FAA-STD-031
April 29, 1986

U.S. Department of Transportation

Federal Aviation Administration

Standard

PREPARATION OF STATEMENTS OF WORK

FOREWORD

This standard describes the procedures for preparation and revision of Statements of Work prepared by Program Management for the Federal Aviation Administration (FAA). It is to be used for identification of contractor tasks required to support systems and equipment acquisition and non-personal service contracts in support of the National Airspace System (NAS).

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1. SCOPE

1.1 Scope. This standard sets forth requirements for preparing statements of work (SOW) in support of research, development and production phases of systems, equipment and non-personal service contracts.

1.2 Purpose. This standard provides project managers with the necessary information to prepare consistent, orderly and complete descriptions of the work effort (tasks) to be performed by contractors in support of systems, equipment and service contracts.

1.3 Classification. SOWs are classified into one of the five types listed in the following subparagraphs. The classifications are directly related to the degree of detail available for the items and required services. The descriptions provided contain adequate information for classification of SOWs.

1.3.1 Type I SOW, research phase. This SOW defines the tasks to be performed to assure attainment of project goals and objectives for prescribed research on various engineering concepts.

1.3.2 Type II SOW, demonstration phase. This SOW defines the tasks required to select systems/equipment design alternates that demonstrate, either by proofing or by prototyping, the capability of satisfying design, performance, production potential and support requirements necessary to comply with project requirements.

1.3.3 Type III SOW, development phase. This SOW defines the tasks required to control and verify development of reliable systems and equipment that comply with all project design, cost, manufacturing, maintenance, integrated logistic support, and other defined requirements.

1.3.4 Type IV SOW, production phase. This SOW defines the tasks required to verify that items, including state-of-the-art equipment developed by contractors when produced in a production environment, comply with all project goals and objectives. SOWs are not normally required for commercial equipment which can be obtained by supplier part number without modification, special testing, or analysis to verify compliance with project requirements.

1.3.5 Type V SOW, non-personal service contract. This SOW defines the tasks required by a non-personal service contract (see 6.1.1) which requires a contractors' time and effort to perform a service. The service may be related to, but does not directly involve, the development of systems and equipment. The service performed shall result in a deliverable product. The deliverable products may take the form of data or may be the visual completion of a task such as painting, installation of supplied equipment, and performance of special tests.

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2. APPLICABLE DOCUMENTS

2.1 Government documents. The following documents of the issue in effect on the date of invitation for solicitation, form a part of this standard to the extent specified herein. In event of conflict between the documents referenced herein and the contents of this standard, the contents of this standard shall be considered a superseding requirement.

STANDARDS

FAA

FAA-STD-030	Preparation of Acquisition and Procurement Package Materials

OTHER PUBLICATIONS

Military

MIL-HDBK-245	Preparation of Statement of Work (SOW).

2.2 Non-government documents. This section is not applicable to this standard.

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3. REQUIREMENTS

3.1 General. This section identifies the requirements that are applicable to Type I through Type V SOWs.

3.1.1 SOW content. SOWs shall define and describe work effort (tasks) that are to be performed to fulfill project goals and objectives. SOWs shall define tasks such as project compliance requirements contained in the Work Breakdown Structure (WBS) and subsequent Contract Work Breakdown Structure (CWBS). Studies and analysis of systems and equipment design or unique testing which cannot be defined in the system or equipment specification shall also be defined. The SOW shall not be used to modify and/or change requirements of the system and equipment specifications. SOW content shall be as specified in MIL-HDBK-245, and shall be tailored to fit the peculiar requirements of the individual acquisition. A SOW Preparation Sequence Diagram is provided in Figure 1. A general checklist to assist in SOW preparation is provided in Figure 2.

3.1.2 Task descriptions. Task descriptions shall clearly and explicitly define requirements that quantify and qualify task parameters for assessment of task outputs and completion. Task descriptions shall be limited to that unique sphere of discrete functions required to support a specific phase of systems and equipment acquisition. Consideration shall be given to the interrelationship of this standard and FAA-STD-030. The system or equipment specification shall be referenced in the SOW. Requirements for deliverable data shall be in the data exhibit as defined in FAA-STD-030.

3.1.3 SOW format. SOW format shall conform to that specified in MIL-HDBK-245.

3.1.4 Security classification. The SOW shall include any security and/or releasability constraints that will affect performance of the defined tasks.

3.2 Detail requirements. The text of each SOW shall be developed to define the information and requirements that will produce the products required to satisfy project goals and objectives in compliance with the SOW classification.

3.2.1 Type I SOW, research phase. Research tasks are directed toward exploratory development, problem solutions and/or expansion of knowledge in the basic sciences and therefore cannot be totally defined as firm requirements. However, assigned tasks shall differentiate between those requirements that can be defined as firm versus goals and objectives on which only the "best effort" can be applied. Effort shall be made to describe the goals and objectives with precision to ensure understanding. Figure 3 provides a sample of a type I SOW. Figure 4 provides a checklist to be used as a guide in selecting research tasks. Equipment specifications are not involved in this type of contract.

3.2.2 Type II SOW, demonstration phase. This SOW shall define the tasks required to demonstrate the design, performance and production potential of each item(s). This may be accomplished by proofing of requirements through studies and analysis or may require the building of prototype models. Demonstration of systems and equipment attributes are dependent upon the complexity of the items and results of applied risk assessments to determine the feasibility of available methods. When development of prototypes are required, the quantities and degree of prototyping shall be defined in the SOW. Figure 5 provides a sample of a Type II SOW. Figure 6 provides a checklist to be used as an aid and guide in selecting tasks for the demonstration phase.

3.2.3 Type III SOW, development phase. This SOW shall define those tasks required to assure that the system/equipment meets the design and production potential requisites. Demonstration phase tasks, when transitioned to development, may be applicable but shall be scaled to the minimal requirements of the development phase. Figure 7 provides a sample of a Type III SOW. Figure 8 provides a checklist to be used as a guide in selecting the tasks for the development phase.

3.2.4 Type IV SOW, production phase. This SOW shall define production related tasks. However, any task effort deferred during previous program phases (i.e., supply support, technical publications, training and etc.,) shall be addressed and action initiated to complete the tasks. State-of-the-art (SOTA) systems and equipment may also require tasks or products (in addition to the tasks required to verify adequacy of the SOTA items) that are normally required during the research and demonstration phases, i.e., reliability, mean-time-between-failure (MTBF), maintainability, mean-time-to-repair (MTTR), and demonstration testing. A thorough review of all previous phase tasks shall be conducted to ensure identification of the applicable requirements. SOWs are normally not required for commercial off-the-shelf equipment that can be obtained from wholesale and retail outlets by supplier part number. This equipment normally does not require modification, analysis or special tests to verify compliance with program requirements. Figure 9 provides a sample of a type IV SOW. Figure 10 provides a checklist for guiding the selection of production phase tasks.

3.2.5 Type V SOW, non-personal service contract. This SOW shall describe the requirements for a contractor's time and effort in support of services. Task descriptions may vary between pure research tasks where the required expertise is not available in-house to tasks such as cleaning and painting which may be better suited to performance by outside contractors. Figure 11 provides a sample of a Type V SOW. Figure 12 provides a checklist as an aid and guide in preparing the SOW. Tasks shall be developed to suit the needs of the services required and therefore cannot be explicitly defined. The checklist provides space for identification of tasks, documents as referenced, and data required to support each task. Equipment specifications are not involved in this type of contract.

4. QUALITY ASSURANCE PROVISIONS

This section is not applicable to this standard.

5. PREPARATION FOR DELIVERY

This section is not applicable to this standard.

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6. NOTES

6.1 Definitions.

6.1.1 Non-personal service contracts. The requirement for contractor support identified as independent of material procurement. The deliverable product (work performed) is managing a program or accomplishing specific tasks in support of a program without supervision by the Government during the work performance.

6.2 Acronyms and abbreviations.

CDRL	- Contract Data Requirements List
CM	- Configuration Management
CWBS	- Contract Work Breakdown Structure
DID	- Data Item Description
EMC	- Electromagnetic Compatibility
FAA	- Federal Aviation Administration
ILS	- Integrated Logistics Support
ILSMT	- Integrated Logistics Support Management Team
LSA	- Logistics Support Analysis
LSAR	- Logistica Support Analysis Record
MTBF	- Mean-time-between-failure.
MTTR	- Mean-time-to-repair.
NAS	- National Airspace System.
NTIA	- National Telecommunications Information Agency
SOTA	- State of the Art
SOW	- Statement of Work
WBS	- Work Breakdown Structure.

6.3 Tailoring. Checklist documents for SOW types I through V, when utilized by the project manager, become compliance documents for the contractor and should be tailored according to the requirements of the project. These same checklists identify data requirements and provide sufficient space for additional data item entries by the project manager.

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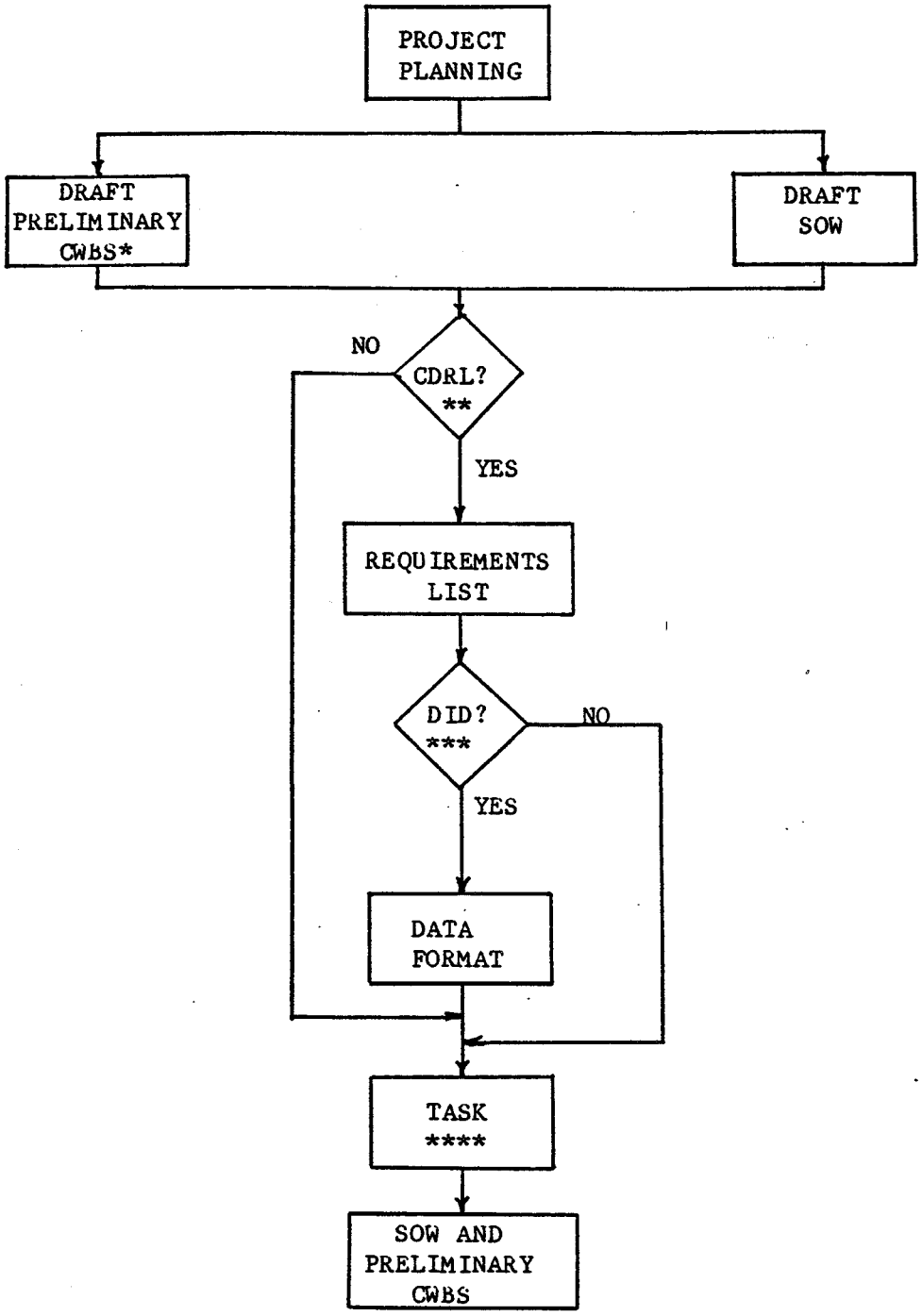

* CONTRACT WORK BREAKDOWN STRUCTURE
** CONTRACT DATA REQUIREMENTS LIST
*** DATA ITEM DESCRIPTION
**** CONTRACT TASK (SEE FIGURE 2)

Figure 1
Sequence Diagram - SOW Preparation Guide

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SOW/CDRL CHECKLIST

1. PREPARATION CONSIDERATIONS. Before developing a SOW/CDRL you should have:
   a. A clear understanding of your project objectives and constraints.
   b. Identified and analyzed similar or related efforts.
      (1) Reviewed past endeavors pertaining to your efforts.
      (2) Evaluated their applicability to your effort.
      (3) Identified the data that can be used as a base for your effort.
   c. An awareness of interfaces with other acquisitions and projects.
      (1) Are these other acquisitions compatible with your project scheduling?
      (2) Are you sure that you are not duplicating the efforts performed in other projects?
      (3) Have you contacted other project personnel for "lessons learned"?

   d. Established baseline performance and design criteria.
   e. Determined priorities to resolve conflicts such as risk versus schedule versus performance, etc.
   f. Determined project phase.
   g. Developed cost estimates.
      (1) Have you included anticipated risk factors in estimating costs?
      (2) Are you within your project budget constraints?
   h. Determined whether or not a Contract Work Breakdown Structure shall be required.
      (1) Developed a top level structure.
      (2) Identified cost drivers.
      (3) Developed a CWBS dictionary.
   i. Contacted the contracts personnel to determine the contract type.
      (1) Identified risk factors.
      (2) Determined special and general contract provisions.
   j. Selected the budgeting and cost-tracking systems.
   k. Established an Integrated Logistics Support Management Team (ILSMT) to consolidate/coordinate all support requirements.
   l. Solicited ideas from industry.
   m. Developed a SOW and CDRL schedule for preparation and review.

2. SOW PREPARATION. During the development of the SOW you shall:
   a. Develop the SOW base criteria.
      (1) Develop information concerning your acquisition.
      (2) Identify project controls and constraints.
      (3) Establish definable technical objectives.

Figure 2
SOW/CDRL Checklist
Page 1 of 3

b. Solicit inputs and requirements from project office and staff elements and disciplines.
c. Scope your acquisition objectives to the estimated cost range.
d. Hold a formal/informal data review to determine data requirements resulting from work tasks.
e. Develop a SOW outline based upon the sample formats contained herein to:
   (1) Provide logical grouping and continuity of task requirements.
   (2) Evaluate the appropriateness of the tasks.
   (3) Eliminate unnecessary or duplicate tasks.
   (4) Avoid inadvertent omission of essential tasks.
f. Cite specifications and standards listed in the Acquisition Management Systems and Data Requirements Control List to impose tasks whenever possible.
   (1) Have you ensured that these documents are of the latest issue?
   (2) Have you reviewed these documents to ensure that they are applicable to your acquisition?
   (3) Tailor as required per DOD-STD-963.
g. Avoid the use of Government regulatory documents to impose work requirements.
h. Ensure that any plans intended to be cited as compliance documents
   (1) Have been staff coordinated, approved, and meet the specific parameters of your project.
   (2) Are dated and have a project control number assigned.
i. Ensure that the project technical requirements are stipulated in an approved specification and cited for compliance.
j. Structure each task to meet a limited scope for a specific functional need.
k. Ensure that each task is relevant to the total effort and not an overemphasis caused by a parochial interest.
l. State tasks so that a contractor understands them and can satisfactorily perform them.
   (1) Confine technical language to that which is essential to clarify a task.
   (2) Use simple, direct language.
   (3) Use "shall" for mandatory and "will" for government intent.
   (4) Avoid management direction and concentrate on the nature and results of the work.
m. State tasks that are definitive enough to protect government interests yet flexible enough to capitalize on the contractor's creativity and experience.
n. Cross-reference CDRLs and the tasks which result in these data.

Figure 2
SOW/CDRL Checklist
Page 2 of 3

3. CDRL PREPARATION. During the development of the CDRL you must:
   a. Establish data requirements.
   b. Select and tailor Data Item Descriptions (DIDs).
   c. Prepare the CDRL forms.
   d. Include specific instructions regarding the tailoring of DID requirements and direction on data preparation and delivery on the CDRL form.
   e. Ensure that deliverable data are essential, cost effective and appropriate for your project phase and type of contract.
   f. Ensure that data to be delivered results from the performance of SOW tasks or contract schedule requirements and that the DIDs themselves do not generate tasks.
   g. Ensure maximum use of contractor format data preparation.
   h. Correlate each DID with a SOW task or contract schedule requirement.

4. FINAL SOW/CDRL CHECKLIST
   a. Have you ensured that all disciplines pertaining to your acquisition phase have been addressed?
   b. Have you purged the SOW of all information that does not contribute to the acquisition?
   c. Have you grouped all tasks pertaining to a specific discipline and placed them in a logical sequence?
   d. Are the tasks clear and concise? Do they accurately describe the specific work required?
   e. Have you analyzed the tasks to ensure that they do not overstate or understate the actual acquisition requirements?
   f. Is there only one interpretation of the requirement?
   g. Are the tasks free from the ambiguous terms and vague language such as "as a minimum," as necessary," "as required"?
   h. Do the tasks use the simplest words and phrases possible?
   i. Are the tasks stated in terms of performance?
   j. Are the tasks individually priceable?
   k. Do all tasks that have data resulting from their performance contain a reference to the specific CDRL sequence number?
   l. Have you excluded all data preparation and delivery instructions from the SOW?

Figure 2
SOW/CDRL Checklist Guide
Page 3 of 3

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STATEMENT OF WORK
TYPE I SOW

1. Scope

A statement defining what this SOW covers is all that is required in this section. However, in most research procurements, it is necessary to provide information on the background and alternate approaches that have been investigated. Because the results required are expressed as objectives or goal attainments in this type SOW, extra care must be exercised to ensure that work tasking and deliverable products are not discussed in this paragraph. Discuss only what the SOW covers and possibly some why's of this particular approach expressed as an introduction or background, or both.

2. Applicable Documents.

All documents invoked in the requirements section of the SOW must be listed in accordance with FAA-STD-005. These documents may include standards, specifications, and other reference documents needed to identify and clarify the work task or deliverable product. FAA Orders generally should not be invoked in the SOW to control contractor efforts. Also, any document listed in this section must be invoked and selectively tailored to meet the needs of the planned procurement.

3. Requirements

Various approaches are used in defining tasks in the SOW to meet particular program needs for research efforts. Task breakout or task phasing methods are used to simplify accomplishment and control of the effort in complex acquisitions. Requirements may be segregated into general tasks that have application to the overall program requirements.

Plans, reports, data, and other documentation are ordered by use of a DD Form 1423 CDRL. The appropriate paragraph number of the SOW must reference the CDRL that orders the desired data. A DD Form 1664, DID, is used to describe each data item ordered on the CDRL.

3.1 General.

General task statements may be included in the SOW to satisfy overall research program requirements and for planning the use of the results of the acquisition.

Figure 3. Sample Type I SOW, Research Phase
Statement of Work Type I SOW
Page 1 of 2

STATEMENT OF WORK
TYPE I SOW

3.2 Detail. The contractor shall perform the following tasks:

a. Develop .....
b. Organize .....
c. Study .....
d. Accomplish milestone and cost planning .....

Figure 3. Sample Type I SOW, Research Phase
Statement of Work Type I SOW
Page 2 of 2

TASK IDENTIFICATION	REFERENCE DOCUMENTS	DATA REQUIREMENTS		
1. PROJECT MANAGEMENT				
2.* PROJECT MANAGEMENT PLANNING	FAA ORDER 1810.1			
3.* PROJECT MANAGEMENT REPORTING	FAA ORDER 1810.1			
4. FINANCIAL MANAGEMENT PLANNING**		DI-F-6000, DI-F-6004		
5. FINANCIAL MANAGEMENT REPORTING**		DI-F-6000, DI-F-6004		
6. WORK BREAKDOWN STRUCTURE (WBS)	MIL-STD-881			
7. SYSTEM ENGINEERING MANAGEMENT				
8. DESIGN CONCEPTS				
9. DESIGN INTERFACE				
10. DESIGN ALTERNATES				
11. TRADE-OFFS (PRACTICAL AND COSTS)				
12. LIFE CYCLE COST/DESIGN TO COSTS	FAA ORDER 6000.26, FAA ORDER 1810.1			
13. SYSTEM DEVELOPMENT				
14. SOFTWARE/FIRMWARE	DOD-STD-2167			
15. SECURITY, ADP	FAA ORDER 1600.54			
16. SAFETY				
17. RELIABILITY PROGRAM	MIL-STD-785 (REF: FAA ORDER 6000.26)			
18. MAINTAINABILITY PROGRAM	MIL-STD-470 (REF: FAA ORDER 6000.26)			
19. HUMAN FACTORS	MIL-STD-1472 (REF: FAA ORDER 6000.10)			
20. FABRICATION AND ASSEMBLY				
21. SYSTEM TEST AND EVALUATION				
22. FAA SPECTRUM SUPPORT ANALYSIS	FAA ORDER 6050.19			
23.* NTIA SPECTRUM APPROVAL	NTIA RP-FRFM			
24.* DATA/DOCUMENTATION				
25. CONTRACTOR SUPPORT SERVICES				

* Identifies Mandatory Tasks, ** Cost Type Contracts

Figure 4
Checklist for Type I SOW, Research Phase
Requirements Section Tasks

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STATEMENT OF WORK
TYPE II SOW

1. Scope.

Include a statement about what this SOW covers. In some cases, some background information may be helpful to clarify the needs of the procurement.

1.1 Background.

Do not discuss work tasks in Section 1.

2. Applicable Documents.

All documents invoked in the requirements section of the SOW must be listed in this section in accordance with FAA-STD-005. These documents may include standards, specifications, and other reference documents needed to identify and clarify the work task or deliverable product. FAA Orders generally should not be invoked in the SOW to control contractor effort. Also, any document listed in this section must be invoked and selectively tailored to meet minimal needs of the planned procurement in the requirements section.

3. Requirements.

The arrangement of technical tasks and subtasks within the requirements section will be dictated by program requirements. If a WBS is being used in the program, tasks should be arranged in accordance with that work breakdown structure. As in the Type 1 SOW, it may be helpful to have a general task to orientate the planning and use of the subsequent subtasks. The following outline is a generalization and in no way reflects the ultimate SOW arrangement or requirements.

Since there is no specification governing the demonstration technical requirements, the SOW must contain all technical requirements, for example, technical objectives and goals as well as all broad technical program requirements. General design specifications normally are not invoked in this SOW.

Plans, reports, data, and other documentation are ordered by use of a DD Form 1423 CDRL. The appropriate paragraph number of the SOW must reference the CDRL that orders the desired data. A DD Form 1664, DID, is used to describe each data item ordered on the CDRL.

Figure 5. Sample Type II SOW, Demonstration Phase
Statement of Work Type II SOW
Page 1 of 2

3.1 General.

3.2 Detail tasks.

3.2.1 System engineering.

a. Technical studies - including life cycle costs.
b. System effectiveness planning, for example, reliability, maintainability, and human factors.

3.2.2 Electromagnetic compatibility (EMC) program.

3.2.3 Broad Technical Program Requirements.

3.2.4 Design-to-cost goal.

3.2.5 Configuration management (CM) program.

3.2.6 Safety and hazard engineering.

3.2.7 Quality program.

3.2.8 Integrated logistics support (ILS) program.

Requirements including Logistics Support Analysis (LSA).

3.2.9 Design, fabricate and test advanced development model.

Figure 5. Sample Type II SOW, Demonstration Phase (Cont'd)
Statement of Work Type II SOW
Page 2 of 2

TASK IDENTIFICATION	REFERENCE DOCUMENTS	DATA REQUIREMENTS		
1. PROJECT MANAGEMENT				
2.* PROJECT MANAGEMENT PLANNING	FAA ORDER 1810.1			
3.* PROJECT MANAGEMENT REPORTING	FAA ORDER 1810.1			
4. FINANCIAL MANAGEMENT PLANNING**		DI-F-6000, DI-F-6004		
5. FINANCIAL MANAGEMENT REPORTING**		DI-F-6000, DI-F-6004		
6.* WORK BREAKDOWN STRUCTURE (WBS)	MIL-STD-881			
7. SYSTEM ENGINEERING MANAGEMENT				
8. DESIGN CONCEPTS	FAA-ORDER-6000.30, FAA ORDER 4405.15			
9. DESIGN CONCEPTS, PICTORIAL	FAA-STD-002, DOD-STD-100, DOD-D-1000			
10. DESIGN INTERFACE	FAA-STD-025			
11. DESIGN ALTERNATES				
12. TRADE-OFFS (PRACTICAL AND COSTS)				
13.* LIFE CYCLE COST/DESIGN TO COSTS	FAA ORDER 6000.10, FAA ORDER 1810.1			
14. SYSTEM DEVELOPMENT				
15.* CONFIGURATION MANAGEMENT	FAA-STD-021			
16. MANUFACTURING				
17. FABRICATION AND ASSEMBLY				
18. SOFTWARE/FIRMWARE	DOD-STD-2167			
19. SECURITY, ADP	FAA ORDER 1600.54			
20.* QUALITY ASSURANCE	FAA-STD-013, FAA-STD-016, FAA-STD-018			
21.* SAFETY				
22.* RELIABILITY PROGRAM	MIL-STD-785 (REF: FAA ORDER 6000.26)			
23.* MAINTAINABILITY PROGRAM	MIL-STD-470 (REF: FAA ORDER 6000.26)			
24.* HUMAN FACTORS	MIL-STD-1472 (REF: FAA ORDER 6000.10)			
25. SYSTEM TEST AND EVALUATION				

* Identifies Mandatory Tasks, ** Cost Type Contracts

Figure 6
Checklist for Type II SOW, Demonstration Phase
Requirements Section Tasks
Page 1 of 2

TASK IDENTIFICATION	REFERENCE DOCUMENTS	DATA REQUIREMENTS		
26.* TESTS/TEST PLANS	FAA-STD-024			
27. FAA SPECTRUM SUPPORT ANALYSIS &	FAA ORDER 6050.19			
EMC/EMI				
28. NTIA SPECTRUM APPROVAL	NTIA RP-FRFM			
29.* DATA/DOCUMENTATION				
30. CONTRACTOR INSTALLATION REQUIREMENTS				
31. CONTRACTOR SUPPORT SERVICES				
32.* INTEGRATED LOGISTICS SUPPORT	NAILS PLAN			
	MIL-STD-1388-1, MIL-STD-1388-2			
	MIL-STD-1561			

* Identifies Mandatory Tasks, ** Cost Type Contracts

Figure 6 (Cont'd)
Checklist for Type II SOW, Demonstration Phase
Requirements Section Tasks
Page 2 of 2

STATEMENT OF WORK
TYPE III SOW

1. Scope.

The Scope, Section 1, identifies by a brief statement what the SOW covers for the full-scale development phase. By this point in the acquisition life cycle, introductory and background information are no longer needed and should be omitted.

2. Applicable documents.

All documents invoked in the requirements section of the SOW must be listed in this section in accordance with FAA-STD-005. These documents may include standards, specifications and other reference documents needed to identify and clarify the work task or deliverable product. FAA Orders generally should not be invoked in the SOW to control contractor effort. Also, any document listed in this section must be invoked and selectively tailored to meet minimal needs in the requirements section.

3. Requirements.

The arrangement of tasks and subtasks within the requirements section will be dictated by program requirements. If a WBS is being used in the program, tasks should be arranged in accordance with the WBS. A general paragraph, if applicable, to discuss requirements that have general overall application or that will enhance the utility of the SOW may be included.

The SOW does not implement, invoke or modify an equipment specification nor does it require the delivery of equipment. The equipment specification must control design and indicate performance of the equipment. Related non-specification requirements must be included in the SOW.

The SOW should include program requirements tasks for the continued planning and development of the contractor's design efforts. Care should be exercised to scope the program tasks to meet the needs for this phase.

Plans, reports, data, and other documentation are ordered by use of a DD Form 1423 CDRL. The appropriate paragraph number of the SOW must reference the CDRL that orders the desired data. A DD Form 1664, DID, is used to describe each data item ordered on the CDRL.

Figure 7. Sample Type III SOW, Development Phase
Statement of Work Type III SOW
Page 1 of 4

3.1 Quality program.

The specifics of the quality program requirements which apply to the particular acquisition will depend on the type and complexity of the particular system under acquisition. The SOW will include the specifics that meet FAA needs.

Other subparagraphs of quality program requirements tasks may be included in the SOW to fit the needs of the particular acquisition.

3.2 Configuration management (CM) program.

Requirements for configuration identification, control, audit and status accounting must be expressed in terms of work effort. Subparagraphs used under this program requirement may be tailored to elaborate on the details of the work effort to the degree required by the type and complexity of the acquisition.

3.3 Human engineering program.

Invoke the specifics of the appropriate document that apply to the full-scale development in terms of work effort to meet FAA needs. Elaborate to the degree necessary to define the work effort for this phase within determined limitations.

3.4 Calibration and metrology information requirements.

This element of the SOW must define requirements in terms of work effort for the development of required information. The writer may define requirements related to the desired organizational capabilities which give the contractor a basis for developing test techniques, procedures and associated equipment.

The SOW elaborates on requirements for the development of test/node point information, calibration, metrology, technical manual relationship, special tools and test equipment only in terms of work effort to be accomplished.

The SOW tasks in terms of work effort and not in terms of format, content and delivery of data.

Figure 7. Sample Type III SOW, Development Phase (Cont'd)
Statement of Work Type III SOW
Page 2 of 4

STATEMENT OF WORK
TYPE III SOW

1. Scope.

The Scope, Section 1, identifies by a brief statement what the SOW covers for the full-scale development phase. By this point in the acquisition life cycle, introductory and background information are no longer needed and should be omitted.

2. Applicable documents.

All documents invoked in the requirements section of the SOW must be listed in this section in accordance with FAA-STD-005. These documents may include standards, specifications and other reference documents needed to identify and clarify the work task or deliverable product. FAA Orders generally should not be invoked in the SOW to control contractor effort. Also, any document listed in this section must be invoked and selectively tailored to meet minimal needs in the requirements section.

3. Requirements.

The arrangement of tasks and subtasks within the requirements section will be dictated by program requirements. If a WBS is being used in the program, tasks should be arranged in accordance with the WBS. A general paragraph, if applicable, to discuss requirements that have general overall application or that will enhance the utility of the SOW may be included.

The SOW does not implement, invoke or modify an equipment specification nor does it require the delivery of equipment. The equipment specification must control design and indicate performance of the equipment. Related non-specification requirements must be included in the SOW.

The SOW should include program requirements tasks for the continued planning and development of the contractor's design efforts. Care should be exercised to scope the program tasks to meet the needs for this phase.

Plans, reports, data, and other documentation are ordered by use of a DD Form 1423 CDRL. The appropriate paragraph number of the SOW must reference the CDRL that orders the desired data. A DD Form 1664, DID, is used to describe each data item ordered on the CDRL.

Figure 7. Sample Type III SOW, Development Phase
Statement of Work Type III SOW
Page 1 of 4

3.1 Quality program.

The specifics of the quality program requirements which apply to the particular acquisition will depend on the type and complexity of the particular system under acquisition. The SOW will include the specifics that meet FAA needs.

Other subparagraphs of quality program requirements tasks may be included in the SOW to fit the needs of the particular acquisition.

3.2 Configuration management (CM) program.

Requirements for configuration identification, control, audit and status accounting must be expressed in terms of work effort. Subparagraphs used under this program requirement may be tailored to elaborate on the details of the work effort to the degree required by the type and complexity of the acquisition.

3.3 Human engineering program.

Invoke the specifics of the appropriate document that apply to the full-scale development in terms of work effort to meet FAA needs. Elaborate to the degree necessary to define the work effort for this phase within determined limitations.

3.4 Calibration and metrology information requirements.

This element of the SOW must define requirements in terms of work effort for the development of required information. The writer may define requirements related to the desired organizational capabilities which give the contractor a basis for developing test techniques, procedures and associated equipment.

The SOW elaborates on requirements for the development of test/node point information, calibration, metrology, technical manual relationship, special tools and test equipment only in terms of work effort to be accomplished.

The SOW tasks in terms of work effort and not in terms of format, content and delivery of data.

Figure 7. Sample Type III SOW, Development Phase (Cont'd)
Statement of Work Type III SOW
Page 2 of 4

3.5 Contractor services concurrent with full-scale development

The SOW must elaborate on the particulars of the required effort to the degree necessary to provide the contractor a clear understanding of the work to be performed including information concerning government or contractor furnished parts, supplies, tools or test equipment.

3.6 Installation and checkout parts identification.

The contractor is tasked to determined a range and depth of repair parts to be used to support the installation and operation of the system during the test and evaluation period. The parts must be identified for the purpose of testing and evaluating the system over a specified period of time including the ON and OFF periods of operation.

3.7 Reliability program.

The specifics of the appropriate document are selected to meet the particular needs of each acquisition. The quantitative reliability design requirements are included in the specification. Provisions for reliability demonstration tests are established in the item specification (ref. MIL-STD-781) . The SOW may include requirements for reliability program planning (ref. MIL-STD-785 and DOD-STD-2167), development of predictions, calculations and procedures. The SOW does not describe format and content or reliability plans and reports that are provided by the DID.

3.8 Maintainability program.

Specifics may be developed for this SOW task to elaborate on the work effort required for maintainability planning (ref. MIL-STD-470), prediction and analysis. The quantitative maintainability design requirements are included in the item specification (ref. MIL-STD-471). Maintainability demonstration tests are established in the specification.

3.9 Integrated logistics support (ILS) requirements.

The specific ILS efforts required should be tasked either by specific narrative statement or by invoking specific parts of the referenced ILS documents. The SOW should identify LSA requirements for the verification of each determined ILS element to the extent necessary to permit formal evaluation of the logistic support analysis record (LSAR). The provisions of MIL-STD-1388-1 and MIL-STD-1388-2 must be scrutinized to determined the elements that are applicable to the particular system being acquired.

Figure 7. Sample Type III SOW, for Development Phase (Cont'd).
Statement of Work Type III SOW
Page 3 of 4

3.10 Technical manuals and publications.

Identification of the required content and format specifications is necessary to ensure the development of the desired manuals. Subparagraphs must be developed for this task to elaborate on the type and kind of documentation required to support the material being procured. Minimal needs for the full-scale development phase may vary for the support of test and evaluation of the system.

3.11 Training requirements.

Elaborate on the type and kind of training elements that must be determined in support of the procurement. Areas to be addressed in this paragraph are training concept, level and type, training procedures, schedule, training equipment required and facilities to be used. This task may include the specific development of courses and in addition may task the contractor to conduct the course of training for a given number of personnel over a given period of time at an identified facility.

Figure 7. Sample Type III SOW, Development Phase (concl'd)
Statement of Work Type III SOW
Page 4 of 4

TASK IDENTIFICATION	REFERENCE DOCUMENTS	DATA REQUIREMENTS		
1. PROJECT MANAGEMENT PROGRAM				
2.* PROJECT MANAGEMENT PLANNING	FAA ORDER 1810.1			
3.* PROJECT MILESTONES				
4.* PROJECT MANAGEMENT REPORTING	FAA ORDER 1810.1			
5. FINANCIAL MANAGEMENT PLANNING**		DI-F-6000, DI-F-6004		
6. FINANCIAL MANAGEMENT REPORTING**		DI-F-6000, DI-F-6004		
7.* WORK BREAKDOWN STRUCTURE (WBS)	MIL-STD-881			
8.* SYSTEM ENGINEERING MANAGEMENT				
9.* DESIGN	EQUIPMENT SPECIFICATION			
10.* DESIGN REVIEWS, AUDITS	MIL-STD-1521			
11. DESIGN INTERFACE	FAA-STD-025			
12. DESIGN ALTERNATES				
13. TRADE-OFFS (PRACTICAL AND COSTS)				
14.* LIFE CYCLE COST/DESIGN TO COSTS	FAA ORDER 6000.10, FAA ORDER 1810.1			
15. SYSTEM DEVELOPMENT				
16.* INTEGRATED LOGISTICS	NAILS PLAN			
SUPPORT	MIL-STD-1561			
17.* CONFIGURATION MANAGEMENT	FAA STD-021			
18. MANUFACTURING	FAA-G-2100			
19. FABRICATION AND ASSEMBLY				
20. SOFTWARE/FIRMWARE	DOD-STD-2167			
21. SECURITY, ADP	FAA ORDER 1600.54			
22.* QUALITY ASSURANCE	FAA-STD-013, FAA-STD-016, FAA-STD-018			
23.* SAFETY				
24.* RELIABILITY PROGRAM	MIL-STD-785 (REF: FAA ORDER 6000.26)			

* Identifies Mandatory Tasks, ** Cost Type Contracts

Figure 8
Checklist for Type III SOW, Development Phase
Requirements Section Tasks
Page 1 of 2

TASK IDENTIFICATION	REFERENCE DOCUMENTS	DATA REQUIREMENTS		
25.* MAINTAINABILITY PROGRAM	MIL-STD-470 (REF: FAA ORDER 6000.26)			
26.* HUMAN FACTORS	MIL-STD-1472 (REF: FAA ORDER 6000.10)			
27.* SYSTEM TEST AND EVALUATION				
28.* TESTS/TEST PLANS				
29.* DATA/DOCUMENTATION	FAA-STD-024			
30. FAA SPECTRUM SUPPORT ANALYSIS	FAA ORDER 6050.19			
31. NTIA SPECTRUM APPROVAL	NTIA RP-FRFM			
32. REPROCUREMENT DATA PACKAGE	FAA ORDER 4405.15			
33. DEDICATED REPAIR SERVICE				
34. CONTRACTOR INSTALLATION REQUIREMENTS				
35. CONTRACTOR SUPPORT SERVICES.				
36.* TRAINING	FAA-STD-028			

* Identifies Mandatory Tasks

Figure 8 (Cont'd)
Checklist for Type III SOW, Development Phase
Requirements Section Tasks
Page 2 of 2

STATEMENT OF WORK
TYPE IV SOW

1. Scope.

The Scope, Section 1, identifies the general work areas covered in the requirements section. The scope should reveal a quick overview of WHAT the SOW covers. There should be no need for introductory or background information in a production procurement and therefore they should not be included.

2. Applicable documents

All documents invoked in the requirements section of the SOW must be listed in this section in accordance with FAA-STD-005. These documents may include standards, specifications and other reference documents needed to identify and clarify the work tasks or deliverable products. FAA Orders generally should not be invoked in the SOW to control contractor effort. Also, any document listed in this section must be invoked and selectively tailored to meet minimal needs in the requirement section.

3. Requirements.

The SOW does not implement, invoke or modify an equipment specification nor does it order delivery of equipment. The specification must control design and indicate performance of the equipment. Related non-specification requirements must be included in the SOW in support of the acquisition.

The content of the SOW will be significantly different if the procurement is a state-of-the-art buy versus a buy that has gone through development of the three previous phases. The SOW for a state-of-the-art buy may require all the headings in the previous SOWs but always tailored to the needs of the particular buy. For a state-of-the-art acquisition, review the previous phase SOWs, as well as the following minimal outline.

Plans, reports, data, and other documentation are ordered by use of a DD Form 1423 CDRL. The appropriate paragraph number of the SOW must reference the CDRL that orders the desired data. A DD Form 1664, DID, is used to describe each data item ordered on the CDRL.

3.1 Quality program.

Figure 9. Sample Type IV SOW, Production Phase
Statement of Work Type IV SOW
Page 1 of 2

3.2 Configuration management program.

3.3 Integrated logistic support (ILS) requirements.

a. Level of repair program.

b. Planned maintenance subsystem.

c. Training program.

d. Supply support (provisioning).

e. Technical manuals and publications.

3.4 Calibration and metrology.

3.5 Drawings.

3.6 Contractor services.

Figure 9. Sample Type IV SOW, Production Phase (Cont'd).
Statement of Work Type IV SOW
Page 2 of 2

TASK IDENTIFICATION	REFERENCE DOCUMENTS	DATA REQUIREMENTS		
1. PROJECT MANAGEMENT				
2.* PROJECT MANAGEMENT PLANNING	FAA ORDER 1810.1			
3.* PROJECT MANAGEMENT REPORTING	FAA ORDER 1810.1			
4.* FINANCIAL MANAGEMENT PLANNING **		DI-F-6000, DI-F-6004		
5.* FINANCIAL MANAGEMENT REPORTING **		DI-F-6000, DI-F-6004		
6.* WORK BREAKDOWN STRUCTURE (WBS)	MIL-STD-881			
7. SYSTEM ENGINEERING MANAGEMENT				
8. SYSTEM DEVELOPMENT				
9.* INTEGRATED LOGISTICS	FAA-D-2494, NAILS PLAN,			
SUPPORT	MIL-STD-1561			
10.* CONFIGURATION MANAGEMENT	FAA-STD-021			
11.* MANUFACTURING	FAA-G-2100			
12.* FABRICATION AND ASSEMBLY	FAA-G-2100			
13. SOFTWARE/FIRMWARE	DOD-STD-2167			
14. SECURITY, ADP	FAA ORDER 1600.54			
15.* QUALITY ASSURANCE	FAA-STD-013, FAA-STD-016, FAA-STD-018			
16.* SAFETY				
17.* RELIABILITY PROGRAM	MIL-STD-785 (REF: FAA ORDER 6000.26)			
18.* MAINTAINABILITY PROGRAM	MIL-STD-470 (REF: FAA ORDER 6000.26)			
19. HUMAN FACTORS	MIL-STD-1472			
20. SYSTEM TEST AND EVALUATION				
21. TESTS/TEST PLANS	FAA-STD-024			
22. DATA/DOCUMENTATION				
23. FAA SPECTRUM SUPPORT ANALYSIS	FAA ORDER 6050.19			
24. NTIA SPECTRUM APPROVAL	NTIA RP-FRFM			
25. REPROCUREMENT DATA PACKAGE	FAA ORDER 4405.15			

* Identifies Mandatory Tasks, ** Cost Type Contracts

Figure 10
Checklist for Type IV SOW, Production Phase
Requirements Section Tasks
Page 1 of 2

TASK IDENTIFICATION	REFERENCE DOCUMENTS	DATA REQUIREMENTS		
26. DEDICATED REPAIR SERVICE				
27. CONTRACTOR INSTALLATION REQUIREMENTS				
28. MICROGRAPHICS	FAA-STD-023			
29. CONTRACTOR SUPPORT SERVICES				
30. TRAINING	FAA-STD-028			

* Identifies Mandatory Tasks, ** Cost Type Contracts

Figure 10 (Cont'd)
Checklist for Type IV SOW, Production Phase
Requirements Section Tasks
Page 2 of 2

STATEMENT OF WORK
TYPE V SOW

1. Scope.

Include a statement of WHAT the SOW covers. Because of the all inclusive nature of the Type V SOW and the wide range of services ordered with this type SOW, there may be a need to include background and introductory information for the procurement. These additional topics should be included only when there is a need to provide information to a proposer/contractor that will not be coupled to a given task.

2. Applicable documents.

All documents invoked in the Requirements Section of the SOW must be listed in this section in accordance with FAA-STD-005. These documents may include standards, specifications and other reference documents needed to identify and clarify the work tasks and deliverable products. FAA Orders are promulgated to control in-house work effort but may be invoked in the SOW to control contractor effort for non-personal services acquisitions. Also, any document listed in this section must be invoked and selectively tailored to meet minimal needs in the requirements section.

3. Requirements.

3.1 Task A.

Explain precisely what work is to be performed in clear understandable terms. Set forth exactly what the government needs and wants. Define the nature of the work explicity.

3.1.1 Deliverable product.

In order that a valid non-personal services contract may exist, the effort defined in the task must result in a deliverable product. Therefore, the task must result in some tangible item that can be physically provided. Periodic progress reports are not deliverable products because they are not the product result of the task but only a management tool for monitoring progress towards the completion of the product or series of products within the contract.

Figure 11. Sample Type V SOW, Non-personal Service Contracts
Statement of Work Type V SOW
Page 1 of 2

If the product is data, that data must be identified and described in this paragraph. A CDRL is not to be used for non-personal services contracts. A general rule is that the CDRL must always be used when material is being procured. In the case of product data derived from non-personal services, the generation of DIDs would be prohibitive because of the unique nature of each task and its respective deliverable product.

3.1.2 Schedule.

Another exception to the general rules for SOW preparation is with the schedule. Normally, the schedule is contained in the body of the contract, but in the case of non-personal services the schedule can become very involved and could be confusing if it were separated from the deliverable. Therefore, a schedule of delivery must be included for every product within the subparagraph addressed to that task.

The schedule may be defined in terms of calendar dates, days after contract award after completion of task or any convenient method that is clear and meaningful. In some cases, it may be necessary to schedule preliminary and final deliveries.

3.2 TASK B.

3.2.1 Deliverable product

These paragraphs will be repeated until all tasks have been defined, deliverable products described and schedules set forth.

3.2.2 Schedule.

4. Progress report.

Describe exactly what is needed to monitor the contract progress. The desired format and content should be completely detailed including specific topics to be covered. Also, the frequency of the report must be established.

Figure 11. Sample Type V SOW, Non-personal Service Contracts (Cont'd)
Statement of Work Type V SOW
Page 2 of 2

TASK IDENTIFICATION	REFERENCE DOCUMENTS	DATA REQUIREMENTS		
1. PROJECT MANAGEMENT PLANNING	FAA ORDER 1810.1			
2. PROJECT MANAGEMENT REPORTING	FAA ORDER 1810.1			
3. FINANCIAL MANAGEMENT PLANNING				
4. TRAINING MANAGEMENT PLANNING				
5. WORK BREAKDOWN STRUCTURE (WBS)	MIL-STD-881			

Figure 12
Checklist for Type V SOW, Non-personal Service Contracts
Requirements Section Tasks

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