

# CHAPTER 19

## CONTRACTUAL CONSIDERATIONS

### 19.1 INTRODUCTION

This chapter describes how the systems engineer supports the development and maintenance of the agreement between the project office and the contractor that will perform or manage the detail work to achieve the program objectives. This agreement has to satisfy several stakeholders and requires coordination between responsible technical, managerial, financial, contractual, and legal personnel. It requires a document that conforms to the Federal Acquisition Regulations (and supplements), program PPBS documentation, and the System Architecture. As shown by Figure 19-1, it also has to result in a viable cooperative environment that allows necessary integrated teaming to take place.

The role of technical managers or systems engineers is crucial to satisfying these diverse concerns. Their primary responsibilities include:

- Supporting or initiating the planning effort. The technical risk drives the schedule and cost risks which in turn should drive the type of contractual approach chosen,
- Prepares or supports the preparation of the source selection plan and solicitation clauses concerning proposal requirements and selection criteria,
- Prepares task statements,

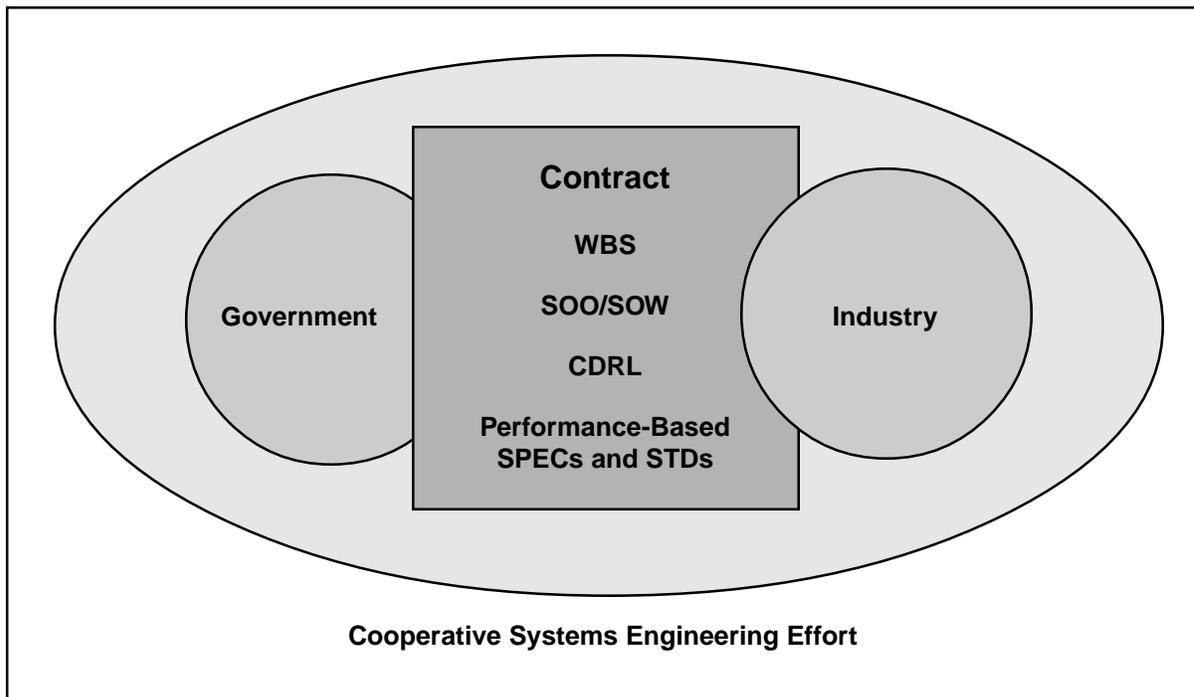


Figure 19-1. Contracting Process

- Prepares the Contract Data Requirements List (CDRL),
- Supports negotiation and participates in source selection evaluations,
- Forms Integrated Teams and coordinates the government side of combined government and industry integrated teams,
- Monitors the contractor's progress, and
- Coordinates government action in support of the contracting officer.

This chapter reflects the DoD approach to contracting for system development. It assumes that there is a government program or project office that is tasking a prime contractor in a competitive environment. However, in DoD there is variation to this theme. Some project activities are tasked directly to a government agency or facility, or are contracted sole source. The processes described in this chapter should be tailored as appropriate for these situations.

## 19.2 SOLICITATION DEVELOPMENT

As shown by Figure 19-2, the DoD contracting process begins with planning efforts. Planning includes development of a Request for Proposal (RFP), specifications, a Statement of Objective (SOO) or Statement of Work (SOW), a source selection plan, and the Contract Data Requirements List (CDRL).

### Request for Proposal (RFP)

The RFP is the solicitation for proposals. The government distributes it to potential contractors. It describes the government's need and what the offeror must do to be considered for the contract. It establishes the basis for the contract to follow.

The key systems engineering documents included in a solicitation are:

- A statement of the work to be performed. In DoD this is a SOW. A SOO can be used to obtain a SOW or equivalent during the selection process.

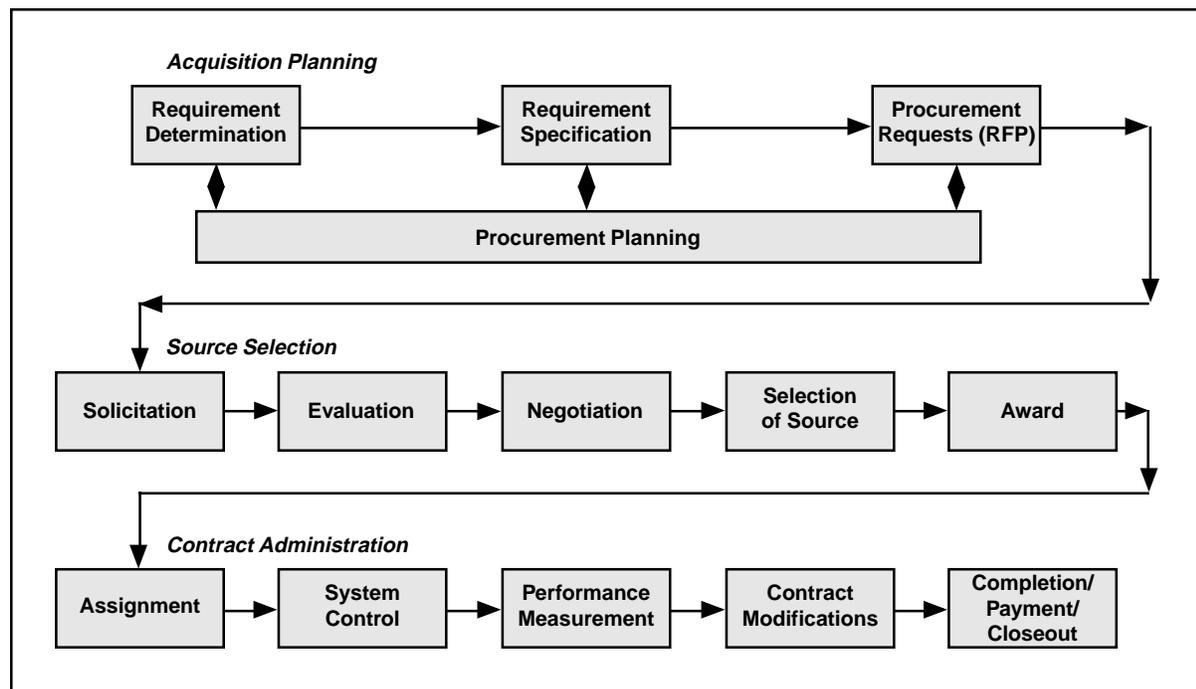


Figure 19-2. Contracting Process

- A definition of the system. Appropriate specifications and any additional baseline information necessary for clarification form this documentation. This is generated by the systems engineering process as explained earlier in this book.
- A definition of all data required by the customer. In DoD this accomplished through use of the Contract Data Requirements List (CDRL).

The information required to be in the proposals responding to the solicitation is also key for the systems engineer. An engineering team will decide the technical and technical management merits of the proposals. If the directions to the offerors are not clearly and correctly stated, the proposal will not contain the information needed to evaluate the offerors. In DoD Sections L and M of the RFP are those pivotal documents.

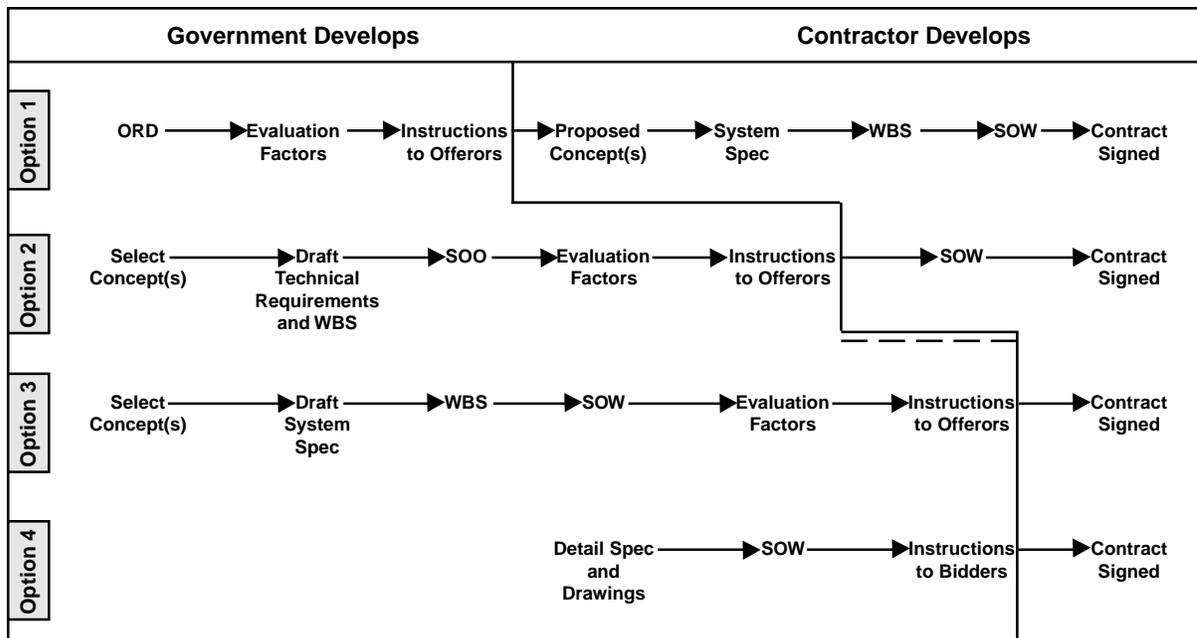
**Task Statement**

The task statement prepared for the solicitation will govern what is actually received by the government, and establish criteria for judging contractor performance. Task requirements are expressed in

the SOW. During the solicitation phase the tasks can be defined in very general way by a SOO. Specific details concerning SOOs and SOWs are attached at the end of this chapter.

As shown by Figure 19-3, solicitation tasking approaches can be categorized into four basic options: use of a basic operational need, a SOO, a SOW, or a detail specification.

*Option 1* maximizes contractor flexibility by submitting the Operational Requirements Document (ORD) to offerors as a requirements document (e.g. in place of SOO/SOW), and the offerors are requested to propose a method of developing a solution to the ORD. The government identifies its areas of concern in Section M (evaluation factors) of the RFP to provide guidance. Section L (instructions to the offerors) should require the bidders write a SOW based on the ORD as *part* of their proposal. The offeror proposes the type of system. The contractor develops the system specification and the Work Breakdown Structure (WBS). In general this option is appropriate for early efforts where contractor input is necessary to expand the understanding of physical solutions and alternative system approaches.



**Figure 19-3. Optional Approaches**

**Option 2** provides moderate contractor flexibility by submitting a SOO to the offerors as the Section C task document (e.g., in place of SOW.) The government identifies its areas of concern in Section M (evaluation factors) to provide guidance. Section L (instructions to the offerors) should require as part of the proposal that offerors write a SOW based on the SOO. In this case the government usually selects the type of system, writes a draft technical-requirements document or system specification, and writes a draft WBS. This option is most appropriate when previous efforts have not defined the system tightly. The effort should not have any significant design input from the previous phase. This method allows for innovative thinking by the bidders in the proposal stage. It is a preferred method for design contracts.

**Option 3** lowers contractor flexibility, and increases clarity of contract requirements. In this option the SOW is provided to the Contractor as the contractual task requirements document. The government provides instructions in Section L to the offerors to describe the information needed by the government to evaluate the contractor's ability to accomplish the SOW tasks. The government identifies evaluation factors in Section M to provide guidance for priority of the solicitation requirements. In most cases, the government selects the type of system, and provides the draft system spec, as well as the draft WBS. This option is most appropriate when previous efforts have defined the system to the lower WBS levels or where the product baseline defines the system. Specifically when there is substantial input from the previous design phase and there is a potential for a different contractor on the new task, the SOW method is appropriate.

**Option 4** minimizes contractor flexibility, and requires maximum clarity and specificity of contract requirements. This option uses an Invitation for Bid (IFB) rather than an RFP. It provides bidders with specific detailed specifications or task statements describing the contract deliverables. They tell the contractor exactly what is required and how to do it. Because there is no flexibility in the contractual task, the contract is awarded based on the low bid. This option is appropriate when

the government has detailed specifications or other product baseline documentation that defines the deliverable item sufficient for production. It is generally used for simple build-to-print reprourement.

### Data Requirements

As part of the development of an IFB or RFP, the program office typically issues a letter that describes the planned procurement and asks integrated team leaders and affected functional managers to identify and justify their data requirements for that contract. The data should be directly associated with a process or task the contractor is required to perform.

The affected teams or functional offices then develop a description of each data item needed. Data Item Descriptions (DIDs), located in the Acquisition Management Systems and Data Requirements Control List (AMSDL), can be used for guidance in developing these descriptions. Descriptions should be performance based, and format should be left to the contractor as long as all pertinent data is included. The descriptions are then assembled and submitted for inclusion in the solicitation. The listing of data requirements in the contract follows an explicit format and is referred to as the CDRL.

In some cases the government will relegate the data call to the contractor. In this case it is important that the data call be managed by a government/contractor team, and any disagreements be resolved prior to formal contract change incorporating data requirements. When a SOO approach is used, the contractor should be required by section L to propose data requirements that correspond to their proposed SOW.

There is current emphasis on electronic submission of contractually required data. Electronic Data Interchange (EDI) sets the standards for compatible data communication formats.

Additional information on data management, types of data, contractual considerations, and sources of data are presented in Chapters 10 and

13. Additional information on CDRLs is provided at the end of this chapter.

### Technical Data Package Controversy

Maintenance of a detailed baseline such as the “as built” description of the system, usually referred to as a Technical Data Package (TDP), can be very expensive and labor intensive. Because of this, some acquisition programs may not elect to purchase this product description. If the Government will not own the TDP the following questions must be resolved prior to solicitation issue:

- What are the pros and cons associated with the TDP owned by the contractor?
- What are the support and reprourement impacts?
- What are the product improvement impacts?
- What are the open system impacts?

In general the government should have sufficient data rights to address life cycle concerns, such as maintenance and product upgrade. The extent to which government control of configurations and data is necessary will depend on support and reprourement strategies. This, in turn, demands that those strategic decisions be made as early as possible in the system development to avoid purchasing data rights as a hedge against the possibility that the data will be required later in the program life cycle.

### Source Selection

Source Selection determines which offeror will be the contractor, so this choice can have profound impact on program risk. The systems engineer must approach the source selection with great care because, unlike many planning decisions made early in product life cycles, the decisions made relative to source selection can generally not be easily changed once the process begins. Laws and regulations governing the fairness of the process require that changes be made very carefully—and often at the expense of considerable time and effort on the part of program office and contractor

personnel. In this environment, even minor mistakes can cause distortion of proper selection.

The process starts with the development of a Source Selection Plan (SSP), that relates the organizational and management structure, the evaluation factors, and the method of analyzing the offerors’ responses. The evaluation factors and their priority are transformed into information provided to the offerors in sections L and M of the RFP. The offerors’ proposals are then evaluated with the procedures delineated in the SSP. These evaluations establish which offerors are conforming, guide negotiations, and are the major factor in contractor selection. The SSP is further described at the end of this chapter.

The system engineering area of responsibility includes support of SSP development by:

- Preparing the technical and technical management parts of evaluation factors,
- Organizing technical evaluation team(s), and
- Developing methods to evaluate offerors’ proposals (technical and technical management).

### 19.3 SUMMARY COMMENTS

- Solicitation process planning includes development of a Request for Proposal, specifications, a Statement of Objective or Statement of Work, a source selection plan, and the Contract Data Requirements List.
- There are various options available to program offices as far as the guidance and constraints imposed on contractor flexibility. The government, in general, prefers that solicitations be performance-based.
- Data the contractor is required to provide the government is listed on the CDRL List.
- Source Selection is based on the evaluation criteria outlined in the SSP and reflected in Sections L and M of the RFP.

# SUPPLEMENT 19-A

## STATEMENT OF OBJECTIVES (SOO)

The SOO is an alternative to a government prepared SOW. A SOO provides the Government's overall objectives and the offeror's required support to achieve the contractual objectives. Offerors use the SOO as a basis for preparing a SOW which is then included as an integral part of the proposal which the government evaluates during the source selection.

### Purpose

SOO expresses the basic, top-level objectives of the acquisition and is provided in the RFP in lieu of a government-written SOW. This approach gives the offerors the flexibility to develop cost effective solutions and the opportunity to propose innovative alternatives.

### Approach

The government includes a brief (1- to 2-page) SOO in the RFP and requests that offerors provide a SOW in their proposal. The SOO is typically appended to section J of the RFP and does not become part of the contract. Instructions for the contractor prepared SOW would normally be included in or referenced by Section L.

### SOO Development

*Step 1:* The RFP team develops a set of objectives compatible with the overall program direction including the following:

- User(s) operational requirements,
- Programmatic direction,
- Draft technical requirements, and

- Draft WBS and dictionary.

*Step 2:* Once the program objectives are defined, the SOO is constructed so that it addresses product-oriented goals and performance-oriented requirements.

### SOO and Proposal Evaluations

Section L (Instructions to Offerors) of the RFP must include instructions to the offeror that require using the SOO to construct and submit a SOW. In Section M (Evaluation Criteria) the program office should include the criteria by which the proposals, including the contractor's draft SOW, will be evaluated. Because of its importance, the government's intention to evaluate the proposed SOW should be stressed in Sections L and M.

### Offeror Development of the Statement of Work

The offeror should establish and define in clear, understandable terms:

- Non-specification requirements (the tasks that the contractor must do),
- What has to be delivered or provided in order for him to get paid,
- What data is necessary to support the effort, and
- Information that would show how the offerors would perform the work that could differentiate between them in proposal evaluation and contractor selection.

**SOO Example:  
Joint Air-to-Surface Standoff Missile (JASSM)  
Statement of Objectives**

The Air Force and Navy warfighters need a standoff missile that will destroy the enemies' war-sustaining capabilities with a launch standoff range outside the range of enemy area defenses. Offerors shall use the following objectives for the pre-EMD and EMD acquisition phases of the JASSM program along with other applicable portions of the RFP when preparing proposals and program plans. IMP events shall be traceable to this statement of objectives:

**Pre-EMD Objectives**

- a. Demonstrate, at the sub-system level as a minimum, end-to-end performance of the system concept. Performance will be at the contractor-developed System Performance Specification requirements level determined during this phase without violation of any key performance parameters.
- b. Demonstrate the ability to deliver an affordable and producible system at or under the average unit procurement price (AUPP).
- c. Provide a JASSM system review including final system design, technical accomplishments, remaining technical risks and major tasks to be accomplished in EMD.

**EMD Objectives**

- a. Demonstrate through test and/or analysis that all requirements as stated in the contractor generated System Performance Specification, derived from Operational Requirements, are met, including military utility (operational effectiveness and suitability).
- b. Demonstrate ability to deliver an affordable and producible system at or under the AUPP requirement.
- c. Demonstrate all production processes.
- d. Produce production representative systems for operational test and evaluation, including combined development/operational test and evaluation.

At contract award the SOW, as changed through negotiations, becomes part of the contract and the standard for measuring contractor's effectiveness.

# SUPPLEMENT 19-B

## STATEMENT OF WORK (SOW)

The SOW is a specific statement of the work to be performed by the contractor. It is derived from the Program WBS (System Architecture). It should contain, at a minimum, a statement of scope and intent, as well as a logical and clear definition of all tasks required. The SOW normally consists of three parts:

**Section 1: Scope** – Defines overall purpose of the program and to what the SOW applies.

**Section 2: Applicable Documents** – Lists the specifications and standards referenced in Section 3.

**Section 3: Requirements** – States the tasks the contractor has to perform to provide the deliverables. Tasks should track with the WBS. The SOW describes tasks the contractor has to do. The specifications describe the products.

### Statement of Work Preparation and Evaluation Strategies

SOWs should be written by an integrated team of competent and experienced members. The team should:

- Review and use the appropriate WBS for the SOW framework,

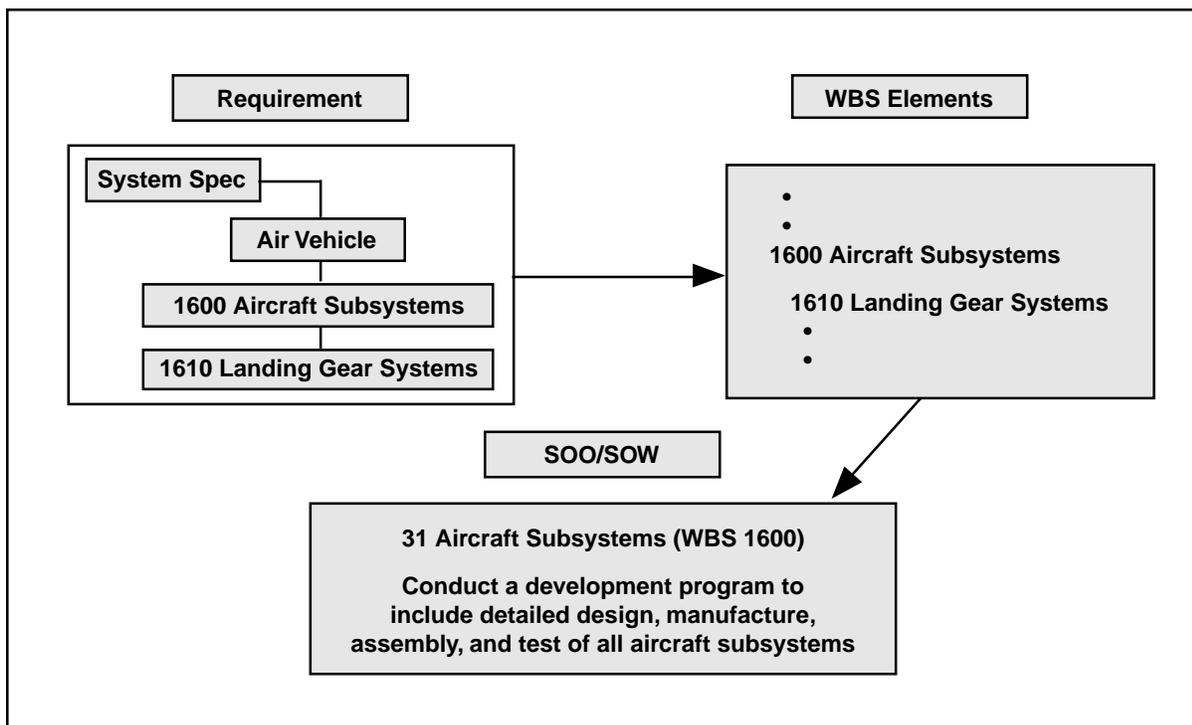


Figure 19-4. Requirement-WBS-SOW Flow

- Set SOW objectives in accordance with the Acquisition Plan and systems engineering planning,
- Develop a SOW tasking outline and check list,
- Establish schedule and deadlines, and
- Develop a comprehensive SOW from the above.

### Performance-based SOW

The term *performance-based SOW* has become a common expression that relates to a SOW that tasks the contractor to perform the duties necessary to provide the required deliverables, but is not specific as to the process details. Basically, all SOWs should be performance based, however, past DoD generated SOWs have had the reputation of being overly directive. A properly developed SOW tasks the contractor without telling him how to accomplish the task.

### Evaluating the SOW

The WBS facilitates a logical arrangement of the elements of the SOW and a tracing of work effort expended under each of the WBS elements. It helps integrated teams to ensure all requirements have been included, and provides a foundation for tracking program evolution and controlling the change process. As shown by Figure 19-4, the WBS serves as a link between the requirements and the SOW.

In the past, DoD usually wrote the SOW and, over time, an informal set of rules had been developed to assist in drafting them. While the government today generally does not write the SOW, but, rather, more often evaluates the contractor's proposed SOW, those same rules can assist in the government role of evaluator.

### Statement of Work Rules

In section 1. *Scope*:

DO NOT:

- Include directed work statements.

- Include data requirements or deliverable products.

In section 2. *Applicable Documents*:

DO NOT:

- Include guidance documents that apply only to Government PMOs (e.g., DoD 5000 series and service regulations).

In section 3. *Requirements*:

DO NOT:

- Define work tasks in terms of data to be delivered.
- Order, describe, or discuss CDRL data (OK to reference).
- Express work tasks in data terms.
- Invoke, cite, or discuss a DID.
- Invoke handbooks, service regulations, technical orders, or any other document not specifically written in accordance with MIL-STD-961/962.
- Specify how task is to be accomplished.
- Use the SOW to amend contract specifications.
- Specify technical proposal or performance criteria or evaluation factors.
- Establish delivery schedules.
- Over specify.

In section 3. *Requirements*:

DO:

- Specify work requirements to be performed under contract.

- Set SOW objectives to reflect the acquisition plan and systems engineering planning.
- Provide a priceable set of tasks.
- Express work to be accomplished in work words.
- Use “shall” whenever a task is mandatory.
- Use “will” only to express a declaration of purpose or simple futurity.
- Use WBS as an outline.
- List tasks in chronological order.
- Limit paragraph numbering to 3rd sub-level (3.3.1.1.) – Protect Government interests.
- Allow for contractor’s creative effort.

# SUPPLEMENT 19-C

## CONTRACT DATA REQUIREMENTS LIST

The Contract Data Requirements List (CDRL) is a list of authorized data requirements for a specific procurement that forms a part of the contract. It is comprised of a series of DD Forms 1423 (Individual CDRL forms) containing data requirements and delivery instructions. CDRLs should be linked directly to SOW tasks and managed by the program office data manager. A sample CDRL data requirement is shown in Figure 19-5.

Data requirements can also be identified in the contract via Special Contract Clauses (Federal Acquisition Clauses.) Data required by the FAR clauses are usually required and managed by the Contracting Officer.

CONTRACT DATA REQUIREMENTS LIST									
ATCH NR: 3		TO EXHIBIT:				SYSTEM/ITEM: ATF DEM/VAL PHASE			
TO CONTRACT/PR: F33657-86-C-2085				CATEGORY: X		CONTRACTOR: LOCKHEED			
1) 3100	2) SOW 3.1 3)	6) ASD/TASE		10) ONE/R		12) 60DAC	14) ASD/TASE 2/0		
4) OT E62011		5) SOW 3.1	7) IT	8) D	9)	11)	13) SEE 16	ASD/TASM 2/0 ASD/TASL 2/0 ACO 1/0	
16) BLK 4: SEE APPENDIXES TO CDRL FOR DID. THIS DID IS TAILORED AS FOLLOWS: (1) CONTRACTOR FORMAT IS ACCEPTABLE. (2) CHANGE PARAGRAPH 2a OF DID TO READ: "PROGRAM RISK ANALYSIS. THIS SECTION SHALL DESCRIBE THE PLAN AND METHODOLOGY FOR A CONTINUING ASSESSMENT OF TECHNICAL, SUPPORTABILITY, COST, AND SCHEDULE RISKS OF THE SYSTEM PROGRAM. THIS SECTION SHOULD BE CONSISTENT WITH AND NOT DUPLICATE THE SYSTEM INTEGRATION PLAN (REFERENCE DI-S-3563/T); i.e., ONE PLAN MAY REFERENCE THE OTHER." BLK 13: REVISIONS SHALL BE SUBMITTED AS REQUIRED BY CHANGE RESULTING FROM THE SYSTEMS ENGINEERING PROCESS. NOTE: SCHEDULES ASSOCIATED WITH THIS PLAN SHALL BE INTEGRATED WITH THE MASTER PROGRAM PLANNING SCHEDULE SUBMITTED ON MAGNETIC MEDIA IN ACCORDANCE WITH DI-A-3007/T.							15) 7/0		
PREPARED BY:			DATE: 86 JUN 11		APPROVED BY:			DATE: 86 JUNE 11	
DD FORM 1423 ADPE ADAPTATION SEP 81 (ASD/YYD)									

**Figure 19-5. CDRL Single Data Item Requirement Example**

## Data Requirement Sources

Standard Data Item Descriptions (DID) define data content, preparation instructions, format, intended use, and recommended distribution of data required of the contractor for delivery. The Acquisition Management Systems and Data Requirements Control List (AMSDL) identifies acquisition management systems, source documents, and standard DIDs. With acquisition reform the use of DIDs has declined, and data item requirements now are either tailored DIDs or a set of requirements specifically written for the particular RFP in formats agreeable to the contractor and the government.

### DD Form 1423 Road Map

**Block 1:** Data Item Number – represents the CDRL sequence number.

**Block 2:** Title of Data Item – same as the title entered in item 1 of the DID (DD Form 1664).

**Block 4:** Authority (Data Acquisition Document Number) – same as item 2 of the DID form and will include a “/t” to indicate DID has been tailored.

**Block 5:** Contract Reference – identifies the DID authorized in block 4 and the applicable document and paragraph numbers in the SOW from which the data flows.

**Block 6:** Requiring Office – activity responsible for advising the technical adequacy of the data.

**Block 7:** Specific Requirements – may be needed for inspection/acceptance of data.

**Block 8:** Approval Code – if “A,” it is a critical data item requiring specific, advanced, written approval prior to distribution of the final data item.

### **Block 9:** Distribution Statement Required:

Category A is unlimited-release to the public.

Category B is limited-release to government agencies.

Category C limits release to government agencies and their contractors.

Category D is limited-release to DoD offices and their contractors.

Category E is for release to DoD components only.

Category F is released only as directed and normally classified.

**Block 12:** Date of First Submission – indicates year/month/day of first submission and identifies specific event or milestone data is required.

**Block 13:** Date of Subsequent Submission – if data is submitted more than once, subsequent dates will be identified.

**Block 14:** Distribution – identify each addressee and identify the number of copies to be received by each. Use office symbols, format of data to be delivered, command initials, etc.

**Block 16:** Remarks – explain only tailored features of the DID, any additional information for blocks 1-15, and any resubmittal schedule or special conditions for updating data submitted for government approval.

## SUPPLEMENT 19-D

# THE SOURCE SELECTION PLAN

Prior to solicitation issuance, a source selection plan should be prepared by the Program Manager (PM), reviewed by the Contracting Officer, and approved by the Source Selection Authority (SSA). A Source Selection Plan (SSP) generally consists of three parts:

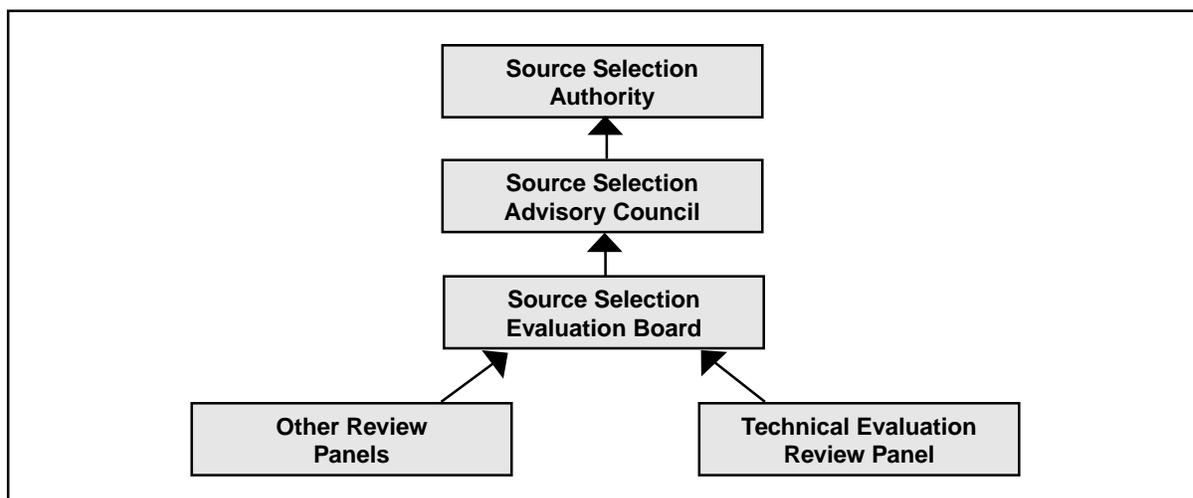
- The first part describes the organization, membership, and responsibilities of the source selection team,
- The second part identifies the evaluation factors, and
- The last part establishes detailed procedures for the evaluation of proposals.

### Source Selection Organization

The SSA is responsible for selecting the source whose proposal is most advantageous to the government. The Source Selection Advisory Council

(SSAC) provides advice to the SSA based on the Source Selection Evaluation Board's (SSEB's) findings and the collective experience of SSAC members. The SSEB generates the information the SSA needs by performing a comprehensive evaluation of each offeror's proposal. A Technical Evaluation Review Team(s) evaluates the technical portion of the proposals to support the SSEB. The process flow is shown in Figure 19-6.

The PM is responsible for developing and implementing the acquisition strategy, preparing the SSP, and obtaining SSA approval of the plan before the formal solicitation is issued to industry. The System Engineer or technical manager supports the PM's efforts. The Contracting Officer is responsible for preparation of solicitations and contracts, any communications with potential offerors or offerors, consistency of the SSP with requirements of the Federal Acquisition Regulation (FAR) and DoD FAR Supplement (DFARS), and award of the contract.



**Figure 19-6. Source Selection Process**

## SSP Evaluation Factors

The evaluation factors are a list, in order of relative importance, of those aspects of a proposal that will be evaluated quantitatively and qualitatively to arrive at an integrated assessment as to which proposal can best meet the Government's need as described in the solicitation. Figure 19-7 shows an example of one evaluation category, life cycle cost. The purpose of the SSP evaluation is to inform offerors of the importance the Government attaches to various aspects of a proposal and to allow the government to make fair and reasoned differentiation between proposals.

In general the following guidance should be used in preparing evaluation factors:

- Limit the number of evaluation factors,
- Tailor the evaluation factors to the Government requirement (e.g., combined message of the SOO/SOW, specification, CDRL, etc.), and
- Cost is always an evaluation factor. The identification of the cost that is to be used and its relative importance in rating the proposal should be clearly identified.

## Factors to Consider

There is not sufficient space here to attempt to exhaustively list all the factors that might influence the decision made in a source selection. The following are indicative of some of the key considerations, however:

- Is the supplier's proposal responsive to the government's needs as specified in the RFP?
- Is the supplier's proposal directly supportive of the system requirements specified in the system specification and SOO/SOW?
- Have the performance characteristics been adequately specified for the items proposed? Are they meaningful, *measurable*, and traceable from the system-level requirements?
- Have effectiveness factors been specified (e.g., reliability, maintainability, supportability, and availability?) Are they meaningful, *measurable*, and traceable, from the system-level requirements?
- Has the supplier addressed the requirement for test and evaluation of the proposed system element?

Rating (Points)	Evaluation Criteria – Life Cycle Cost
9-10	Offeror has included a complete Life Cycle Cost analysis that supports their proposal.
7-8	Offeror did not include a complete Life Cycle Cost analysis but has supported their design approach on the basis of Life Cycle Cost.
5-6	Offeror plans to complete a Life Cycle Cost analysis as part of the contract effort and has described the process that will be used.
3-4	Offeror plans to complete a Life Cycle Cost analysis as part of the contract effort but did not describe the process that will be used.
0-2	Life Cycle Cost was not addressed in the Offeror's proposal.

Figure 19-7. Evaluation Factors Example

- Have life cycle support requirements been identified (e.g., maintenance resource requirements, spare/repair parts, test and support equipment, personnel quantities and skills, etc?) Have these requirements been minimized to the extent possible through design?
- Does the proposed design configuration reflect growth potential or change flexibility?
- Has the supplier developed a comprehensive manufacturing and construction plan? Are key manufacturing processes identified along with their characteristics?
- Does the supplier have an adequate quality assurance and statistical process control programs?
- Does the supplier have a comprehensive planning effort (e.g., addresses program tasks, organizational structure and responsibilities, a WBS, task schedules, program monitoring and control procedures, etc.)?
- Does the supplier's proposal address all aspects of total life cycle cost?
- Does the supplier have previous experience in the design, development, and production of system elements/components which are similar in nature to the item proposed?

### **Proposal Evaluation**

Proposal evaluation factors can be analyzed with any reasonable trade study approach. Figure 19-8 shows a common approach. In this approach each factor is rated based on the evaluation factor matrix established for each criteria, such as that shown in Figure 19-7. It is then multiplied by a weighting factor based on the perceived priority of each criteria. All the weighted evaluations are added together and the highest score wins.

Like trade studies the process should be examined for sensitivity problems; however, in the case of source selection, the check must be done with anticipated values prior to release of the RFP.

Evaluation Criteria	WT. Factor (%)	Proposal A		Proposal B		Proposal C	
		Rating	Score	Rating	Score	Rating	Score
<b>A. Technical Requirements:</b>	<b>25</b>						
1. Performance Characteristics	6	4	24	5	30	5	30
2. Effectiveness Factors	4	3	12	4	16	3	12
3. Design Approach	3	2	6	3	9	1	3
4. Design Documentation	4	3	12	4	16	2	8
5. Test and Evaluation Approach	2	2	4	1	2	2	4
6. Product Support Requirements	4	2	8	3	12	2	8
<b>B. Production Capability</b>	<b>20</b>						
1. Production Layout	8	5	40	6	48	6	48
2. Manufacturing Process	5	2	10	3	15	4	20
3. Quality Control Assurance	7	5	35	6	42	4	28
<b>C. Management</b>	<b>20</b>						
1. Planning (Plans/Schedules)	6	4	24	5	30	4	24
2. Organization Structure	4	4	16	4	12	4	16
3. Available Personnel Resources	5	3	15	3	20	3	15
4. Management Controls	5	3	15	3	20	4	20
<b>D. Total Cost</b>	<b>25</b>						
1. Acquisition Price	10	7	70	5	50	6	60
2. Life Cycle Cost	15	9	135	10	150	8	120
<b>E. Additional Factors</b>	<b>10</b>						
1. Prior Experience	4	4	16	3	12	3	12
2. Past Performance	6	5	30	5	30	3	18
<b>Grand Total</b>	<b>100</b>		<b>476</b>		<b>516 *</b>		<b>450</b>
* Select Proposal B							

Figure 19-8. Source Evaluation