

Figure A-25
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(2.3.5 on OSM Documentation Requirements List)

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Contingency Plan

Section	Title	Content
1	Introduction	Provide appropriate background and summary information.
1.1	Background	Provide a brief overview of the system development project and why it is being conducted.
1.2	Scope	Explain why the Contingency Plan is needed, provide a brief overview of its organization, and indicate system-related topics that have been included in the document or excluded from consideration.
1.3	Assumptions and Constraints	Describe any factors that may affect the contingencies, responsibilities, strategies, resource requirements, and action plans described in the Contingency Plan.
1.4	Summary of the Contingency Plan	Provide a brief summary of the most important information in the Contingency Plan.
1.5	References	List pertinent standards, guidance, documentation, and any other materials used to prepare the Contingency Plan. Include vendor-supplied materials; project documentation; other in-house documentation; and Federal, departmental, agency, and industry standards and guidance.

Contingency Plan

Section	Title	Content
2	Contingencies	<p>Determine the situations for which contingency plans should be developed and the organization's priorities and commitments in the event that one of those situations occur.</p> <p>Contingencies should be identified through a rigorous risk analysis exercise which should be described in this section.</p>
2.1	Events Included	Describe each situation for which a contingency plan will be developed. Explain why each was selected.
2.2	Events Excluded	Describe each situation that was not included in the contingency plan and explain why it was not included.
2.3	Priorities	Describe the organization's priorities should any of the situations described above occur.
2.4	Support Commitments	Describe the organization's commitments to support its own goals or other organizations should any of the situations described above occur.

Contingency Plan

Section	Title	Content
3	Responsibilities	Identify key management and staff personnel and define their roles and responsibilities should any of the situations described above occur. Include at a minimum the personnel listed below.
3.1	Plan Preparation and Maintenance	Those responsible for preparing and maintaining this Contingency Plan.
3.2	Emergency Chain of Command	Those responsible for the organization's activities.
3.3	Operations Supervisor(s)	Person(s) responsible for ADP equipment and software.
3.4	Shift Supervisor(s)	Person(s) responsible for day-to-day operations of ADP equipment and software.

Contingency Plan

Section	Title	Content
4	Response Strategies	Determine a preferred strategy for the way contingencies will be handled at the site or activity. The strategy should be based on an evaluation of options for response to the emergency itself, providing continuity of operations after an emergency, and resuming normal operations. The preferred strategy should be approved by management.
4.1	Emergency Procedures	Describe the strategy for responding to an emergency. Include at a minimum the following: <ul style="list-style-type: none">• Initial notification• Evacuation procedures• Activating the emergency response center• Damage assessment• Securing the computer center• Notifying vendors• Notifying users
4.2	Continuity of Operations	Describe the strategy for establishing backup operations. Include at a minimum the following: <ul style="list-style-type: none">• Notifying the backup site• Transportation to the backup site (personnel, tapes, documentation, etc.)• Establishing a production schedule
4.3	Recovery Procedures	Describe the strategy for resuming normal operations. Include at a minimum the following: <ul style="list-style-type: none">• Preliminary planning• Site selection criteria• Facility planning• Selecting/procuring hardware• Salvaging equipment• Restoring utilities• Restoring communications• Procuring supplies• Activating the recovery site and closing the backup site

Contingency Plan

Section	Title	Content
5	Resources	<p>To be prepared in the event of a contingency, develop a directory of personnel, an inventory of critical resources, and a listing of other procedures and requirements.</p> <p>This section at a minimum should contain the information below. It should be updated as necessary.</p>
5.1	Staff	<p>Include a complete list of assigned personnel, including address, phone number, and other desired information.</p> <p>Include rosters of those to be notified in the event of an emergency.</p> <p>Assign members to and include rosters for recovery teams.</p>
5.2	Inventory	<p>Include all critical items, including at a minimum the following:</p> <p>Data — Onsite inventory, offsite inventory, and critical files needed for processing at the backup site. Describe how and when these files are updated.</p> <p>Software — System software and applications software. Include onsite and offsite inventory and how and when updates take place.</p> <p>Hardware — List should include vendor's name, address, etc. Include emergency acquisition agreement(s), sample order forms, documentation, etc.</p> <p>Supplies — List should include critical supply items and information such as part number and vendor. Provide a list of supplies needed for processing at the backup site and their location.</p> <p>Documentation — Include onsite and offsite inventory and how and when updates take place. Provide a list, including location, of documentation needed for processing at the backup site.</p>

Contingency Plan

Section	Title	Content
5.3	Procurement	Include lists of suppliers, order forms, emergency acquisition agreements, and other agreements.
5.4	Facilities	Include current site requirements and the layout of the facility, backup space available (by site), power requirements, and any other facility/environment requirements at the current site or backup site(s).
5.5	Transportation	Include current transportation needs and transportation required to implement backup and recovery operations. Consider added requirements due to emergency conditions and include procedures for obtaining emergency transportation.
5.6	Communications	Include current communications needs and communications requirements at backup site(s).
5.7	Other	Include any other issues that should be addressed, including alternate site agreements, vendor performance, liability, contracts, and so forth.

Contingency Plan

Section	Title	Content
6	Action Plans	<p>For each contingency identified in Section 2, provide a step-by-step plan for response, backup, and recovery.</p> <p>Include the person(s) responsible for implementing the procedure, how it should be implemented, how operations will be monitored, and how operations will return to normal.</p> <p>Include a separate subsection for each contingency. For example:</p> <p>6.1 Contingency 1 6.n Contingency n</p>

CONVERSION PLAN
(2.4.3 on OSM Documentation Requirements List)

Purpose	The Conversion Plan outlines the schedule and strategy for implementing a new system or an enhancement to an existing system. Implementation usually involves one-time activities that include data base conversion, parallel operations, user training, and organizational restructuring.
Content	<p>The Conversion Plan describes all required tasks necessary to accomplish the transition to the new system or enhancement. It contains procedures for</p> <ul style="list-style-type: none">• Collecting and converting data and files, including purging the data and files of obsolete information• Developing and testing computer programs to support data and file conversion• Developing the sequence of events and schedule for the phased implementation of new data bases and data processing procedures• Defining any necessary organizational realignment, including activities and a schedule for implementing those changes• Defining training required for conversion activities• Developing any special forms, procedures, or controls required for the conversion.

Figure A-26 summarizes the information required in the Conversion Plan by presenting the document's table of contents. Detailed explanations of the material that each section should contain are then found in the pages that follow.

Figure A-26
TABLE OF CONTENTS FOR CONVERSION PLAN
(2.4.3 on OSM Documentation Requirements List)

1. Overview
 - 1.1 Background
 - 1.2 Scope
 - 1.3 Assumptions and Constraints
 - 1.4 Summary of the Conversion Plan
 - 1.5 References

2. Current Environment
 - 2.1 Current System Inventory
 - 2.1.1 Hardware
 - 2.1.2 System Software
 - 2.1.3 Applications Software
 - 2.1.4 Files and Data Bases
 - 2.1.5 Overall System Complexities
 - 2.1.6 Security/Privacy Requirements
 - 2.1.7 Documentation
 - 2.1.8 Manual Procedures

 - 2.2 Operating Environment
 - 2.2.1 Facilities
 - 2.2.2 Processing Modes
 - 2.2.3 Agency Conventions and Standards
 - 2.2.4 Communications
 - 2.2.5 Personnel

3. New Environment
 - 3.1 System
 - 3.1.1 Hardware
 - 3.1.2 System Software
 - 3.1.3 Applications Software
 - 3.1.4 Files and Data Bases
 - 3.1.5 Overall System Complexities
 - 3.1.6 Security/Privacy Requirements
 - 3.1.7 Documentation
 - 3.1.8 Manual Procedures

Figure A-28 (Continued)
TABLE OF CONTENTS FOR CONVERSION PLAN
(2.4.3 on OSM Documentation Requirements List)

3.2 Operating Environment

- 3.2.1 Facilities
- 3.2.2 Processing Modes
- 3.2.3 Agency Conventions and Standards
- 3.2.4 Communications
- 3.2.5 Personnel

4. Conversion Activities

- 4.1 Methodology
- 4.2 Task Plan
- 4.3 Schedule
- 4.4 Resource Requirements
- 4.5 Interim/Fallback Operating Capability

Conversion Plan

Section	Title	Content
1	Introduction	Provide appropriate background and summary information.
1.1	Background	Provide a brief overview of the new system or enhancement and why the project was undertaken.
1.2	Scope	Explain why the Conversion Plan is needed, provide a brief overview of its organization, and indicate system-related topics that have been included in the document or excluded from consideration.
1.3	Assumptions and Constraints	Describe any factors that may affect the activities described in the Conversion Plan. Discuss any problems associated with converting the current system to the new system or enhancement.
1.4	Summary of the Conversion Plan	Provide a brief summary of the most important information in the Conversion Plan.
1.5	References	List pertinent standards, guidance, documentation, and any other materials used to prepare the Conversion Plan. Include vendor-supplied materials; project documentation; other in-house documentation; and Federal, departmental, agency, and industry standards and guidance.

Conversion Plan

Section	Title	Content
2	Current Environment	Describe the existing hardware, software, and operating environment.
2.1	Current System Inventory	Provide brief summaries and the status of the existing system in the following subsections: 2.1.1 Hardware 2.1.2 System Software 2.1.3 Applications Software 2.1.4 Files and Data Bases 2.1.5 Overall System Complexities 2.1.6 Security/Privacy Requirements 2.1.7 Documentation 2.1.8 Manual Procedures
2.2	Operating Environment	Provide brief summaries of the current operating environment in the following subsections: 2.2.1 Facilities 2.2.2 Processing Modes (batch, timesharing, etc.) 2.2.3 OSM Conventions and Standards 2.2.4 Communication Modes 2.2.5 Personnel

Conversion Plan

Section	Title	Content
3	New Environment	Describe the hardware, software, and operating environment required for the new system or enhancement.
3.1	System	Provide brief summaries of hardware and software requirements in the following subsections: 3.1.1 Hardware 3.1.2 System Software 3.1.3 Applications Software 3.1.4 Files and Data Bases 3.1.5 Overall System Complexities 3.1.6 Security/Privacy Requirements 3.1.7 Documentation 3.1.8 Manual Procedures
3.2	Operating Environment	Provide brief summaries of the proposed operating environment in the following subsections: 3.2.1 Facilities 3.2.2 Processing Modes (batch, timesharing, etc.) 3.2.3 OSM Conventions and Standards 3.2.4 Communication Modes 3.2.5 Personnel

Conversion Plan

Section	Title	Content
4	Conversion Activities	Provide a detailed description of the conversion effort.
4.1	Methodology	Describe the specific methodology to be used in the conversion process (for example, parallel conversion, cutover, or phased implementation). Relate that methodology to the conversion effort proposed.
4.2	Task Plan	Provide a detailed conversion task description for each component of the new system or enhancement that will be implemented. Include the purpose of the task, how the task will be accomplished, resources required, and expected results.
4.3	Schedule	Using the target completion date as a fixed milestone, schedule each of the tasks described in the previous section in terms of dependencies and known constraints. The schedule should be updated as resource levels are determined.
4.4	Interim/Fallback Operating Capability	<p>Describe any temporary processing procedures that may be required during the conversion.</p> <p>Describe procedures to cover all reasonable contingencies that could occur during the conversion.</p>

USER TRAINING PLAN
(2.4.4 on OSM Documentation Requirements List)

- Purpose** The User Training Plan outlines requirements for instructing management, operations, and clerical personnel in the use of a new system or an enhancement to an existing system. It identifies those who will receive the training, the materials to be used, the staff who will conduct the training, curriculum development activities, and the training schedule. Each of these components must be comprehensively designed and carefully implemented if the training effort is to be a success. The plan also alerts management as to the impact of the training program on system implementation and operation as well as day-to-day activities.
- Content** The User Training Plan provides detailed information on users to be trained, materials to be used in the training, the staff who will conduct the training, the curriculum (both content and development), and the training schedule, including its impact on normal operations. It includes details on training facility and resource requirements and organizational responsibilities.
- The final User Training Plan includes the complete course curriculum, all materials, including teaching guides and class handouts, and the evaluation report.

Figure A-27 summarizes the information required in the User Training Plan by presenting the document's table of contents. Detailed explanations of the material that each section should contain are then found in the pages that follow.

Figure A-27
TABLE OF CONTENTS FOR USER TRAINING PLAN
(2.4.4 on OSM Documentation Requirements List)

1. Introduction
 - 1.1 Background
 - 1.2 Scope
 - 1.3 Assumptions and Constraints
 - 1.4 Summary of Training Activities
 - 1.5 References
2. Training Requirements
 - 2.1 Schedule
 - 2.2 Computer Resources
 - 2.3 Training Materials
 - 2.4 Facilities
3. Training Responsibilities
 - 3.1 Development of Training
 - 3.2 Conducting Training
 - 3.3 Attending Training
 - 3.4 Evaluation of Training
4. Resource Requirements
 - 4.1 Development of Training
 - 4.2 Conducting Training
5. Training Curriculum
 - 5.1 Course 1
 - 5.1.1 Objective
 - 5.1.2 Prerequisites
 - 5.1.3 Curriculum
 - 5.1.4 Details
 - 5.1.5 Materials
6. Evaluation of Training
 - 6.1 Ways to Obtain Feedback
 - 6.2 Evaluation of Training
 - 6.3 Evaluation Report

User Training Plan

Section	Title	Content
1	Introduction	Provide appropriate background and summary information.
1.1	Background	Provide a brief overview of the system development project and why it is being conducted.
1.2	Scope	Explain why the User Training Plan is needed, provide a brief overview of its organization, and indicate system-related topics that have been included in the document or excluded from consideration.
1.3	Assumptions and Constraints	Describe any factors that may affect the training requirements, responsibilities, and plans described in the User Training Plan.
1.4	Summary of Training Activities	Provide an overview of the training required to install, implement, operate and maintain the new system or enhancement. Identify specific courses.
1.5	References	List pertinent standards, guidance, documentation, and any other materials used to prepare the User Training Plan. Include vendor-supplied materials; project documentation; other in-house documentation; and Federal, departmental, agency, and industry standards and guidance.

User Training Plan

Section	Title	Content
2	Training Requirements	Provide training logistics information and requirements, including their impact on normal operations.
2.1	Schedule	Describe each training milestone, including course development activities. Include the location(s), participating organization(s), and a tentative schedule for each course.
2.2	Computer Resources	Describe the computer resources that will be needed for the training. Include terminals, modems, telephone lines, software, and so forth.
2.3	Training Materials	List materials needed for the training; for example, documentation, software (and on what media), video cassettes, example input and output.
2.4	Facilities	Describe the location of the training and any materials (furniture, audiovisual equipment, office supplies, and so forth) needed at that site.

User Training Plan

Section	Title	Content
3	Training Responsibilities	Identify staff requirements for the training. Include names or functions and the amount of time that will be needed, plus the impact on normal operations. Discuss responsibilities of government and contractor personnel, and those of developer and user personnel. Include special requirements as necessary.
3.1	Development of Training	Identify staff responsibilities for development of the training curriculum.
3.2	Conducting Training	Identify staff responsibilities for conducting the training sessions.
3.3	Attending Training	Identify the staff members who will attend the training sessions.
3.4	Evaluation of Training	Identify the staff members who will evaluate the training sessions.

User Training Plan

Section	Title	Content
4	Resource Requirements	Describe resources needed for the training sessions. Include staff and equipment.
4.1	Development of Training	Identify the resources needed to develop the training curricula.
4.2	Conducting Training	Identify the resources needed to conduct the training sessions.

User Training Plan

Section	Title	Content
5	Training Curriculum	<p>Provide a detailed description of and outline for each training session. Include a separate subsection for each course. For example:</p> <p>5.1 Course 1 5.n Course n</p> <p>Include at a minimum the following information.</p>
5.1.1	Objective	Describe the objective(s) of the course.
5.1.2	Prerequisites	Identify the knowledge base required for the course.
5.1.3	Curriculum	Describe each course and the media or materials needed to present it. Include a course outline.
5.1.4	Details	Provide information on characteristics of the course, including the number of instruction hours, maximum and minimum number of students, the type of training (for example, formal classroom, hands-on, self-study), the type of instruction (for example, lecture, video, demonstration), and qualifications of the instructor(s).
5.1.5	Materials	List specific materials necessary for the course (for example, publications, reference materials, films).

User Training Plan

Section	Title	Content
6	Evaluation of Training	Describe training evaluation methods and responsibilities.
6.1	Ways to Obtain Feedback	Present specific descriptions of training-related feedback methodologies to be employed.
6.2	Evaluation of Training	Describe the evaluation forms that will be employed and the units of measure that will be used to evaluate the training feedback.
6.3	Evaluation Report	Describe the formal evaluation report that will be included in the final User Training Plan at the conclusion of the training activity. Include a summary analysis of evaluation forms completed during each training session.

PROGRAM MAINTENANCE MANUAL
(2.4.6 on OSM Documentation Requirements List)

- Purpose** The Program Maintenance Manual is used by analysts and programmers who are maintaining or developing improvements to a new system or an enhancement to an existing system. It provides the information they need to understand the coded programs, the system's operating environment, and maintenance procedures.
- Content** The Program Maintenance Manual contains detailed descriptions of programs and their operating environments. It explains maintenance procedures and, in an appendix, includes all program source code.

Figure A-28 summarizes the information required in the Program Maintenance Manual by presenting the document's table of contents. Detailed explanations of the material that each section should contain are then found in the pages that follow.

Figure A-28
TABLE OF CONTENTS FOR PROGRAM MAINTENANCE MANUAL
(2.4.6 on OSM Documentation Requirements List)

1. Introduction
 - 1.1 Background
 - 1.2 Scope
 - 1.3 Assumptions and Constraints
 - 1.4 Summary of the Program Maintenance Manual
 - 1.5 References

2. Operating Environment
 - 2.1 Hardware
 - 2.2 Support Software
 - 2.2.1 Operating System
 - 2.2.2 Compiler/Assembler
 - 2.2.3 Other Software

 - 2.3 Data Base

3. Description of Programs
 - 3.1 Program 1
 - 3.1.1 Description
 - 3.1.2 Input
 - 3.1.3 Processing
 - 3.1.4 Output
 - 3.1.5 Interfaces
 - 3.1.6 Tables
 - 3.1.7 Run Description
 - 3.1.8 Source Code

 - 3.n Program n

4. Program Maintenance
 - 4.1 Programming Conventions
 - 4.2 Verification Procedures
 - 4.3 Error Correction Procedures
 - 4.4 Special Maintenance Procedures
 - 4.5 Listings and Structure Charts

Appendix A—Source Code

Program Maintenance Manual

Section	Title	Content
1	Introduction	Provide appropriate background and summary information.
1.1	Background	Provide a brief overview of the new system or enhancement and why it is being implemented.
1.2	Scope	Explain why the Program Maintenance Manual is needed, provide a brief overview of its organization, and indicate system-related topics that have been included in the manual or excluded from consideration.
1.3	Assumptions and Constraints	Describe any factors that may affect the applicability of the procedures described in the manual.
1.4	Summary of the Program Maintenance Manual	Provide a brief summary of the most important information in the manual.
1.5	References	List pertinent standards, guidance, documentation, and any other materials used to prepare the manual. Include vendor-supplied manuals; project documentation; other in-house documentation; and Federal, departmental, agency and industry standards and guidance.

Program Maintenance Manual

Section	Title	Content
2	Operating Environment	Provide brief descriptions of the various components of the operating environment of the new system or enhancement.
2.1	Hardware	Identify the equipment required to operate the new system or enhancement. Describe any unusual features that are implemented. Relate the hardware to the requirements for each program. Include the following information: <ul style="list-style-type: none">• Processor and amount of internal storage• Online and offline storage, including media, form, and devices• Online and offline input and output devices• Data transmission devices.
2.2	Support Software	Identify the support software employed by each program.
2.2.1	Operating System	Identify and describe the operating system, including the version or release number and any unusual features implemented.
2.2.2	Compiler/Assembler	Identify and describe the compiler/assembler, including the version or release number and any unusual features implemented.
2.2.3	Other Software	Identify and describe any other software used (for example, data management systems, report generators, and so forth).
2.3	Data Base	Describe the data base, including file/record layouts, codes, units of measurement, format, and range of values. Reference the Data Dictionary for more complete information.

Program Maintenance Manual

Section	Title	Content
3	Description of Programs	<p>Describe each program used by the new system or enhancement from the maintenance programmer's perspective. If describing a complex system, group the programs by application, describe the application, and relate each program and its function to the application. Use tables and matrices as needed to indicate cross-references and relationships. Include separate subsections for each program or group of programs. For example:</p> <p>3.1 Program 1 3.n Program n</p> <p>Include at a minimum the following information for each program or group of programs.</p>
3.1.1	Description	<p>Identify the program by title, tag or label, and programming language. Identify all modules in the program and indicate the relationships among them. Describe the problems to be solved or the functions to be executed by the program and how the solution or execution is accomplished.</p>
3.1.2	Input	<p>Describe the data input to the program and provide a layout. Include information such as media, codes, units of measurement, format, and range of values. Provide cross-references to the Data Dictionary and Data Base Specification.</p>
3.1.3	Processing	<p>Describe processing characteristics relevant to the maintenance programmer. For example:</p> <ul style="list-style-type: none">• Processing logic• Linkages• Variables and constants• Formulas• Error handling• Restrictions and limitations• Locations, settings, internal switches, and flags• Shared storage.

Section	Title	Content
3.1.4	Output	Describe the output of the program and provide a layout. Identify the media used and all modules employed. Provide cross-references to the Data Dictionary and Data Base Specification.
3.1.5	Interfaces	Describe interfaces with other software. Include information such as data formats, messages, parameters, conversion requirements, interface procedures, and media.
3.1.6	Tables	Identify each table and its items. Describe the location, purpose, and structure of each.
3.1.7	Run Description	Describe the procedures used to run the program. Include loading, operating, terminating, and error handling.
3.1.8	Source Code	Reference the Source Code in Appendix A.

Program Maintenance Manual

Section	Title	Content
4	Maintenance Procedures	Describe program maintenance activities. These activities can be grouped into one section or broken out by individual programs or groups of programs, depending on their consistency from program to program. The following information should be included.
4.1	Programming Conventions	Identify and describe the programming conventions used to develop the new system or enhancement.
4.2	Verification Procedures	Describe the procedures used to check the performance of the programs, both in general and following modifications. Include a reference to test data and testing procedures.
4.3	Error Correction Procedures	Describe all error conditions, their causes, and procedures for correction.
4.4	Special Maintenance Procedures	Describe any special procedures required to maintain the programs. Include information such as periodic purges of the data bases, temporary modifications for leap years or century changes, and so forth.
4.5	Listings and Structure Charts	Reference, append, or describe how to obtain copies of program listings and flowcharts.

USER'S MANUAL
(2.4.8 on OSM Documentation Requirements List)

Purpose The User's Manual explains how to execute the various functions of a new system or an enhancement to an existing system. It may be limited to one application or a series of applications. It serves as a reference document for use in preparing input data and explains how to interpret the results.

Several factors determine whether a User's Manual is required and, if required, how much detail it should contain. The major consideration is the extent of user involvement with the new system or enhancement.

Content The User's Manual addresses direct user involvement with a new system or an enhancement to an existing system; thus it should be written with a non-technical reader in mind. It explains how to prepare inputs to and interpret outputs from a particular application or series of applications. The manual covers three areas: general information about the system, an overview of the system, and detailed instructions for using the system.

Because the best format for the user's manual depends on the application design as well as the target audience, the outline for the manual can be revised as necessary.

Figure A-29 summarizes the information required in the User's Manual by presenting the document's table of contents. Detailed explanations of the material that each section should contain are then found in the pages that follow.

Figure A-29
TABLE OF CONTENTS FOR USER'S MANUAL
(2.4.8 on OSM Documentation Requirements List)

1. Introduction
 - 1.1 Background
 - 1.2 Scope
 - 1.3 Assumptions and Constraints
 - 1.4 Summary of the User's Manual
 - 1.5 References
2. System Overview
3. Applications
 - 3.1 Application 1
 - 3.1.1 Operation
 - 3.1.2 Equipment
 - 3.1.3 Structure
 - 3.1.4 Performance Characteristics
 - 3.1.5 Inputs, Data Preparation, and Outputs
 - 3.1.6 Data Base
 - 3.1.7 Interfaces
 - 3.n Application n
4. Procedures
 - 4.1 Application 1
 - 4.1.1 System Access
 - 4.1.2 Initiation
 - 4.1.3 Input
 - 4.1.4 Output
 - 4.1.5 Backup
 - 4.1.6 Error and Recovery
 - 4.1.7 File Query
 - 4.1.8 Audits and Controls
 - 4.n Application n
5. Non-Routine Procedures

User's Manual

Section	Title	Content
1	Introduction	Provide appropriate background and summary information.
1.1	Background	Provide a brief overview of the new system or enhancement and why the project was undertaken.
1.2	Scope	Explain why the User's Manual is needed, provide a brief overview of its organization, and indicate system-related topics that have been included in the document or excluded from consideration.
1.3	Assumptions and Constraints	Describe any factors that may affect the procedures described in the User's Manual.
1.4	Summary of the User's Manual	Provide a brief summary of the most important information in the User's Manual.
1.5	References	List pertinent standards, guidance, documentation, and any other materials used to prepare the User's Manual. Include vendor-supplied materials; project documentation; other in-house documentation; and Federal, departmental, agency, and industry standards and guidance.

Section	Title	Content
2	System Overview	<p>Discuss when and how the new system or enhancement is used and what advantages it provides to the organization.</p> <p>Identify and briefly describe the hardware and (if applicable) telecommunications systems used by the new system or enhancement.</p> <p>Identify and briefly describe the software used by the new system or enhancement. Provide a diagram showing the inputs, outputs, data files, and sequence of operations.</p> <p>Identify and briefly describe each program executed by the new system or enhancement.</p> <p>Identify each permanent file or data base that is a part of the new system or enhancement.</p>

Section	Title	Content
3	Applications	<p>Describe the applications that make up the new system or enhancement from the functional perspective. Include a separate subsection for each application. For example:</p> <p>3.1 Application 1 3.n Application n</p> <p>Include the following introductory information:</p> <ul style="list-style-type: none">• Purpose• Capabilities• Functions performed• When and how the application is used• Advantages provided to the organization. <p>The remainder of the subsection should contain the following information.</p>
3.1.1	Operation	<p>Show how the application relates to the functions of the organization that provides input to and receives output from the new system or enhancement. Describe security and privacy considerations.</p>
3.1.2	Equipment	<p>Describe equipment related to use of the application.</p>
3.1.3	Structure	<p>Describe the components that make up the application and describe their logical role in the application's operation.</p>
3.1.4	Performance Characteristics	<p>Provide quantitative information on inputs, outputs, response times, processing times, and error rates. Provide qualitative information about flexibility and reliability.</p>
3.1.5	Inputs, Data Preparation, and Outputs	<p>Describe data input to the application, the flow of data through the processing cycle, and the resulting output. Include any applicable relationships among the inputs and outputs.</p>

User's Manual

Section	Title	Content
3.1.6	Data Base	Describe the files in the data base(s) supported, updated, or referenced by the application. Include the reasons why each file is maintained.
3.1.7	Interfaces	Describe any interfaces between this application and other applications, as well as applications to which this application may send data or from which it may receive data.

Section	Title	Content
4	Procedures	<p>Provides the step-by-step procedures required to run each application. Include a separate subsection for each application. For example:</p> <p>4.1 Application 1 4.n Application n</p> <p>Include at a minimum the following information.</p>
4.1.1	System Access	<p>Describe how to access system resources. Explain security and privacy procedures.</p>
4.1.2	Initiation	<p>Describe how to start the application.</p>
4.1.3	Input	<p>Define the requirements for preparing input data and parameters. The following considerations may apply:</p> <ul style="list-style-type: none">• Reasons for input• Frequency of input• Origin of the input data• Media used for the input data• Restrictions such as priority, security, and access limitations• Quality control actions such as checking to see if the data is reasonable, taking action when data appears to be in error, and documenting errors• Retaining or releasing data files that have been input. <p>Describe the input format. Provide the layout forms used in initial preparation of program data and parameters. Explain each entry on the forms. Describe input rules and conventions such as characters per line or per item, labels, sequence, punctuation, allowable and forbidden combinations, optional items, and controls.</p> <p>Provide examples of each complete input form. Include control or header, text, trailer, omissions, and repeats.</p>

Section	Title	Content
4.1.4	Output	<p>Describe requirements related to output. The following considerations may apply:</p> <ul style="list-style-type: none">• Use (by whom and for what)• Frequency (daily, weekly, on demand, etc.)• Variations that may be available• Destination (for example, computer area, remote terminal)• Media (print, diskette, screen, etc.)• Quality control actions such as identification, checking for reasonable data, editing, and error correction• Disposition actions (retaining, releasing, distributing, or transmitting, with regard to priority and security). <p>Provide the layout of each type of output. Include the layout forms and explain each entry such as header, body (text, columns, record layouts, etc.), and trailers or summaries.</p> <p>Provide examples of each complete input form. Define each information variable and explain its use. Include its source and characteristics such as conditions under which it appears, range of values, unit of measure, etc.</p>
4.1.5	Backup	<p>Describe any backup procedures that are executed by users.</p>
4.1.6	Error and Recovery	<p>List error codes or conditions generated by the application. Include corrective actions that can be taken by the user. Indicate procedures to be followed to ensure that restart and recovery capability can be used.</p>
4.1.7	File Query	<p>Provide instructions necessary to initiate, prepare, and process data base queries. Describe query capabilities, forms, commands, and control instructions. Reference related materials that provide detailed information such as query capabilities, languages, conventions, and procedures.</p>

User's Manual

Section	Title	Content
4.1.8	Audits and Controls	Describe system audit and control procedures that are executed by users.

User's Manual

Section	Title	Content
5	Non-Routine Procedures	Provide detailed procedures to follow when emergency or non-routine situations occur while the new system or enhancement is operating. Include at a minimum the personnel to contact in such situations.

OPERATIONS MANUAL
(2.4.9 on OSM Documentation Requirements List)

- Purpose** The Operations Manual is geared toward the ADP personnel who will actually run a new system or an enhancement to an existing system. It contains information and procedures needed to efficiently operate the system once it enters the operations and maintenance phase of its life cycle.
- Content** The Operations Manual describes job setup procedures, production schedules, control procedures, and job output distribution requirements specific to applications. It explains quality-control requirements and procedures such as verification of output, and it defines job streams for on-demand and predetermined processing cycles. Computer equipment, special software, and other processing requirements are specified.

Figure A-30 summarizes the information required in the Operations Manual by presenting the document's table of contents. Detailed explanations of the material that each section should contain are then found in the pages that follow.

Figure A-30
TABLE OF CONTENTS FOR OPERATIONS MANUAL
(2.4.9 on OSM Documentation Requirements List)

1. Introduction
 - 1.1 Background
 - 1.2 Scope
 - 1.3 Assumptions and Constraints
 - 1.4 Summary of the Operations Manual
 - 1.5 References

2. System Overview
 - 2.1 Hardware
 - 2.2 Software
 - 2.3 Programs
 - 2.4 Files and Data Bases

3. Description of Runs
 - 3.1 Run Inventory
 - 3.2 Run Progression
 - 3.3 Run Descriptions
 - 3.3.1 Run 1
 - 3.3.1.1 Control Inputs
 - 3.3.1.2 Operating Procedures
 - 3.3.1.3 Input/Output Files
 - 3.3.1.4 Output Reports
 - 3.3.1.5 Reproduced Output Reports
 - 3.3.1.6 Backup Procedures
 - 3.3.1.7 Restart/Recovery Procedures

 - 3.3.n Run n

4. Non-Routine Procedures

Operations Manual

Section	Title	Content
1	Introduction	Provide appropriate background and summary information.
1.1	Background	Provide a brief overview of the new system or enhancement and why the project was undertaken.
1.2	Scope	Explain why the Operations Manual is needed, provide a brief overview of its organization, and indicate system-related topics that have been included in the document or excluded from consideration.
1.3	Assumptions and Constraints	Describe any factors that may affect the procedures described in the Operations Manual.
1.4	Summary of the Operations Manual	Provide a brief summary of the most important information in the Operations Manual.
1.5	References	List pertinent standards, guidance, documentation, and any other materials used to prepare the Operations Manual. Include vendor-supplied materials; project documentation; other in-house documentation; and Federal, departmental, agency, and industry standards and guidance.

Operations Manual

Section	Title	Content
2	System Overview	Describe the hardware, software, programs, files, and data bases used by the system.
2.1	Hardware	Identify and briefly describe the hardware and (if applicable) telecommunications systems used by the system. Reference additional documentation as appropriate.
2.2	Software	Identify and briefly describe the software used by the new system or enhancement. Provide a diagram showing the inputs, outputs, data files, and sequence of operations. Runs may be grouped by time cycles, organizational level, or other criteria.
2.3	Programs	Identify and briefly describe each program executed by the new system or enhancement. Include title, number, and mnemonic reference.
2.4	Files and Databases	Identify each file or data base that is referenced, created, or updated by the system. Include the title, mnemonic reference, storage medium, required storage, and other pertinent characteristics such as whether the file or data base is temporary or permanent, index files associated with the file or data base, and so forth.

Operations Manual

Section	Title	Content
3	Description of Runs	Describe the functions executed by the system as it processes information.
3.1	Run Inventory	List all runs possible, summarize the purpose of each, and identify schedules. Show the programs that are executed in each run.
3.2	Run Progression	Describe how the runs progress from one to another so that the entire run cycle is completed.
3.3	Run Descriptions	Organize the information on each run into the most useful presentation for the operations center and operations personnel involved. Include a separate subsection for each run. For example: 3.3.1 Run 1 3.3.n Run n Include at a minimum the following information.
3.3.1.1	Control Inputs	List the run stream control statements needed for the run.
3.3.1.2	Operating Procedures	Provide information for the operations center personnel and management. For example: <ul style="list-style-type: none">• Run identification• Operating requirements• Initiation method (on request, predetermined cycle, etc.)• Estimated run time and turnaround time• Step-by-step procedures, including operator commands and messages• Procedures to be followed and individuals to be contacted in the event of problems with the run.

Section	Title	Content
3.3.1.3	Input/Output Files	<p>Provide information about files created or updated by the run. For example:</p> <ul style="list-style-type: none">• File name or label• Recording media• Retention schedule• Disposition of file.
3.3.1.4	Output Reports	<p>Provide information on each output report or each type of report. For example:</p> <ul style="list-style-type: none">• Report identification• Media• Volume of report• Number of copies• Distribution.
3.3.1.5	Reproduced Output Reports	<p>Provide information on output reports that are computer-generated, then reproduced by other means. For example:</p> <ul style="list-style-type: none">• Report identification• Reproduction technique• Dimensions of paper or other media• Binding method• Distribution.
3.3.1.6	Backup Procedures	<p>Describe any procedures that may be required to back up the system, programs, files, or data bases.</p>
3.3.1.7	Restart/Recovery Procedures	<p>Describe in detail procedures used to restart the run or recover from a failure.</p>

Operations Manual

Section	Title	Content
4	Non-Routine Procedures	Provide any necessary information about emergency or non-routine operations (for example, switching over to a backup system, turning the system over to maintenance programmers). Identify relevant documentation that describes the procedures to be followed under non-standard circumstances.

DATA BASE ADMINISTRATION PROCEDURES MANUAL
(2.4.10 on OSM Documentation Requirements List)

- Purpose** The Data Base Administration Procedures Manual provides guidelines and procedures for managing and maintaining system-specific data bases. It is used by personnel at the data processing facility, where it may be kept separate or incorporated into a facility procedures manual that may cover multiple systems with data bases of their own.
- Content** The Data Base Administration Procedures Manual contains the organization of data base administration functions; procedures related to data base performance, sizing, security, backup, and recovery; and descriptions of the user's view of the data base with cross-references to more detailed information in the Data Dictionary.

Figure A-31 summarizes the information required in the Data Base Administration Procedures Manual by presenting the document's table of contents. Detailed explanations of the material that each section should contain are then found in the pages that follow.

