLA (Contracting)

- General Supply Center, Richmond
- Construction Supply Center, Columbus
- Electronics Supply Center, Dayton
- Fuel Supply Center, Alexandria, VA
- Industrial Supply Center, Phila.
- Personnel Support Center, Phila.
- Subsistence Region Pacific, Alameda
- ADP/T Contracting Office, Alexandria
- National Stockpile Center, Arl. VA

Principal Organizations That Acquire Products and Services

When viewed in its totality, the DOD acquisition program dwarfs anything in the commercial world. Even the largest commercial operations are relatively small by comparison. And most of the major firms focus their business in a relatively few areas (e.g., automobiles, software, aircraft, etc.).

The tremendous size, scope and diversity of the DOD acquisition program, as indicated in the preceding discussion, represented a significant challenge during the course of conducting the study and examining the contractor past performance issue. It was found that most any discussion or analysis of contractor past performance required a qualifying statement that established the particular segment of the total program that was

being addressed. For example, a method that was reasonable and logical for one segment was found to be irrelevant or even counter productive in other areas. These observations provided the basis for one of the design characteristics that has been built into the Contractor Evaluation Program -- that is, the capability to deal with the inherent differences in the various segments of the DOD acquisition program.

The business area focus in the proposed model is achieved by addressing each business area as a separate entity, analyzing the factors relevant to the business area, and then devising a strategy that makes sense for dealing with contractor past performance at the business area level. And this information is then used to develop ground rules and to devise a process, not only for considering past performance in contracting decisions, but also for improving the overall performance of contractors in the particular business area.

The FAR / DFARS model does provide for tailoring but does not address the idea of using the business area analysis as the basis for devising a sensible, cost effective approach to contractor past performance. The FAR does give some recognition to market research in Part 11 for determining the availability of commercial products in the marketplace for Government use. And the Non-Developmental Item (NDI) handbook does address market investigations for NDI purposes. But neither encompasses contractor past performance considerations, nor is it undertaken on a continuing basis.

Process Integration & Teamwork

This criterion deals with provisions for handling the integration of past performance considerations with the other factors and analyses that may be pertinent to a particular business area, or to the acquisition program or programs that constitute the business area. In addition, the criterion encompasses the teamwork and coordination needed for dealing with the cross-functional interests and perspectives that may be a factor in the larger more complex business areas.

The process integration and teamwork provisions in the Contractor Evaluation Program are primarily addressed in the component that deals with the development of a business area strategy. This activity also contributes to the process by which the vertical, overall acquisition strategy is developed for a program area.

At the present time FAR / DFARS model does not specifically address the integration nor the teamwork aspects for dealing with contractor past performance, either in the collection of information on contractor performance or in the use of this information for contractor selection purposes. Whereas, guidance in this area could be developed and

provided in a separate document, there does not appear to be recognition of the need for an integrated and cross-functional teaming approach to the implementation of the contractor past performance policy.

Value to the User

This criterion deals with the capability to focus on the needs of the ultimate user and to provide past performance information that has value to the users -- that is, government officials involved in the acquisition of products and services, including the solicitation of sources, the evaluation of offerors, and the award of contracts.

The Contractor Evaluation Program is designed to ensure that it will provide useful information to users by incorporating the following features:

- Users define the specific evaluation criteria to be used. This feature is based on one of the underlying principles embedded in the Contractor Evaluation Program; namely, use dictates collection. The specific approach for handling the past performance contractors is developed at the business area level and part of this process provides for developing the specific criteria that will be used to evaluate the performance of contractor. The primary user of this information is the same organization that collects the information, or that oversee its collection.
- Users maintain local files on contractor past performance. When past performance information is gathered on a continuing basis for future use by a particular business area, it will typically consist of either performance appraisal information or performance tracking information. Performance appraisals are generated locally by government officials with contract management oversight responsibility. And tracking information is typically gathered from separate databases that cover quality and delivery performance. In either case, this information is filed locally and continuously updated for future use in the selection of contractors to perform similar work.

No provisions are made for the DFARS model to ensure that the needs of the ultimate users of the information will be considered in the selection of the evaluation criteria.

Past Performance Information Sharing

This criterion deals with the capability to share past performance information among government organizations.

In the Contractor Evaluation Program, provisions are made for sharing two types of information within the business are--one type includes administrative information, and the other type includes the specific past performance information used by the other government organizations. This additional information could be appended to a central contractor registry or similar centralized system, through a lead site within the business area, or it could be provided separately. A brief description of each is provided in the following two paragraphs.

- The administrative information includes on-line access to the full range of data from the Federal Procurement Data System (FPDS) for any product or service code of interest. These data include the identity of contractors that provide various products and services to the government, including contract numbers, types, and dollar value. Additional information would also be available to include a synopsis of contract work statements; an indication if past performance information was available for a particular contractor at a certain location; the availability of planning information for the particular business area; and contact points for the purpose of obtaining additional information and coordinating with the other government organizations.
- The past performance information would include information available at other business area sites, based on criteria used by the business area. This information would be accessible by direct contact with the other organizations by whatever means is established by the organization that maintains the information (e.g., telephone, e-mail, FAX, and database access). Provisions would ensure that access is provided only to authorized users.

Section IV. Conclusions

This section is organized into three parts. The first is designed to provide our responses to two fundamental questions DUSD (AR) needs to consider to guide past performance policy implementation. In the second part are general lessons learned that we believe should guide past performance policy implementation. The third part presents specific associated conclusions.

A. Responses to DUSD (AR) Questions

Question: Should DOD use past performance?

Answer: Yes, because:

- it makes good business sense
- it is required by law and regulation
- it can be tailored to fit specific circumstances, although it is not clear who should do the tailoring and to what extent.

Question: What information should be collected--what type of approach should be used and what direction and guidance should be provided?

Answer: The DOD approach should follow these general principles:

- Decentralized--The range of products and services, and the variance in the size, scope, type, and complexity of contracts makes a standard, DOD-wide system impractical. Government and industry experience support a decentralized approach supported by general guidelines, decision rules, best practices, and information technology support.
- Focused on Business Areas--The implementation of past performance should focus on individual business areas at the operating level that encompass similar products or services for which a coherent and congruous strategy can be developed by organizations with procurement authority and technical responsibility.

- Total Program Context--Past performance needs to be viewed in the context of a total program that goes beyond the collection and use of past performance information, and covers:
    - Analysis of individual business areas, to include both internal and external factors
    - Development of a sensible strategy for contractor past performance at the business area level.
    - Processes designed to implement the strategy for business areas in which the organization is active
- Horizontally Integrated--The business area concept starts at the local level, where it is integrated with the overall acquisition strategy and procurement planning for the business areas. As business area alliances are formed, it exerts a DOD-wide horizontal integration effect by joining similar business areas across the Services and DLA. The implementing direction needs to emphasize the need for this integration and coordination.
- User-Driven--The users of past performance information need to have the principal role in defining what information to collect, when to collect it, and how to make it available for their use in selecting contractors. And the users should include the technical, management, and procurement officials who are involved in and responsible for making contractor selection decisions.
- Share Information--Systems and processes for sharing past performance information among organizations depend on all of the above and should be dealt with after all of the above are dealt with.
- Simple--To be effective, the past performance approach has to be easy to understand and explain, without being simplistic, or it runs the risk of being misunderstood, ignored, or both.

These general principles should guide the implementation of the following specific conclusions:

- *Past performance policy implementation should follow the tenets, procedures, and techniques of the Contractor Evaluation Program or a similar program.*
- *The past performance information collection requirements of FAR Part 42 should be implemented for commodity acquisitions, except for commercial products.*
- *The past performance implementation requirements of FAR Part 42 should be tested on a pilot/prototype basis for the acquisition of services.*

- *The past performance informative requirements of FAR Part 42 should not be required for major/small systems. A pilot/prototype system should be tested for major/small systems, with emphasis on the evaluation of processes.*

The government and industry experience we reviewed was applied to the issue of implementing FAR Part 42.

Government Experience: There is a very limited amount of Government experience available to contribute to addressing this question. The past performance information systems we found in DOD acquisition accounted for a very small percentage of DOD actions or dollars and therefore are not a valid statistical or analytical bases for this question. However, the commodity-based systems we observed were successfully meeting their intended purposes.

Based on the limited information available, it would appear reasonable for DOD to implement FAR Part 42 collection requirements for commodity-type acquisitions. There is very little data for Service-type acquisitions other than A&E and construction. Although the Corps of Engineers systems appeared to be successful for their highly-tailored application, we do not feel comfortable extrapolating that specialized experience for all different types of Service procurements.

For major systems, CPARS was an example of a successful system. The issue in this area is one of the benefit of collecting vast amounts of past performance information over a six- to ten-year period when it may not be used for a similar contractor selection until ten to twelve years after first starting the collection. For example, the F-22 development information is from 5 years ago. It may be applicable to JAST, but that won't be for another 5 years.

Industry Experience: There is an extensive amount of industry supplier evaluation program experience (the industry parallel to our definition of a government past performance information system), albeit in commodity-type products, that supports the implementation of FAR Part 42 guidance by DOD. However, there is very little industry experience with services and major/small system acquisitions using supplier evaluation program techniques. There is also an extensive amount of industry experience on approval of processes in addition to measuring contract performance.

The benefits of establishing ongoing performance measurement, certification, and/or approval programs support implementing FAR Part 42 requirements. These benefits include:

- Improved service
- Decreased costs (trasportation, product/part, transaction (labor), payment terms, inventory, operations)
- Increased quality
- Improved development time and introducton of new technologies
- Increased customer satisfaction and loyalty
- Higher employee morale

The process essentially leverages the information that would otherwise be collected for source selections by using it for performance measurement/feedback, certification, and/or approval.

Question: How should information be collected--Single system, Decentralized systems, Ad hoc only?

Answer:

Single System:

A single DOD-wide past performance information system would be effective only as a "red and/or blue flag" system and could not provide the detailed analyses to support best-value, world-class contractor selection.

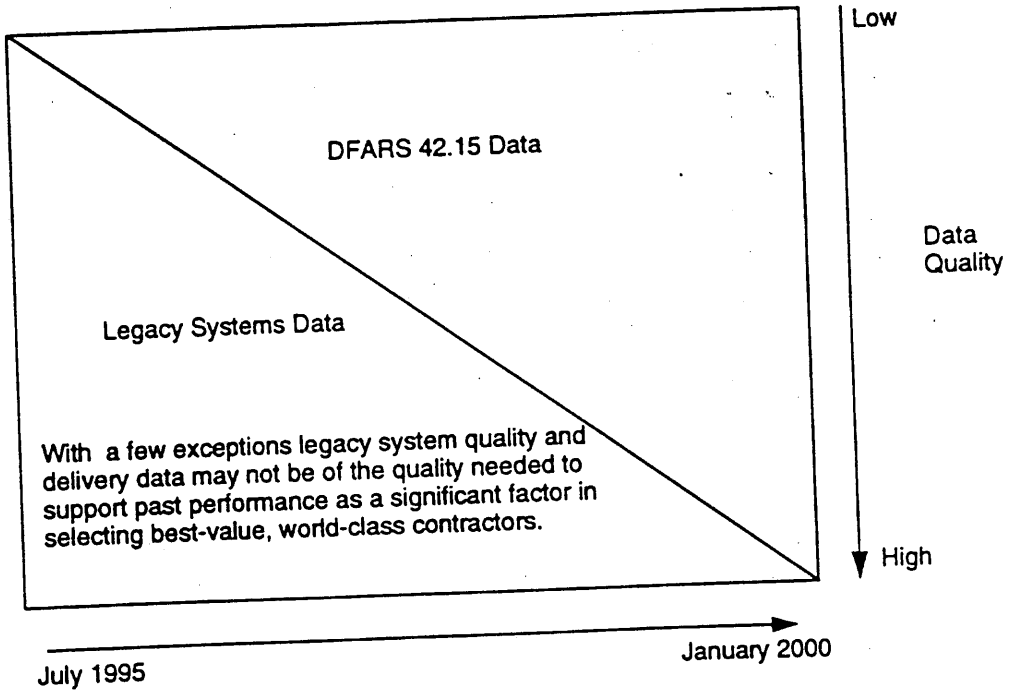
The weight accorded past performance information in contractor selections has been considerably increased. Compared to what is envisioned in the new policies, contractor past performance evaluation generally has been conducted in a very circumscribed manner:

- Past performance was a *minor factor* in source selection
  - Typically valued at 5-15%
  - Generally not a discriminator in the selection process.
- Past perfomrance information collection generally was *ad hoc and concurrent* with the source selection process
  - Forms/Calls to program managers and contracting officers on on-going and expired contracts

- Contractor submissions in response to RFPs, RFQs
- Contract management performance measurement data was not designed to be used in source selection

Today, with the weight being given past performance, *the accuracy, detail, and relevance* of past performance information must be the highest to support the selection of world-class suppliers on a best value basis. It is very doubtful that a single system for the hundreds of thousands of transactions that occur annually (and possibly millions over a three-year period for maintaining the data) could provide the relevant and detailed past performance information that is required. The issue of accuracy also poses another considerable issue.

With few exceptions, the accuracy of the quality and delivery data or any other data to support evaluation in legacy systems is very limited. Previous attempts by Services have failed because of the lack of accurate data from source databases. The highest quality of data is needed for any past performance information system. Red/Yellow/Green has been successful because of the quality of the data that is used in contractor selection decisions. Without quality data, even Red/Yellow/Green cannot be used. We see the process as one in which the data to be collected under FAR Part 42, if it is collected and validated appropriately, will produce accurate, relevant, and detailed data.



Decentralized System:

Decentralized systems which are organized on business area basis are the most cost-effective approach to implementing FAR Part 42 collection requirements.

The reasons that led us to develop the Contractor Evaluation Program model are the same that support this conclusion. A decentralized system with a business area focus will provide the relevant, detailed data to support best-value, world-class contractor selection decisions. The accuracy will be improved, but requires detailed procedures to insure quality data is provided to selection officials.

Ad hoc Approach:

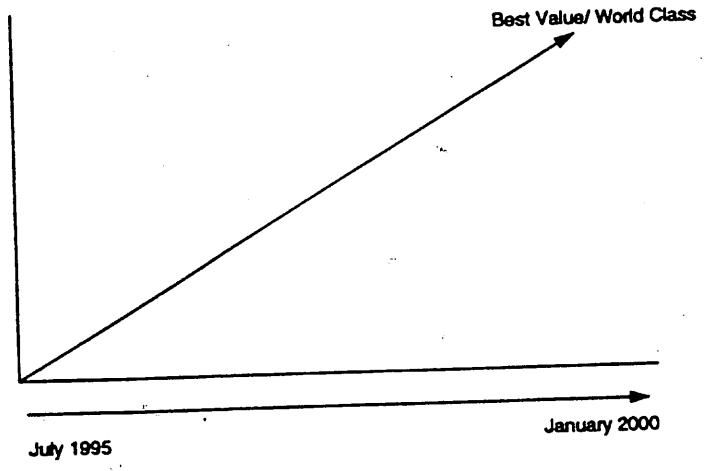
This approach may not provide the systematic, accurate, relevant data that is needed to support past performance as a major factor in contractor selection.

Systematic collection of past performance data will help improve its usefulness in contractor selection. However, due to the distributed nature of the data that is collected *ad hoc*, at the time of source selection it is highly unlikely that it will be entirely relevant, accurate, or detailed enough to support the evaluation weight being accorded to past performance in contractor selections. This *ad hoc* approach is characteristic of the manner in which past performance data was collected in the past. Improvements being made by DOD and other Federal Agencies in collection techniques are a step in the right direction. However, until procedures for contractors being able to validate the data are added, it is difficult to imagine the ad hoc approach as being fully capable of supporting past performance-based contractor selection decisions.

B. Lessons Learned

The following lessons learned are provided for DUSD (AR) consideration:

- Acheiving full implementation can take 5 to 7 years. Nonetheless, the perspective and its evolving development offers vision, a road map, and confirmation of direction for DOD.



- Linking past performance strategies to overall acquisiiton reform strategy and initiatives is critical.
- Partnering and multi-functional teamwork at all levels with internal customers and suppliers are essential.
- All stakeholders must be identified and explicitly considered in process improvements.
- Information systems and accurate data are critical to implementation.
- The challenge to improve the supplier base is difficult, but can be achieved by working with suppliers in a win-win relationship.

C. Associated Conclusions

There are a number of barriers to widespread adoption of past performance as a major selection factor in a best-value context.

- Low bidder mindset/culture
- Risk avoidance culture

- Lack of experience with subjective decisionmaking
- Need to educate buyers that there is a choice
- Time to validate performance information
- Quality and delivery data processes are weak/inaccurate
- Lack of tools to collect accurate data
- Impacts acquisition streamlining efforts to reduce PALT
- Impacts productivity
- Administrative burden

Innovative change management training programs will be required to meet past performance policy implementation and its related world-class supplier and best-value objectives.

- Cultural change to support other-than-"low-cost" mentality is slow to take place without new learning, team environment, management commitment, and sound automation systems.
- Industry supplier evaluation, performance measurement, and recognition of successes and techniques may need to be introduced.
- Government initiatives may need to be expanded and emphasized.

Work with DOD contractors to develop:

- Common awareness of DOD business past performance vision/strategy
- Shared understanding of current reality/leverage points
- Align actions for redesigning processes and implementing resource, technology, and organizational features
- Collaborative review of progress throughout the cycle

Emphasize long-term contracts.

- Provide contractors with the confidence to do necessary long-term planning and increase commitment.
- Provide contractors with tangible evidence that you are serious about partnership.
- Reduce cost by lengthening the period that contractors have to recover capital investments.
- Reduce administrative costs of annual contract award.

On-going process evaluation programs should be considered. DCMC's Risk Assessment Model and PROCAS programs and planned initiatives like JACG-CPARS Supplier Assessment are similar to industry programs.

- DCMC uses RAM and PROCAS programs evalute key contractors to improve their processes.
    - Designed for contract manageemnt not to support source selection
    - Do not apply to most DOD suppliers
- JACG-CPARS focus on contractor capability to perform future contracts based on performance risk and assessmsent of key processes.

Process evaluation adds an important dimension to judging future performance.