DOCUMENT 501-90

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UNIVERSAL DOCUMENTATION SYSTEM HANDBOOK





VOLUME 1

SYSTEM DESCRIPTION

RANGE COMMANDERS COUNCIL

WHITE SANDS MISSILE RANGE KWAJALEIN MISSILE RANGE YUMA PROVING GROUND ELECTRONIC PROVING GROUND DUGWAY PROVING GROUND

PACIFIC MISSILE TEST CENTER NAVAL WEAPONS CENTER ATLANTIC FLEET WEAPONS TRAINING FACILITY NAVAL AIR TEST CENTER NAVAL UNDERWATER SYSTEMS CENTER

EASTERN SPACE AND MISSILE CENTER AIR FORCE DEVELOPMENT TEST CENTER WESTERN SPACE AND MISSILE CENTER CONSOLIDATED SPACE TEST CENTER AIR FORCE FLIGHT TEST CENTER AIR FORCE TACTICAL FIGHTER WEAPONS CENTER

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VOLUME 1

SYSTEM DESCRIPTION

AUGUST 1989

Prepared by Documentation Group Range Commanders Council

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Published by

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PREFACE

The Range Commanders Council (RCC), recognizing the need for rapid turnaround support of range user requirements and the efficiencies to be derived from electronic word and data processing systems, has in this edition of the handbook, developed a Universal Documentation System (UDS) format adaptable to electronic processing while continuing to meet the needs of the manual (typewritten) subscriber to the system.

This handbook supersedes all previous issues of RCC document 501-79, volumes 1, 2, 3, and supplement 2, document 501-84. Existing programs may use the previous procedures and forms as agreed between the user and the support agency. All new programs developing documentation will use the procedures and formats contained in these volumes.

Additional copies of this handbook may be obtained from any agency listed in paragraph 1.6 or from the

SECRETARIAT RANGE COMMANDERS COUNÇIL ATTN: STEWS-SA-R WHITE SANDS MISSILE RANGE, NEW MEXICO 88002

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CHAPTER 1

INTRODUCTION

1.1 General

This handbook describes the Universal Documentation System (UDS). The UDS is used to formally document requesting agency program support requirements and support agency capabilities and commitments to support those requirements. The UDS handbook is published in three basic volumes and a supplement.

Volume 1 describes the total UDS structure, the individual documents within the system, and the use and control of the system.

Volume 2 includes sample formats and describes procedures for preparation of the Program Introduction (PI), Program Requirements Document (PRD), and the Operations Requirements (OR).

Volume 3 includes sample formats and describes procedures for preparation of the Statement of Capability (SC), Program Support Plan (PSP), and Operations Directive (OD).

A complete list of RCC documents pertaining to the UDS and to other documents can be found in the List of Available Documents available through the RCC Secretariat, White Sands Missile Range.

1.2 Applicability

The UDS shall be used by all agencies desiring support from agencies that have adopted the UDS. Requesting agency requirements documents and support agency response documents will be prepared in accordance with the format and procedures in this handbook and with any supplemental instructions prepared by the support agencies.

1.3 Authority

The Documentation Group (DG) of the Range Commanders Council (RCC) has the responsibility for design and control of the UDS. The UDS and the procedures contained in this handbook have been approved by the RCC.

1.4 Handbook Revision

Recommendations for revision of this handbook may be made to the DG members at the agencies listed in Paragraph 1.6. Recommendations for revision must include the reason for the change, deletion, or addition and a sample of the change with its instructions. The DG is responsible for reviewing the recommendation and, on approval, for its incorporation and implementation. Normal changes do not require RCC approval; however, unusual or controversial changes may require RCC approval at the discretion of the DG.

1.5 Definitions

Some of the terms that are frequently used in this handbook are defined next. For a more complete listing, refer to RCC documents

501-79, UDS Uniform Test Data and Data Product Nomenclature, Supplement 1 and 502-81, A Glossary of Range Terminology.

Range/Support Agency: A range/support agency is an operational facility that provides support services to qualified users as determined by current directives. The words "range," "center," and "support agency" are used interchangeably.

User/Requesting Agency: Any United States or foreign government agency, industrial organization, or other institution with authority to use range or support agency resources.

Sponsor: Any element of a government, military, or civilian agency with authority to use range or support agency resources.

User Requirement: Any item of support requested by a requesting agency through the UDS.

Derivative Requirement: Any item of support required by one agency from another to meet the first agency's responsibility as levied by a user requirement.

Interagency Program: A program requiring the participation of more than one range or support agency.

Lead Range/Lead Support Agency: The range/support agency that is responsible for coordinating total support planning and operations for a particular program, mission, or test. The lead range/lead support agency identifies the support required from other agencies and coordinates the total support effort.

1.6 Information and Assistance Sources

Prospective users of the UDS may obtain assistance in the preparation of requirements from the agencies listed below:

Commanding General White Sands Missile Range Attn: Range Programs Division (NR-P) White Sands Missile Range, New Mexico 88002-5113

Commander, U.S. Army Kwajalein Atoll Attn: CSSD-KT Post Office Box 26 APO San Francisco, California 96555

Commander, Pacific Missile Test Center Attn: Range Programs Management Division (Code 3210) Point Mugu, California 93042-5000 Eastern Space and Missile Center Attn: Directorate of Plans, Programs and Requirements (XR) Patrick Air Force Base, Florida 32925-5572

Western Space and Missile Center Attn: 6595th TEG/XR Vandenberg Air Force Base, California 93437-6021

Air Force Flight Test Center Attn: Programs and Requirements (XR) Edwards Air Force Base, California 93523-5000

National Aeronautics and Space Administration John F. Kennedy Space Center Attn: NASA-Air Force Management Office (EX-NAM) Kennedy Space Center, Florida 32899-5000

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CHAPTER 2

ORGANIZATION AND STRUCTURE

2.1 Purpose

The UDS provides a common language and format for stating requirements and for preparing support responses. The UDS encompasses documentation generated by user agencies which states program, mission, or test requirements and those response documents generated by the support agencies to define the support to be provided.

2.2 Objectives

The UDS objectives

1. establish a common language and format to provide more effective communication between the user and support agency,

2. standardize requirement and support methodology between the user and the support agency to achieve an effective planning/perform-ance interface,

3. provide a standard yet flexible and dynamic system that meets the requirement and support needs of both simple and complex programs, and

4. provide a format for automation and manual handling of requirements and support information.

2.3 Concept

The UDS is intended to establish standardization, yet be flexible enough to be used by a number of different agencies and to apply to both small and large programs without disturbing the basic system concept. Flexibility permits separate instructions to be prepared by each support agency for implementation of the UDS at that agency. These supplemental instructions may contain procedures and policies for the applicability and scope, submission, and revision of documentation.

2.4 System Criteria

The UDS is based on a common structure to enable users to employ one basic format when presenting requirements to support agencies. This structure is defined in a document outline that combines related subjects of the various program, mission, or test phases into a minimum number of broad categories for simplicity and ease of understanding. The UDS structure relates support plans to requirements with a minimum of repetition. The system provides all the necessary information that should pass between the user and all contributing agencies to support the program, mission, or test. The system is sufficiently flexible to be used by support agencies without affecting the internal management of the individual agencies.

2.5 Document Organization

The UDS provides for the following three levels of user and support agency documentation:

LEVEL USER REQUIREMENTS DOCUMENTS SUPPORT AGENCY RESPONSE DOCUMENTS

- 1Program Introduction (PI)Statement of Capability (SC)2Program RequirementsProgram Support Plan (PSP)
- Document (PRD) **3** Operations Requirements Operations Directive (OD)
- (OR)

Level 1. The Level 1 documents (the PI and SC) are used to initiate program support planning between users and support agencies.

<u>Level 2</u>. The Level 2 documents (the PRD and PSP) may be required to provide additional or more detailed program information, especially for the more complex programs.

Level 3. The Level 3 documents (the OR and OD) are used to plan individual operations within a program.

2.5.1 Level 1 Documents

<u>Program Introduction (PI)</u>. The PI document is the initial planning document submitted by a potential user to the support agency immediately upon identification of the scope and duration of program activity. The potential user should submit the PI using best available information, enabling the support agency to initiate resource and technical planning. This information, while sometimes fragmentary and incomplete, is of substantial value to the support agency in determining the scope of the program. For many programs, the PI is designed to eliminate further documentation except for conduct of specific operations.

Statement of Capability (SC). The SC document is the support agency's response to the PI. When properly signed, the SC is evidence that a program has been accepted for support by the support agency, subject to approval by higher headquarters when applicable. Support conditions, qualifications and resources, or other considerations are initially identified by this document and serve as a baseline reference to subsequent acceptance and commitment by the support agency. The PI and the SC complement each other in establishing the scope of the program support activity.

2.5.2 Level 2 Documents

<u>Program</u> <u>Requirements</u> <u>Document (PRD)</u>. The PRD is prepared by the range user and is a detailed full program planning document normally required for complex or long lead-time programs.

<u>Program Support Plan (PSP)</u>. The PSP is a response to the requirements presented in the PRD and is prepared by the responsible support agency.

2.5.3 Level 3 Documents

<u>Operations</u> Requirements (OR). The OR document describes in detail the program's requirements for each program, mission, specific test, or series of tests. It is prepared by the user.

<u>Operations</u> <u>Directive</u> (OD). The OD is the support agency's response to the OR and is the detailed plan for implementation of support functions for a program, mission, specific test, or series of tests.

2.6 Supplemental Documentation

The UDS includes provisions for supplemental documentation. This supplemental documentation includes extracts of selective portions of the basic documents and supplements that are actually parts of the basic documents but do not exist under the same basic cover nor follow the same management or distribution pattern. The required supplemental documentation is determined by joint user-support agency agreement at the time of program initiation.

2.6.1 Document Extracts

Document extracts relate to derivative requirements where requirements placed on a given support agency result in the generation of additional (derivative) requirements that must be placed on other agencies. Derivative requirements relate to the lead support agency concept where one agency is given overall support responsibility when the total support involves a number of agencies.

Examples of document extracts are

<u>Program Requirements Document Extract (PRDE)</u>. The PRDE becomes necessary when requirements which are placed on an agency in turn create additional (derivative) requirements that must be levied on other agencies. These requirements occur when it is not appropriate to levy the original PRD on these other agencies. The derivative requirements are prepared using PRD formats in accordance with the standard UDS outline in appendix A.

Operations <u>Requirements</u> <u>Extract (ORE)</u>. The ORE is identical to the PRDE except that it applies to the OR and relates to the lead support agency concept where the lead agency must levy derivative requirements on other agencies. In general, the basic requirements will be extracted from the user's original OR and expanded upon by the lead agency.

2.6.2 Section Supplements

Section supplements break out detailed information of a particular section for separate distribution and in general, will be restricted to the larger programs. On the larger programs, certain requirements such as data formatting, processing, and display are quite voluminous and apply to only a minority of people concerned with the program. It is appropriate that these requirements be prepared and distributed under separate cover. These supplements may be sections of either a PRD, PSP, OR, or OD. They are stand-alone documents and are not bound with the basic document. They are, however, identified as a section of the appropriate document and retain the same format and numbering system as described for Level 2 and 3 UDS documents.

2.7 Other Documentation

Program, mission, or test requirements documents in all instances must be understandable and stand on their own; however, there is much supporting information that must be documented and related to the requirements so that support may be provided. Examples of such information are antenna patterns, trajectory data, pyrotechnics, explosive forces range safety procedures, schedules, test operation procedures, security guides, and mission rules and assignments. If this information is documented separately, it should be referenced in the UDS program documentation which is being developed.

2.8 Draft Conferences

When PI, PRD, and OR drafts are prepared, conferences may be held for new programs to discuss the complexity of the support and to consider foreseeable difficulties. The conferences provide the opportunity to begin coordination early, to discuss security classifications, and to assess support questions. The support agency distributes the draft and advises all interested user and support agency personnel when and if they are required to attend a draft conference.

2.9 Document Structure

The UDS provides for a building block concept of developing and presenting requirements.

2.9.1 <u>General</u>

Requirements documents, the Program Introduction (PI), Program Requirements Document (PRD), and the Operations Requirements (OR) are literally extensions of each other and are used exclusively or in tandem with each other depending on the size and complexity of the program. For example, the PI is the document that officially introduces a program, mission, or test to a support agency. The support agency, because of the size or complexity of the program, may require that the PI be followed by the PRD and OR to more definitively state requirements.

2.9.2 Document Outline

The UDS document outline is a common numbering system which provides for the standard presentation of information by UDS subscriber agencies and serves as the framework for all documents within the UDS. Section numbers, (first four digits, for example, 1405) and associated titles are controlled and assigned by the RCC DG.

The UDS outline is composed of the following major section groups:

Sections 1000 - 1999 contain Program Administrative and Technical Information

Sections 2000 - 6999 contain Test/Mission Operational Requirements

The UDS Document Outline and applicable UDS Requirements/Response documents are outlined in appendix A.

The sections are structured to provide a definitive area in which to include requirements and respective support agency responses. The outline, coupled with pre-defined formats and instructions, contained in volumes 2 and 3 of the UDS serve as a checklist to prevent pertinent data from being overlooked. Only those UDS sections that best suit the needs of the particular program, mission, or test being documented need be used. The UDS documents need not be limited to the statement of pure requirements or responses. Informational data may be provided as deemed necessary to clarify stated requirements and responses. If, however, the information or background material is voluminous, reference to a supplemental document should be considered. Pictures, sketches, or graphics may also be provided under separate Supplemental documentation should be cross referenced in the cover. UDS document.

In some cases such as composite systems, the UDS outline provides for a requirement to be stated as a composite system or as independent systems. Coordination between the requesting agency and the support agency will determine the best approach for documenting such requirements. Complex requirements should be further broken down within the appropriate UDS section to allow for simple interpretation and response by the support agency.

Where requirements are minimal, as in the case of small programs, or when the requirements are only generally defined at the program planning stage, user agency requirements may be stated in the general section of each UDS section or subsection.

2.10 Document Implementation

The UDS is designed to accommodate as many conditions as practical. While it is most desirable to have single Level 1 documents (for example, a PI and SC that contain total program information), it is also acceptable to have several PIs and SCs. This latter approach is used when different support agencies provide support for unique and unrelated phases of program, mission, or test. For example, one agency supports engine tests for Program "X," another agency provides on-orbit support for Program "X."

The same philosophy applies to Level 2 documents. A single PRD and PSP will, wherever practical, contain all program level information. However, it is acceptable to have multiple PRDs and PSPs as explained above.

The most detailed level of requirements and support is contained in Level 3 documents which describe specific requirements and support. The OR/OD documents will be prepared as single or multiple documents as required for effective management at the user and support agencies.

The UDS documents may be provided by use of electronic word and data processing systems or manual (typewritten) methods. The method of implementation and the type and schedule of documents will be negotiated by the lead support agency and the user.

2.10.1 Standard Formats

Standard UDS formats are provided for entering requirements and support responses. These formats provide for all the necessary information that should pass between the user and all contributing support agencies to support the program, mission, or test. Standard formats also provide for standardization of requirements presentation and ensure proper interpretation and response. Only those standard formats that best suit the requirements of the particular program or test/mission need be used.

2.10.2 Format Identification

Approved UDS formats are identified for each UDS section. Format numbers are assigned by the RCC DG for each UDS section format and are identified by using the corresponding section number for each format. The UDS Sections 1000 through 6999 are used. Exception is made for a general purpose format as explained below.

Format numbers are assigned for the PI and SC for each section and are individually identified in the lower right portion of the format adjacent to the classification line in the following manner:

UDS 1010 PI	UDS 1010 SC
(Date of Approval)	(Date of Approval)

A multi purpose general format is provided for the PI and SC and may be used to supplement or extend information or requirements. The general format is identified in the lower right portion of the format adjacent to the classification line in the following manner:

UDS GEN PI UDS GEN SC (Date of Approval) (Date of Approval)

The format numbers for PRD/OR formats (R=REQUIREMENTS) and PSP/OD formats (S=SUPPORT) are assigned for each section and are individually identified in the lower right portion of the format adjacent to the classification line in the following manner:

UDS 1010 R UDS 1010 S (Date of Approval) (Date of Approval)

A multipurpose general format is provided for the PRD/OR and PSP/OD and may be used to supplement or extend information or requirements. The general format is identified in the lower right portion of the format adjacent to the classification line in the following manner:

UDS GEN R UDS GEN S (Date of Approval) (Date of Approval)

The month and year of format approval by the RCC DG is printed below the format number.

Approved UDS formats for PSP/OD use shall be numbered to correspond to the PRD/OR format to which it responds. For example, when format 1040 R is used in PRD Section 1040, the format for PSP Section 1040 shall bear the number 1040 S. The PRD/OR and PSP/OD formats need not be identical, but may be the same depending on the type of response data to be entered. Exception is made for the multipurpose general format previously explained.

2.11 Security Classification

The safeguarding of classified information is the mutual responsibility of all personnel. Adherence to the related and established security procedures is mandatory. Details for the proper handling of classified documents are found in the applicable agency security guides, manuals, and regulations.

The originating agency of a UDS document is responsible for identifying the information to be protected including application of the proper security classification designators and any other special security markings required. When the classified sections of large documents are few in number, it may be expedient to provide unclassified basic documents with the classified portions provided in a separate classified document extract. Classified extracts will have limited distribution and be subject to the control imposed by their classification. Classified extracts should be cross referenced in the basic unclassified document.

2.12 Document Revision

A revision is considered to be any information added, deleted, or revised in any section of a UDS document. Revisions may be made either by preparing a completely new document or by submitting the revised information. In any case, users are requested to discuss all proposed revision with the lead support agency. Pen and ink revisions submitted by letter are permissible for small changes; however, the changes should be incorporated into the next revision to the document. The UDS documents will reflect the revision number and date of the revision. Revisions shall be numbered consecutively beginning at O1. It is recommended that the basic document be reissued, incorporating all revisions when the number of revisions cause the document to be unmanageable. The Revision Control Section 1031 will be used to identify the scope of the revision and shall be transmitted with any revised pages. Section 1030 also provides a historical record of revisions made to the document. In some automated systems, the date of the revision may be used in lieu of the revision number.

The use of the symbol "R" in column 72 to identify revised lines in a format is encouraged and should be used whenever practical. In subsequent revisions of a section, delete all Rs applicable to the preceding revision.

2.13 Document Reproduction

The documents prepared by the user must be of reproducible quality.

2.14 Document Distribution

Each document should contain its own document distribution (UDS 1020) section. This section lists the agencies or activities to receive the document and the number of copies each should receive. The user will identify distribution for requirements documents; support activities will normally cover the distribution in the requirements document plus any distribution peculiar to operating elements for the required support. Internal organization sub levels not appropriate for inclusion in the 1020 section may be included elsewhere with the document as referenced in the 1020 section.

2.15 Document Cancellation

The user or originator notifies the lead support agency by letter when a PI, PRD, or OR is to be canceled. The notice includes the title, number, and date of the document. Cancellation of the requirements document automatically cancels the corresponding support document. The lead support agency is responsible for notifying recipients of the cancellations.

2.16 Document Disposition

The official file copy will be maintained and retired by the responsible agency in accordance with applicable records disposition directives. All other copies may be destroyed upon completion or cancellation of the program. Computerized copy, disks, diskettes, or tapes will be handled as prescribed by local regulations for storage or processing.

CHAPTER 3

USER AGENCY REQUIREMENTS DOCUMENTATION

3.1 General

Requirements documents (Program Introduction (PI), Program Requirements document (PRD), and Operations Requirements (OR)) are prepared by the user agency according to a schedule negotiated by the lead agency and user. The support agency normally takes the lead in schedule establishment because it is the most knowledgeable with respect to support acquisition and implementation. The requirements for a program, mission, or test are included in a PI, PRD or OR, or in combinations as the program, mission, or test size dictate. The initial issue of each document includes the information needed to present the requirements which are known at the time of issue. Emphasis should initially be placed on identifying requirements which call for longrange planning action even though detailed use or implementation details may not be known. As more information becomes available. revisions are made to incorporate the additional data. The prime consideration is to ensure the earliest possible receipt of requirement information at the support agency.

The user should make every effort to ensure that the requirements documentation is sufficient in scope to include all known and anticipated program requirements. For this reason, an accepted PI, PRD, or OR should be revised when there is a significant change in the user's program. For example, changes in such items as program scope, milestone dates, test vehicle characteristics, operating or launch locations, and support requirements require document revision.

The user is responsible for ensuring that requirements are promptly submitted at the request of the support agency and in accordance with scheduled lead times to allow for planning, funding, software development, and construction; that requirements documents reflect all major requirements; that all requirements are necessary to meet the program, mission/test objectives; and that all requirements have been officially approved and signed. The user is also responsible for ensuring that each requirements document contains a Section 1020 - Distribution List, and that the list identifies the number of copies needed to fulfill the user organization distribution requirements. Following initial distribution, the user is responsible for all additional copies.

3.2 Support Agency Review

Support agencies will review requirements documents received from the user. Acceptance by the support agency is dependent upon adequacy of information and format. Acceptance by a support agency also directs the staff and operating elements of the support organization to prepare the response documents and necessary plans for support.

Support agencies shall assign a document number, establish a suspense date for the publication of the resulting support documentation, notify the various support organizations of the suspense date, and publish requirements document extracts and support documentation. The support agency will also supplement user documentation distribution lists. If further documentation is required, the support agency may provide the user with a block of numbers to identify these documents.

3.3 Objectives Categories and Requirements Classes

Support agency resources and support agency development are planned and based on valid support requirements submitted by the user. The requirements are those needed to meet user program, mission, or test objectives. To ensure that requirements will be met, the user must determine the objectives category and the requirements class (accuracy) and relate these to basic user needs. Because these objectives and accuracy requirements are vital to support agency planning and development, it is necessary to precisely define categories of objectives and classes of accuracies as well as to establish discrete levels of priorities that relate to these objectives and accuracies.

3.3.1 Objectives Categories

The three objectives categories, I, II, and III, are defined next.

<u>Category</u> I. Category I objectives are mandatory to the program, mission, or test. These objectives are those items which if not accomplished would significantly impact program schedules, costs, and verification of system performance.

<u>Category II</u>. Category II objectives are required to make the program, mission, or test a complete success but are not mandatory. In other words, they are objectives that could be sacrificed for performance, cost, time, or other constraints.

<u>Category III</u>. Category III objectives are desirable for such items as design research, environmental research, associated projects, and supporting engineering effort. Generally, they are objectives that would be beneficial to meet if support can be provided with existing support agency capability.

3.3.2 Requirements Classes

Requirements classes relate to accuracy and reflect degrees of instrumentation accuracy that are used for implementing, planning, and developing support agency capability. The three classes are described next.

<u>Class I</u>. Class I accuracy represents the minimum acceptable accuracy values or integral of coverage that is acceptable to the user. Class I needs, coupled with objective priority, are generally used for budget justification planning, engineering planning, and operational support planning.

<u>Class II</u>. Class II accuracy represents more stringent values that would achieve program, mission, or test objectives to a greater degree of accuracy. Class II needs are generally used by the support agency in short-range improvement/optimization planning and implementation to meet the more stringent future requirements.

<u>Class</u> <u>III</u>. Class III accuracy generally represents the ultimate in desired capability as well as the state-of-the-art requirement used by the support agency in long-range improvement and development planning.

3.3.3 Requirement Priority Classification

A priority must be defined to evaluate requirements on an overall program, mission, or test basis. The three classifications, defined next, are mandatory, required, and desired.

<u>Mandatory</u>. A mandatory classification is the minimum requirement that is essential to achieve program, mission, or test objectives.

Required. A required priority is support that would materially aid in achieving all objectives and is necessary for detailed analysis of system performance.

<u>Desired</u>. A desired requirement is any support which can be obtained in addition to the mandatory or required classification.

3.4 <u>Requirements</u> Documentation Lead Time

Lead times vary considerably from program to program depending on the scope of support needed. Requirements documentation lead times are established by the user agency and support agency. Nominal lead times, based on past experience, are presented below:

INITIAL DOCUMENTATION SUBMISSION

(Lead Time in Years)

SCOPE OF AUGMENTATION NEEDED	DESIRED	REQUIRED
Major additions requiring new facility construction.	4 1/2	3 1/2
Extensive software development or additions to instrumentation not requiring major facility construction.	3 1/2	2 1/2
Moderate software development or instrumentation additions funded by the user.	2	1
Minor software development or instrumentation improvements.	1	1/2

Requirements documentation is submitted well in advance of the first requested support or test date. This time is needed for the support agency to provide the required software, facilities or instrumentation and to review, accept, approve, publish, and distribute the necessary support documentation.

3.5 <u>Requirements</u> Documentation (PI, PRD, OR)

Requirements documentation is compiled in accordance with the general instructions contained in chapter 2, the UDS outline in appendix A, the standard formats and instructions in volume 2, and the specific instructions described next.

3.5.1 Program Introduction (PI)

The PI is the document that officially introduces a program, mission, or test to a support agency and establishes the scope of program activity. Within the defined scope, the user has freedom in planning specified operations in detail. The support agency, however, will decide if further detail should be included in the PI or if more detailed documentation is required.

New program requirements may impose a need for additional tracking coverage, additional data products, different frequencies, or other accommodations not available at the support range. The criteria and qualifications of such requirements should be stressed in the PI. Users with programs involving orbital operations or large weapon systems should consider the program in phases. Phase examples are prelaunch, orbital, recovery, test location, development, and system components. In these cases, the user should identify in the PI those requirements that differ and those that are unique to a particular phase. If a particular requirement is program-wide and does not differ, then such a distinction is not necessary.

3.5.2 Program Requirements Document (PRD)

The PRD, as a detailed program planning document, contains the user's desired support requirements from the support agency and may contain supplemental information needed for clarity. The need for a PRD is determined during the analysis of the PI or during early planning meetings and will be stated in the SC. A PRD is submitted immediately when identified. The user should not delay submittal of the PRD because of incomplete knowledge of support requirements. If required by the support agency, the PRD is submitted by the user agency according to a schedule negotiated by the lead agency and the user.

3.5.3 Operations Requirements (OR) Document

The OR document is a mission-oriented document that describes in detail the program's requirements for each program, mission, specific test, or series of tests and is prepared by the user. The PRD and OR must be complete documents capable of standing alone. The OR must not reflect new requirements that were not previously stated in the PI and PRD. The OR format must be consistent with the UDS outline in appendix A and the formats in volume 2. If the OR is required by the support agency, it is submitted by the user agency according to a schedule negotiated by the lead agency and user.

3.6 <u>Requirements</u> for Support Agencies

Section 6020 of the UDS is used for imposing support requirements on other agencies in interrange operations and is mainly used by a lead support agency. When prepared by a lead support agency, section 6020 is added to the requirements document before distribution. If the lead support agency requires support from more than one agency, a separate section 6020 will be prepared for each. When prepared by a support agency other than the lead agency, the additional information will be added to the lead support agency attachment. Pages added by a supporting agency will continue the numbering sequence initiated by the lead agency.

Extracts of the PRD/OR are prepared by the support agency when requirements are such that planning support must be accomplished before authorization to acquire a capability is given. The extract documents relate to derivative requirements where requirements placed on a lead support agency result in additional (derivative) requirements that must be placed on other agencies. Derivative requirements relate to the lead support agency concept where one agency is given overall support responsibility when the total support involves a number of agencies (refer to chapter 4).

CHAPTER 4

SUPPORT AGENCY RESPONSE DOCUMENTATION

4.1 General

This chapter pertains specifically to support agency documentation and supplements the information contained in chapter 2. Support agency response documents (Statement of Capability (SC), Program Support Plan (PSP), and the Operations Directive (OD)) are prepared by the support agency in response to the approved requirements prepared and submitted by the user agency. Response documents are revised by the support agency when requirements are changed or support is revised.

4.2 Support Documentation (SC, PSP, OD)

The following subparagraphs describe the Statement of Capability, Program Support Plan, and Operations Directive.

4.2.1 Statement of Capability (SC)

The SC provides a response to the user's PI. The PI, in combination with the approved SC, forms a basic agreement between the user and the support agency and guides the more detailed planning directives to support organizations.

Wherever possible, the SC responds to the PI on an item-for-item basis. Responses may be presented in the general section of each UDS section or subsection when further breakdown is not warranted. In some cases, the support agency may respond to the PI on an exception basis rather than with a definitive support plan. Also at the discretion of the support agency, commonly supplied items and requirements that can be satisfied with existing capability may be answered in a general all-inclusive statement. The approach taken depends generally on the nature and the purpose of the program.

When the support agency capability will not meet the requirements stated in the PI, the SC specifies such restraints and limitations. The SC may also serve to support funding policy directives, and assign existing facilities such as launch complexes, office space, assembly, and storage areas available to meet requirements stated in the PI. If the user requires new construction, the SC may provide site approval by the support agency.

4.2.2 Program Support Plan (PSP)

The PSP is the support agency's response to the PRD. The initial PSP issue includes an item-for-item response to the program requirements which are known at the time of issue and stated in the PRD. The PSP formats and instructions provided in this handbook are designed similarly, to the PRD to provide parallel association between the requirements and the support responses.

The PSP document, when designed by the support agency using the UDS formats, may be short or long in content. Short document content includes only those sections essential for conveying the requirements and for confirming the support. Short documents may contain only a few sections related to administration and document control followed by Section 2030 - Support Commitment and Section 2060 - Support Requirements Which Cannot Be Met. Section 2080 - Requester's Responsibilities, and any others such as Section 2070 - Engineering Plans and Schedules may also be included. Routine boiler plate material which may be program common knowledge is usually reflected in a welldeveloped PRD.

Long document content includes all necessary document responses and is not simply limited to a statement of the support to be provided. Enough background material will be included so the manner in which the requirements are going to be met can be clearly conveyed in a single document. Sections 1000 through 1999 are used to provide information only, and as such do not respond to the PRD requirements. Sections 2000 through 6999 are responses to specific PRD requirements unless designated support agency information items. The UDS sections used for information items in a PSP are identified in section 1040, which will serve as a table of contents for the document.

4.2.3 Operations Directive (OD)

The OD is the support agency's response to the OR and details each support function role, the support equipment, the technical configuration, and the personnel duties involved in supporting the test or operation. The OD may provide management information or technical requirements and guidelines. It is a listing of expected coverage detailing the support posture of the support agency for the test covered by the particular OD. Requirements that cannot be met must be identified. The OD is normally prepared in sufficient detail to furnish instructions for a specific test or test series.

The OD is organized according to the UDS outline in appendix A and formats in volume 3. The outline may be further structured by the support agency to provide ready-access to information at operating locations. The support agency defines section structure as needed. The major UDS section numbers and titles may not be altered and should, where possible, provide association between a requirement and the support response.

The OD may be supplemented with standard operating procedures (SOPs), extracts, or similar documentation. The appropriate section in the OD will contain a reference to the applicable SOP and a short statement (one or two sentences) outlining the type of equipment and procedures used. Examples of such standard procedures are radar and telemetry set-ups. The OD must be written in clear, concise technical language that is subject to one interpretation only. All abbreviations must be consistent with the abbreviations used in the OR. A common understanding of such terms is essential. Other terms and abbreviations must not be used unless completely defined when first used in each document. Not more than one abbreviation will be used to indicate the same subject, nor must any one abbreviation be used with more than one meaning.

CHAPTER 5

DOCUMENT PREPARATION PROCEDURES

5.1 Implementation Methods

The UDS can be implemented using either automated or manual methods. While there are some features that are unique to each method, generally the documents and the structures are the same for both. The difference is primarily the method (automated or manual) of completing the standard formats and preparing the documents.

5.1.1 Manual Method

The manual techniques and format follow the automated method very closely. The format is the same, using 8 1/2 by 11 inch paper, and is shown in figures 1 and 2. The document content is organized according to the outline given in appendix A. The nature of the information should be that typically shown in the formats contained in volumes 2 and 3 of this handbook. Only those formats applicable need to be used. The document then would be typewritten and reproduced according to local capability and regulations. Close coordination between the range and range user is essential during the draft stages of the documents. Documents at levels 1, 2, and 3 should follow the guidance provided in this handbook. Unique to the manual method is the retention and use of the standard formats as blank forms. The formats in volumes 2 and 3 of this handbook are examples of the formats to be used for the manual preparation of UDS documents and are displayed in 12 pitch.

5.1.2 Automated Method

The requirement for electronic transmission and processing of UDS information has increased yearly. As a result, the automated UDS system must have flexibility to quickly adapt to changing user requirements. An 8 1/2 by 11 inch format was selected for universal compatibility. Primary considerations are to allow use of electronic processing and communications equipment to expedite processing of UDS documents, thus reducing reproduction and distribution time for document transactions between users, and also to allow easy access to master record storage. Other features of automation allow information coding, electronic sorting, and automatic data entry expansion capa-The information content is the same as described in appendix bility. A and the formats shown in volumes 2 and 3. Graphs, charts, and photographs which are not readily adaptable to existing electronic storage and transmission equipment may be handled separately as provided in paragraph 2.7, Other Documentation.

The basic form for automated documentation is for requirements and support commitments to be recorded in separate documents, for example, a PRD and a PSP. An optional method provides for combined support requirements and commitments. This method generally is used where support commitments are only a short or abbreviated response. However, either the basic or the optional method of providing support commitments may be expanded by the support agency as necessary to provide greater detail. If deemed necessary, a fully-worded reply may be provided separately and can contain an engineering plan, an engineering implementation timetable, a funding plan, and a cost summary in any degree of detail desired.

5.2 Page Format

The RCC Documentation Group recognizes that documentation preparation resources vary at support ranges and within the user community. The format described here was developed to provide for minimum structure and maximum flexibility among UDS subscribers. Within the framework of this basic format, support ranges and users may develop UDS documentation to maximize preparation, publication, and dissemination. A degree of freedom may be used in the preparation of documentation; however, the support range will identify the minimal UDS documentation required to process user requirements.

5.2.1 Classification Markings

Space has been provided at the top and bottom of each format page to accommodate classification markings. The highest security classification of information appearing on a page will be centrally placed at the top and bottom of the page. Computer-generated classification markings will be made conspicuous with a space between each character in the word and with a series of three asterisks before and after the classification. Unclassified pages will also be marked; however, no spaces will appear between each character in the word unclassified. For example

> * * * UNCLASSIFIED * * * * * C O N F I D E N T I A L * * * * * * S E C R E T * * *

Additional security markings will be appropriately placed by the cognizant security authority. The documenting agency is responsible for adjusting the formats to accommodate necessary security classification markings.

5.2.2 Format Structure

The UDS page format is 72 (10 or 12 pitch) horizontal characters and 66 vertical lines on a 8 1/2- by 11-inch page (see figures 1, 2, and 3). The format is subdivided into three elements: header, body, and footer. The body of the format page is separated from the header and footer by a series of 72 equal signs (=), called break lines. Break lines permit easy access to the information while ignoring the header and the footer. No line within the body may exceed 70 columns of text. The 71st column is always blank. Revised lines are identified by placing an R in the 72nd column (see figures 1 through 3). To maximize full page print, the format provides for the sequential listing of UDS sections and data descriptions. The UDS section titles act as separators between UDS sections, while a series of 70 dashes (-) act as separators between individual items within the section. To accommodate the electronic exchange and processing, the standards, described next, have been applied to each of the format elements.

5.2.2.1 Header Standards

Each UDS document page shall contain a standard header consisting of five elements described below: classification, program title, document type/number, revision number, and date.

CLASSIFICATION: See paragraph 5.2.1.

PROGRAM TITLE: Identifies the title/name of the program document, for example, WIDGET.

DOCUMENT TYPE/NUMBER: Identifies the UDS document type (PI, SC, PRD, PSP, OR, OD) followed by the assigned program, operation, or other identification number, for example, PRD/11111.

REVISION: Identifies the revision number of the document. Original (unrevised) documents carry the revision number "00." This number shall be incremented by 1 with each published revision, for example, 01, 02, 03.

<u>Note</u>: In some automated systems, the date of the revision may be used in lieu of the revision number. Revision may also be made to the requirement level by dating the last change to the individual requirement (see figure 3).

DATE: Identifies the publication date of the original document or revision.

5.2.2.2 Body Standards

The body of each UDS section shall contain the appropriate information to define program requirements or responses. In many cases, formats and instructions have been devised to prompt the author for required information. In those cases, all applicable questions shall be answered either with the appropriate information or other appropriate statement to define the status of the information, for example, unknown, to be determined, to be furnished later, or an appropriate cross-reference. Nonapplicable prompts should be answered N/A or, if the capability exists, the prompt itself may be removed. The body of every section is divided into two elements: section number and title, and structured (SORT) labels for formatted or free-form text.

The section numbers and titles identified in the UDS Outline in appendix A will be used to identify the major sections of UDS documents. Section numbers and titles shall start in column 1 of the printed format. The use of subsections and titles is left to the discretion of the documenting agency. The section number and title, for example, 1000 - Administrative, must be entered as a major heading. The section number and title precede the subsection numbers and titles whether or not general information is included. Structured (SORT) labels and text provide for the electronic sorting and retrieval of data from an electronic data base. Disciplined compliance to data structure is mandatory in automated systems to facilitate the transfer of documents between data bases and for the retrieval of data base information.

Additional structured (NON-SORT) labels are specifically identified on applicable formats. When used, structured labels for all documents shall start in column 1 of the printed format. When necessary to continue the data following a structured label, that data will begin in column 2. Free-form text data will begin in column 2. Some electronic UDS systems may require that text start in other than column 2. In those cases, the local system data base manager will provide the necessary supplemental information to users of those systems (see figure 3).

<u>Note</u>: The labels need only be used if applicable. To be determined (TBD) will be entered following the label when data is applicable but not available. Nonapplicable labels will be followed by N/A for manual systems only.

The following labeled standards and descriptions are shown next:

ITEM NO.: REQUESTER: SUPPLIER: TEST CODE: LOCATION: (Support Formats Only) INFORMATION: REQUIREMENTS() INFORMATION(): REQUIREMENTS: RESPONSE() INFORMATION(): RESPONSE:

ITEM NO.: A sequential number, beginning at 01, identifying the item listed under each UDS section. This label is used for each requirement, response, or informational item documented. The item number used for responses to requirements is the same as that of the corresponding item number appearing in the document. The corresponding document section number is listed for clarification. In addition, if there are supplemental support agency generated information items, explain the items on UDS Format 1063 - Special Code Definition. Other item-related information may be entered under this label as shown in figure 3.

REQUESTER: A code, identified on UDS Format 1063 - Special Code Definition, assigned to the requester of a requirement. Subrequesters, similarly identified, will be indicated by the use of a slash (/) immediately following the requester code; for example, T/DE22 might indicate a requirement established by the NASA Johnson Space Center/Flight Requirements Office. Each requester/subrequester shall be separated by a space. It is recommended that, when possible, either the assigned agency alphabetical code or the agency acronym as shown in appendix B be used as standard requester code ...

SUPPLIER: A code, identified on UDS Format 1063 - Special Code Definition, assigned to the organization providing support. Subsuppliers are similarly identified by the use of a slash (/) immediately following the supplier code. For example, W/SAC might indicate a response provided by the Western Test Range concerning a commitment by the host SAC base. It is recommended that, when possible, either the assigned agency alphabetical code or the agency acronym as shown in appendix B be used as standard supplier/subsupplier codes.

TEST CODE: A code, identified on UDS Format 1062 - Test Code Definition, assigned to a specific test requirement, response, or information item which identifies the various test activities. These test codes are used as a method of correlating support requirements. Any support requirement referenced to a test code indicates that this support will be required during particular test program activity.

LOCATION: The location where the support is to be provided.

REQUIREMENT: A description of the user agency support requirement.

RESPONSE: A description of the support agency response to a user requirement.

<u>Note</u>: Some electronic UDS systems may require that additional commitment/response information be developed (see figure 3).

INFORMATION: A description of user or support agency data submitted for informational purposes only. Information shall not be construed as a requirement nor as a response to a requirement.

Additional structured data may be required to satisfy the requirements of electronic UDS systems. Data base managers of these systems are responsible for providing any specialized formatting instructions to their subscribers (see figures 1, 2, and 3).

5.2.2.3 Footer Standards

Each UDS document page shall contain a standard footer consisting of the following elements:

<u>Page Number</u>. Identifies the sequential page number within a document starting with 1 at the first page of the document. Where a document contains a series of tests, each test may be numbered using the test number followed by a sequential number starting with 1 on the first page of the test. Pages added to the beginning of a manually prepared document or imbedded text, as the result of a revision, will be identified by the page number 0 followed by a sequential series of decimal numbers beginning at .1 for each page added. For example, two pages added at the beginning of a document will be numbered 0.1 and 0.2. Pages added between two sequentially numbered pages, as the result of a revision, will be identified by the addition of a decimal following the page number of the preceding page, followed by a sequential series of numbers beginning at 1 for each page added. For example, three pages added by revision and situated between pages 25 and 26 will be numbered 25.1, 25.2, and 25.3. Pages added at the end of a document, as the result of a revision, will take on the next sequential page number following the last page.

<u>Classification</u>. (See paragraph 5.2.1.)

Format Number and Format Approval Date. Used for UDS document control purposes only, and not required to be shown (see paragraph 2.10.2).

H1 H2 H3 CLASSIFICATION: * * * UNCLASSIFIED * * Η4 PROGRAM TITLE: WIDGET DOC TYPE/NO.: PRD/11111 <u>H</u>5 H 6 **REVISION:** DATE: 03 MAR 86 H7 ΒÏ SECTION NUMBER - SECTION TITLE (EXAMPLE 1) **B**2 **B**3 **B4** R **B**5 **B6** SECTION NUMBER - SECTION TITLE (EXAMPLE 2) **B8** ITEM NO.: 01 REQUESTER: T/DE22 TEST CODE: 01 02 03 04 **B**9 B10 **B**ĪĪ B12 B13 B14 ----B15 (EXAMPLE 3) SECTION NUMBER - SECTION TITLE **B16** B17 ITEM NO.: 01 SUPPLIIER: W/SAC B18 **B19** TEST CODE: 01 02 03 04 B20 B21 B22 R B23 B24 (EXAMPLE 4) SECTION NUMBER - SECTION TITLE B25 ITEM NO.: 01 B26 **REQUESTER: T/DE22** <u>B</u>27 SUPPLIER: W/SAC 28 29 TEST CODE: 01 02 03 04 R **B30** B31 B32 B33 **B**34 NOTE 1: The examples above represent a typical expression of requirements, responses, and informational data in the UDS using the manual or word-processing assisted methods of B35 **B**36 preparing unclassified documents. B37 **B**38 B39 EXAMPLE 1 = TYPICAL INFORMATIONAL ITEM EXAMPLE 2 = TYPICAL REQUIREMENT ITEM EXAMPLE 3 = TYPICAL RESPONSE ITEM **B40** B41 EXAMPLE 4 = TYPICAL REQUIREMENT/RESPONSE ITEM (COMBINED) **B42** B43 NOTE 2: Numbers 10-70, H1-H7, B1-B53, and F1-F6 are for informational purposes and are not part of the format and are not printed. **B44** B45 B46 H = header, B = body and F = footer. B47 **B48** B49 NOTE 3: THIS EXAMPLE FORMAT IS NOT TO SCALE. B50 B51 B52 **B53** F1 -----F 2 F3 UDS GEN R F4 * * * UNCLASSIFIED * CLASSIFICATION: JAN 89 F 5 Figure 1. Example - manual/word processing format (unclassified). **F6**

B7

* * * CLASSIFIED * * * H₃ (U) CLASSIFICATION: H4 H5 (U) PROGRAM TITLE: WIDGET H 6 (U) DOC TYPE/NO.: PRD/11111 REVISION: 00 DATE: 03 MAR 8 H7 **B1** (U) SECTION NUMBER - SECTION TITLE (EXAMPLE 1) B2 B3 B4 R **B**5 Βō B7 (EXAMPLE 2) (U) SECTION NUMBER - SECTION TITLE **B**8 **B**9 (U) ITEM NO.: 01 REQUESTER: T/DE22 TEST CODE: 01 02 03 04 (U) (U) B10 B11 B12 (U) R B13 (U) **B**14 B15 (U) SECTION NUMBER - SECTION TITLE (EXAMPLE 3) **B**16 B17 (U) ITEM NO.: 01 B18 SUPPLIIER: W/SAC (U) B19 TEST CODE: 01 02 03 04 (U) B20 (U) B21 B22 (U) R B23 (U) SECTION NUMBER - SECTION TITLE (EXAMPLE 4) B24 **B**25 (U) ITEM NO.: 01 **REQUESTER: T/DE22** B26 (U) B27 SUPPLIER: W/SAC (U) TEST CODE: 01 02 03 04 B28 (U) B29 (U) **B30** (U) B31 (U) RESPONSE(X) INFORMATION(): TEXT TEXT TEXT TEXT TEXT TEXT TEXT B32 **B**33 **B34** (U) NOTE 1: The examples above represent a typical expression of requirements, responses, and informational data in the UDS using the manual or word-processing assisted methods of B35 (U) B36 (U) B37 preparing classified documents. (U) **B**38 (U) EXAMPLE 1 = TYPICAL INFORMATIONAL ITEM EXAMPLE 2 = TYPICAL REQUIREMENT ITEM B39 (U) (U) B40 **B41** EXAMPLE 3 = TYPICAL RESPONSE ITEM EXAMPLE 4 = TYPICAL REQUIREMENT/RESPONSE ITEM (COMBINED) (U) B42 B43 **B44** (U) NOTE 2: THIS EXAMPLE FORMAT IS NOT TO SCALE. B45 B46 B47 B48 B49 **B50** B51 B52 B53 F1 F2 (U) (U) **F**3 F4 UDS GEN CLASSIFICATION: * * * CLASSIFIED * * JAN F 5 F6 Figure 2. Example - manual/word processing format (classified).

H1 H2 * * * UNCLASSIFIED * * * H3 CLASSIFICATION: H4 H 5 **PROGRAM TITLE:** WIDGET REVISION: 03/12/86 DATE: 03 MAR 86 H 6 DOC TYPE/NO.: PRO/11111 Η7 2805 - OTHER COMMUNICATIONS - TELEVISION B1 B2 **B**3 ITEM NO.: AAAA BBBB CCCC DDDD EEEE FFFFFFF G **B4** REQUESTER: HHHHHHHHHHHH ннннннннн ннннннннн B5 SUPPLIER: IIIIIIIIIIII IIIIIIIIIII IIIIIIIIIIII **B6** TEST CODE: **B**7 **B**8 SUBJECT TO BE REVIEWED: B9 LOCATION: B10 **PERIOD:** B11 R B12 RESPONSE: **B**13 R B14 **B**15 NOTE 1: This example represents an automated UDS system format where each requirement and its response reside together in the B16 B17 database. While the system maintains the basic UDS integrity data structure is strictly defined for electronic processing. B1 B19 B20 B21 The following codes are used in the example above: B22 A - SEQUENTIAL ITEM NUMBER B - UDS FORMAT NUMBER * B23 B24 С -DATA BASE IDENTIFICATION CODE * - UDS SECTION NUMBER * - REQUIREMENT APPROVAL STATUS * - REQUIREMENT APPROVAL DATE * - REQUIREMENT SECURITY CLASSIFICATION * D B25 B26 Ε 27 28 F G - REQUESTER/SUB-REQUESTER CODES B29 Н **B**30 I - SUPPLIER/SUB-SUPPLIER CODES J - TEST CODES B31 K - REQUIREMENT/TEXT B32 - SUPPORT AGENCY **B**33 1 М — **B**34 COMMITMENT DATE B35 Ν - RESPONSE TEXT -**REVISION SYMBOL** B36 R B37 This format is a structured automated version corresponding B38 NOTE 2: to UDS Section 2805. B39 **B4**0 B41 NOTE 3: Data structures on automated systems vary due to hardware/ software limitations, therefore, a universal format for all systems is not yet defined. For this reason, format usage is B42 B43 left flexible for the developer of the system. Any special **B44** codes developed will be explained in UDS Section 1603 -B45 B46 Special Code Definition. B47 THIS EXAMPLE FORMAT IS NOT TO SCALE. **B4**8 NOTE 4: **B49 B5**0 * Examples of Item No. supplemental information. B51 B52 **B**53 F1 F2 F3 * * * UNCLASSIFIED * * * UDS GEN R **F**4 CLASSIFICATION: JAN 89 F 5 Figure 3. Example - an automated system format (structured). F 6

APPENDIX A

UDS OUTLINE

APPENDIX A

UDS OUTLINE

DOCUMENT CODE: PI = PROGRAM INTRODUCTION SC = STATEMENT OF CAPABILITY

- SC STATEMENT OF CAPABILITY
- R = PROGRAM REQUIREMENTS DOCUMENT/OPERATION REQUIREMENTS
- S = PROGRAM SUPPORT PLAN/OPERATIONS DIRECTIVE

DOCUMENT

SECTION AND TITLE

PROGRAM ADMINISTRATIVE AND TECHNICAL INFORMATION - SECTION 1000 TO 1999

ADMINISTRATIVE

PI	SC	R	S	1000 - Administrative
				1010 - Approval Authority
				1020 - Distribution List
				1030 - Revision Approval
				1031 - Revision Control and Classification
				1040 - Index of UDS Sections Used
				1050 - Program/Mission Security Information
				1052 - System Security Classification
				1054 - System Security Classification Matrix
				1056 - Security Authorization
				1060 - Preface
				1061 - Special Abbreviations and Nomenclature
				1062 - Test Code Definition
				1063 - Special Code Definition
				1064 - Key Technical Personnel
				1065 - Technical References
		IV.	U	1009 - Technical Releiences
				PROGRAM/MISSION INFORMATION
PI	sc	R	S	1100 - Program/Mission Information - Program Descr

PI SC R S 1100 - Program/Mission Information - Program Description R S 1110 - Experiments Description R 1120 - System Mission Capabilities R 1125 - System Functional Description R 1130 - Mission/Test Description R 1131 - Mission/Test Objectives R S 1140 - Test Program Operations Schedule SYSTEM INFORMATION - VEHICLE/TEST ITEM/SPACECRAFT/PAYLOAD

ΡI	SC R R R R R R R R R R R R R R R R R R R	 1300 - System Information 1310 - Vehicle/Test Item Description 1311 - Vehicle/Test Item Characteristics 1312 - Vehicle/Test Item Drawings 1313 - Vehicle/Test Item Ordnance Items Description 1314 - Vehicle/Test Item Ordnance Items Drawing 1315 - Vehicle/Test Item Flame Plasma Model of the Exhaust Plume 1320 - Spacecraft/Payload Description 1321 - Spacecraft/Payload Characteristics 1322 - Spacecraft/Payload Drawings 1323 - Spacecraft/Payload Ordnance Items Description 1324 - Spacecraft/Payload Ordnance Items Drawing 1325 - Spacecraft/Payload Flame Plasma Model of the Exhaust Plume
	INSTRU	MENTATION SYSTEMS - VEHICLE/TEST ITEM/SPACECRAFT/PAYLOAD
ΡI	SC R R S	
	K S	1405 - Frequency Ourrization Summary
	METRIC	TRACKING SYSTEMS - VEHICLE/TEST ITEM/SPACECRAFT/PAYLOAD
	R	1410 - Metric Tracking Systems Operating Description
	R R	1411 - Metric Tracking Systems Transponder Characterístics 1412 - Metric Tracking Systems Antenna Systems
	R	1412 - Metric Tracking Systems Antenna Systems
	TEL	EMETRY SYSTEMS - VEHICLE/TEST ITEM/SPACECRAFT/PAYLOAD
	R	1420 - Telemetry Systems Operating Description
	R	1421 - Telemetry Systems Characteristics
	R	1422 - Telemetry Systems Antenna Systems
	R	1423 - Telemetry Systems Diagrams
	R R	1424 - Telemetry Systems Analog Channel Description 1425 - Telemetry Systems Digital Format
	R	1426 - Telemetry Systems Data Recorder Characteristics
	co	MMAND SYSTEMS - VEHICLE/TEST ITEM/SPACECRAFT/PAYLOAD
	R	1430 - Command Systems Operating Description
	R	1431 - Command Systems Characteristics
	R R	1432 - Command Systems Antenna Systems 1433 - Command Systems Diagrams
	r	1455 - Command Systems Diagrams
		VOICE COMMUNICATIONS SYSTEMS - VEHICLE/TEST ITEM/ SPACECRAFT/PAYLOAD
	R	1440 - Voice Communications Systems Operating Description
	R	1441 - Voice Communications Systems Characteristics

	R R		
	(COMPOSITE SYSTEMS - VEHICLE/TEST ITEM/SPACECRAFT/PAYLOAD	
	R	1450 - Composite Systems Operating Description	
	R	1451 - Composite Systems Characteristics	
	R	1452 - Composite Systems Received Data Characteristics	
	R	1453 - Composite Systems Transmitted Data Characteristics	
	R	1454 - Composite Systems Antenna Systems	
	R		
	R	1456 - Composite Systems Operating Modes	
	R	1457 - Composite Systems Data Recorder Characteristics	
	•	TELEVISION SYSTEMS - VEHICLE/TEST ITEM/SPACECRAFT/PAYLOAD	
	R	1460 - Vehicle/Test Item Television Systems Operating Description	
	R	1461 - Vehicle/Test Item Television Systems Characteristics	
	R	1462 - Vehicle/Test Item Television Systems Antenna Systems	
	R	1463 - Vehicle/Test Item Television Systems Format Description	
	R	1465 - Spacecraft/Payload Television Systems Operating Description	
	R		
	R		
	R		
		OTHER SYSTEMS - VEHICLE/TEST ITEM/SPACECRAFT/PAYLOAD	
	R	1470 - Recovery Location Aids	
	R		
		REQUESTING AGENCY'S SUPPORT INSTRUMENTATION/EQUIPMENT	
PI SC	CR R		
		SYSTEMS READINESS/PRELAUNCH TESTS	
PI SC	-		
	R		
	R		
	R		
		TEST ENVELOPE INFORMATION	
PI SC	CR	1700 - Test Envelope Information	
	R		
	R	1711 - Major Mission Events - Flight	
		1717 - Ensee Managurad - Anniiastian at Thrust	

R 1712 - Space Maneuver - Application of Thrust

TRAJECTORY INFORMATION

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	R R R R	1721 - 1722 - 1723 -	Trajectory Plan Views Trajectory Profile Views Launch Trajectory Orbital and Space Trajectory Terminal Trajectory OPERATIONAL HAZARDS
PI	SC R S R	1800 - 1810 -	Operational Hazards Operational Hazards Reports
	TEST,	MISSION	OPERATIONAL REQUIREMENTS - SECTIONS 2000 TO 6999
			TEST OPERATIONAL CONCEPTS/SUMMARIES
ΡI	R S S S S S S S S S S S S S S S S S S S	2010 - 2020 - 2030 - 2040 - 2050 - 2051 - 2060 - 2070 - 2071 - 2080 - 2098 -	Test Operational Concepts/Summaries Ground Support Instrumentation Summary Support Plan Summary Support Commitments Funding Information Implementation Schedule Personnel Assignment Schedule Support Requirements Which Cannot Be Met Engineering Plan Engineering Plan - Alternate Requester's Responsibilities Flight Safety Operational Concepts Range Derived Requirements
ΡI	RSS RRSS RRS RSS RSS RSS	2110 - 2111 - 2112 - 2114 - 2115 - 2116 - 2117 - 2120 - 2130 - 2160 -	METRIC MEASUREMENT AND DATA Metric Data Metric Data - Launch Metric Data - Midcourse Metric Data - Orbital and Space Metric Data - Terminal Metric Data - Signature Metric Data - Other Metric Data Accuracies Metric Data Parameter Recordings Metric Data Network Coverage Metric Data Coverage Metric Data - Engineering Sequential

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TELEMETRY MEASUREMENT AND DATA

PI		R R	S S	2210 2220	-	Telemetry Data Telemetry Recording Interval Telemetry Analog Strip Chart Recording Format Telemetry Event Recording Format Telemetry Decommutation Processing Specifications Telemetry Coverage
						COMMAND CONTROL/DESTRUCT
PI	SC	R R R	S S S	2320 2330 2340	-	Command Control/Destruct Command Control Command Destruct Command Up-Data Link Command Up-Data Link Recordings Command Up-Data Link Stations Coverage
						AIR/GROUND VOICE COMMUNICATIONS
PI	SC	R R R	S S S	2400 2410 2460	-	Air/Ground Voice Communications Air/Ground Voice Communications Recordings Air/Ground Voice Communications Coverage
						COMPOSITE SYSTEMS
PI	SC	R R R R	S S S S	2510 2520 2530 2540		Composite Systems Composite Systems - Detail Composite Systems - Parameter Recordings Composite Systems - Event Recording Format Composite Systems - Analog Strip Chart Recording Format Composite Systems Coverage
						OTHER SYSTEMS
PI	SC	R R R R	S S S	2601 2605 2606 2610	-	Other Systems Other Systems - Directed Energy Other Systems - Support Instrumentation Other Systems - Environmental Other Systems - Data Other Systems Coverage
						GROUND COMMUNICATIONS
PI	SC	R R R R R	S S S S	2710 2720 2730 2731 2733		Ground Communications Ground Communications Detail Ground Communications Network Drawings Ground Communications Network Transmission - Voice Ground Communications Network Transmission - Secure Voice Ground Communications Network Transmission - Teletype Ground Communications Network Transmission - Secure Data
		R R	S S	2731 2733	-	Ground Communications Network Transmission - Secure Voice Ground Communications Network Transmission - Teletype

	RS	2736 - Ground Communications Network Transmission -			
	RS				
	R S S S S S S S S S S S S S S S S S S S	Facsimile 2740 - Ground Communications - Intercommunications Systems 2760 - Ground Communications Terminations - Voice 2761 - Ground Communications Terminations - Secure Voice 2762 - Ground Communications Terminations - Point-to-Point 2763 - Ground Communications Terminations - Teletype 2765 - Ground Communications Terminations - Secure Data 2766 - Ground Communications Terminations - Television/Data 2768 - Ground Communications Terminations - Voice Radio 2769 - Ground Communications Terminations - Miscellaneous 2770 - Ground Communications Recordings 2780 - Ground Communications - Telephone			
	OTHER COMMUNICATIONS				
PI SC	R S R S R S R S R S	 2800 - Other Communications 2805 - Other Communications - Television 2810 - Other Communications - Timing 2820 - Other Communications - Sequencer 2830 - Other Communications - Visual Countdown and Status Indicators 			
		REALTIME DATA DISPLAY/CONTROL			
PI SC	R S S S S S S S S S S S S S S S S S S S	 3000 - Realtime Data Display/Control 3010 - Realtime Flight Control/Support Centers 3020 - Realtime Flight Control Data Acquisition 3030 - Realtime Displays and Consoles 3031 - Realtime Displays 3032 - Realtime Console Command Panels 3033 - Realtime Console Analog Recorders 3034 - Realtime Console Drawings 3035 - Realtime Console Module Description 3036 - Realtime - Summary of Console Locations 3037 - Realtime - Summary of Console Module Locations 3038 - Realtime Data Displays and Consoles - Functional Block Diagram 			
	R S S S S S S S S S S S S S S S S S S S	 3039 - Realtime - Other Group Displays and Controls 3040 - Realtime Data Formats 3041 - Realtime Tracking Data Format Control 3042 - Realtime Telemetry Data Format Control 3043 - Realtime Telemetry Data Formats 3044 - Realtime Command Data Format Control 3045 - Realtime Remote Site Data Processing 3050 - Realtime Data Testing 3060 - Realtime Data Interfaces 3061 - Realtime Data Interface Criteria 3062 - Realtime Data Interface Criteria Drawings 3070 - Realtime Data Computer 			

PHOTOGRAPHIC

PI	SC	R R R	S S S	3100 - Photographic 3110 - Photographic - Documentary 3120 - Photographic - Engineering
				METEOROLOGICAL
PI		Ř R	S S	 3200 - Meteorological 3210 - Meteorological - Minima 3220 - Meteorological - Forecasts 3230 - Meteorological - Observations 3240 - Meteorological - Instrumentation Location Diagram 3250 - Meteorological - Space Environment 3260 - Meteorological - Consultant Services
PI	SC	R R R R R	S S S S S S S	 3300 - Recovery 3310 - Recovery - Ships and Aircraft Coverage 3320 - Recovery - Items To Be Recovered 3330 - Recovery - Salvage and Disposition 3340 - Recovery - Planned Areas 3350 - Recovery - Contingency Areas 3360 - Recovery - Abort Areas
				OTHER TECHNICAL SUPPORT
PI	SC	R R R R R R R R	S S S S S S S S S S S	 3400 - Other Technical Support 3410 - Other Technical Support - Aircraft 3411 - Other Technical Support - Seacraft 3420 - Other Technical Support - Targets 3430 - Summary of Frequency Protection 3431 - Emitting Systems Protection 3440 - Geodetic and Gravitational Data 3450 - Other Technical Support - Training
				MEDICAL
PI	SC	R R R	S S S	3500 - Medical 3505 - Medical - Bio-Science 3510 - Medical - Personnel - Active 3520 - Medical - Personnel - Standby 3530 - Medical - Facility,Equipment,Services
PUBLIC AFFAIRS SERVICES				
PI	SC	R	S	 3600 - Public Affairs Services 3610 - Public Affairs Services - Personnel Assignments 3620 - Public Affairs Services - News Media Personnel Positions

DATA COORDINATE SYSTEMS

PI SC	RS	4000 - Data Coordinate Systems Description		
DATA PROCESSING				
PI SC	RS	4100 - Data Computer Processing Specifications 4110 - Data Computer Processing Specifications - Detail 4160 - Data Processing - Other		
		DATA DISPOSITION		
PI SC	S S S S S S S S S S S S S S S S S S S	 4200 - Data Disposition 4201 - Data Disposition - Data Availability 4205 - Data Disposition - Reports 4210 - Data Disposition - Detail - Metric Tracking 4211 - Data Disposition - Detail - Telemetry 4214 - Data Disposition - Environmental 4215 - Data Disposition - Detail - Voice/TV Recording 4216 - Data Disposition - Detail - Photographic 4217 - Data Disposition - Detail - Meteorological 4218 - Data Disposition - Detail - Computer Processing 4219 - Data Disposition - Detail - Miscellaneous 		
		BASE FACILITIES/LOGISTICS		
PI SC	RS	5000 - Base Facilities/Logistics		
		PERSONNEL ASSIGNMENT SCHEDULES		
PI SC	RS	5100 - Personnel Assignment Schedules 5110 - Personnel Assignment Schedules - Detail 5120 - Personnel Assignment Schedules - Housing		
		TRANSPORTATION		
PI SC	RS	5200 - Transportation 5210 - Transportation - Surface Logistics Schedule 5220 - Transportation - Air Logistics Schedule		
		SERVICES		
PI SC	R S R S R S R S R S R S R S	 5300 - Services 5301 - Services - Administrative, Personnel, and Office 5302 - Services - Fire and Rescue 5303 - Services - Security and Safety 5304 - Services - Community, Education and Food Service 5305 - Services - Utilities (Electrical, Water, and Sanitation) 5306 - Services - Procurement, Shipping, Receiving, and Stock Control 5307 - Services - Handling, Storage, and Disposal 5308 - Services - Air Conditioning and Environmental Observations 		

 R S 5309 - Services - Physical and/or Life Science Exper R S 5310 - Services - Propellants, Gases, and Chemicals R S 5320 - Services - Fuels and Lubricants R S 5330 - Services - Miscellaneous Lubricants, Hydrauli Fluids, Preservatives, Etc. R S 5340 - Services - Vehicles and Land Transportation R S 5341 - Services - Ground Handling Equipment R S 5350 - Services - Requesting Agency Aircraft R S 5360 - Services - Seacraft R S 5361 - Services - Marine Operations R S 5370 - Services - Chemical Cleaning 					
R S 5380 - Services - Purchase of Equipment or Supplies					
LABORATORY					
PI SC R S 5400 - Laboratory R S 5405 - Laboratory - Technical Shops and Labs R S 5410 - Laboratory - Chemical and Physical Analysis R S 5420 - Laboratory - Special Environment					
MAINTENANCE					
PI SC R S 5500 - Maintenance R S 5510 - Maintenance - Buildings and Grounds					
FACILITIES					
PI SC R S 5600 - Facilities R S 5610 - Facilities - Drawings R S 5620 - Facilities - Launcher and Platform Characteri	stics				
OTHER SUPPORT					
PI SC R S 6000 - Other Support R S 6010 - Other Support - Test Instrument Maintenance a Calibration	nd				
PI R 6020 - Other Support - Requirements for Support Agen	cies				

APPENDIX B

DESIGNATIONS FOR UDS SUBSCRIBER AGENCIES

APPENDIX B

DESIGNATIONS FOR UDS SUBSCRIBER AGENCIES

AGENCY ACRONYM	ALPHABETICAL CODE	AGENCY
WSMR	Α	White Sands Missile Range, NM
LeRC	В	Lewis Research Center, Cleveland, OH
NWS	C	National Weather Service, Washington, DC
DOD	D E	Department of Defense, The Pentagon
ESMC	E	Eastern Space and Missile Center, Patrick AFB, FL
AFFTC	F	Air Force Flight Test Center, Edwards AFB, CA
GSFC	G	Goddard Space Flight Center, Greenbelt, MD
MSFC	н	Marshall Space Flight Center, Redstone Arsenal, AL
LaRC	I	Langley Research Center, Hampton, VA
JPL	J	Jet Propulsion Laboratory, Pasadena, CA
KSC	K	Kennedy Space Center, Cape Canaveral, FL
NWC	L	Naval Weapons Center, China Lake, CA
ARC	M	Ames Research Center, Moifett Field, CA
PMTC	N	Pacific Missile Test Center, Point Mugu, CA
NOMT S	0	Naval Ordnance Missile Test Station, WSMR, NM
MSD	Р	Munitions Systems Division, Eglin AFB, FL
WFF	Q	Wallops Flight Facility, Wallops Island, VA
ERDC	R	Electronics Research and Development Command,
		Fort Monmouth, NJ
CSTC	S T	Consolidated Space Test Center, Onizuka AFB, CA
JSC		Johnson Space Center, Houston, TX
ASDC	U	U.S. Army Strategic Defense Command, Washington, DC
USAKA	V	U.S. Army Kwajalein Atoll, Marshall Islands
WSMC	W	Western Space and Missile Center, Vandenberg AFB, CA
DFRF	X	Dryden Flight Research Facility, Edwards AFB, CA
NASA	Y	National Aeronautics Space Administration
		Headquarters, Washington, DC
WSTF	Z	JSC White Sands Test Facility, WSMR, NM
AFWL	AA	Air Force Weapons Laboratory, Albuquerque, NM
ARMTE	AB	Army Materiel Test and Evaluation Command, WSMR, NM
UTTR	AC	Utah Test and Training Range, Hill AFB, UT
YPG	AD	Yuma Proving Ground, Yuma, AZ
AFWTF	AE	Atlantic Fleet Weapons Training Facility,
		Roosevelt Roads, Puerto Rico
TFWC	AF	Tactical Fighter Weapons Center, Nellis AFB, NV
NATC	AG	Naval Air Test Center, Patuxent River, MD
AFOTEC	AH	Air Force Operational Test and Evaluation Center,
		Vandenberg AFB, CA
PMRF	AJ	Pacific Missile Range Facility,
		Barking Sands, Kauai, HI
CSOC	AS	Consolidated Space Operations Center, Falcon AFS, CO

NOTE: For additions or deletions to this list, contact the RCC Secretariat at (505) 678-1107/1108, Autovon 258-1107/1108.