REVIEW REPORT

Review of
National Aeronautics and Space Administration
Single Process Initiative (SPI)/
Block Change Process Implementation
P&A-98-002

August 17, 1998

OFFICE OF INSPECTOR GENERAL

National Aeronautics and
Space Administration

Office of Inspector General
Headquarters
Washington, D.C. 20546-0001

Reply to Attn of: W

August 17, 1998

TO: AE/Chief Engineer

FROM: W/Assistant Inspector General for Partnerships & Alliances

SUBJECT: Report on Review of NASA Single Process Initiative (SPI)/Block Change Process Implementation, P&A-98-002

The Office of Inspector General (OIG) completed a review of the SPI which addresses NASA's involvement and partnering with DoD, application of SPI at its Centers, achievements in reducing contract costs, and contractor participation. We found inconsistent implementation across Centers, minimal cost savings, and inadequate resources for staffing SPI implementation. We recommend that: (1) the Chief Engineer reassess NASA's continued participation in SPI; (2) adequate funding be provided for implementation; (3) internal guidelines be issued or clarified; (4) data keeping be centralized and uniform within NASA; and (5) NASA resolve with DoD a number of issues outside of the control of NASA but which directly impact NASA's implementation of SPI.

On June 12, 1998, we issued a draft report to NASA management. Management's response to the recommendations was dated July 27, 1998. Generally, management concurred with the report's recommendations. On August 6, 1998, the OIG met with management to clarify several responses received.

Our evaluation of management's responses has been incorporated into the body of the report. We consider recommendations 2 and 5 to be closed for reporting purposes. We will keep the remaining recommendations open pending management's implementation of corrective action.

Should you have any questions or need information, please contact me at (202) 358-2162.

Lewis D. Rinker

Enclosure

cc:
JM/D. Green

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SINGLE PROCESS INITIATIVE (SPI)/ BLOCK CHANGE PROCESS IMPLEMENTATION

NASA Headquarters, Washington, DC

EXECUTIVE SUMMARY

PURPOSE

The Government and Industry Quality Liaison Panel conceived the Single Process Initiative (SPI)/Block Change, also referred to as the common process initiative.[1] The National Aeronautics and Space Administration (NASA), the Department of Defense (DoD), and the Federal Aviation Administration (FAA) endorse this initiative, which enables contractors to propose single processes that would meet the needs of multiple Government customers. The intent of SPI is to reduce contractor operating costs and achieve cost, schedule, and performance benefits for both the contractor and the Government. Within DoD, the Defense Contract Management Command (DCMC) is the lead facilitator to implement SPI.

Unlike traditional contract-specific changes, common process changes are intended to cross all contracts at a particular contractor facility. The benefit of a single block change modification results from the reduced effort of modifying multiple existing contracts at once as a block or group, versus modifying each contract separately.

DCMC reports that through mid-April 1998, contractor facilities at which NASA is a customer have proposed 304 process changes. The proposals led to 166 block change modifications that resulted in negotiated savings of **$**407,800 and estimated cost avoidances on future contracts of **$**148.4 million.[2]

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[1] The Government and Industry Quality Liaison Panel is an interagency and industry partnership effort involving 12 Federal agencies, three major industry associations, and representatives of the American Society of Quality Control and the American National Standards Institute.

[2] SPI Implementation Summary as of April 24, 1998, data generated at the request of OIG by DoD. We did not validate the accuracy of this data.

EXECUTIVE SUMMARY

The Office of Inspector General (OIG) initiated this review to evaluate NASA's implementation of SPI and the results obtained from this procurement initiative. For more information on the scope of our review, see Appendix 1.

RESULTS IN BRIEF

At the direction of the Administrator, NASA is participating with DoD in SPI. The Centers appear to be following general guidance and direction issued by DCMC and any supplemented by NASA. SPI has the potential to reduce NASA's contract costs by the adoption of common processes by contractors in lieu of multiple, unique standards and specifications. To improve the effectiveness of SPI at NASA, the Agency must address inconsistent Center implementation, minimal cost savings, and inadequate resources for staffing and implementation. DoD treats NASA as a key participant in the SPI process regardless of contract values involved; however, NASA has a difficult time implementing a DoD-defined and managed program.

The lack of standard SPI operating requirements has led to a variety of SPI procedures being followed at the Center level. While each Center visited maintains a data base of its SPI activity, the data elements being tracked are not uniform. No requirement is found that such information be maintained nor that it be consistent. Moreover, there is no central data base of information such as number of process changes received or approved, dollar savings, estimated cost avoidances, and participating contractor facilities. Although DCMC reports various SPI activity metrics for NASA, we could not substantiate these with the Centers.

While NASA can correct many inefficiencies in the SPI implementation, some impediments are beyond its control. Additional information can be found in the report section titled, "Issues That Impact NASA Should Be Discussed With DCMC."

EXECUTIVE SUMMARY

OVERALL RECOMMENDATIONS

The results of this review confirm a potential for NASA to streamline processes by participating in DoD's SPI. However, we believe that if NASA is going to have a cost effective SPI process, the Chief Engineer must address significant issues both internally and through discussion with DoD:

- Management needs to determine whether it will continue to participate in SPI (as defined and implemented by DoD).

- If continued, management's commitment to SPI needs to be reinforced by adequate funding for this acquisition initiative, i.e., staffing and travel funds.

- Implementing guidelines need to be issued or clarified.

- Data keeping needs to be centralized and uniform within NASA, provide meaningful information, and relate to that maintained by DoD.

- NASA needs to resolve with DoD issues outside of the control of NASA but which directly impact the Agency's implementation of SPI.

INTRODUCTION

BACKGROUND

SPI resulted from industry input on reforming Government acquisition systems. The overall program goal is to enable a contractor to propose a single process that meets the needs of multiple customers, eliminate highly tailored or customer unique requirements and duplicative processes or systems that are imposed on a contractor, unless they are essential to ensure mission safety and reliability. SPI is also related to other initiatives involved with changing the way NASA conducts its business, e.g., the Government Performance and Results Act (GPRA) of 1997 (see Appendix 2).

SPI Implemented by DCMC

By memorandum of December 6, 1995, the Secretary of Defense directed that block changes to management and manufacturing requirements of existing contracts be made on a facility-wide basis, and that management and manufacturing requirements are unified within a facility, wherever such changes are technically acceptable to the Government. Guidelines issued two days later by the Under Secretary of Defense for Acquisition & Technology designated DCMC as the lead facilitator to implement “plant-wide” changes.

Block Change Management Team Established

On December 11, 1995, the DCMC Commander established the Block Change Management Team (BCMT) to manage and facilitate the block change process and refine process guidelines. BCMT members include the Office of the Secretary of Defense, DCMC, DCAA, Defense Logistics Agency, NASA, FAA, and Defense service representatives,

In September 1997, BCMT released its fiscal year (FY) 1998 strategic plan. The plan defines strategic goals, objectives, and milestones which include:

- Increasing awareness,
- Increasing participation,
- Increasing savings, and,
- Improving the block change process.

Annually, the team plans to review SPI to determine if the goals and milestones set forth in the strategic plan have been met. A formal status report will be issued to DoD management that delineates the accomplishments of the previous fiscal year and outlines the expectations of the future SPI. The initial review will be conducted in August 1998.

SPI is a Four Step Process

DCMC defines SPI to be essentially a four step process to be completed within a 120-day processing cycle:

- Contractor submits concept paper,[3]
- Management council evaluates concept paper,
- Block changes are made to existing contracts to authorize the use of the single process, and
- Equitable adjustments are made to contracts if substantial savings are anticipated from the changes.

A flow chart of DoD's SPI process, with explanatory notes, is at Appendix 3.

NASA Participation Begins

The NASA Administrator, by memorandum dated May 17, 1996, launched the Agency's participation in the SPI, and directed Agency officials-in-charge and directors of field installations to enthusiastically support the program. He designated the Office of the Chief Engineer (Code AE) as the Agency lead for the initiative. Expectations of the program included: reducing contractor costs, improving process efficiencies, reducing product costs, and improving product quality. Attached to the memorandum is a page of implementation guidance.[4] On August 13, 1996,

[3] The contractor prepares and submits a concept paper proposing to change or eliminate a Government-prescribed process.

[4] The initial NASA implementation guideline, in part, prescribe that: (1) NASA's goal will be to eliminate unique processes or systems that are imposed on contractors shared with DoD or other Federal agencies, unless they are essential to ensure mission safety and reliability; (2) each NASA Center Director will designate an SPI focal point; (3) for each project/program, the cognizant NASA Contracting Officer with the Program Manager will review each proposed block change for approval; (4) process improvements and resulting cost savings will be identified and quantified; (5) where numerous contract changes result from SPI, they will be negotiated in a

DCMC further distributed the Administrator's memorandum to DoD commanders and contract administration offices, and stressed that NASA should be considered a key customer regardless of NASA's contract(s) value. DCMC noted that when a concept paper coming to them from a contractor identifies NASA as a customer, DCMC should immediately furnish a copy of the concept paper to the designated NASA Center SPI focal point. DCMC also advised recipients of the memorandum to invite NASA Center SPI focal points to be members of the management council.

Questions and Answers

On August 9, 1996, the Chief Engineer issued additional guidance in the form of questions and answers in an effort to assist Headquarters and Center staff to implement the initiative.

Contract Wording Encourages SPI

In 1997, the Associate Administrator for Procurement published guidance for writing work statements that impacted SPI-related contracts. The Agency alerted procurement officials to "Whenever possible, remove highly tailored or customer-unique requirements from contracts and adopt instead the single process principle," and noted that "If, however, proprietary processes are selected over recognized consensus standards, the Government's competitive options may be limited."[5]

NASA SPI Process Changed

In January 1998, NASA distributed its updated SPI process to reflect lessons learned and input from Centers (see Appendix 4). At the same time, the Chief Engineer notified DCMC that certain concept papers will be returned to DCMC if they:

- Are incomplete or are in draft form,
- Contain preliminary concepts, or
- Are missing pertinent information.

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block change format; and (6) status reports will be provided by the Centers to the Office of Procurement's Analysis Division, on a quarterly basis.

[5] NASA Procedures and Guidelines (NPG) 5600.2B, "Statement of Work (SOW): Guidance for Writing Work Statements," dated December 1997, Chapter 5-Other Considerations, 501-Single Process Initiative (SPI).

Further, NASA advised DCMC that concept papers not stating cost savings and/or cost avoidances will only be approved if the point-of-contact at the NASA Center responsible for evaluation of the paper believes there is inherent justification to do so. Also, NASA declared that proposals involving changes to the FAR be processed through the FAR Council modification process and not through SPI.

OBSERVATIONS AND RECOMMENDATIONS

SPI PROGRAM IMPLEMENTATION AT NASA

Even though SPI was conceived by the Government Industry Quality Liaison Panel which NASA co-chaired, it is primarily a DoD program. The DoD maintains separate organizational units to: (1) manage and coordinate the program, (2) develop and issue guidance, (3) distribute periodic statistics, and, recently, (4) maintain an Internet World Wide Web page.

DoD and NASA both are major players in industry's aerospace sector and both do business with many of the same corporations. A number of issues need to be addressed and resolved to increase efficiency of SPI implementation at NASA.

Differences of NASA and DoD Organizational Structure and Mission

The DoD organizational and mission structure does not necessarily adapt itself to NASA's organizational structure and mission. This leaves room to question whether or not the same SPI goals may be achieved at NASA, e.g., the 120-day processing cycle. DoD's hierarchical organization significantly contrasts with NASA's comparatively flatter organizational structure. Similarly, the missions are significantly different.

Further, NASA is a small player in SPI. NASA's budget and procurement activity is small when compared to that of DoD. For instance, DoD's budget request for FY 1999 is in excess of $250 billion, whereas NASA's is about 6 percent of that, $13.8 billion. Similarly, in FY 1996, contract awards at DoD totaled $121.9 billion as compared to $12.7 billion at NASA.[6] Likewise, any SPI savings experienced by NASA will be smaller than savings by DoD.

The SPI requires considerable technical expertise to appropriately review concept papers. DoD has an expansive and separate staff to manage SPI, NASA does not. In this regard, NASA Headquarters is less capable of performing appropriate reviews at the Headquarters level—our technical experts are stationed in the field, DoD has a sufficient number at its headquarters.

[6] Figures for DoD taken from Government Executive's Top 200 Contractors 1997, on the Internet at <http://www.govexec.com/top200/topdod.htm>; News Release, Office of Assistant Secretary of Defense (Public Affairs), No. 026-98, dated February 2, 1998; and the NASA Annual Procurement Report, Fiscal Year 1997.

Another key organizational difference that impacts SPI implementation is the type of procurement activity. DoD frequently purchases large quantities of like items, whereas NASA purchases many customized items. Therefore, an SPI block change at DoD has greater impact than at NASA where procurements are more specialized or fewer in number.

Unfunded Mandate

Centers view SPI as an "unfunded mandate" from Headquarters. Many do not have the money for personnel to adequately handle the process, e.g., evaluating concept papers, participating in or travelling to management councils, implementing the SPI or concept paper process, and following up by procurement staff. As a result:

- Centers cannot attend management council meetings during which a concept paper is discussed and possibly additional information is provided. This could result in NASA making decisions on proposals based upon incomplete information.

- Inadequate attention is devoted to processing SPI activities because of overworked employees.

SPI Participation by NASA's Top Contractors

The *NASA Annual Procurement Report, Fiscal Year 1997*[7] lists 100 contractors (business firms) in rank order by dollars awarded. By consolidating separate company entities this list is reduced to approximately 84 corporations. Of these, nine corporations are represented in DCMC's data as players in SPI with NASA. Figure 1 below illustrates SPI activity by Center for the nine corporations that are on NASA's list of top 100 contractors and that participate in SPI.[8] These nine corporations represent 52 percent of NASA's total contractor activity. To improve contractor participation, NASA might consider: (1) sending to each of its contractors a letter that encourages submission of

[7] NASA Annual Procurement Report, Fiscal Year 1997, Part IV - "Awards to Business Firms," Section G - "One Hundred Principal Contractors (Business Firms)," pages 21-24.

[8] Data based on DCMC's report, "NASA Corporations, Facilities, and Component Team Leader (CTL) SPI Activity," dated April 22, 1998. See Appendix 5.

concept papers and full involvement in SPI,[9] and (2) discussing the same with chief financial officers of companies participating in SPI.

CORPORATION	ARC	GSFC	JPL	JSC	KSC	LARC	LERC	MSFC
Boeing	X[10]	X		X			X	X
Lockheed Martin	X	X	X				X	X
General Motors		X						
Allied Signal				X				
TRW		X				X		X
United Technologies	X	X		X	X	X		X
Aerojet		X						
ITT		X						
Loral		X						

Figure 1 - NASA's Top Corporations Participating in SPI by Center Customer

NASA's Procurement Dollars to Firms

Based on dollar figures from the *NASA Annual Procurement Report, Fiscal Year 1997*, and constructed corporation levels[11], we can approximate the total award dollars to NASA's top corporations that are participating in SPI. These nine corporations, as shown in Figure 2 below, represent approximately $5.1 billion of the total $9.8 billion NASA awarded to business firms in FY 1997.

[9] Defense Logistics Agency, Defense Contract Management Command, memorandum by multiple signatories to Commanders, Defense Contract Management Area Operations; subject: Common Process Block Change, dated January 30, 1996. This memorandum includes as Attachment 1 a letter developed to assist administrative contracting officers (ACO's) in encouraging contractors to submit concept papers for common processes. The letter suggests recipients send a similar letter to all contractors under the ACO's cognizance.

[10] Represents the NASA Independent Verification and Validation (IV & V) program operated from Ames Research Center.

[11] The NASA Annual Procurement Report lists the top 100 contractors that received the largest dollar value of NASA direct awards to business firms during Fiscal Year 1997. These contractors are listed at the division level. For instance, there are six listings for Lockheed Martin because of multiple subordinate company levels. DCMC data tracks at the highest corporation level, giving only one entry for Lockheed Martin. Therefore, to devise a common denominator for comparison, we condensed NASA's list to reflect parent corporations. Our review noted the likelihood for discrepancies because some concept papers being reviewed at Centers are not linked here to top corporations by DCMC.

RANK	CORPORATION	FY 1997 AWARDS ($000)
1	Boeing	$2,342,712
2	Lockheed Martin	1,531,677
3	General Motors	395,309
4	Allied Signal	333,172
5	TRW	281,349
6	United Technologies	148,674
7	Aerojet	39,157
8	ITT	35,129
9	Loral	24,670
	TOTAL	$5,131,849

Figure 2 - NASA's FY1997 Dollar Awards to Corporations Participating in SPI

Benefits to NASA are Intangible

Officials at GSFC, JSC, LaRC, and MSFC agree with the SPI concept, yet are concerned about spending time and effort to evaluate concept papers that have little tangible benefit to NASA. While contracts have been modified at the Centers reviewed, none of the modifications reduced a contract's cost. None of the officials we interviewed have heard of any NASA SPI success stories.

For FY 1997, NASA invested over $5 billion dollars in contract awards to nine corporations that participate in SPI. Our review did not substantiate any near- or long-term savings or return of funds to the Agency based on SPI activity with these corporations. While NASA may realize lower overhead rates on future contracts because of approved SPI proposals, no Center we visited could identify such savings.

When SPI was launched, DoD and NASA expected significant savings. However, DCMC has since changed focus from tangible to intangible savings as described in a report issued in February 1998[12]. According to the report:

- SPI offers several ways for both contractor and Government to capture savings:

[12] DCMC "Single Process Initiative (SPI) Monthly Activity Report," period ending February 10, 1998, dated February 17, 1998.

--lower product costs on future buys
--savings negotiated into existing contracts
--lower overhead rates applied to future business

- The value of SPI goes beyond dollars returned to DoD:
  --facilitates conversion to commercial practices;
  --industry consolidations; and
  --modernization

- Participating contractors say SPI and management councils provide needed mechanism for change; and

- Many efficiencies are identified through SPI deliberations, but not always implemented as block changes; collateral benefits/savings are still achieved, but not counted in SPI metrics.

DCMC believes that the inability to identify instant contract savings should not be an impediment to SPI. However, besides a lack of monetary benefit to NASA from SPI, it costs the Agency to implement this initiative. These costs include:

- Headquarters and Center staff salaries for time spent reviewing proposals,

- Negotiating changes with contractors and DCMC,

- Travel costs for attending management council meetings,

- DCAA charges for performing cost/benefit analyses of savings contained in contractors' proposals,

- SPI-related tasks performed by contractors at Centers,

- Headquarters staff salaries for providing SPI activity oversight, and

Contractors' labor costs for preparing concept papers, which are normally an allowable indirect cost and reimbursable by the Government.

OBSERVATIONS AND RECOMMENDATIONS

Is SPI a Management Priority?

While the Chief Engineer has taken measures to address some of the SPI-related issues discussed above, Center staff told us that more improvements are needed. Because resources have not been provided to them for SPI, most Centers do not see SPI as a management priority.

Recommendation 1

We recommend the Chief Engineer reassess NASA's continued participation in SPI to determine if the Agency is experiencing sufficient benefits, including immediate cost savings or future cost avoidances.

Management's Response

CONCUR. The Office of the Chief Engineer is working in conjunction with the DCMC, Lockheed and Boeing, and NASA points of contact to improve the benefits realized by NASA from the Single Process Initiative.

The Office of the Chief Engineer recently obtained membership on the Lockheed-Martin Joint Government/Industry Corporate Management Council and the Boeing Joint Leadership Council. Both of these councils address improving the return on resources expended on SPI activities. The Office of the Chief Engineer, along with the NASA Office of Procurement, also participates in DoD workshops, symposia and Block Change Management Team meetings to identify relevant metrics, improve the SPI process (including quality and content of concept papers) and increase NASA cost avoidance/savings.

This assessment is an ongoing process to improve the SPI process internal to NASA, with the DCMC and with contractor organizations. NASA will continue to participate in the SPI process in FY99.

OIG's Evaluation of Management's Response

The thrust of this recommendation is that management should reevaluate its continued participation in SPI based upon a comparison of benefits realized, in terms of cost savings or future cost avoidances, versus costs incurred. Based upon our review at four Centers, NASA has not realized any current or future dollar savings from SPI. Though management concurred with our recommendation, their response did not state that they would reassess NASA's continued participation in SPI. On August 6, 1998, we met with Code AE to discuss

their response. Code AE stated that NASA's SPI policy tells the Centers that they should only evaluate concept papers that contain cost savings or avoidances. However, the policy also states that non-monetary improvements can result from concept papers. Code AE believes each Center should determine whether or not to review such concept papers.

By letter of January 20, 1998, Code AE informed DCMC that concept papers that do not state cost savings and/or cost avoidances will only be approved if the point-of-contact at the NASA Center responsible for evaluating the paper believes there is inherent justification to do so.

Since management has decided to continue participating in SPI next fiscal year, we believe management should begin to devise metrics and collect statistics for use in measuring and improving the return on resources expended on SPI activities.

Recommendation 2

If NASA decides to continue supporting SPI, the Chief Engineer should provide adequate resources for implementation.

Management's Response

CONCUR. Management councils meet frequently to address SPI issues. While direct participation for every NASA point of contact at every management council meeting is not practical, participation in person or via teleconference is acceptable and each Center is responsible to support this initiative and provide the proper resources to do so.

OIG's Evaluation of Management's Response

Although Code AE agreed with our recommendation, it was made clear to us that no resources for SPI implementation will be provided to Centers. We understand that it is up to the Centers to implement SPI. Code AE offers that Boeing and NASA program staff will work closer with Center points of contact in processing concept papers.

Recommendation 3

We recommend the Chief Engineer consider: (1) sending to NASA contractors a letter similar to that proposed by DCMC to encourage contractor participation in SPI, and (2) discussing the same with

	chief financial officers of contractors participating in SPI.
Management's Response	CONCUR. To avoid duplication of effort, a letter will be transmitted to unique NASA contractors following the transmittal of the DCMC letter. The Office of the Chief Engineer has requested that the NASA Contract Management Division draft this letter.
OIG's Evaluation of Management's Response	Management's proposed action is responsive to our recommendation. The OIG requests a copy of letter(s) distributed.

SPI PROCESS AT NASA

NASA's SPI process appears to be a relatively straight forward process. Each Center Director appoints a focal point for implementing the program. That person serves as liaison between the DCMC Contract Administration Office (CAO) and the affected NASA project office(s); receives a concept paper from DCMC; ensures a concept paper is reviewed by the appropriate personnel; coordinates with NASA Headquarters, if necessary; serves on (or designates a member to serve) the appropriate DCMC management council; and ensures a timely response back to DCMC. A flowchart of NASA's current SPI process is shown at Appendix 4.

While the Centers are following the general guidance outlined above, our review found that there is no single, consistent Agencywide SPI process being followed. The primary factor contributing to this is the lack of consistent responsibilities of or actions by key players—Center personnel, contractors, and DCMC field office staff alike. Examples include:

- DCMC sending concept papers directly to program officials as opposed to the Center SPI focal point,

- Contractors sending concept papers directly to the Center SPI focal point or program officials versus DCMC,

- A Center not responding to DCMC about a concept paper because DCMC assumes or states that if a response is not received by a specified date that the Center's silence means approval,

- Center officials not taking seriously their responsibility to review concept papers timely,

- Some Center SPI focal points believe that they lack authority to contact all management levels to ensure concept papers are processed timely, and

- Program officials responding directly to DCMC and bypassing the Center SPI focal point.

Using a Memorandum of Agreement (MOA) or Memorandum of Understanding (MOU)

A Memorandum of Agreement (MOA) is recommended by DoD to document a proposed modification and implementation schedule. Similarly , for concept papers that do not require contract modifications, a Memorandum of Understanding (MOU) can be drafted and signed by the Administrative Contracting Officer (ACO) and contractor to implement the proposed process changes.

The intent, content, and distinction between the MOA and MOU is unclear. SPI focal points and procurement staff we interviewed disagreed with each other as to the purpose of MOA's. Some believed MOA's are "gentlemen's agreements." Others said that if NASA signed them then the Agency is bound by them. No one we interviewed could clearly explain the relationship between an MOA and a contract modification, or clarify if an MOA takes the place of a contract modification or preludes one. When questioned, DCMC staff could not agree on the purpose of an MOA.

At GSFC, we found an MOA that incorporated an SPI process change into a GSFC contract. NASA did not sign the MOA, but the contractor and DoD did. Also, DoD issued an SF 30 (Amendment of Solicitation/Modification of Contract) that modified the same GSFC contract. The contract file had no documentation of the NASA CO authorizing this modification.

Recommendation 4

We recommend the Chief Engineer reassess NASA's SPI implementing guidelines for content, and clarify: (1) the use of MOA's and MOU's, and (2) required documentation for official SPI files.

Management's Response

CONCUR. Process improvements and updated guidelines were transmitted to NASA points of contact on January 16, 1998. Clarification on required documentation was transmitted to NASA points of contact and discussed during a NASA SPI status review on March 4, 1998. Further clarification on concept paper content, consideration and the use of MOA's/MOU's was transmitted to NASA points of contact on April 3, 1998.

This clarification discouraged the use of MOA's/MOU's in any situation where an SPI issue affects a contract. The proper way to reflect an agreement between the Government and the contractor affecting a specific contract is through a contract modification.

OIG's Evaluation of Management's Response

The Code AE position is that its promulgated policy is to be followed at the Centers. Our review found significant deviation from and inconsistent implementation of the NASA SPI process flowchart and procedural guidelines. Examples of inconsistent Center practices are found on page 16 of this report. Therefore, Code AE should conduct an evaluation or arrange for an independent review to determine if the stated guidelines and policies need revision. The OIG requests a copy of the evaluation when performed.

Management's proposed action regarding MOA's and MOU's is responsive to our recommendation.

We discussed with management on August 6, 1998, the required documents to be included in an official SPI file:

- a copy of the concept paper, showing the date received by NASA;
- a copy of any DCAA analysis performed;
- a copy of NASA's approval or disapproval (or other disposition) of the concept paper, and the date this decision was sent to DCMC;
- written approval from the CO to DCMC to modify a NASA contract, if applicable, and
- a copy of the contract modification or block change.

RECORD KEEPING AND STATISTICAL DATA

Accurate, uniform and timely program data and information provide a foundation from which management decisions can be made. NASA's statistical data about the SPI is fragmented, inconsistently developed and maintained across the Centers, and cannot often be validated.

Sample of Records from Separate Center SPI Activity Logs

Each Center visited (GSFC, JSC, LaRC, and MSFC) maintained a unique record keeping system of its SPI activity—resulting in 337 log entries from which we reviewed 134 individual paper files. Because NASA began its SPI activity in May 1996, we selected files primarily from FY 1997 forward for our review to avoid having results that reflect initial implementation problems.

Complicating our review is the absence of record keeping requirements. Each Center's official NASA SPI records are dispersed between the SPI contact, procurement and program offices. No Center maintains centralized documentation for each step of the SPI process.

Metrics for Reporting Data Not Specific

Since guidance on SPI-related record keeping by Centers does not exist, a number of inconsistencies have developed:

- It is unclear exactly what SPI activity is being tracked by the Centers and how the information is being used, e.g., some Centers track "for information only" concept papers while others do not.

- As the basic unit for tracking SPI activity, DCMC uses "proposed process change," while NASA uses "concept paper." Although most contractors submit only one process change per concept paper, we found one instance in which a contractor proposed nine process changes in a single concept paper.

- There is often no similarity between an entry in a Center's summary activity log and a single process or single concept paper. Centers typically receive concept papers that affect multiple contracts. GSFC makes a log entry for each impacted contract,

whereas other Centers make a single log entry for each concept paper regardless of the number of impacted contracts. For example, if a concept paper impacts two contracts at LaRC and two contracts at GSFC, the LaRC SPI focal point logs it as one entry whereas the GSFC SPI focal point logs it as two.

Code AE's memorandum of January 16, 1998, identified SPI elements that are to be reported to Headquarters on a quarterly basis: number of papers received, number of papers approved, number of papers disapproved, number of papers rejected or withdrawn, number of papers in process, negotiated cost savings identified, and NASA's agreed to estimated cost avoidance.

Although Code AE is attempting to standardize the data being collected and reported by Centers, we believe the following problems remain:

- Do papers received for information purposes only count as papers received?

- What is the difference between papers disapproved and those rejected?

- What does "NASA's agreed to estimated cost avoidance" mean? None of the Center officials we interviewed have been involved in negotiating SPI-related savings with any contractor.

- How does a Center count a paper that it approves for future contracts but the approved process is not applicable to any current contracts. JSC has several letters of this type that were sent to DoD.

The number of concept papers that Centers receive and report to Headquarters may not be accurate since Centers are sent proposals directly from contractors, DoD and other Centers. Some Centers track concept papers that are sent to them for information only. Centers are unsure if NASA should receive or even review concept papers that do not pertain to NASA contracts. Ideally, there should be a metric to track actual cost reductions and cost avoidances achieved

from the SPI process. Another possible metric for full-cost purposes is to compare resources expended versus benefits received. Neither NASA nor DoD has a system in place to do this.

DCMC Block Changes Not Linked to NASA Contract Modifications

Block changes prepared by DCMC on an "Amendment of Solicitation/Modification of Contract" (Form SF-30) that impact NASA contracts cannot be tracked in NASA's Acquisition Management Subsystem (AMS). AMS uses the amendment modification number listed in block 2 of the SF-30 to track contract amendments. NASA numbers its modifications sequentially. A DCMC-prepared SF-30 cannot be entered into AMS since DCMC enters an alpha-numeric numbering scheme in the same block 2. To get the block change into the AMS, a contracting officer must prepare an SF-30 and insert NASA's numbering scheme in block 2. The NASA-prepared SF-30 is then used as a cover sheet for one prepared by DCMC. To date, GSFC is the only Center that has delegated the authority for any NASA contract modifications to DCMC.

DCMC Data Does Not Accurately Represent NASA

One of the features of DCMC's Internet site for SPI is a single-page summary of SPI statistics adorned with a NASA logo (see Appendix 6).[13] The summary implies that SPI has resulted in NASA saving about $136 million on future contracts. This data, however, is misleading. It does not contain information that can be verified with each Center's data base. The summary page shows metrics for all contractors' facilities at which NASA is a customer. NASA need not even be a party to a concept paper with savings in order to have those savings attributed to it.

Different Structure in NASA and DCMC Data

Due to the differences in how NASA and DCMC maintain data on contractors and corporations, we found it difficult to draw conclusions on a one-for-one basis. DCMC reports misleadingly reflect NASA SPI activity with a corporation if NASA has <u>any</u> activity at a

[13] Periodically updated on DCMC's SPI home page, found at <http://www.dcmc.hq.dla.mil/Spi/Index.html>, and pointing to the "Reports" option.

facility even if it is unrelated to SPI.[14] Further, because DCMC maintains SPI data by corporation, process and activity, and NASA maintains procurement data by contractor division, contract and concept paper, there is virtually no similarity to be found in evaluating SPI-related data. Because these direct relationships do not exist, improper conclusions are likely to occur with using the data.

Each NASA Center maintains a separate SPI data base and maintains it differently. The Chief Engineer periodically solicits data from these and maintains only a few common elements. Data kept by either NASA Headquarters or Centers does not relate to that kept by DCMC, as there is no similarity of structure, use, or content. As an effort to improve on this, NASA might consider centralizing its SPI data and structuring it to include a data comparison element with DCMC data.

Results to Date Cannot be Validated

In March 1998, the Chief Engineer reported SPI activity metrics. As a result of our review, we were unable to validate these reported figures as provided below:

ACTIVITY METRICS

Activity	NASA Total
Approved Concept Papers	132
Rejected Concept Papers	62
Withdrawn Concept Papers	61
Concept Papers in Review	45
Not Applicable	64
TOTAL Concept Papers	364
Contracts Modified	34
Cost Savings/Avoidances	$17.3M

Figure 3 - NASA SPI Activity Metrics, Cumulative From May 1996

[14] For example, if NASA and DoD have activity at the same facility, and a contractor submits a concept paper that only affects DoD contracts at that facility, then DCMC reports attribute SPI-related savings to both agencies.

We noted that these metrics do not:

- show individual concept papers reviewed by multiple Centers;
- show which concept papers are considered and for what category; and
- account for concept papers that may or may not be processed because they are received "for information only."

Recommendation 5

We recommend that as part of management's reassessment of SPI implementation, the Chief Engineer needs to define the SPI-related data to be collected by Centers.

Management's Response

CONCUR. Clarification on required metrics (activity and outcome) was transmitted to NASA points of contact and discussed during a NASA SPI status review on March 4, 1998. No further action is recommended.

OIG's Evaluation of Management's Response

Management's proposed action is responsive to our recommendation.

Recommendation 6

We recommend the Chief Engineer establish a central repository of defined SPI data and devise a link between it and that kept by DCMC.

Management's Response

PARTIALLY CONCUR. The DCMC maintains a repository of SPI data. This repository includes NASA-related information, and is accessible by NASA via the Chief Engineer's website.[15] Agency-wide status reviews on NASA SPI activity were initiated in September 1997. Status reports submitted during these reviews are archived in the Office of the Chief Engineer. Direction was transmitted to the NASA points of contact to review the DCMC data and resolve any discrepancies. Creating and linking a NASA-maintained repository to the DCMC repository provides no added value. No further action is recommended.

[15] Website at <http://www.hq.nasa.gov/office/codea/codeae/papac.html>.

OIG's Evaluation of Management's Response

The basic premise the OIG made while reviewing NASA and DCMC data is that either data base could allow the same conclusions to be obtained. Unfortunately this is not true—there is a limited relationship between the two data bases. For example, the basic unit of measure at DCMC is the proposed process change, whereas at NASA it is the concept paper. NASA's tracking by concept paper ignores the impact of a single paper that affects multiple processes. Currently, NASA's data cannot be used to substantiate that kept by DCMC. Management's response offers no remedy for improvement.

Absent reliable and accurate SPI performance data, Code AE is unable to provide meaningful program assessments or develop GPRA-related information. As sound program management requires reliable information for accurate program assessments and timely decisions, it is essential that NASA and DCMC data bases be compatible.

Resolution of this issue is essential and should be included by management's actions under Recommendation 7, Bullet 2.

ISSUES THAT IMPACT NASA SHOULD BE DISCUSSED WITH DCMC

As a result of file reviews and discussions with various staff involved in the SPI process, we identified a number of issues that impact how NASA implements the SPI program but that are not necessarily within NASA's control. We bring these to the attention of NASA management for clarification between NASA and DCMC so that NASA may effectively implement SPI jointly with DCMC.

Concept Papers Do Not Identify Contracts

DCMC program guidance describes that concept papers should specifically identify the existing contractual requirement that is to be replaced or modified, and also identify contracts and customers impacted if the paper is approved. A major complaint is that DCMC sends them concept papers that do not identify impacted contracts. While DCMC has made progress in this area, concept papers are still being sent that are not complete. NASA officials dislike having to determine the impacted contracts and believe DCMC should not send them concept papers that are not complete. DCMC has solicited input from LaRC on concept papers that are not applicable to LaRC contracts.

One reason concept papers do not list affected contracts is because contractors are sometimes themselves unable to identify impacted contracts. MSFC said that a major contractor does not always identify impacted contracts. For some concept papers, that contractor asked NASA to identify the contracts that would be affected by a proposed change because they could not provide this information. MSFC told the contractor that NASA can list the contracts that are with a contractor but cannot identify those contracts that will be impacted by a SPI, and again asked the contractor provide this information.

Unless a contractor can identify the impacted contracts, we question the rationality of a cost savings analysis for a concept paper.

In a January 20, 1998, letter to DCMC, Code AE told them that papers deemed incomplete will be returned. Examples of incomplete papers include those: in draft form, that contain preliminary concepts, or that are

missing pertinent information such as the active contracts affected. It is too early to assess whether Code AE's letter will ensure that NASA receives complete concept papers.

DCMC identified as a problem with the present SPI process the absence of a standard concept paper format or required data elements. DCMC's position is that it has no choice but to accept concept papers that are submitted.

DCMC SPI Data Misleading or Not Useful

For the most part, NASA staff cannot support data found in DCMC's SPI data base.

- Centers are unable to verify data being reported by DCMC. There is no cross-walk between the data in the SPI database and that maintained by each Center.

- DCMC does not tell Centers how dollar savings are determined or negotiated. No one interviewed had been involved with negotiating dollar savings with any SPI contractor.

- NASA Headquarters officials said that DCMC treats NASA Centers on par to DoD, and that each Center is equal to a military department. DCMC base reports show that Centers are grouped together and treated as one military department. This leads to the question of how DCMC reports NASA's position when one Center approves a concept paper and another disapproves it.

- DCMC admitted that the savings attributed to NASA in their SPI reports is misleading. Due to data tracking limitations, DCMC cannot identify savings to specific agencies. Savings can only be traced to a specific contractor facility and then flowed down to those contracts at that facility, regardless of whether those contracts are impacted by a particular concept paper. Hence, if a concept paper results in dollar savings and NASA has contracts at that facility, some of the savings will be assigned to NASA. In their SPI reports, which are available on the Internet, DCMC identifies savings attributable to DoD and

NASA. Given the indirect relationship between savings and impacted contracts, the data attributed to NASA is of questionable validity.

- DCMC's SPI 120-day turnaround goal does not apply to NASA because NASA typically has less than 120 days to review a concept paper. The SPI database manual states that the 120-days start on the date the local DCMC office receives a concept paper. Within 30 days, the ACO is supposed to determine whether the concept paper is acceptable or unacceptable for processing by the ACO. If the concept paper is acceptable, DCMC has 60 days to determine whether it is technically acceptable or not. Finally, DCMC has 30 days to issue a modification. The date of the modification marks the completion of the 120-day process. With maybe one exception, NASA is not involved in the SPI process, as described, until sometime after day 30.[16] As previously mentioned, sometimes DCMC will tell NASA exactly how many days it has to review a concept paper. This may be as few as 4 days. The only exception identified so far is the Downey facility where NASA is the only customer and our representative there attends all management council meetings and is involved in all stages of the SPI process.

  JSC takes this date seriously and tries to meet it. LaRC did not mention this as a concern. Provided DCMC sends MSFC a concept paper that identifies all impacted contracts, MSFC will try and meet the required date. If contracts are not identified, MSFC feels that DCMC is not serious about wanting a response by the specified date. GSFC did not mention this as a concern.

Concurrence Inferred by NASA's Nonresponse

Other transmittals to NASA state that if DCMC does not receive a response from a Center by a certain date they will assume that the Center concurs with the concept

[16] An unexplained delay often occurs from the time a concept paper is dated by the contractor and when it is received by DCMC. Further delay is seen between when a transmittal memorandum is dated by DCMC and when it arrives at a Center. For example, a concept paper dated June 1, is received at DCMC on June 15, and received at JSC on August 1. GSFC, LaRC, and MSFC did not mention this as a concern.

paper. JSC does not like this practice. LaRC has asked DCMC to stop doing this and believes that it is no longer a problem there.

No Unique Identifying Number Used

DCMC's data guidelines prescribe that a unique system-generated number called a "PID" will be used in *communication among CAOs, districts, and HQ [DoD] and for data maintenance*.[17] However, we found that no unique identifying number is being used by anyone for concept papers. This leads to difficulty in: (1) tracing concept papers at NASA to the DCMC data base; (2) determining which Centers are reviewing the same concept paper; and (3) communicating with DCMC officials about specific concept papers. Since DCMC is the initial receiver of a concept paper from a contractor, it would be the best point in the process to assign a unique number to be used throughout the process.

If DCMC routinely used the PID in data reports, and NASA started using the PID in its SPIS, there would be a link between data bases of the two organizations.

OIG voiced this concern to DCMC on January 15, 1998. DCMC was not aware that unique identifying numbers were not being used and indicated they would consider this as a requirement.

SPI-Related Performance Metrics

Several NASA officials we interviewed believe that SPI-related standards are part of DCMC and contractor employees' performance. We were not able to validate this. NASA staff we interviewed believe that this contributes to the number of concept papers received that are incomplete and do not pertain to NASA contracts. The sending of these concept papers becomes a way to increase the "count." Also, a DCMC official told a NASA employee that if NASA was planning to disapprove a specific concept paper at an upcoming management council meeting that the NASA individual should bring along a letter signed by their Center Director. The DCMC employee said in this case that her performance appraisal would be adversely affected if this concept paper was not approved.

[17] Defense Logistics Agency, Defense Contract Management Command, Single Process Initiative Team, Single Process Initiative System (SPIS) User's Manual, Version 1.1, dated December 1997, page 16.

SPI Activity Metrics

SPI activity measurement criteria currently is not standardized between DoD and NASA. To increase NASA's accuracy and efficiency of reporting and measurement, NASA should consider working with DCMC to decide what metrics can be used to measure effectiveness.

NASA May Be Charged for Concept Paper Review

According to the DCMC SPI/Block Change Management Team Leader, DCAA is not supposed to charge NASA for any SPI-related work. However, the NASA ACO at Downey said that DCAA had billed NASA $8,866 for their review of seven SPI concept papers.

Our contact at DCAA Headquarters was not surprised to hear that DCAA at Downey charged NASA for such review since NASA is the major customer at that facility. DCAA may have charged NASA for reviews on papers that were submitted by Lockheed Martin, Denver, but this could not be substantiated. This may be true of other facilities where NASA is the primary customer.

We believe DCAA should not charge NASA for reviewing concept papers, particularly if a concept paper does not identify any SPI-related savings.

NASA Needs Feedback From DCMC

NASA needs feedback from DCMC regarding what happens to a concept paper and what results from it after NASA provides an opinion. SPI focal points at several Centers are unable to determine:

- if NASA's opinion was received by DCMC,
- if the concept paper was accepted for block change
- what contracts were ultimately impacted by the concept paper,
- impact on consideration or amounts negotiated, and
- date of closure.

Recommendation 7

To effectively implement DoD's SPI, the Chief Engineer must work with DCMC to resolve issues that impact effective SPI implementation at NASA, including:

- Concept papers do not identify impacted NASA contracts,
- DCMC SPI data is misleading or not useful to NASA,
- Response time to DCMC is too short, or NASA is told that no response means it concurs with a concept paper,
- There is a delay in DCMC sending concept papers to NASA from the time a management council meets,
- No unique identifying number is used when referring to concept papers,
- SPI-related performance metrics may adversely impact concept paper content,
- NASA may be charged for concept paper reviews by DCAA, and
- NASA receives no status on concept papers from DCMC after our response is provided.

Management's Response

A letter addressing improvements to the efficiency and effectiveness of the SPI process was transmitted to the DCMC on January 20, 1998. This letter also transmitted NASA policy to the SPI-related issues. Specifically, NASA will return poor quality papers and incomplete papers. Concept papers that do not state cost savings and/or cost avoidances will only be approved if the NASA point of contact at the NASA Center responsible for evaluation of the paper believes there is inherent justification to do so. NASA will focus on negotiating cost savings, where applicable.

NASA will also return papers dealing with FAR changes, with the recommendation that these papers be submitted for evaluation via the FAR Council or the NASA FAR supplement process. As a member of the FAR Council, NASA preserves the opportunity to evaluate such papers.

Bullet 1 - CONCUR. NASA has transmitted its policy to the DCMC to return incomplete concept papers. The

identification of contracts impacted was raised as an issue with the DCMC and discussed with NASA points of contact during a NASA SPI status review on March 4, 1998. It was determined, per reports from the points of contact during the status review, that this situation is improving. No further action is recommended.

Bullet 2 - CONCUR. The Office of the Chief Engineer issued a request to the DCMC on March 3, 1998, to provide greater detail on NASA SPI outcome and activity metrics in the DCMC data repository. To meet this request, the DCMC must modify its database. The DCMC will begin discussion to address improvements and potential changes to the database in July 1998. Further action will be taken on an as-needed basis.

Bullet 3 - NON-CONCUR. The SPI process, as implemented by the DCMC, allows 120 days for the concept paper review process. This is an adequate time period for NASA to complete its evaluation and response.

Bullet 4 - CONCUR.

Bullet 5 - CONCUR. The use of unique identifiers was raised as an issue with the DCMC and discussed with NASA points of [contact] during a NASA SPI status review on March 4, 1998. It was determined, per reports from the points of contact during the status review, that this issue has been corrected. No further action is recommended.

Bullet 6 - CONCUR. As stated above, NASA has already transmitted its policy to the DCMC to return poor quality concept papers, approve concept papers only where there is inherent justification to do so, and focus on negotiating cost savings, where applicable. No further action is recommended.

Bullet 7 - CONCUR. Code AE has requested that the NASA Office of Procurement evaluate the acceptability of NASA being charged by the DCAA. Resolution of this issue is expected to be completed by September 30, 1998.

Bullet 8 - CONCUR. NASA will request by August 31, 1998, that the DCMC improve the feedback process.

OIG's Evaluation of Management's Response

Bullet 1 - While we feel it is too early to completely evaluate the results of management's guidance issued January 20, 1998, and March 4, 1998, we do consider this responsive to the intent of our recommendation.

Bullet 2 - Management's proposed action is responsive to our recommendation. However, given the need for reliable and accurate data for multiple management actions, the OIG is to be informed of any changes made.

Bullet 3 - We support management in emphasizing to Centers that it is more important to adequately review a concept paper than to meet a deadline imposed by DCMC. Management's position is responsive to our recommendation.

Bullet 4 - The OIG is to be informed of any changes made.

Bullet 5 - The value in using a unique identifying number may be impacted by NASA's decision to use DCMC's SPI data base. No further action is required.

Bullet 6 - Management's proposed action is responsive to our recommendation.

Bullet 7 - Management's proposed action is responsive to our recommendation. The OIG is to be notified on how this matter is resolved.

Bullet 8 - Management's proposed action is responsive to our recommendation. The OIG is to be notified on how this matter is resolved.

BEST PRACTICES

Through interviews and reviews of local Center procedures, concept paper files, and other related reports, we identified several noteworthy features, procedures, and processes that we consider as "best practices." These instances either reflect a higher rate of compliance with NASA's SPI process flow chart or present an efficient or novel operation that might be shared amongst multiple Centers. The "best practices" described below are for NASA management's consideration and implementation of improvements of deficiencies identified in this report and other management directed improvements.

BEST PRACTICES—NASA

Placement of Center SPI Contact

Support and enthusiasm for a function is often linked to organizational visibility. At JSC, SPI is supported prominently with designation of Deputy Center Director as the SPI focal point.

Independent Technical Review

At JSC and MSFC, every concept paper that pertains to technical matters is subject to an independent safety and quality assurance review. At GSFC, the Office of Flight Assurance reviews concept papers pertaining to technical matters and provide a Center-wide assessment of a proposed change that program/project offices can consider during their evaluation of a concept paper.

Copies of Headquarters' Approvals to Each Center

Letters sent to DoD from the Associate Administrator for Safety & Mission Assurance (Code Q) for approval or disapproval of a concept paper are also sent to each Center.

Request for Proposal Language

In July 1997, GSFC began including in draft requests for proposals, standard language that asked potential offerors to identify approved SPI's and proposed SPI's that NASA should consider in establishing the required process standards for the final request for proposal. We understand that NASA is now developing similar standardized language for use across Centers.

Remove References to Closed Contracts

At GSFC, staff negotiates with contractors to remove contracts that are physically complete but administratively open from listings of impacted contracts.

Periodic Teleconferences At Headquarters, Code AE organizes and conducts periodic teleconferences for all NASA SPI Center contacts to share and discuss with each other SPI policy, issues, successes, and lessons learned.

BEST PRACTICES—DCMC

Electronic Communications Some DCMC offices forward to NASA concept papers via electronic mail. This helps eliminate delays from use of surface mail.

Response Card Each concept paper received at JSC includes a standard response card that is to be returned to DoD when the Center determines concurrence or nonconcurrence.

Precoordination Papers On occasion, DCMC will forward to a Center a draft concept paper that is soon to enter the SPI process cycle. These early information packages allow SPI players additional time to work out bugs before the 120-clock begins.

GENERAL COMMENTS

Each NASA employee interviewed during this review was very generous in their time and assistance they provided to the team. We especially appreciated the candor with which NASA employees described their experiences with components of the Single Process Initiative. Key players in this arena shared with us some challenges that impact the Agency's efforts of moving toward a new way of doing business in a Government environment faced with dwindling resources.

We found that the NASA staff involved in implementing SPI at every level has yet to fully establish or adopt the initiative as a new way of doing business.

We appreciate the time DoD officials took to meet with us and prepare special data reports.

APPENDIX 1 - OBJECTIVES, SCOPE AND METHODOLOGY

Objectives The OIG completed a review of NASA's implementation of the SPI. Our objectives were to evaluate:

- NASA's involvement and partnering with DoD,
- Application of SPI at NASA Centers,
- NASA's achievements in reducing contract costs, and
- Contractor participation.

We did not assess for technical merit any contractor-proposed process change nor did we evaluate any implementation costs or projected savings associated with a proposed change. We did not study prime and subcontractor relationships. We did not evaluate conflicting opinions regarding centralizing SPI activities within NASA.

Agencywide Review The review was performed at Johnson Space Center (JSC), Langley Research Center (LaRC), Marshall Space Flight Center (MSFC), Goddard Space Flight Center (GSFC), and NASA Headquarters.

Each of these Centers maintains a similar but different record keeping system of its SPI activity. Center SPI logs typically contain one entry for each concept paper received. Concept papers may be filed individually or grouped by contractor. Logs for the Centers visited identified 337 entries from which we reviewed 134 individual files. The files selected covered the period July 1996 forward.

The SPI process involves four key players: a contractor, DCMC, the Defense Contract Audit Agency (DCAA), and the customers (Air Force, Army, Navy, Federal Aviation Administration (FAA), and NASA). We focused our review on NASA's SPI program implementation and process mechanics, and how these components relate to and are impacted by DoD-defined programs.

Field Work Field work was performed between December 1997 and February 1998. It included interviews with NASA SPI focal points, contracting officers (CO's), quality assurance officials, and program officials, along with DoD SPI staff. We did not directly interview contractors. Also, we met with staff from the

DoD OIG to discuss their March 1997 report on DoD block change modifications.[18] Some of the findings of this review are similar in nature to those previously reported by the DoD OIG. No contact was made with any SPI customers. Aside from NASA, the FAA began in January 1997, to participate in SPI. We did not obtain any information from FAA for use in this report.

We reviewed SPI activity files for content and documentary support of the SPI process flow chart that was devised by NASA in 1996 and revised during the course of our review in January 1998. We also received several *ad hoc* data reports generated from DCMC's Single Process Initiative System (SPIS) which captures information about participating SPI contractors and their associated SPI processes.

[18] Department of Defense, Office of the Inspector General, Contract Audit Directorate "Evaluation Report on the DoD Block Change Modifications," Report No. PO 97-012, dated March 14, 1997.

Relationship to Other Government-wide Initiatives

SPI is related to other initiatives involved with changing the way the Government conducts business:

- SPI helps NASA meet requirements of the Government Performance and Results Act (GPRA) of 1993:

  GPRA directs executive branch agencies to develop a strategic plan and to report on their success in achieving the goals and measures defined in this plan. In its 1998 Strategic Plan, NASA identifies "Manage Strategically" as one of four crosscutting Agencywide processes. An objective of this process is to increase the use of techniques that enhance contractor innovation and performance. SPI is an example of such an acquisition technique.

  GPRA requires NASA to implement an earned value performance management (EVPM) program.[19] EVPM establishes criteria for contractor management systems in providing integrated performance information. Among the benefits of EVPM are standardized reporting and a single management system description for multiple Government customers. SPI benefits from this effort in that the established coordination and communication channels provide a forum for initial information exchange prior to the formal submission of an earned value-related SPI.

- The Federal Acquisition Streamlining Act (FASA) of 1994 is designed to streamline and simplify the Federal procurement process. However, FASA only establishes a framework for simplifying the current Federal acquisition process. Most of FASA's changes will not impact the contracting process until the Act is implemented by regulatory changes in the Federal Acquisition Regulation (FAR). DoD considers SPI's block change process as a highly effective means for implementing changes authorized by FASA. In January 1998, NASA told DCMC that it preferred that proposed changes to the FAR be handled through the FAR Council modification process and not through SPI.

[19] NASA's implementation of EVPM is detailed in NASA Policy Directive (NPD) 9501.3, "Earned Value Performance Management," dated February 18, 1997.

- NASA views performance based contracting (PBC) and SPI as closely related acquisition initiatives that affect how acquisition personnel draft contract requirement documents. Ideally, all requirement documents should be completely performance-based, i.e., the statement of work contains performance requirements and eliminates process oriented requirements. However, in some cases, that may not be practical and it may be necessary to describe the requirements in terms of processes to be followed. Combining these instances with NASA's commitment to SPI may result in hybrid contracts, which balance performance and process needs.[20]

- Under statutory and Office of Management and Budget (OMB) requirements,[21] NASA uses voluntary consensus standards in preference to Government standards for conducting activities unless it would be inconsistent with law or otherwise impractical. Where decisions under SPI involve proposals to use voluntary consensus standards, NASA reports annually to the National Institute of Standards and Technology: (1) decisions where voluntary consensus standards replaced Government standards, and (2) decisions to reject such replacements and the reasons for rejection.

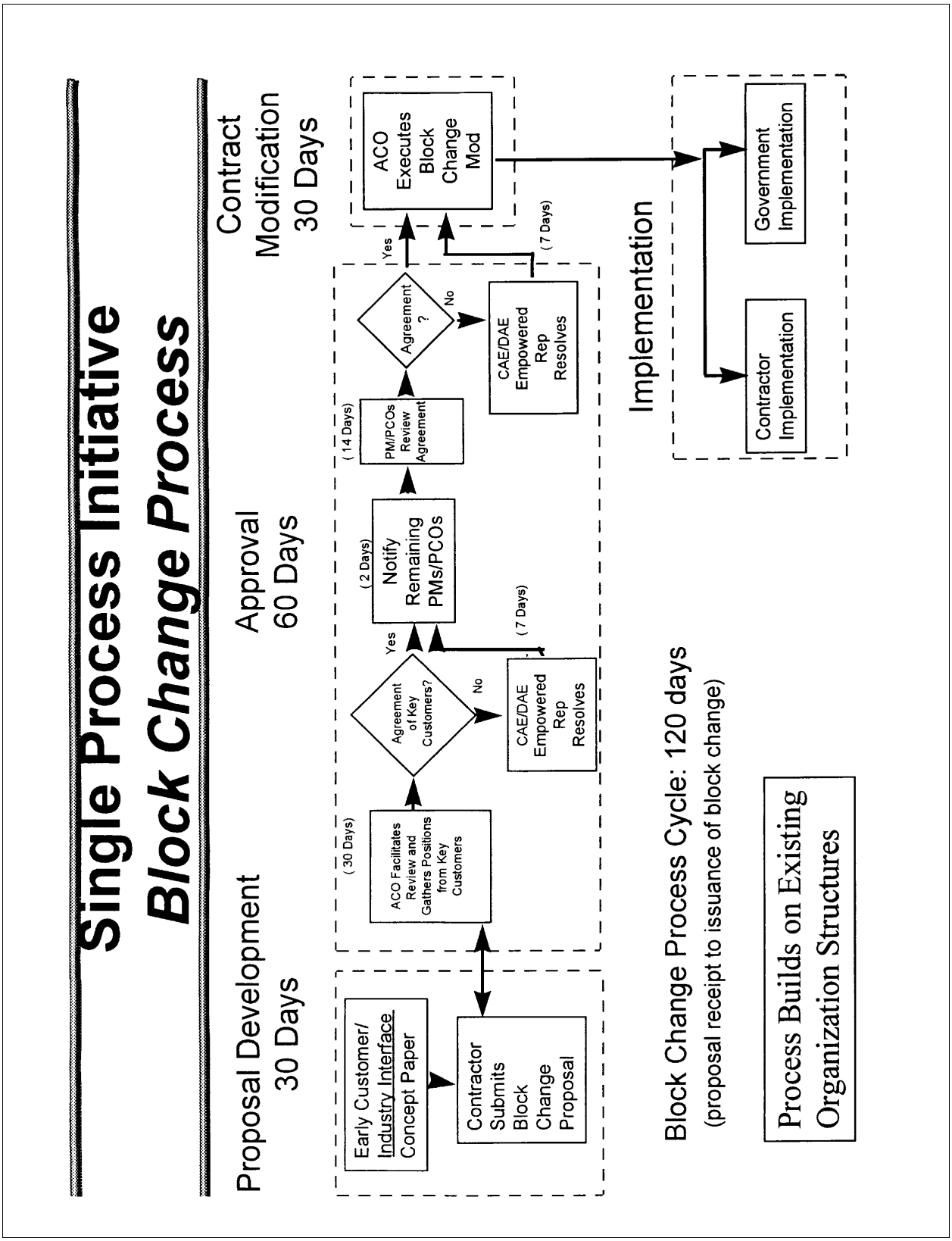
  As a result of SPI proposals,[22] three NASA Centers (GSFC, Lewis Research Center, and MSFC) have accepted replacement of 18 Government standards (in the areas of

[20] Memorandum of Chief Engineer to Officials-in-Charge of Headquarters Offices, and others, "Performance-Based Contracting (PBC) and Single Processes Initiative (SPI), dated January 21, 1997.

[21] Public Law 104-113, Section 12.d; OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Standards." NASA's implementing guidelines for A-119 are provided in NASA Policy Directive (NPD) 8070.6A, "Technical Standards."

[22] Letter from the NASA Chief Engineer to Project Coordinator, Office of Standards Services, National Institute of Standards and Technology, dated December 18, 1997, item III.

quality, calibration and configuration management) with national and international standards. SPI is consistent with this in that it seeks to reduce to a minimum Government-unique standards.


Single Process Initiative
Block Change Process
Proposal Development
30 Days
Approval
60 Days
Contract
Modification
30 Days
Implementation
Early Customer/
Industry Interface
Concept Paper
Contractor
Submits
Block
Change
Proposal
(30 Days)
ACO Facilitates
Review and
Gathers Positions
from Key
Customers
Agreement
of Key
Customers?
Yes
No
CAE/DAE
Empowered
Rep
Resolves
(7 Days)
(2 Days)
Notify
Remaining
PMs/PCOs
(14 Days)
PM/PCOs
Review
Agreement
Agreement
?
Yes
No
CAE/DAE
Empowered
Rep
Resolves
(7 Days)
ACO
Executes
Block
Change
Mod
Contractor
Implementation
Government
Implementation
Block Change Process Cycle: 120 days
(proposal receipt to issuance of block change)
Process Builds on Existing
Organization Structures

APPENDIX 3 - DOD SPI/BLOCK CHANGE PROCESS

SPI IS ESSENTIALLY A FOUR STEP PROCESS

1. The contractor prepares and submits a concept paper proposing to change or eliminate a DoD prescribed process. The initial Contract Administration Office (CAO) review should address acceptability in terms of the information needed to evaluate the proposed process change and allow rapid judgment by the Administrative Contracting Officer (ACO). We encourage contractors and customers to work together, using an Integrated Product Team (IPT) approach, as the concept paper is being developed.

2. Component Team Leaders (CTL's) should perform an evaluation of the contractor's proposed technical and business process, achieving consensus within their respective component and with other CTL's.

3. Once the management council agrees on the contractor's proposed process, all affected customers are notified of the pending change as a final sanity check. Once all customers have been notified, the ACO executes the modification.

4. The Government is entitled to consideration when there are one-sided savings in the process. For most contracts that we have in place, there will be bilateral cost avoidance—the savings will be passed directly to the Government and, in the end, to the taxpayer (i.e., cost-reimbursable contracts). For longer term fixed-price contracts, savings would be realized by the contractor but the contract's fixed-price structure has no mechanism to automatically pass along these savings to the Government. Therefore, we would seek consideration either non-monetarily or as adjustments to the contract prices.

FLOW CHART OF THE BLOCK CHANGE PROCESS

The block change process as depicted here shows the decision flow along with timelines expected of this streamlined process. An expedited process built around a 120-day cycle, from concept paper submission to block change modification.

The process has four key features:

- Concept Paper (Proposal) Development
- Approval
- Modification
  [Consideration]
- Implementation

APPENDIX 3 - DOD SPI/BLOCK CHANGE PROCESS

CONCEPT PAPER (PROPOSAL) DEVELOPMENT

- Uses existing structures within OSD and components

- Designates the DCMC as the lead for facilitating the process

- Designed to move the process forward by quickly elevating and resolving problems or roadblocks.

- Open communication is the key to preparing a successful concept paper. There should be open discussion between the contractor, the customer, Defense Contract Audit Agency (DCAA), and the DCMC CAO to explore the viability of the proposed change.

- Government representatives should encourage and help the contractor with development of the concept paper. However, it is up to the contractor to prepare and submit concept papers.

- Concept papers should be brief, yet definitive. Concept papers should specifically identify the existing contractual requirement that is to be replaced or modified. Papers should also identify contracts and customers impacted if the paper is approved.

- Once the CAO receives a concept paper, the 120-day cycle begins. CAO's should report receipt of the concept paper as soon as it is received and use the remainder of the initial 30-day period to obtain additional data as needed.

- Contractors are encouraged to prepare and submit concept papers for streamlining specifications and standards with an emphasis on early customer involvement. As a minimum, proposals should detail the proposed process and associated metrics; the rough order of magnitude (ROM) cost benefit analysis for the change, the consequent changes in the Government's involvement in the process, and required regulatory/contractual changes that may be needed.

APPROVAL

- One submitted, the CAO shall determine the contractual/regulatory scope of change, determine the component customer base impacted, and organize a local management council based on the nature of the proposal. The management council should be comprised of senior level representatives from the local CAO, DCAA office, the contractor, and CTL's representing the key customers within the affected components. Notionally, the key customer base shall be comprised of

customers who represent 80 percent of the total dollar value of affected components (NASA and Navy Nuclear programs are always key customers).

- The role of the management council is to analyze the merits and cost benefits of the change. Empowerment of the CTL is critical. CTL's are designated and granted decision authority by the Component Acquisition Executive (CAE) to represent the key customer base. CTL's are responsible for achieving consensus with other component team leaders, the key customer PCO's and PM's, the component team members and the CAE. The CAO member is responsible for facilitating and leading the management council.

- If there is disagreement between PM or other customers within a component, the issue must be raised to a level within the Service as designated by the CAE. If there is disagreement among the components the issue must be raised to a level within the Department as designated by the Defense Acquisition Executive (DAE).

MODIFICATION

- After technical agreement has been reached by all affected parties, the cognizant ACO can then modify all applicable contracts at a given facility. Authority to do so is provided in the USD(A&T) letter dated December 8, 1995, Single Process Initiative.

- The modification should be issued as soon as possible so that the Government and contractor can begin reaping benefits from any cost savings/avoidances. Even in those cases where savings are significant and require further negotiations, the ACO should still issue an initial block change modification and then definitize the action with a Supplemental Agreement as soon as possible. In such cases, the initial block change modification must contain language that preserves the Government's entitlement to en equitable adjustment or other appropriate consideration.

- A Memorandum of Agreement (MOA) is recommended to document the proposed modification and implementation schedule. A list of affected contracts should be attached. After the ACO and the contractor sign the MOA, the Standard Form (SF) 30, Amendment of Solicitation/Modification of Contract, should be coordinated with the Defense Finance and Accounting Service (DFAS) Contract Entitlement Directorate Systems Office, DFAS-JXS, and the DCMC's District FASST.

- For concept papers that do not require contract modifications, a Memorandum of Understanding (MOU) can be drafted and signed by the ACO and contractor to implement the process changes proposed.

CONSIDERATION

Costs to execute a common process usually occur early. Net cost savings may result and must be reviewed. Cost avoidances follow, and may be hard to quantify.

ACO's must address consideration:

- ACO determines significance and documents decision
- Required when significant savings result
- Can be monetary or non-monetary
- Focus on fixed-price contracts
- Allocation of compensation can be tricky

- In those cases where the SPI proposal will result in significant decreases in the overall net cost of performance of existing contracts, the contractor should be asked to submit a formal proposal for an equitable adjustment (consideration). In most cases, negotiating consideration should not delay the modification of contracts.

- Acceptable forms of consideration have not changed as a result of SPI. The Government is entitled to consideration when significant savings result from implementing the new process.

- Consideration may take several forms. For example, reduced prices on current contracts, cash refunds, goods and services, etc.

- Goods or services can be an effective form of consideration. Care must be taken to avoid augmentation of appropriations. Consideration of this sort should be closely coordinated with customers (PCO's) and District SPI Points of Contact or "SWAT" Team members (Legal, ACO's, Cost and Price Analysts, etc.).

- How consideration is taken is a matter left to the sole discretion of the Contracting Officer.

- Consideration should be documented in contracts and modifications to contracts. The parties should spell out in all black change modifications the consideration they have agreed to, which includes the tangible and intangible benefits the parties expect to receive by moving to the common process.

IMPLEMENTATION

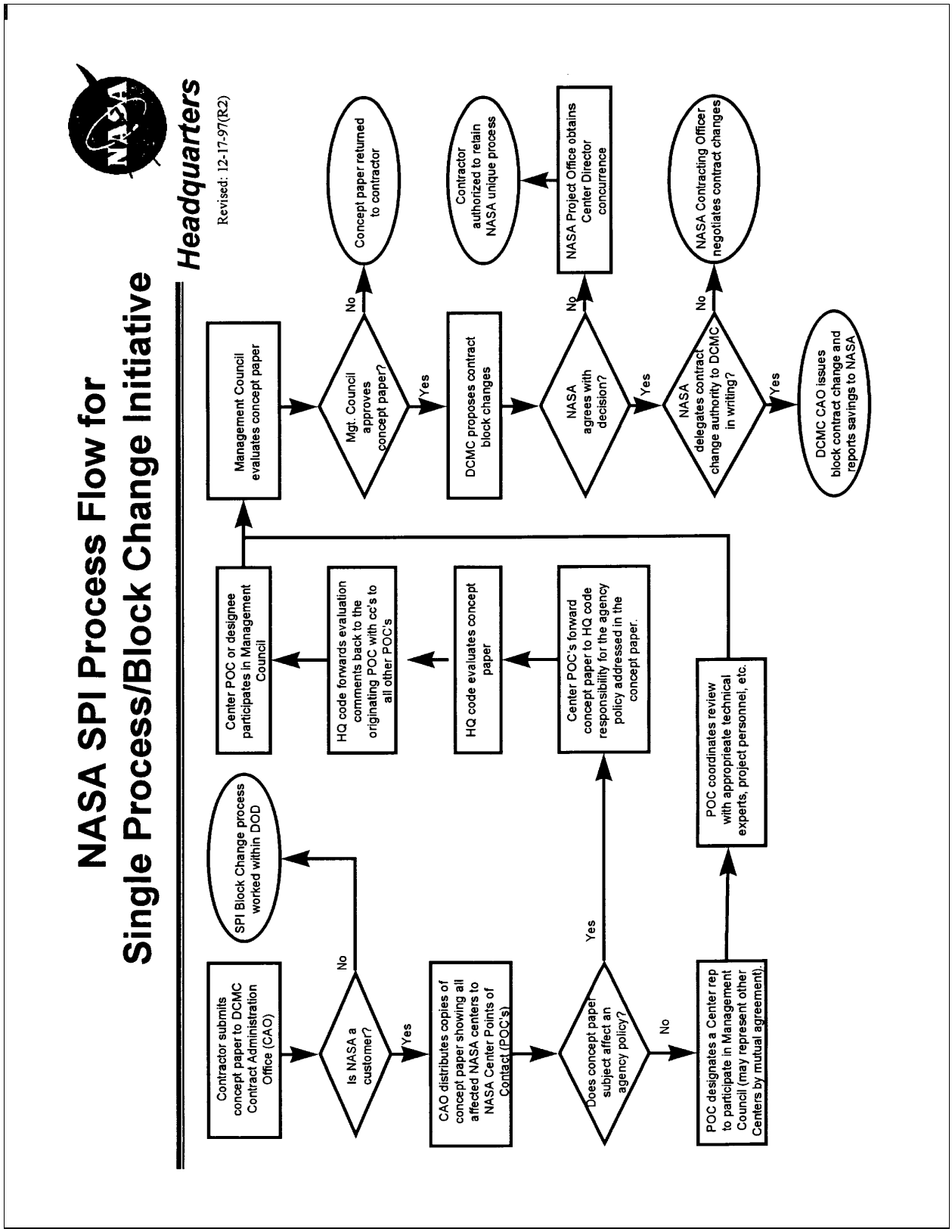
- Once the modification is complete, the contractor implements the new process.

- As a result, both the contractor and the Government should evaluate and adjust their oversight/surveillance activities accordingly. This may include some assessment of implementation progress; however, as the contractor shifts to common factory-wide processes, they should assume greater responsibility for self-governance.

- The CAO will submit the final report to the Headquarters DCMC SPI Team describing the benefits and lessons learned from implementing the change.

- Ultimately, DoD is expecting substantial savings from contractor's implementation of SPI. In addition to savings on current contracts, forward pricing rates should reflect savings as new processes are implemented.

[Note: The process information and definitions are taken from DCMC's Internet World Wide Web page, at <http://www.dcmc.hq.dla.mil/Spi/Briefing/Process.pdf>.]


NASA SPI Process Flow for
Single Process/Block Change Initiative
Headquarters
Revised: 12-17-97(R2)
Contractor submits concept paper to DCMC Contract Administration Office (CAO)
Is NASA a customer?
No
Yes
SPI Block Change process worked within DOD
CAO distributes copies of concept paper showing all affected NASA centers to NASA Center Points of Contact (POC's)
Does concept paper subject affect an agency policy?
Yes
No
Center POC's forward concept paper to HQ code responsibility for the agency policy addressed in the concept paper.
HQ code evaluates concept paper
HQ code forwards evaluation comments back to the originating POC with cc's to all other POC's
Center POC or designee participates in Management Council
POC designates a Center rep to participate in Management Council (may represent other Centers by mutual agreement).
POC coordinates review with appropriate technical experts, project personnel, etc.
Management Council evaluates concept paper
Mgt. Council approves concept paper?
No
Yes
Concept paper returned to contractor
DCMC proposes contract block changes
NASA agrees with decision?
No
Yes
Contractor authorized to retain NASA unique process
NASA Project Office obtains Center Director concurrence
NASA delegates contract change authority to DCMC in writing?
No
Yes
NASA Contracting Officer negotiates contract changes
DCMC CAO issues block contract change and reports savings to NASA

APPENDIX 5 - NASA CORPORATIONS, FACILITIES AND CTL SPI ACTIVITY

NASA CORPORATIONS, FACILITIES, AND COMPONENT TEAM LEADER (CTL) SPI ACTIVITY*

Corporation	Rank in Top 200	Name and Location of Corporation/Division	NASA Customers	Number of Processes
Allied Signal	28	Allied Signal Aerospace Equipment, Torrance CA	JSC (ISS)	4
Boeing	7	Boeing Aircraft & Missile Systems, St. Louis MO	NASA IV&V Facility	29
		Boeing ISDS, Information & Communication Systems, Seattle WA	MSFC (AXAF), JSC	30
		Boeing ISDS, Space Systems, Huntington Beach CA	GSFC, JSC, LeRC	5
		Boeing ISDS, Space Systems, Huntsville AL	MSFC, JSC	20
		Boeing North American, Rocketdyne Division, Canoga Park CA	MSFC (SSME), JSC (ISS)	7
		Boeing North American, Space Systems Division (SSD), Downey CA	JSC	11
GenCorp	79	Aerojet ElectroSystems, Azusa CA	GSFC	2
General Motors	5	Hughes Danbury Optical Systems (HDOS), Danbury CT	GSFC	3
		Santa Barbara Research Center, Goleta CA	GSFC	7
Group Technologies		Group Technologies Corporation, Tampa FL	JSC	2
ITT	22	ITT Aerospace/Communications Division, Fort Wayne IN	GSFC	7
L-3 Communications		L-3 Communications, Communications Systems-East, Camden NJ	JSC (ISS)	7
Litton	12	Litton Amecon, College Park MD	GSFC, JSC	3
Lockheed Martin	1	Lockheed Martin Astronautics (LMA), Denver CO	JPL, LeRC	21
		Lockheed Martin Electro-Optical Systems, Pomona CA	JPL	6
		Lockheed Martin Federal Systems, Inc.	GSFC	2
		Lockheed Martin Missiles & Space, Sunnyvale CA	ARC, GSFC, MSFC	22
Loral	8	Loral Space Systems, Palo Alto CA	GSFC	6
Motorola	45	Motorola, Scottsdale AZ	GSFC, JSC	17
Praxair		Praxair, Inc., Danbury CT	KSC	1
Ratheon	5	Raytheon Systems Co., Sensors & Electronic Systems, El Segundo CA	GSFC	10
TRW	16	TRW Space & Electronics Group (S&EG), Redondo Beach CA	GSFC, LaRC, MSFC	10
		TRW Systems Integration Group (SIG), Dominquez Hills CA	GSFC (EOS), LaRC, MSFC (AXAF)	4
United Technologies	10	Hamilton Standard Division of UTC, Windsor Locks CT	GSFC, JSC, KSC, MSFC	17
		Pratt & Whitney, West Palm Beach FL and East Hartford CT	MSFC	30
		Sikorsky Aircraft Corporation, Stratford CT	ARC, LaRC	19
TOTAL				302

*Data based on DCMC report dated April 22, 1998

SINGLE PROCESS INITIATIVE

Implementation Summary

*As of: Wednesday, **December 31, 1997***

Contractor Facilities:	***27***
Top 200 Corporation Facilities:	24
International Facilities:	0
Total Proposed Process Changes:	***275***
Found Technically Unacceptable:	4
Processes Withdrawn/Disapproved:	55
Total Block Change Modifications:	***147***
Average days from Submittal to Modification:	150
Total Open:	73
*** Total Open Aged Over 120 days:**	30
Total Under Development/Awaiting Initial Acceptance:	2
Total Under Development for More Than 30 Days:	2
Total Under Review for Approval:	41
Disagreements/Problems Escalated:	10
Total Under Review for More Than 60 Days:	22
Total Awaiting Contract Modification:	30
Total Awaiting Contract Modification for More Than 30 Days:	30
Amount Negotiated:	$402,000
Estimated Cost Avoidance on Future Contracts:	$136,031,163

SPI PROCESS

* Does not include Law/Reg Proposals

Appendix D

National Aeronautics and
Space Administration
Office of the Administrator
Washington, DC 20546-0001

JUL 27 1998

TO: W/Assistant Inspector General for Partnerships and Alliances

FROM AE/Chief Engineer

SUBJECT: Draft Report on Review of NASA Single Process Initiative/ Block Change Process Implementation, P&A-98-002

The Office of the Chief Engineer has reviewed the subject report and is in basic agreement with the content of the report. Code AE response to the recommendations in the report are provided in the attached document.

Should you have any questions, please call Keith Hudkins on 358-1823.

Daniel Mulville

Enclosure

cc:
H/D. Lee
JM/D. Green

I. Recommendation 1, p13

We recommend the Chief Engineer reassess NASA's continued participation in SPI to determine if the Agency is experiencing sufficient benefits including immediate cost savings or future cost avoidances.

Code AE Response - Concur

The Office of the Chief Engineer is working in conjunction with the DCMC, Lockheed and Boeing, and NASA points of contact to improve the benefits realized by NASA from the Single Process Initiative.

The Office of the Chief Engineer recently obtained membership on the Lockheed-Martin Joint Government/Industry Corporate Management Council and the Boeing Joint Leadership Council. Both of these councils address improving the return on resources expended on SPI activities. The Office of the Chief Engineer, along with the NASA Office of Procurement, also participates in DOD workshops, symposia and Block Change Management Team meetings to identify relevant metrics, improve the SPI process (including quality and content of concept papers) and increase NASA cost avoidance/savings.

This assessment is an ongoing process to improve the SPI process internal to NASA, with the DCMC and with contractor organizations. NASA will continue to participate in the SPI process in FY99.

II. Recommendation 2, p13

If NASA decides to continue supporting SPI, the Chief Engineer should provide adequate resources for implementation.

Code AE Response - Concur

Management councils meet frequently to address SPI issues. While direct participation for every NASA point of contact at every management council meeting is not practical, participation in person or via teleconference is acceptable and each Center is responsible to support this initiative and provide the proper resources to do so.

III. Recommendation 3, p13

We recommend the Chief Engineer consider: (1) sending to NASA contractors a letter similar to that proposed by DCMC to encourage contractor participation in SPI, and (2) discussing the same with the chief financial officers of contractors participating in SPI.

Code AE Response - Concur

To avoid duplication of effort, a letter will be transmitted to unique NASA contractors following the transmittal of the DCMC letter. The Office of the Chief Engineer has requested that the NASA Contract Management Division draft this letter.

IV. Recommendation 4, p15

We recommend the Chief Engineer reassess NASA's SPI implementing guidelines for content, and clarify: (1) the use of MOA's and MOU's, and (2) required documentation for official SPI files.

Code AE Response - Concur

Process improvements and updated guidelines were transmitted to NASA points of contact on January 16th, 1998. Clarification on required documentation was

transmitted to NASA points of contact and discussed during a NASA SPI status review on March 4th, 1998. Further clarification on concept paper content, consideration and the use of MOA's/MOU's was transmitted to NASA points of contact on April 3rd, 1998.

This clarification discouraged the use of MOA's/MOU's in any situation where an SPI issue affects a contract. The proper way to reflect an agreement between the Government and the contractor affecting a specific contract is through a contract modification.

V. Recommendation 5, p20

We recommend that as part of management's reassessment of SPI implementation, the Chief Engineer needs to define the SPI-related data to be collected by Centers.

Code AE Response - Concur

Clarification on required metrics (activity and outcome) was transmitted to NASA points of contact and discussed during a NASA SPI status review on March 4th, 1998. No further action is recommended.

VI. Recommendation 6, p20

We recommend the Chief Engineer establish a central repository of defined SPI data and devise a link between it and that kept by DCMC.

Code AE Response - Partially concur

The DCMC maintains a repository of SPI data. This repository includes NASA-related information, and is accessible by NASA via the Chief Engineer's website (http://www.hq.nasa.gov/office/codea/codeae/papac.html). Agency-wide status reviews on NASA SPI activity were initiated in September, 1997. Status reports submitted during these reviews are archived in the Office of the Chief Engineer. Direction was transmitted to the NASA points of contact to review the DCMC data and resolve any discrepancies. Creating and linking a NASA-maintained repository to the DCMC repository provides no added value. No further action is recommended.

VII. Recommendation 7, p26

To effectively implement DoD's SPI, the Chief Engineer must work with DCMC to resolve issues that impact effective SPI implementation at NASA, including:

- Concept papers do not identify impacted NASA contracts
- DCMC SPI data is misleading or not useful to NASA
- Response time to DCMC is too short, or NASA is told that no response means it concurs with a concept paper
- There is a delay in DCMC sending concept papers to NASA from the time a management council meets
- No unique identifying number is used when referring to concept papers
- SPI-related performance metrics may adversely impact concept paper content
- NASA may be charged for concept paper reviews by DCAA
- NASA receives no status on concept papers from DCMC after our response is provided

Code AE Response

A letter addressing improvements to the efficiency and effectiveness of the SPI process was transmitted to the DCMC on January 20th, 1998. This letter also transmitted NASA policy to the SPI-related issues. Specifically, NASA will return

poor quality papers and incomplete papers. Concept papers that do not state cost savings and/or cost avoidance will only be approved if the NASA point of contact at the NASA Center responsible for evaluation of the paper believes there is inherent justification to do so. NASA will focus on negotiating cost savings, where applicable.

NASA will also return papers dealing with FAR changes, with the recommendation that these papers be submitted for evaluation via the FAR Council or the NASA Far supplement process. As a member of the FAR Council, NASA preserves the opportunity to evaluate such papers.

Bullet 1 - Concur
NASA has transmitted its policy to the DCMC to return incomplete concept papers. The identification of contracts impacted was raised as an issue with the DCMC and discussed with NASA points of contact during a NASA SPI status review on March 4th, 1998. It was determined, per reports from the points of contact during the status review, that this situation is improving. No further action is recommended.

Bullets 2 - Concur
The Office of the Chief Engineer issued a request to the DCMC on March 3rd, 1998 to provide greater detail on NASA SPI outcome and activity metrics in the DCMC data repository. To meet this request, the DCMC must modify its database. The DCMC will begin discussion to address improvements and potential changes to the database in July, 1998. Further action will be taken on an as-needed basis.

Bullet 3 - Non-concur
The SPI process, as implemented by the DCMC, allows 120 days for the concept paper review process. This is an adequate time period for NASA to complete its evaluation and response.

Bullet 4 - Concur

Bullet 5 - Concur
The use of unique identifiers was raised as an issue with the DCMC and discussed with NASA points of during a NASA SPI status review on March 4th, 1998. It was determined, per reports from the points of contact during the status review, that this issue has been corrected. No further action is recommended.

Bullet 6 - Concur
As stated above, NASA has already transmitted its policy to the DCMC to return poor quality concept papers, approve concept papers only where there is inherent justification to do so, and focus on negotiating cost savings, where applicable. No further action is recommended.

Bullets 7 - Concur
Code AE has requested that the NASA Office of Procurement evaluate the acceptability of NASA being charged by the DCAA. Resolution of this issue is expected to be completed by September 30th, 1998.

Bullets 8 - Concur
NASA will request by August 31st, 1998 that the DCMC improve the feedback process.

APPENDIX 8 - MAJOR CONTRIBUTORS TO THIS REPORT

OIG Staff Lewis D. Rinker, Assistant Inspector General for Partnerships and Alliances, Headquarters

Wesley E. Pippenger, Management Analyst, Headquarters

Carol A. St. Armand, Auditor, Goddard Space Flight Center

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ACRONYMS

ACO	Administrative Contracting Officer
BCMT	Block Change Management Team
CO	Contracting Officer
DCMC	Defense Contract Management Command
EVPM	Earned Value Performance Management
FAR	Federal Acquisition Regulation
FY	Fiscal Year
GSFC	Goddard Space Flight Center
LaRC	Langley Research Center
MOA	Memorandum of Agreement
MSFC	Marshall Space Flight Center
PBC	Performance Based Contracting
SPIS	DCMC Single Process Initiative System
AMS	NASA Acquisition Management Subsystem
CAO	DoD Contract Administration Office
DCAA	Defense Contract Audit Agency
DoD	Department of Defense
FAA	Federal Aviation Administration
FASA	Federal Acquisition Streamlining Act
GPRA	Government Performance and Results Act
JSC	Johnson Space Flight Center
LeRC	Lewis Research Center
MOU	Memorandum of Understanding
OIG	Office of Inspector General
SPI	Single Process Initiative